CITY OF ANN ARBOR, MICHIGAN

301 E. Huron St., P.O. Box 8647 ● Ann Arbor, Michigan 48107-8647

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September 10, 2024

VIA ELECTRONIC CASE FILING

Ms. Lisa Felice, Executive Secretary
Michigan Public Service Commission
7109 W. Saginaw Highway
Lansing, MI 48917

RE: MPSC Case No. U-21534

Dear Ms. Felice,

Attached please find the **City of Ann Arbor's Official Exhibit List, Official Exhibits AA-1 through AA-23, and Proof of Service** for the above referenced case.

Please contact me if you have any questions.

Sincerely,

Valerie Jackson
Assistant City Attorney,
City of Ann Arbor

City of Ann Arbor
Official Exhibit List
Case No. U-21534

Exhibit	Title	Witness
AA-1	Curriculum Vitae of Tiffany Giacobazzi	Tiffany Giacobazzi
AA-2	Tree Trimming Detailed Specifications	Tiffany Giacobazzi
AA-3	Tree Damage and Pruning Habits - 2018 to present	Tiffany Giacobazzi
AA-4	Tree Damage and Pruning Habits - 2024 YTD	Tiffany Giacobazzi
AA-5	Curriculum Vitae of Cyrus Naheedy	Cyrus Naheedy
AA-6	Excerpt of Direct Testimony of Raymond Hess (Case No. U-20836)	Cyrus Naheedy
AA-7	Discovery Response DEMAUI-2.1 from Case No. U-21297	Cyrus Naheedy
AA-8	Purchase Agreement for LED streetlights	Cyrus Naheedy
AA-9	DTE Community Lighting Catalog	Cyrus Naheedy
AA-10	Letter from DTE dated February 19, 2024	Cyrus Naheedy
AA-11	Discovery Response MAUIDE-4.19a	Cyrus Naheedy
AA-12	Curriculum Vitae of Skye Stewart	Skye Stewart
AA-13	Discovery Response MAUIDE-2.5	Skye Stewart
AA-14	Page Avenue Project Estimated Savings	Skye Stewart
AA-15	Curriculum Vitae of Dr. Melissa Stults	Dr. Melissa Stults
AA-16	U.S. Energy Information Administration Data: Average Price by State	Dr. Melissa Stults
AA-17	Excerpt of Direct Testimony of Dr. Bente Villadsen (Case No. U-21297)	Dr. Melissa Stults
AA-18	Fitch Ratings Rating Action Commentary (Mar. 21, 2024)	Dr. Melissa Stults
AA-19	Excerpt of Direct Testimony of Dr. Bente Villadsen (Case No. U-20836)	Dr. Melissa Stults
AA-20	Fitch Ratings Rating Action Commentary (Feb. 27, 2023)	Dr. Melissa Stults
AA-21	Fitch Ratings Screenshot Showing Ratings History	Dr. Melissa Stults
AA-22	DTE Business Update, June 18, 2024	Dr. Melissa Stults
AA-23	DTE Business Update, April 2-3, 2024	Dr. Melissa Stults
AA-24	DTE Business Update, Dec. 8, 2023	Dr. Melissa Stults
AA-25	DTE Business Update, Apr. 3-4, 2023	Dr. Melissa Stults
AA-26	DTE Business Update, Aug. 11, 2020	
AA-27	DTE Year-end Earnings Conference Call, Feb. 23, 2023	
AA-28	Discovery Response AADE-1.1	Dr. Melissa Stults
AA-29	Discovery Response AADE-1.2	Dr. Melissa Stults
AA-30	Discovery Response AADE-3.2	Dr. Melissa Stults
AA-31	Discovery Response AADE-3.1	Dr. Melissa Stults
AA-32	Discovery Response MNSCDE-13.10b	Dr. Melissa Stults
AA-33	Discovery Response MNSCDE-13.10a	Dr. Melissa Stults
AA-34	Excerpt of CPUC Root Cause Analyses	Dr. Melissa Stults
AA-35	DTE 2022 Sustainability Report	Dr. Melissa Stults

Address:
21975 Leyte St.
Farmington Hills, MI 48336

Tiffany M. Giacobazzi

Contact Information:
Mobile: (248) 308-6108
tiffany.giacobazzi@gmail.com

Objective: Seeking a full time position in the natural resources field utilizing my skills in environmental management.

Relevant Experience:

City of Novi, Novi, MI
Forestry Asset Manager (October 2015 to March 2019)

- Coordinate the City's Urban Forestry Program
- Direct Forestry Technician tasks
- Coordinate multiple contract crews
- Develop bid documents, maintenance specifications, and planting plans
- Coordinate and plan all tree planting
- Coordinate all tree maintenance (pruning and removals)
- Diagnose tree health issues
- Evaluate vegetation in regulated woodland and wetland areas
- Interface with city residents on tree and other natural resource concerns
- Coordinate emergency storm response
- Budget and invoice management
- Maintain and update Urban Forest Inventory
- Maintain and update Urban Forest Management Plan
- Review site plans and right-of-way permits
- Perform tree risk assessments and valuations
- Secure alternative funding sources (grants)

Environmental Consultants, INC., Keego Harbor, MI
Project Coordinator (May 2015 to October 2015)

- Circuit Package Audits
- New Hire Orientation & Training
- Project Reporting
- Urgent Updates to project work
- Creation of new project procedures
- Office Management

Indiana Dept. of Natural Resources, Indianapolis, IN
Community and Urban Forestry Coordinator (July 2013 to October 2014)

- Coordinated the State's Urban Forestry (UF) program.
- Directed 2 staff, Volunteer Coordinator and Grants Administrator.
- Served as the Liaison to the Northeast Area Association of State Foresters (NAASF) Forest Health Committee for the NAASF Urban and Community Forestry Committee.
- Applied for, and managed, federal grants.
- Coordinated all state and federal reporting for the UF program.
- Presentations on tree care, forest health, and urban forest management.
- Authored Indiana's State Urban Forestry Best Management Practices – ongoing.
- Coordinated all state Tree City USA, Tree Campus USA, and Tree Line USA programs.
- Coordinated and administered annual UF sub-grant program ($100,000+).

SD Dept. of Agriculture (SDDA), Pierre, SD
Urban and Community Forestry Coordinator (August 2010 to July 2013)

- Coordinated the Community Forestry (CF) program.
- Directed 3 CF field foresters (Contract crews on various projects).
- Applied for federal grants.
- Coordinated all state and federal reporting for the CF program.
- Coordinated state urban forest inventories.

- Presentations on tree care, forest health, and planting/transplanting vegetation.
- Project Learning Tree Coordinator (Represent the state on the Board of Directors).
- Coordinate and develop K-12 education outreach programs (Smokey Bear; Arbor Day Poster Contest; Arbor Day Essay Contest).
- Coordinate Capitol Christmas Tree Program.

ACRT, Inc. (Contracted to Lake Region Electric Cooperative [LREC]),
Pelican Rapids, MN
Systems Arborist (December 2009 to August 2010)

- Build & managed LREC's Vegetation Management Program for 5,400 miles of overhead utility lines.
- Directed a Work Planner, and utility line clearance crews (9 3-men crews).
- Applied for Tree Line USA status.

SD Dept. of Agriculture (SDDA), Rapid City, SD
Urban Field Forester (February 2008 to December 2009)

- Tree City, USA program recruitment and presentations.
- Service Calls (Insect and Disease requests from landowners; Living Snow Fence/Woody Habitat; Conservation District tree plan reviews).
- Property cruises (Marking bug-trees; Thinning).
- Urban & Community Forestry Challenge Grant application assistance.
- Community Forestry Board and Conservation District meetings.
- Presentations on tree care, forest health, and planting/transplanting vegetation.
- Project Learning Tree facilitator.
- Develop K-12 education outreach programs.
- New street tree inventories.
- Workshops (Attendance and presentations).

MTU – Dr. Andrew Storer, Houghton, MI
Field Technician (May 2007 to August 2007)

- Inventoried and stem-mapped ash trees.
- Placed sticky bands on ash trees for Emerald Ash Borer detection and collection.

Projects: **Federal Five Star and Urban Waters Restoration Program National Grant Review Team**, (2014)

- Reviewed grant applications from multiple states around the nation as part of a national review committee for the National Fish and Wildlife Foundation. Grant applications requested funding in the amount of $30,000 - $50,000 to restore wetlands in urban areas.

Federal Great Lakes Restoration Initiative (GLRI) Program Grant Review Team, (2014)

- Reviewed grant applications from multiple states around the Great Lakes as part of the review committee for the US Forest Service. Grant applications requested funding up to $200,000 in funding to restore urban areas in the Great Lakes Basin.

Computer Skills: Microsoft Office Suite; ArcGIS (10.1): ArcMap, ArcCatalog; MapTech Terrain Navigator Pro; TreeWorks Inventory Software; *i*-Tree Suite 6.0

Equipment Skills: Clinometer; Increment borer; Garmin Juno SB Unit data recorders; Compass; GPS unit; D-tape; Hypsometer

Certifications: ISA Certified Arborist (MW-4907A); ISA Tree Risk Assessment Qualified (TRAQ); ATV Safety Institute.

Board Liaison:

Arborist Society of Michigan Board of Directors, 2017 (3 year term).

Urban Forestry Liaison from the Western Urban Forestry Coordinators to the Southern Urban and Community Forestry Coordinators, 2013.

Urban Forestry Liaison from the Northeastern Urban Forestry Coordinators to the Northeastern Forest Health Coordinators , 2014.

Publications & Media:

Division of Resource Conservation & Forestry: Fiscal Year 2012 Annual Report, 2012.
Urban Forest Benefits: What do urban trees do for you?, 2012
Division of Resource Conservation & Forestry: Fiscal Year 2011 Annual Report, 2011.
Division of Resource Conservation & Forestry: Fiscal Year 2010 Annual Report, 2010.
Planting Containerized Trees, Indiana DNR Instructional Video, 2013
Planting of a Balled and Burlapped Tree, Indiana DNR Instructional Video, 2013
Planting Bare Root Trees, Indiana DNR Instructional Video, 2013

Professional Affiliations:

International Society of Arboriculture, Arboriculture Society of Michigan, Society of Municipal Arborists, Society of American Foresters, Michigan Society of American Foresters

Education:

Michigan Technological University (MTU), Houghton, MI
Bachelor of Science in Forestry
Minor in Ecology
Date of Graduation: December 15, 2007

Northwestern Michigan College (NMC), Traverse City, MI
General Education Credits, September 2000 to May 2004
Concentration on plant sciences

Activities:

- Volunteer at the local animal rescue, Canine Companions Rescue Center as a foster home for dogs looking for their forever families.
- Former Secretary for the Dakotas Society of American Foresters from 2011-2012.
- Studied abroad in Ballyvaughan, Co. Clare, Ireland for approximately four weeks at the Burren College of the Arts.

DETAILED SPECIFICATIONS

SECTION 1: TREE PRUNING PRACTICES

All pruning must be performed in accordance with the latest revision of the ANSI A300 and Z133.1 standards, and the International Society of Arboriculture's Tree Pruning Best Management Practices. Contractor(s) should expect that it might be necessary to climb trees to perform the tree trimming for this specification. Tree climbing with spikes or any equipment that can damage the tree is prohibited.

Extreme care shall be taken so as to prevent limbs, branches, and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.

Limbs and branches larger than four (4) inches in diameter shall be lowered to the ground through the use of ropes or other mechanical devices.

SECTION 2: TREE PRUNING SPECIFICATIONS

The purpose of pruning is to prune to manage tree health, develop/improve structure, mitigate risk, provide clearance and improve aesthetics.

All pruning shall be performed in accordance with the latest revision of the ANSI A300 and Z133.1 standards, and the International Society of Arboriculture's Tree Pruning Best Management Practices.

Unacceptable trimming practices include peeling or tearing of the bark, topping or pollarding, lion's tailing, rounding-over or shearing. Extreme care shall be taken so as to prevent limbs and branches from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.

The following specifications shall be followed:

A. A natural pruning system shall be utilized. Live branches shall be removed to maintain the natural form and appearance of the tree. Mutilation and loss of characteristic shape of the tree is prohibited.

    i. Pruning activities should remove no more living material than is necessary to achieve the tree pruning objectives outlined in these specifications.

B. Trees shall be pruned to remove all dead, diseased, broken, and crossing branches that are two (2) inches in diameter or larger.

C. In raising lower branches for clearance, care should be given to symmetrical appearance and cuts shall not be made so large that it will prevent normal sap flow. **Trim to allow for several years growth** before smaller secondary and tertiary limbs will be below the required clearance height. Raise lower scaffold branches:

    i. For a minimum of ten (10) feet of clearance to the ground under the dripline from the curb to residence.

ii. Raise lower scaffold branches for a minimum of fifteen (15) feet of clearance to the ground under the dripline over the street.
NOTE: Make sure to leave the crown as balanced as possible.

D. Trees shall be pruned to provide clear, unobstructed views of street signs, traffic signs, and traffic signals.

E. When street tree limbs are in conflict with private trees or are overhanging structures, trees shall be pruned to provide clearance.

F. Remove old stubs leaving the branch collar intact.

G. “Natural” or “Drop-crotch” technique shall be used when removing or shortening branches.

H. No hanger shall be left in the tree after trimming is complete.

I. For young and medium trees (1 – 15 diameter inches) prune to develop/improve structure.

i. Develop dominate leader(s) and scaffold branches appropriate for the species and the site while maintaining the tree’s natural shape.

ii. Subordinate or remove competing leader, branches or shoots (subordination is preferred over removal) while maintaining the trees natural shape.

iii. Subordinate or remove branches that have poor branch angles, including branches with included bark.

iv. Remove suckers and stump sprouts.

v. No more than one-third (1/3) of the living branches shall be removed.

J. To allow for proper wound closure to occur, all cuts shall be made sufficiently close to the trunk or parent limb without cutting into the branch bark ridge or branch collar (Figure A) or leaving a protruding stub. Clean cuts shall be made at all times.

K. Branches shall be pre-cut when necessary to prevent splitting or peeling of the bark (see Figure B).

L. All necessary precautions should be taken to prevent unnecessary damage to the remaining tree.

M. To avoid unnecessarily large cuts, do not remove limbs that are greater than one-third (1/3) the diameter of the trunk unless directed by the City.

N. Oak, Elm, and Crabapple trees are only to be pruned between November 1 and March 15, or as directed by the City, to prevent the spread of diseases. If, with City permission, an Oak/Elm must be pruned between April and October, would/latex paint must be applied to the pruning cut to avoid the spread of diseases.

O. For diseased trees, tools shall be sterilized between pruning cuts, to avoid spreading disease to unaffected branches.

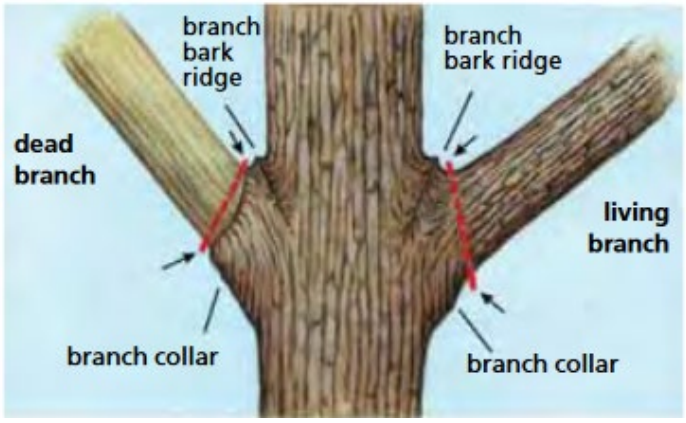


Figure A: Branch bark ridge & branch bark collar diagram. Source: "How to Prune Trees," USDA Forest Service

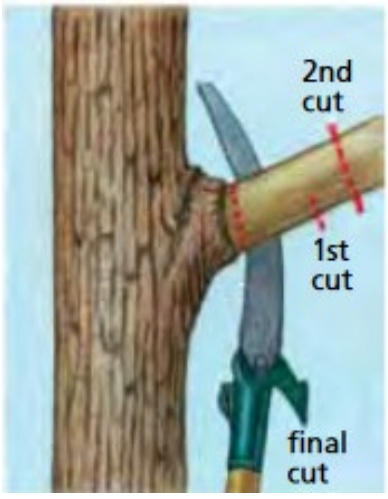


Figure B: Tri-cut method. Source: "How to Prune Trees," USDA Forest Service

SECTION 3: TREE REMOVAL SPECIFICATIONS

Note: Bidders shall be required to self-perform the required tree removals under this scope of work. Contractors may self-perform or subcontract stump removals.

Tree Removal Procedures

A. All trees to be removed shall be painted with a green dot by City Staff. Trees without a dot shall not be removed.

B. Trees must be removed using acceptable industry practices for removal, including provisions outlined in ANSI A300 and Z133 Standards. Contractor(s) should expect that it might be necessary to climb trees to perform the tree removal for this specification. Extreme care shall be taken so as to prevent limbs, branches and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.

C. Limbs and branches larger than four (4) inches in diameter shall be lowered to the ground through the use of ropes or other mechanical devices.

D. Once tree removal has begun, the Contractor will have three (3) business days to remove the entire tree, unless arrangement for an extension of this timeline have been made with the City.

E. No wood or debris may be left overnight on the extension, or on park property unless arrangements have been made with the City contact prior to each incident.

F. Ensure that the bid prices for tree removal, stump removal, and pruning reflects the Bidders responsibility to pay for the cost of wood waste disposal. The Bidder can use the City of Ann Arbor's Material Recovery Facility (MRF), located at 4150 Platt Road, to dispose of wood waste, if they so choose. Contact the MRF Scale House at 734-971-8600 for the current per ton cost or arrange to arrange other payment options. Ensure that the bid price for stump and tree removals reflect the Bidders responsibility to pay for the cost of wood waste.

SECTION 4: STUMP REMOVAL SPECIFICATIONS

Stump Removal Procedures

A. When the contractor has been tasked with the removal of a tree, the stump must be ground within four (4 weeks) of the removal. Contractors may self-perform or subcontract stump removal.

B. It is the responsibility of the contractor(s) to call MISS DIG (1-800-482-7171) and have all utilities clearly marked prior to any underground work commencing.
NOTE: Gas lines often run underneath the extension. It is expected that Contractors will contact Miss Dig for location of **gas lines AND <u>gas line service drops to buildings</u>**, and will **hand dig** as necessary so that stumps can be fully ground. Should the Contractor opt not to grind to a depth of six (6) inches, the Contractor must contact the City to make adjustments to the scope of work and price of the stump.

C. Stump locations that will not be replanted shall be fully grind out stumps to a depth of 12 (12) inches, leaving no wood and no woody surface roots.

D. Stump locations that will be replanted shall be fully ground down to a depth of twenty-four (24) inches, leaving no wood and no woody surface roots.

E. Stumps or holes that will pose an immediate and considerable hazard to pedestrians or vehicles shall be adequately barricaded with appropriate warning devices. All excavated stumping holes must be filled the day they are excavated. No excavated stumping holes shall be left open after the work day is complete.

SECTION 5: EMERGENCY/MISCELLANEOUS BY THE HOUR REMOVAL AND PRUNING

A. Contractor will be contacted as emergencies occur. If the contractor cannot or will not complete emergency tree work in a timely manner, the City of Ann Arbor is free to contact another entity to complete the emergency tree work.

B. Contractor shall perform all emergency tree work according to the specifications within the RFP documents.

SECTION 6: HAZARDOUS TREES

Any dead/dying or hazardous trees, including trees that have structural weaknesses, decayed trunk/branches, and/or split crotches/branches should be reported to the City immediately. The City will evaluate trees and will notify Contractor if the tree should be pruned.

SECTION 7: PUBLIC INTERACTION

The contractor will interact with the public in a professional and courteous manner. If Contractor or employee cannot satisfy a citizen, they are to refer the citizen to the City of Ann Arbor. City staff contact information will be provided to the winning bidder(s).

SECTION 8: WORK ASSIGNMENTS

The City will prepare Work Orders through CityWorks. The Contractor shall download the CityWorks app for iPad/Android device. All work will be assigned through CityWorks.

SECTION 9: NO PARKING

It is the responsibility of the Contractor(s) to post temporary “No Parking” signs according to City regulations and permit requirements. Contractor(s) may obtain signs from the City, but must provide their own posts. Note that Miss Dig must be called prior to digging post holes.

Information about the form and process to post temporary parking signs is available online at https://www.a2gov.org/departments/engineering/Pages/Right-Of-Way-and-Lane-Closure-Permits.aspx.

SECTION 10: NOISE AND TRAFFIC CONTROL

The Contractor is expected to follow City of Ann Arbor ordinances and laws including noise and traffic control. For City of Ann Arbor Ordinances visit: https://library.municode.com/mi/ann_arbor/codes/code_of_ordinances.

SECTION 11: PROPERTY DAMAGE

It is the Contractors' responsibility to repair any damages to property including walks, roads, drives, structures, lawn, landscaping, trees, fencing, and other improvements. Ruts, divots, and holes in the lawn and landscape areas caused by tree care operations are to be repaired, including reseeding with turf grass.

SECTION 12: PROPERTY ACCESS

Access to residential and commercial driveways must be provided at all times.

SECTION 13: WOOD DISPOSAL

A. The bidder will be responsible to pay for the disposal of all wood waste generated from tree maintenance activities. The property owner shall have the first right to all wood accumulated. Any reasonable request to place wood at a convenient location shall be honored.

B. The City encourages applicants to consider wood utilization options for some larger branches and trunks generated during tree maintenance activities (e.g. woodworker/artisan use; local sawmills, etc.). Wood utilization options may be discussed with winning applicant(s).

C. The Contractor can use the City of Ann Arbor's Material Recovery Facility (MRF), 4150 Platt Road, to dispose of the wood waste, if they choose. Contact the MRF Scale House at 734-971-8600 for the current per ton cost or to arrange other payment options.

D. Ensure that the bid prices for tree pruning and removal reflect the Applicants responsibility to pay for the cost of wood waste disposal.

E. No wood or debris may be left overnight on the extension, unless arrangements have been made with the City prior to each incidence.

SECTION 14: EQUIPMENT STORAGE

Equipment may be parked at designated City of Ann Arbor property during the contract period. There may not be facilities at the property, but it will be fenced with gate-card access. Location, hours the property will be open and accessible, and possible issuance of a gate card will be provided to the winning Applicant(s).

SECTION 15: ELECTRICAL HAZARDS

The Contractor(s) is expected to follow safety precautions as outlined in ANSI Z133 Section 5 – Electrical Hazards, including but not limited to:

A. If the minimal approach distance cannot be maintained during pruning or removal operations, electrical system owner/operator shall be advised before any work is

performed in proximity to energized electrical conductors. The Contractor(s) is also responsible for notifying the utility companies as to when service can be restored prior to night fall each day.

B. Only qualified line-clearance arborist or trainees shall be assigned to work where an electrical hazard exists.

C. If the utility company must remedy a hazard before tree work can commence, the Contractor shall notify the City to establish a work plan and scheduling.

Case No. U-21534
Exhibit: AA-3
Witness: Giacobazzi
1 of 1

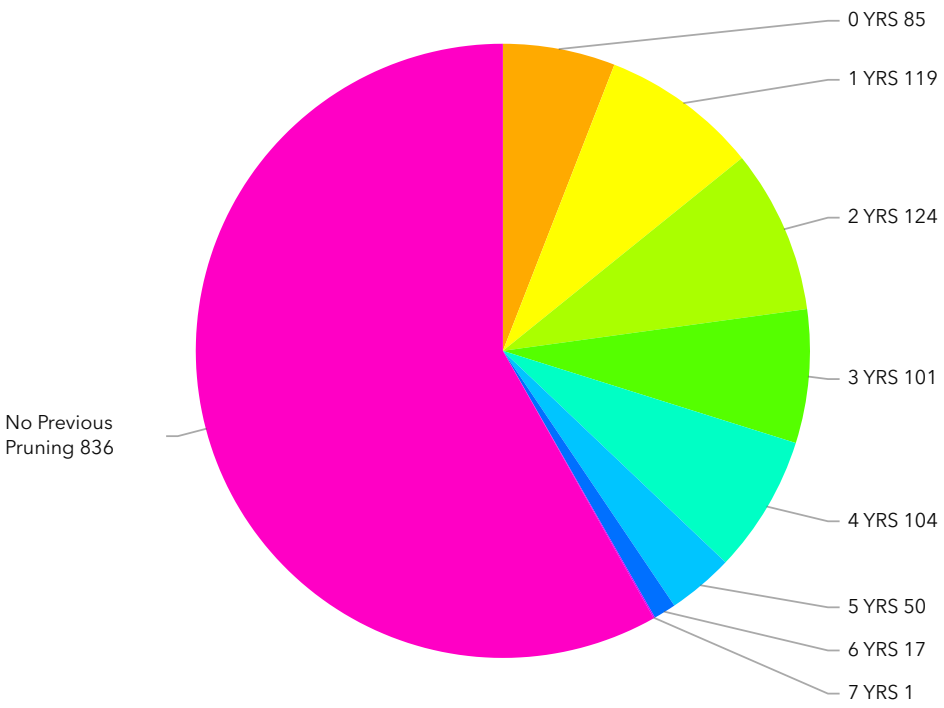
Tree Damage and Pruning Habits

Select a date
1/1/2018 and after

Total Damaged Trees

1.4k

Damaged Trees and Previous Prune Interval



Data shows all of the damaged trees and the amount of years between their last prune date and when the damage happened.

Case No. U-21534
Exhibit: AA-4
Witness: Giacobazzi
1 of 1

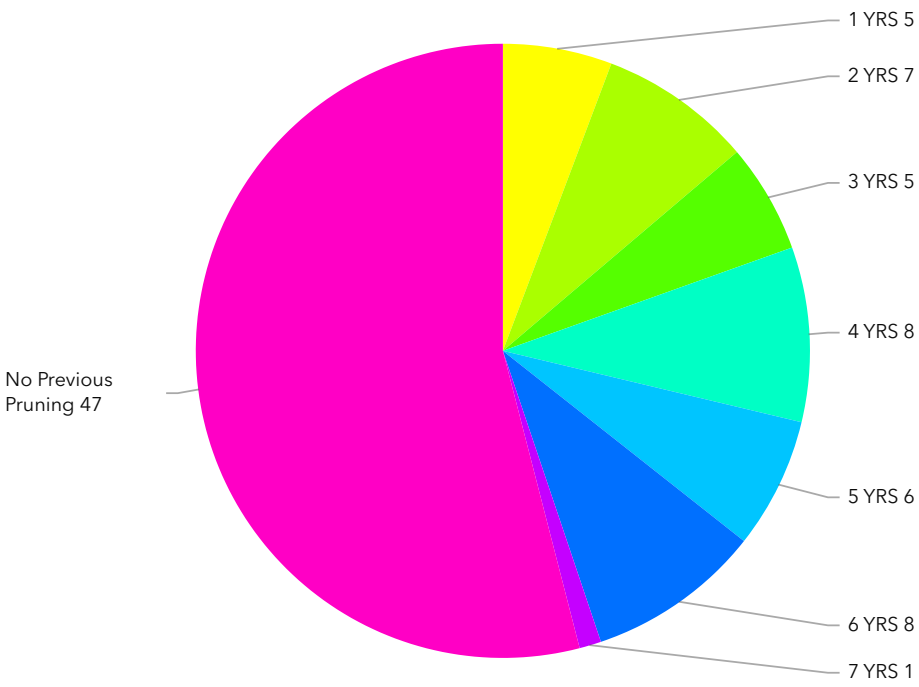
Tree Damage and Pruning Habits

Select a date
1/1/2024 and after

Total Damaged Trees

87

Damaged Trees and Previous Prune Interval



Data shows all of the damaged trees and the amount of years between their last prune date and when the damage happened.

CYRUS NAHEEDY, PE, RSP[1]

cnaheedy@a2gov.org

EDUCATION

NYU Polytechnic School of Engineering: M.S. Transportation Planning & Engineering — 2012
University of Michigan: B.S.E. Industrial & Operations Engineering — 2004

EXPERIENCE

City of Ann Arbor — Ann Arbor, MI
Transportation Engineer III — 2019-Present

- Developing & implementing plans that increase safety & access across the City's Transportation network for users of all travel modes, as related to established City policy guidance (Transportation Plan & Carbon Neutrality Plan)
- Engaging with public about City project work & communicating clearly regarding each project's intended benefits & tradeoffs, communicating in a variety of formats (public meetings, phone calls as On-Call Engineer of the Week, emails, A2FixIt tickets)
- Managing ~$1M Citywide capital project to convert ~4,000 DTE streetlights to LED fixtures
- Coordinating with City & DTE staff to improve uncontrolled crosswalks by installing streetlights & other countermeasures
- Coordinating with Ann Arbor Public Schools to install safety countermeasures near AAPS buildings
- Providing support for internal traffic/transportation engineering needs, including:
  - Reviewing proposed private developments for traffic impacts
  - Issuing Traffic Control Orders, regulating vehicle activities
- Supporting related programs & sub-units with technical expertise & contract administration responsibilities, including:
  - Resurfacing program (ex: technical support & communication re: incorporation of Advisory Bicycle Lanes on Granger Avenue)
  - Seventh/Greenview capital project (ex: technical support & communication re: narrowing of street, widening of sidewalk, installation of additional safety countermeasures)
  - Signs/Signals Unit (ex: bidding & contract administration for Directional Boring work to support streetlights & traffic signals)
- Managed ~$350k Healthy Streets project to reconfigure several major corridor streets in response to COVID-19 pandemic
- Managed ~$1M Citywide capital project to replace/paint ~250 streetlights, including oversight of consultant team & contractor

Midwestern Software Solutions (MS2) — Ann Arbor, MI
Senior Transportation Engineer — 2015-2019

- Served as a subject-matter expert in transportation planning & traffic engineering, collaborating with software development team to enhance existing traffic analytics products & develop new performance tracking solutions
- Managed development of new software products, including both commercial off-the-shelf & customized applications
- Interfaced with clients to develop & document technical & functional system requirements
- Conducted research on new industry trends, technologies, & solutions for transportation data applications
- Prepared technical reports, proposals, & system support documents

Sam Schwartz Consulting — New York, NY
Transportation Engineer I, II — 2012-2015

- Identified & developed feasible solutions to mitigate significant transportation impacts associated with commercial & residential development through use of accepted engineering standards (New York CEQR, MUTCD, ITE Trip Generation/Parking Generation manuals) & traffic analysis software (HCS, Synchro)
- Prepared detailed site circulation plans, mitigation drawings & truck loading dock layouts utilizing AutoCAD & AutoTURN
- Analyzed various traffic data through advanced use of Excel/VBA & clearly communicated results through preparation of technical memorandums & graphical illustrations
- Applied & expanded project management skills through managing data collection efforts involving internal & external staff, as well as preparing project proposals with scope, schedule & budget

Port Authority of New York & New Jersey — New York, NY
Planning & Regional Development Internship – September 11th Memorial Scholarship Program — 2011-2012

- Modeled ground access choices to LaGuardia Airport & analyzed results in support of a federally funded Alternatives Analysis, resulting in two improved bus transit routes (M60 & Bx41 Select Bus Service) & one new route (Q70 Limited)
- Forecasted future travel demand patterns for all PANYNJ airports
- Integration of transit alternatives into TransCAD as an expansion of regional New York Best Practice Model

CYRUS NAHEEDY, PE, RSP[1] cnaheedy@a2gov.org

EXPERIENCE *continued*

New York City Department of Transportation New York, NY
Planning & Sustainability Internship 2009-2011

- Performed statistical & geographical analyses of traffic data using Excel, SPSS & ArcGIS to compare traffic speeds, capacities & crash rates before & after implementation of traffic pattern changes throughout New York City, including the installation of pedestrian plazas at Times Square & Herald Square & the installation of bicycle & transit lanes citywide
- Wrote backgrounds, summaries, & analyses of various DOT projects for 2010 *Sustainable Streets Index* (NYCDOT's program for tracking & documenting changes to the street network) with an emphasis on safety & mobility improvements via Complete Streets implementations
- Demonstrated use of iTREC trial software for GPS speed run analysis to multiple divisions within NYCDOT, leading to ultimate decision to purchase full licenses
- Updated Synchro traffic networks using collected data & observations in preparation for M34 Select Bus Service

Hewlett-Packard (Knightsbridge Solutions prior to acquisition) Chicago, IL & Madison, WI
Software Engineer/Consultant 2005-2009

- Developed & tested database oriented software using Structured Query Language (SQL) to create data warehouses & reports for client's business intelligence needs, allowing clients to make better informed business decisions
- Led testing team of both local & offshore (in Chennai, India) consultants & clients on several projects which included new & significant upgrades to existing delivered software, requiring extensive communication with client management & outlining of detailed level testing specifications with team members
- Wrote technical software support documentation & high-level design/strategy documents for clients & management
- Recruited & trained new Quality Assurance analysts on project team

TECHNICAL SKILLS

- **Software**: Roadsoft, Microsoft Office, Microsoft Access, SPSS, Adobe Illustrator, ArcGIS, AutoCAD, AutoTURN, Highway Capacity Software (HCS), Synchro/SimTraffic, TransCAD, Pivotal Tracker, Zendesk
- **Transportation Engineering Standards**: HCM, NACTO, MUTCD, AASHTO, New York City Environmental Quality Review (CEQR), NYCDOT Street Design Manual, ITE Trip & Parking Generation Manuals
- **Programming Languages**: SQL, Visual Basic.NET, Visual Basic for MS Applications (VBA), Python, Korn Shell Scripting
- **Additional**: Broad business analysis and project management experience; extensive experience in software development, testing & debugging; strong general & technical writing skills

PROFESSIONAL LICENSES/CERTIFICATIONS, ORGANIZATIONS, DEVELOPMENT & AWARDS

- **Professional Engineer** – state of Michigan, license number 6201063073 (valid through September 2025)
- **Road Safety Professional (level 1)** – certified November 2023
- **City of Ann Arbor** – Transportation Commission Member (2017-2019)
- **Washtenaw Area Transportation Study** – Technical Committee Non-Motorized Representative (2016-2019)
- **Washtenaw Bicycling and Walking Coalition** – Member (2015-Present)
- **Institute of Transportation Engineers** – North New Jersey Local Arrangement Chair (2014), Member (2012-Present)
- **A2Y Leadership Program** – Participant, 2024-2025
- **Young Professionals in Transportation** – Member (2013-2015)
- **Transportation Alternatives** – Member (2013-2014)
- **SSC Innovation/University Committee** – Internal training of staff (advanced Excel use), coordinating internal & external presentations by SSC staff, piloting changes to internal processes to increase productivity & advance knowledge sharing (2012-2015)
- **Coursera** – online courses completed:
    - Introduction to Python (2015)
    - Management of Urban Infrastructures (2016)
    - Machine Learning (2018)
- **September 11th Memorial Scholarship** – awarded tuition reimbursement & internship at PANYNJ
    - Presented at New York Metropolitan Transportation Council meeting (September 2012): "Regional Airport Choice & Ground Access Choice Modeling"
    - Attended Transportation Research Board Annual Meeting (2012) & Urban Affairs Association National Conference (2012)
- **ArcGIS Desktop III: GIS Workflows & Analysis** – two-day classroom instruction advancing ArcGIS capabilities (2011)
- **NYU-Polytechnic Graduate Center Scholarship** – awarded tuition reimbursement for academic achievement (2010-2012)

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.	U-20836 ALJ Sharon Feldman

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DIRECT TESTIMONY OF RAYMOND HESS

ON BEHALF OF

THE MICHIGAN MUNICIPAL ASSOCIATION FOR UTILITY ISSUES

May 19, 2022

I. INTRODUCTION & QUALIFICATIONS

Q. Please state for the record your name, position, and business address.

A. My name is Raymond Hess. I am the Transportation Manager for the City of Ann Arbor ("Ann Arbor" or "the City"). My office is located at 301 E. Huron Street, Ann Arbor, MI 48107 .

Q. On whose behalf is this testimony being offered?

A. I am testifying on behalf of the City of Ann Arbor and Michigan Municipal Association for Utility Issues ("MI-MAUI"). The City of Ann Arbor is a member of MI-MAUI.

Q. In your professional role, do you interact with DTE?

A. Yes, my primary interaction with DTE is related to streetlights as my team (the Transportation Team of the Engineering Department) is responsible for all streetlighting needs within the City public rights-of-way. To this end, we typically meet with DTE 3 times per month: every two weeks to discuss DTE streetlight outages; and once per month to discuss new streetlight installations.

Q. Are you testifying today as an expert?

A. No. I am testifying based on my professional experience managing Ann Arbor's streetlights, both those owned by DTE and those owned by the City that use electricity supplied by DTE.

Q. What is the purpose of your testimony?

A. I want to discuss Ann Arbor's concerns regarding the streetlighting service we receive from DTE. Specifically, I will discuss my concern with the frequency, slow detection, and long duration of streetlight outages and the unfair costs imposed on customers, as well as public safety issues resulting from unreliable streetlighting, and unreasonably high streetlight removal costs.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring the following exhibits:

Exhibit MAUI-27	Light removal quote from DTE
Exhibit MAUI-28	DTE quote to convert to LED
Exhibit MAUI-29	2020 DTE Repair Report
Exhibit MAUI-30	2021 DTE Repair Report
Exhibit MAUI-31	2021 DTE Repair Report Rate Case Analysis "Summary" worksheet
Exhibit MAUI-32	Ann Arbor City Council Resolution R-20-060

II. MUNICIPAL STREETLIGHTING OVERVIEW

Q. What concerns do the City and its residents have about streetlights?

A. First, it is important to note that safety and streetlighting are key municipal services. Right now, our biggest concern with streetlighting is poor reliability. The lights fail too often and it takes too long for DTE to fix them. We have found that we are able to restore service to City-owned lights faster than DTE responds to reported outages. Outages are a significant concern for elected members of our City Council and our residents and businesses. This is best evidenced by the adoption of R-20-060 "Resolution Concerning the Reliability and

Functioning of Detroit Edison Streetlights" on February 18, 2020 which resolved, "That City Council finds DTE's lack of assignment of resources to street light reliability unacceptable…" and, "That the City Council directs the City Administrator to communicate the City Council's concerns about DTE's street lighting reliability to DTE Executive Leadership, the Michigan Public Service Commission, and the City's elected delegation…" among others. *See* Exhibit MAUI-32.

In addition, our Council and residents are deeply concerned about pedestrian safety, in the wake of several recent pedestrian deaths and injuries linked to poorly lit crossings. The process for installing new crossing lights takes far too long and is so expensive that we have to make problematic tradeoffs between cost and safety. Frequent light outages, lengthy outages, and poorly lit areas impact pedestrian and public safety, a paramount concern in a city with so many pedestrian-intensive areas.

Q. How many streetlights are in the City of Ann Arbor?

A. The City leases 5,264 streetlights from DTE and owns more than 2,000 other streetlights, which are served under DTE's energy-only tariff, E1 Option III. My testimony will focus on the DTE-owned lights, but I mention the City-owned lights to highlight that the City, and I, have independent experience with management of streetlight procurement, maintenance and operations and reliability.

Q. Why is ownership of the streetlights split between DTE and the City?

A. The City would like to own and manage more of the streetlights because we can decide for ourselves what kinds of lights and controls to install, and better assure quick response to outage and other maintenance issues, compared to when DTE owns the lights.

III. REMOVING STREETLIGHTS IS TOO EXPENSIVE

Q. Why would the City ever want to remove a streetlight from service?

A. There are several reasons why we might remove a streetlight:

- As part of a road project that requires relocation or removal;.
- To install City-owned lighting;
- To install non-standard ornamental lighting of a type not supported by the Company;
- To remove lights that we deem no longer necessary and reduce our tariff expenses.

Q. Does the City remove DTE lights frequently?

A. No, but that is partly because it is so expensive to pay removal fees. In recent history, most removals have been part of road projects where we wanted to install City-owned streetlights or non-standard ornamental lighting types to be owned and managed by the City. When the lights must be removed as part of a road redesign, we can include the cost in the overall project budget, rather than trying to justify it with streetlight tariff savings alone.

Q. Can you give an example of a high cost light removal ?

A. Yes, I can. My Exhibit MAUI-27 is a light-removal quote from DTE dated August 31, 2020 for removal of a UG streetlight on Plymouth Road, near the EPA Air Quality lab.

DTE's proposed cost to remove this light was $13,211. The current tariff for a 250w HPS UG light is $416.78. The quoted removal cost is the equivalent of almost 32 years' worth of tariff payments. Such exorbitant removal costs can trap the City into continuing to pay for lights we no longer want, wasting energy and taxpayer money.

Q. Given these costs, how does the City ever afford to remove DTE-owned lights?

A. Sometimes, removing a light is unavoidable and we have to pay the cost even if we think it's too high. Generally, we can justify paying to remove DTE lights when removal and relocation is required for a major road project and state or federal funds can help defray the costs for those projects. We occasionally pay to remove individual DTE lights that are redundant with city-owned lights or otherwise no longer needed, but sometimes also choose to leave unwanted lights in place because it's cheaper to go on paying the tariff than paying DTE's removal fees.

Q. Didn't the City agree to pay removal costs under its lighting contract with DTE?

A. Yes, we did. However, our primary concern is not with the contract language itself, but with the costs DTE charges to remove lights. It is simply not credible that such high costs are cost-based. I strongly suspect that the costs are designed primarily to dissuade us from ever removing a light, not to recover the Company's true removal costs.

Q. Do you have any concerns with the contract language?

A. Yes, I do. I believe that the Company's approach to light removal costs is bad public policy. All lighting customers sometimes need to be able to change the number of, or relocate, their lights, in order to provide for public safety, facilitate infrastructure projects, improve

ambiance and spend taxpayer dollars efficiently. My understanding is that many utilities around the country include enough removal costs in rates to pay for customer-requested removals, not just utility-initiated removals.

I am aware that the tariff we pay includes net salvage value, which collects throughout the lifetime of a streetlight. It strikes me as very unfair that none of that stream of payments should apply to removal costs merely because the City, rather than the Company, triggers the removal. The Company claims that net-salvage value applies only to in-service removals, not terminal removals, but this has nothing to do with cost causation: the cost to the Company is the same either way. Just as we should pay for any cost we cause, so should we receive a service that we pay for. When we request to remove a light, we receive none of the value of the removal fees we have been paying since that light was installed. The purpose of the Company's policy is to make it prohibitively expensive for us to cancel unwanted service, not to recover actual costs.

Q. What would you like the Commission to do about removal costs?

A. I would suggest two actions. The Commission should investigate whether costs the Company assesses to remove streetlight at customer request are cost-based. Second, the Commission should order the Company to assess the impact of recovering customer-requested removals in rates, and to file a proposal to do so with its next rate case.

IV. DTE'S FEES FOR INSTALLING OR CONVERTING LIGHTS ARE HIGH AND DISCOURAGE INVESTMENTS IN ENERGY EFFICIENCY AND PUBLIC SAFETY. DTE'S TIMELINE FOR INSTALLATION TAKES TOO LONG

Q. What lighting technology are the City-owned lights?

A. The City owns and operates over 3,130 City. 92% are LED; 6% are HPS; and 2% are mercury vapor. The City installs LED lights as the default for cost and environmental reasons.

Q. What lighting technology are the DTE-owned lights?

A. Our records indicate approximately 19% of DTE's streetlights are LED; 80% are high pressure sodium; and 1% are mercury vapor.

Q. Why are so few DTE-owned lights LED, compared to the City-owned lights?

A. In order to convert all DTE streetlights to LED, DTE has quoted a price of $1,240,388. See my Exhibit MAUI-28. This proposal has been deemed cost prohibitive to date.

Q. Does DTE also provide pedestrian lighting in Ann Arbor?

A. Yes, 134 crosswalks at major street uncontrolled crosswalks are sufficiently lit. 116 additional locations are still in need of additional lighting (https://www.a2gov.org/a2crosswalkstreetlights).

Q. Are crossing lights owned by DTE or the City? Why?

A. Most pedestrian crossing lights in Ann Arbor are owned by DTE. We would prefer to own more, so that we could better control costs, choose our own designs and technology, and complete installation faster than DTE does. We find that DTE's response time for installation of new crossing lights is very slow, an intolerable situation for a community alarmed by several recent pedestrian deaths and injuries at poorly lit crossings.

Q. Why does the City not own more pedestrian crossing lights?

A. DTE will only grant energy-only feeds to 8 or more streetlights. Most of the City's streetlight work is focused on new streetlights to illuminate crosswalks to enhance pedestrian safety. This typically requires installation of 2 streetlights - one on each side of the road. DTE's 8 light minimum for energy-only feeds precludes the City from installing its own assets using energy-only feeds.

Q. How long does it take DTE to install a streetlight upon receipt of a request from the City?

A. DTE strives to install streetlights within 90 days of receipt of payment for a new streetlight. On this note, it is atypical and against City policy to pay for services not yet rendered. However, DTE has forced this issue and we are required to pay in advance.

Payment aside, this timeline does not factor into account the true timeline of when the request if first made of DTE. For example, the City requested new streetlights at three different locations on January 20, 2021: Newport at Lowell/White Oak; 3264/3265 Baylis; and Stone School from Eisenhower to I-94. These installations were completed on March 17, 2022, March 31, 2022, and April 11, 2022, respectively – well over a year of the initial request. This is fairly representative of our experience of how long it takes for a new streetlight to be installed from the time of the initial request.

V. OUTAGES ARE TOO FREQUENT, ARE DETECTED TOO SLOWLY, LAST TOO LONG, AND IMPOSE UNFAIR COSTS ON CUSTOMERS

Q. Is DTE providing reliable street lighting service to Ann Arbor?

A. No. Please see my Exhibits MAUI-29 and MAUI-30 These exhibits are based on data provided by DTE in monthly reports we have received for the past several years and DTE has stipulated that these are comprised of data that it supplied.

The data provided to us by DTE include frequency and duration of our streetlight outages. However, the way DTE presents outage data understates both the number of outages the City experiences and the amount of service we lose to outages.

Q. Can you explain why the City is so focused on streetlight outages?

A. Streetlights can reduce vehicle-pedestrian conflicts and can greatly increase perceptions of personal safety. Both factors are critical to a city with several pedestrian-intensive areas, including the sprawling University of Michigan campus and downtown, but also with many neighborhood schools that many students walk to even on dark winter mornings. We are striving to get more people out of their cars, moving around on foot, by bike, and public transport, and good lighting encourages those behaviors. As I mentioned above, we have had several tragic pedestrian deaths in poorly lit crosswalks. An outage is just as big a hazard as bad lighting or lack of lighting.

For example, as home to the University of Michigan, Ann Arbor frequently observes large numbers of college students walking near campus and downtown in the evening and well into the night, when street and pedestrian lighting can make a big safety difference. Yet, we have recently experienced several lengthy outages affecting multiple lights in our downtown core and near campus. It is difficult for us to understand why 30-day streetlight outages that endanger pedestrian and motorist safety are a commonplace.

Q. How many streetlight outages did Ann Arbor experience in 2021?

A. According to DTE's data, Ann Arbor had 1,413 outages to DTE owned streetlights in 2021 and 1,397 in 2020.[1] That means about 27% of all DTE-owned streetlights in the city experienced a reported outage in each of those years.

These figures combine "Standard" and "Follow Up" outage events, as classified by DTE. Follow-up outage events are those that take multiple visits to resolve – such as replacing wiring, pulling work or dig permits or arranging traffic control.

Q. Does DTE count outages differently than the way you have described?

A. Yes, they do. DTE counts outage "events." Each event may impact the operation of multiple lights, for example if the root cause of the outage is wiring, a transformer, or a fuse that serves multiple lights. This method of counting may make sense because DTE is concerned with addressing the single root cause of an event; we, as the customer, see multiple lights out. DTE's approach to counting streetlight outages would be like counting a residential outage that affected 100 houses no differently than an outage that affected only one house.

In 2021, DTE's way of counting streetlight outages would reckon that we had only 831 outage events in 2021, and 812 in 2020. That means our average outage affected 1.71 lights.

Q. How long did the streetlight outages last in 2021?

[1] Exhibits MAUI-29 and MAUI-30, "totals" worksheets.

A. Standard outages in 2021 lasted 9.6 days on average. Follow-up outages lasted 39.3 days on average.[2] These averages are weighted by the number of lights each outage event impacts; weighting is important because long outages tend also to be those that impact multiple lights. For example, outage events caused by wiring problems often impact multiple lights and take a long time to repair.

Q. What efforts does the City make to speed restoration of streetlights?

A. We turn around almost all work permits and arrange traffic control in less than one week of receiving a request.

Q. Considering the number of lights reported out and the length of time they were out, how much lighting service did Ann Arbor lose to outages reported in 2021?

A. Ann Arbor lost 14,668 total light-service days to *reported* outages in 2021.

Reported outages thus constituted 0.76% of all lighting service days in 2021. Based on this number alone, one would expect to observe about 7 to 8 lights out of every 1,000 as non-working on any given night while driving around Ann Arbor.

Q. In your opinion, does this reported outage rate accurately reflect actual outage frequency?

A. No, it does not. Our observation is that a much higher percentage of lights are not working properly on any given night. My understanding is that MAUI witness Bunch will present testimony using DTE's night patrol data that will substantiate this observation.

[2] U-20836 Exhibit MAUI-31, 2021 DTE Repair Report Rate Case Analysis, "Summary" worksheet.

Q. DTE reports taking several measures intended to reduce and shorten outages. Are these measures sufficient?

A. No, they are not. Despite DTE's reliability measures and communication with city staff, we are not seeing improvement in the number of outages or how long they last. While I cannot prescribe what else the Company should do to improve reliability, I am convinced that greater financial accountability for outages should be part of the solution. That financial accountability should also make the City whole for lighting service it pays for but does not receive owing to outages.

VI. FINANCIAL CONSEQUENCES FOR STREETLIGHT OUTAGES ARE INSUFFICIENT TO MOTIVATE BETTER PERFORMANCE AND ARE UNFAIR TO CUSTOMERS

Q. What else needs to change about DTE's outage policy?

A. As I argued above, we should not have to pay for service we don't receive. It is hard to understand why this should be a controversial assertion. I am aware of no other electric customer who has to keep paying full price for a service they are not receiving. When a residential customer loses power, their meter stops running and they stop paying, aside from a relatively small fixed meter fee. There is no suggestion that residential customers should keep paying for distribution equipment that is not delivering them the service they contracted for. It is hard to understand why streetlight customers should be treated any differently.

Q. DTE provides streetlight outage credits. Does this not compensate the city for outages?

A. I am not aware that Ann Arbor has ever received a streetlight outage credit. Hypothetically, DTE will award outage credits if a light remains out of service for more than one month, provided the customer requests a credit AND the Company agrees that it bears responsibility for the outage length. That alone is not fair to streetlight customers, compared to other rate classes who not only stop paying when they are not receiving service, but may receive additional credits to compensate them for costs and inconveniences caused by long or repeated outages.

Notwithstanding, arguing over the appropriateness of a credit after 30 days of outage is somewhat beside the point because I have never known DTE to issue Ann Arbor a bill credit for any length of outage. According to the outage data DTE reported to us, we had 188 lights out in 30 different outage events that lasted 30 or more days in 2021.[3] We received no bill credits even though DTE's policy says we should. And, these longer outages comprise only a fraction of the 14,668 days of service the City paid for in 2021 but received no service owing to outages. This is like paying for a streetlight for more than 40 years that never works.

Since a typical light costs only about $0.50/night to operate, it's simply not worth our time to identify outages eligible for bill credits, apply to the Company, and track payment. These credits should be automatic to give the Company operational feedback and financial incentive to fix outages quickly.

[3] U-20836 Exhibit MAUI-31, 2021 DTE Repair Report Rate Case Analysis, "Summary" worksheet.

Ann Arbor knows about our extended outages because we ask DTE for monthly reports and pay close attention; our understanding is that this is a special accommodation DTE has made for Ann Arbor – which we appreciate – but that other customers do not receive these reports. Customers who don't ask for that data may never know about extended outages because the Company does not proactively notify them of outages reported by the public. Even though Ann Arbor does know about these outages, we never receive bill credits. It seems to us only fair to treat streetlight customers the same as other customers with respect to outage bill credits: we should stop paying as soon as an outage is known to the Company, and the credit should be automatic.

Q. Have you discussed these challenges and costs with representatives of DTE? What did you request and how has the Company responded?

A. The Company has been reasonably responsive to our request for data and we have regular meetings with them to review outages. Despite these efforts, the outage situation has not measurably improved.

Q. What would you like the Public Service Commission to do about the problems you have described?

A. In summary, I recommend that the Commission:

- Order DTE to stop assessing incremental customer contributions for standard HID-LED conversions

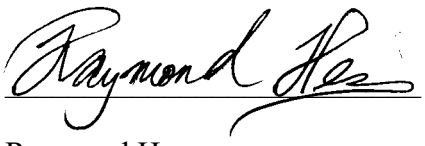
- Order DTE to pay automatic outage credits that take effect as soon as an outage is reported and that credit the full tariff amount, not only the relatively minor electricity portion.
- Order DTE to provide annual streetlight reliability reports to all customers, which include both outages reported by the public and outages identified by night patrol; and upon customer request, provide such reports on a monthly basis.
- Order DTE to allow customers to install their own new lights, regardless of quantity, if the Company cannot complete installation within 90 days of receiving the customer request.
- Order a staff audit of the Company's streetlight removal fees, and order the Company to propose rate recovery of customer-requested removals with its next rate case.
- Order DTE to propose a network lighting controls pilot as soon as possible to enable better monitoring, management, and response.

Q. Does that conclude your testimony?

A. Yes.

Q. Do you swear under penalty of perjury that the statements above are true to the best of your knowledge, information and belief?

A. Yes.



Raymond Hess

MPSC Case No. U-21297
Question No. DEMAUI-2.1
Respondent: Raymond Hess, MI-MAUI
Requestor: DTE Electric Company

DEMAUI-2.1

Question:

How many City of Ann Arbor managed streetlights experienced an outage from 2020 – 2022?

Answer: *Respondent: Raymond Hess*

Ann Arbor's system shows a total of 688 known City-owned streetlight outages in 2020 through 2022 collectively. That averages to approximately 225 outages per year out of approximately 2,500 City-owned lights, meaning approximately 9% of City-owned streetlights experienced an outage in a year. For context, in that same time period, DTE-owned streetlights in the City experienced approximately 1,300 outages per year out of approximately 5,000 total lights, meaning approximately 26% of DTE-owned streetlights experienced an outage in a year.

Attachments:

None.

Exhibit A to Master Agreement

Purchase Agreement

This Purchase Agreement (this "Agreement") is dated as of June 3, 2024 between DTE Electric Company ("Company") and the City of Ann Arbor ("Customer").

This Agreement is a "Purchase Agreement" as referenced in the Master Agreement for Municipal Street Lighting dated February 16, 2022 (the "Master Agreement") between Company and Customer. All of the terms of the Master Agreement are incorporated herein by reference. In the event of an inconsistency between this Agreement and the Master Agreement, the terms of this Agreement shall control.

Customer requests Company to furnish, install, operate, and maintain street lighting equipment as set forth below:

1. DTE Work Order Number:	64248815	
	If this is a conversion or replacement, indicate the Work Order Number for current installed equipment: N/A	
2. Location where Equipment will be installed:	[Various locations in the City of Ann Arbor], as more fully described on the map attached hereto as Attachment 1.	
3. Total number of lights to be installed:	4,087	
4. Description of Equipment to be installed (the "Equipment"):	**Overhead Fed Streetlights on Wood Poles**: 4-175w Mercury Vapor to 58w LED 1 - 250w Mercury Vapor to 58w LED 1 – 70w High Pressure Sodium to 58w LED 2065 – 100w High Pressure Sodium to 58w LED 1 – 150w High Pressure Sodium to 58w LED 201 – 250w High Pressure Sodium to 58w LED 7 – 400w High Pressure Sodium to 58w LED 1 – 70w Metal Halide to 58w LED **Underground Fed Streetlights on Fiberglass or Metal Posts:** 223 - 100w High Pressure Sodium to 54w LED (Lumecon) 683 – 100w High Pressure Sodium to 58w LED 861 – 250w High Pressure Sodium to 58w LED 39 – 400w High Pressure Sodium to 58w LED	
5. Estimated Total Annual Lamp Charges	$1,029,814.42	
6. Estimated Total Annual Post Charges if selected	$0.00	
7. Annual Finance Charge if selected	See paragraph 14 below	$ 0.00
8. Computation of Contribution in aid of Construction ("CIAC Amount")	Total estimated construction cost, including labor, materials, and overhead:	$1,021,700.97
	Revenue credit:	$0.00
	CIAC Amount (cost minus revenue)	**$1,021,700.97**
	Credit for Post Charge, if selected	$0.00
9. Payment of CIAC Amount:	Due promptly upon execution of this Agreement **$1,021,700.97**	
10. Term of Agreement	5 years. Upon expiration of the initial term, this Agreement shall continue on a month-to-month basis until terminated by mutual	

Special Financing Options are available – Please read stipulations within agreement and if desired check the appropriate box below: Post Charge Option ☐ Finance Option ☐	written consent of the parties or by either party with thirty (30) days prior written notice to the other party. If Post Charge "box" is checked the Customer agrees to following term: 10 years. Upon expiration of the initial term, this Agreement shall continue on a month-to-month basis until terminated by mutual written consent of the parties or by either party with thirty (30) days prior written notice to the other party.
11. Customer Address for Notices:	City of Ann Arbor 301 E. Huron St., 4th Floor Ann Arbor, MI 48107

12. Material Acknowledgement:

The customer is making the selection of 58w LED 2700K and 54w LED 2700K color temperature light fixtures which are not standard stock, but instead are special-order material (SOM) fixtures. Consistent with all SOM arrangements with DTE's municipal customers, the municipality is responsible for maintaining inventory on-hand to address outages which would require a replacement fixture. See paragraph 13.

Neither DTE nor the Customer are making representation that the chosen SOM fixtures meet ANSI standards.

With respect to any other lighting fixtures that are not included within the list of ~~(~~SOM~~)~~ fixtures, it is understood that the company will be installing DTE stock material as described in Section 4 of this agreement.

13. Special Order Material Terms:

All or a portion of the Equipment consists of SOM: (check one) ☒YES ☐NO

If "Yes" is checked, Customer and Company agree to the following additional terms.

A. Customer acknowledges that all or a portion of the Equipment is SOM and not Company's standard stock. Customer will purchase and stock replacement SOM and replacement equipment as provided in Section B below. When replacement equipment is pulled from Customer's inventory, Company will credit the Customer in the amount of the then-current material cost of Company standard street lighting equipment (58W LED – 4000K). Reimbursement shall not exceed the cost of customer purchased materials, which will be verified through the Customer providing a copy of the material invoice to the Company.

Customer will indicate specifically and provide a list of serial numbers back to the company, which will serve as an attachment to this agreement, the locations for which SOM will be installed.

In the event of an outage requiring a fixture replacement, DTE's authorized contractor will arrange to pick up the necessary SOM fixture and replacement equipment to address the outage. The choice to stock SOM replacement inventory is at the discretion of the municipality. The speed at which the Company can address an outage event may depend on SOM availability.

B. The inventory will be stored at Wheeler Public Works Center. Access to Customer's inventory site must be provided between the hours of 9:00 am to 4:00 pm, Monday through Friday with the exceptions of federal Holidays. If Company is unable to access the site during such hours for any reason, Company (i) shall be relieved from any obligation or commitment to complete the work as scheduled, and (ii) may, at its option, procure the inventory itself and have Customer to reimburse Company's costs for doing so. Customer shall name an authorized representative to contact regarding inventory: levels, access, usage, transactions, and provide the following contact information to Company:

Name: Marc Moreno Title: Signs and Signals Supervisor

Phone Number: 734.794.6350 x43322 Email: mmoreno@a2gov.org

Customer will immediately notify Company of any changes in the Authorized Customer Representative. Customer must comply with SOM and replacement equipment manufacturer's recommended inventory storage guidelines and practices. Damaged SOM will not be installed by Company.

C. If SOM is damaged by a third party, Company may (but is not required to) pursue a damage claim against such third party for all of Company's costs incurred because of the claim, including all labor and replacement materials. Company will notify Customer as to whether Company will pursue such claim within a reasonable time of the SOM being damaged.

D. If SOM becomes obsolete, discontinued, or incompatible with Company's infrastructure, Customer shall select new alternate SOM that is compatible with Company's then-existing infrastructure. If Customer does not select compatible alternate SOM, Company reserves the right to select compatible SOM that is, in its reasonable judgment, substantially similar, or replace the SOM with standard materials, in either case being entitled to reimbursement from Customer for Company's costs in providing such transition of supply (including internal overhead and labor costs).

14. Special Financing Options

A. Post Charge Option:

For new underground-fed installations of 5 lights or more after May 1, 2019, which require investment in excess of three times the annual revenue at the prevailing rate at the time of installation, the customer may elect to pay a post charge for each increment of $1,000 investment required above three times the annual revenue.

Effective December 15, 2023 - For each increment of $1,000 of investment which exceeds three times the annual revenue at the prevailing rate at the time of installation, add to rate per year an additional **$82.56**.

B. Finance Charge Option:

As an alternative, where the required contribution exceeds $10,000, upon agreement of the customer and the Company, the customer will pay an additional annual charge of the Company's weighted average cost of capital (6.92%) times the contribution amount in lieu of the cash contribution.

****

Company and Customer have executed this Purchase Agreement as of the date first written above.

Company:	Customer:
DTE Electric Company	City of Ann Arbor
By: _____	By: _____
Name: _____	Name: _____
Title:_____	Title:_____
Date: _____	Date: _____

Attachment 1 to Purchase Agreement

Map of Location

[To be attached]

Attachment 2 to Purchase Agreement

List of Serial Numbers where SOM will be installed

[To be attached]

DTE

Community Lighting Catalog

Table of contents

Protect your home

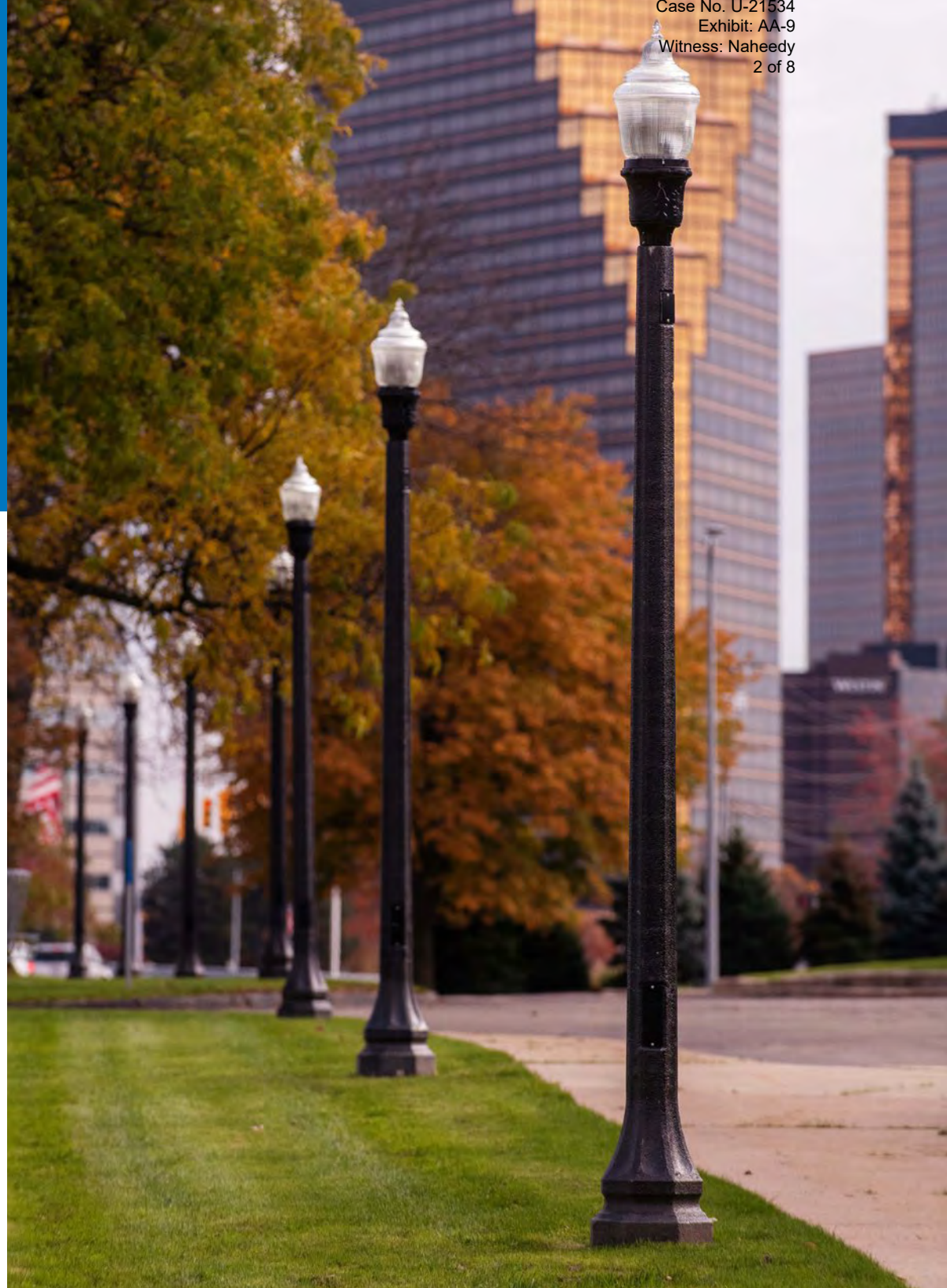
Outdoor Protective Lighting provides maintenance-free exterior lighting service to your home. Protecting your property and neighborhood with efficient and affordable outdoor lighting is easy with DTE Energy.

Enhance your business

Outdoor Protective Lighting provides maintenance-free exterior lighting service to parking lots, site entrances, street lights and more. The service delivers strong and lasting benefits, and we make it simple and affordable.

Illuminate your roadways

Well-lit roads in your community promotes safe conditions for both drivers and pedestrians.



Program Highlights

Years of Experience

Our Community Lighting team has more than 110 years of experience providing street and area lighting solutions from local, collector and major thoroughfares to public pathways, commercial developments, parking lots, industrial storage lots, streetscapes, new construction, parking lots, homeowner associations, area lighting and more. We will work collaboratively with you to develop a lighting plan that fits your needs and budget.

Aesthetics & Value

We can help you develop a plan that preserves aesthetics, improves visibility, encourages public use and increases safety. Lighting adds ambiance and character, creating a more welcoming environment – and we're here to provide the best possible solution for you. With many different luminaire and post combinations, you'll be able to create custom posts that fit seamlessly into your community streetstyle, buildings and grounds.

Safety & Security

When your business is well-lit, your residents, customers and visitors feel safer and your assets are more secure. Outdoor lighting provides a safe environment for residential and commercial areas and deters crime.

Affordability

Our large portfolio of energy-efficient lighting products delivers optimal performance while keeping your costs low. We can help offset the initial cost of installation and all agreements include service and maintenance.

Maintenance & Upkeep

Interruptions to outdoor lighting can happen for many different reasons including power outages, mechanical issues or scheduled equipment maintenance. We provide timely repair and maintenance to guarantee reliability. If your lighting installation ever requires maintenance, have peace of mind knowing we're just a phone call away.

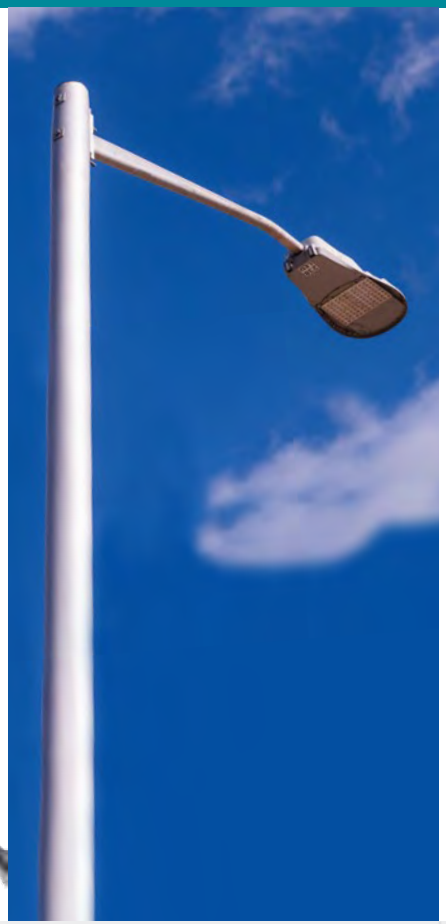
Luminaire Options

LED Roadway Series

LED Roadway Series luminaires are offered in three high-lumen performance packages designed to deliver energy-efficient outdoor lighting with optimal coverage for all roadway classifications. These luminaires are designed for residential, municipal, county and state thoroughfares in both underground and overhead configurations.

Lighting Applications:

- Local, collector and major roadways
- Intersections and roundabouts
- Commercial and industrial developments
- Parks and recreational areas
- Rural residences and barnyards
- Campuses
- Walkways
- Alleys
- Parking lots



Product Information:

Luminaire Housing Color	Wattage	Light Source	Correlated Color Temperature (CCT)^1	Initial Delivered Lumens^2	Typical Mounting Heights
Black or gray	58	LED	4,000K	7,334	30'
Black or gray	136	LED	4,000K	17,400	30'
Black or gray	206	LED	4,000K	29,252	30' or 40'

1. The correlated color temperature of a light source is measured on the Kelvin (K) scale. Color temperatures of light sources may range in appearance between warm white (1,800K – 3,000K), cool white (3100K - 4500K) and daylight (4,600K - 6,500K).

2. Measurements taken from luminaire with standard option only (no other accessories or attachments used during testing).

LED Teardrop Series

LED Teardrop Series luminaires are offered in eight high-efficiency LED performance packages designed as a period style luminaire for street lighting applications. The system is constructed of a precision-engineered prismatic borosilicate glass teardrop refractor configured in a Type 3 distribution. These luminaires are designed for municipal, county and state thoroughfares.

Lighting Applications:

- Downtown districts
- Urban roadways and streetscapes
- Parks and walkways
- Campuses
- Village squares
- Historic districts
- Plazas
- Commercial developments

Product Information:

Luminaire Housing Color	Wattage	Light Source	Correlated Color Temperature (CCT)^1	Initial Delivered Lumens^2	Typical Mounting Heights
Black	21	LED	4,000K	3,618	27' or 29'
Black	43	LED	4,000K	7,010	27' or 29'
Black	63	LED	4,000K	10,176	27' or 29'
Black	83	LED	4,000K	13,116	27' or 29'
Black	103	LED	4,000K	16,055	27' or 29'
Black	121	LED	4,000K	18,543	27' or 29'
Black	144	LED	4,000K	21,482	27' or 29'
Black	153	LED	4,000K	22,613	27' or 29'

Decorative Post Top Lighting

Colonial Series

Colonial Series post-top luminaires are offered in LED and HPS technology and feature a traditional lantern-style design in one standard configuration. This luminaire is designed for roadways, walkways and parking lots in residential, municipal and commercial developments.

Lighting Applications:

- Residential and urban boulevards
- City streets
- Parking lots
- Campuses
- Commercial developments
- Plazas
- Historic districts
- Village squares
- Parks
- Walkways and roadways

Product Information:

Luminaire Housing Color	Wattage	Light Source	Correlated Color Temperature (CCT)^1	Initial Delivered Lumens^2	Typical Mounting Heights
Black	64	LED	4,000K	6,587	14'

1. The correlated color temperature of a light source is measured on the Kelvin (K) scale. Color temperatures of light sources may range in appearance between warm white (1,800K – 3,000K), cool white (3,100K – 4,500K) and daylight (4,600K – 6,500K).
2. Measurements taken from luminaire with three acrylic clear prismatic panels on street side and one diffuse panel on house side.

Acorn Series

Acorn Series post-top luminaires are offered in LED and HPS technology and in assorted configurations. These range from glass globe only or glass globe with ribs and band, to glass globe with full cover, ribs and band. These luminaires are designed for roadways, walkways and parking lots in residential, municipal and commercial developments.

Lighting Applications:

- Residential and urban boulevards
- City streets
- Parking lots
- Campuses
- Commercial developments
- Plazas
- Historic districts
- Village squares
- Parks
- Walkways and roadways

Product Information:

Luminaire Housing Color	Wattage	Light Source	Correlated Color Temperature (CCT)^1	Initial Delivered Lumens^2	Typical Mounting Heights
Black	39	LED	4,000K	5,246	11.5' to 14.5'
Black	60	LED	4,000K	7,438	11.5' to 14.5'

1. The correlated color temperature of a light source is measured on the Kelvin (K) scale. Color temperatures of light sources may range in appearance between warm white (1,800K – 3,000K), cool white (3,100K – 4,500K) and daylight (4,600K – 6,500K).
2. Measurements taken from luminaire with clear glass globe option only (no other accessories or attachments used during testing)

LED Area Lighting

LED Parking Lot Area Light Series

The LED area light luminaires are offered in multiple lumen performance packages designed to deliver energy efficient outdoor lighting for parking lots and other area lighting applications. These can be utilized with overhead fed and underground fed post options.

AR-13: This performance series (lumen package) is intended for small to medium lighting projects in residential, industrial and commercial zoned areas. Wattage Options: 72, 88, 113, 138, 149. Optic Distribution Options: Type 3, Type 4, Type 5, Type AFR.

AR-18: This performance series (lumen package) is intended for medium to large lighting projects in industrial and commercial zoned areas. Wattage Options: 206, 235, 272, 297. Optic Distribution Options: Type 3, Type 4, Type 5, Type AFR.

Lighting Applications:

- Parking lots and retail
- Mixed-use developments
- Auto dealerships
- Industrial sites
- Entrance and exit roads to facilities
- Security areas
- Storage areas
- Loading and receiving areas
- Parks and recreational areas
- Churches and schools

Product Information:

Product information can be provided to customers upon request.

LED Flood Light Series

LED flood light luminaires are typically mounted to a wood pole using a standard mount and bracket configuration. Optional features include partial or full shielding to mitigate dispersed light. These luminaires are designed for safety and security lighting used in a variety of applications for residential, commercial, industrial and municipal developments.

Lighting Applications:

- Security areas
- Storage areas
- Loading and receiving areas
- Backyards
- Parking lots and retail
- Auto dealerships
- Industrial sites
- Churches and schools
- Parks and recreational areas
- Rural residences and barnyards

Product Information:

Luminaire Housing Color	Wattage	Light Source	Correlated Color Temperature (CCT)^1	Initial Delivered Lumens^2	Typical Mounting Heights
Black	70	LED	4,000K	9,300	25' to 30'
Gray	218	LED	4,000K	29,000	25' to 30'
Gray	297	LED	4,000K	37,400	25' to 30'

1. The correlated color temperature of a light source is measured on the Kelvin (K) scale. Color temperatures of light sources may range in appearance between warm white (1,800K – 3,000K), cool white (3,100K – 4,500K) and daylight (4,600K – 6,500K).
2. Measurements taken from luminaire with three acrylic clear prismatic panels on street side and one diffuse panel on house side.

Poles & Posts

Street and Roadway Pole Options

Providing the necessary illumination to enhance driver and pedestrian safety is our number one goal.

We offer posts of various heights, colors and design. Options range from aluminum, steel, wood and fiberglass posts.

Foundation types vary from direct bury posts to full break away options as well as high band concrete foundations.

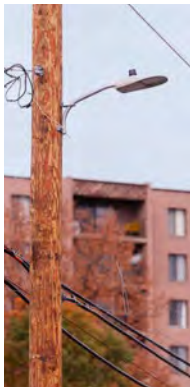
Heights can vary from 28 - 40'.

DTE Post Code 06: 28.75' black or silver single davit arm steel post mounted to concrete foundation-engineered to allow receptacles. Breakaway base option for this post design.

DTE Post Code 71/73 & 81/83: 30' or 40' black or silver dual arm fiberglass direct bury post with breakaway base.

DTE Post Code 70/72 & 80/82: 30' or 40' black or silver single arm fiberglass direct bury post with breakaway base.

DTE Post Code 87: 28.75' black or silver dual Davit arm steel post mounted to concrete foundation-engineered to allow receptacles.



DTE Wood Poles: Existing distribution poles or new 30' wood poles

Decorative Post Options

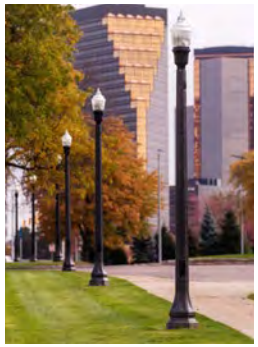
Often used in downtown streetscapes, historic districts, subdivision lighting, walkways and parks, these lighting options help provide the desired look and feel for the intended space.

These decorative posts are offered in a variety of designs and colors, ranging between 12 - 14'. According to customer preferences, they can be constructed of various materials including aluminum, steel, concrete and fiberglass.

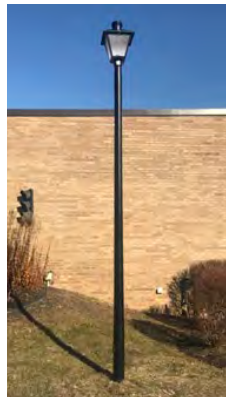
DTE provides a variety of options for flexibility during installations that include direct embedded posts and anchor base posts that can be mounted to standard or high-band concrete foundations.

DTE Post Code 16: 12' or 14' black fiberglass post with concrete foundation. Engineered to support decorative dual lum brackets and receptacles.

DTE Post Code 12 & 14: 12' or 14' black aluminum post. Direct bury or concrete foundation options available. Engineered to support banner arms and receptacles.



DTE Post Code 15: 13' black or salt & pepper concrete direct bury post. Engineered with provisions for banner arms and receptacles.



DTE Post Code 95: 14' black fiberglass direct bury post.

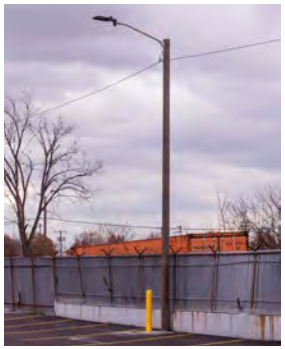
Poles & Posts (cont.)

Parking Lot Pole Options

DTE offers energy efficient area lighting solutions that provide appropriate levels of illumination to enhance safety and security for drivers and pedestrians.

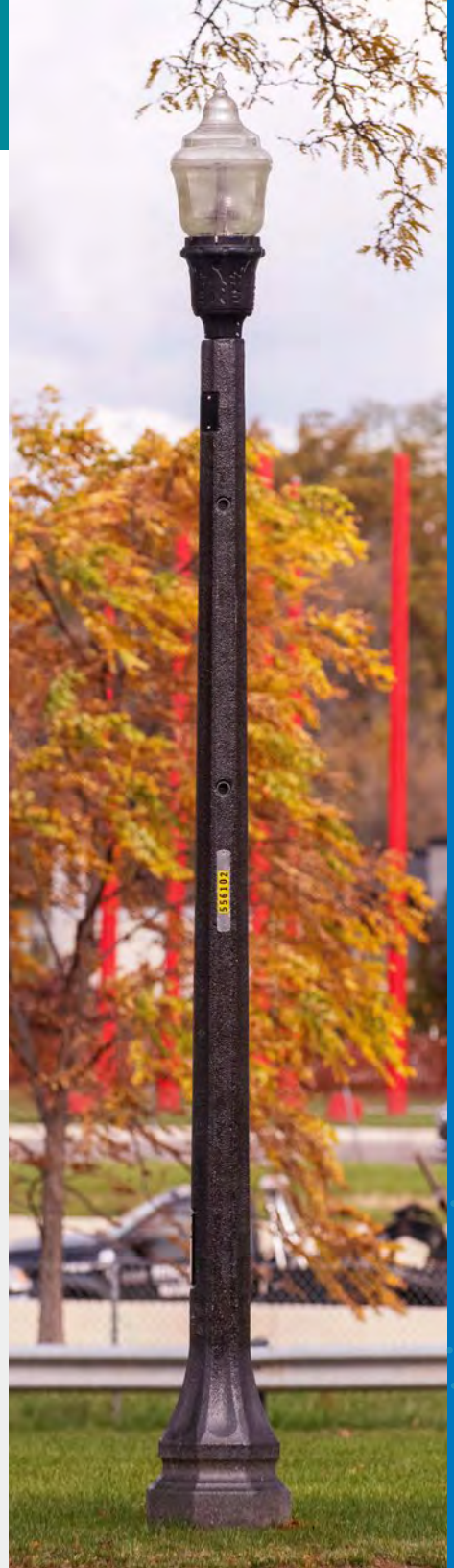
These area lights are paired with a modern post design that is offered in either black or dark bronze paint finish, ranging between 17.5 - 30'. Foundation designs include a standard foundation used for perimeter lighting and two high-band foundation options used for interior lighting in heavily-traveled, high-impact areas. Each post is designed to accommodate one to four luminaire configurations.

DTE Post Code A01-A54: 17.5 - 30' dark bronze or black square steel pole mounted to concrete foundation.



These lights can also be mounted on a wood utility pole.

Our Outdoor Protective Lighting Rate is a supplemental rate that is used for security lighting. After you enroll, we install lighting where service is already available in order to illuminate your private property. You qualify for this rate if you are currently using electric service under one of our standard metered rates. This dusk to dawn service is controlled by photo-sensitive devices that provide service all night, every night. Speak to one of our lighting experts for additional contract details.



Additional resources

If you're interested in our company taking your lighting system off your hands, we provide easy and affordable options to acquire your lighting system. We've worked with many businesses and municipalities to acquire and maintain their lighting system while upgrading it to new, energy-efficient luminaires. Our Lighting Designers will design an outdoor lighting solution that meets the needs of our customers following applicable guidelines.

If you would like to design a lighting system, visit our website at **dteenergy.com/lighting**, or scan the QR code below and one of our representatives will be in touch with you.

To learn more about our options, services and benefits, fill out the form at the QR code to the right and one of our representatives will be in touch.

DTE

DTE

February 19, 2024

Cyrus Naheedy, Project Manager
City of Ann Arbor
cnaheedy@a2gov.org

Mr. Naheedy,

I am writing in response to the issues that you identified in your letter sent to Brandon Faron on February 5th, 2024, with regard to the City of Ann Arbor's conversion of the remaining 4,087 DTE-owned non-LED lights to LED. Specifically, you raised 5 issues: 1) HPS replacements, 2) Checkbox regarding non-compliance, 3) Contribution in Aid of Construction (CIAC), 4) Standard Model LED, and 5) Warehousing requirements. I attempted to capture the essence of the City's position, with DTE's response noted in the paragraph below each statement.

HPS Replacements. You stated that "the City does not wish to bear the cost to replace any brand-new LEDs with its preferred LED."

Your selection of 2700K color temperature light fixtures is not standard stock, but instead is a special-order material (SOM) fixture. Consistent with all SOM arrangements with DTE's municipal customers, the municipality is responsible for maintaining inventory on-hand to address outages that would require a replacement fixture when needed. In the event of an outage requiring a fixture replacement, DTE's authorized contractor would arrange to pick up the necessary SOM fixture and material in order to address the outage. The choice to stock SOM replacement inventory is at the discretion of the municipality. The speed at which the Company can address an outage event may depend on SOM availability.

Checkbox regarding non-compliance. You stated that "...while Ann Arbor is willing to agree that DTE did not recommend this streetlight to the City and is making no representation regarding its compliance, the City believes such lights are compliant with ANSI standards and will not state otherwise in writing."

We agree to strike the reference to ANSI non-compliance and will replace it with a statement that indicates DTE did not recommend the fixtures selected by the City, and City in turn is making no representation that it is meeting ANSI standards.

Contribution in Aid of Construction. You stated that "DTE has previously informed Ann Arbor that the costs of the conversion project that would be required up front from the City as a CIAC

is $1,117,894.23. DTE notified the City in November, however, that the manufacturer of HPS luminaires is no longer selling such models..." You further stated "specifically, Ann Arbor has concerns that if it goes forward, it will have paid for something that would not have required any up-front payments if it had waited a few months."

Your initial CIAC estimate was determined based on what information was provided to us at that time and did not include a labor credit that was previously only available to mercury vapor conversion projects. A new quote will be provided to you now that the City has formally selected its LED fixtures and will also be reduced by the now-available high pressure sodium labor credit. **Please note however, that a reduction in project cost from the original quote may alter your grant award. Please follow-up with Southeast Michigan Council of Governments (SEMCOG) and/or Michigan Department of Transportation (MDOT) for clarification on any potential impact to your grant award.** We recommend the following points of contact for both SEMCOG and MDOT for further clarification:

SEMCOG: Chris Williams, Cwilliams@semcog.org
MDOT: Landon Johnson, JohnsonL26@michigan.gov

In addressing your concerns about not having to pay for this conversion project had the City simply waited a few months until the policy change went into effect, I would like to clarify our process for HID to LED project conversions vs that for replacement of failed HID fixtures. Municipalities that are proactively upgrading their lighting system to LEDs from HIDs are required to provide a CIAC to cover the project cost, less applicable credits. These conversion costs were affirmed in Order U-21297, in the last paragraph on page 139. In the case where DTE is responding to an HID outage within a municipality where there is no active conversion project, DTE will replace the HID like-for-like fixture at no additional cost until our inventory has been exhausted, at which point we will replace with an LED equivalent fixture based on a mutually agreed upon stock LED fixture.

Standard Model LED. You stated that "we request clarity on how a) a refund would be handled if Ann Arbor's lights are selected as one of the standard models; and b) how the CIAC would be calculated if LEDs are standard, but Ann Arbor's fixture is not selected as a new standard offering.

DTE has not performed an analysis of inventorying (i.e. making this a standard stock offering) the 2700K color temperature fixture in terms of discounts from bulk purchases (if applicable). In response to your second request, DTE is installing the SOM LED fixtures that you have requested. We cannot conceive of a scenario that would result in a refund.

Warehousing Requirements. Please refer to our response to "HPS Replacements" above. DTE will agree to remove the inventorying requirement in the agreement.

Please feel free to contact Brandon Faron, or myself directly (robert.bellini@dteenergy.com) should you have any additional questions or concerns.

Regards,

Robert Bellini
Manager, DTE Community Lighting

MPSC Case No: U-21534

Requester: MAUI

Question No.: MAUIDE-4.19a

Respondent: R. Bellini

Page: 1 of 1

Question: Witness Bellini (page 11, lines 8-9) notes the Company will accommodate certain customer requests. Will the Company accommodate customers' requests to convert burned-out HPS fixtures to LED before HPS lamp stocks are depleted?

a. If yes, will the Company assess a customer contribution for those conversions?

Answer: Yes. In the event of a failed HPS fixture - upon request, the Company is amenable to replacing with an equivalent LED fixture. In such cases, customer contributions are not required.

Attachment: None.

Skye Stewart, MPP skstewart@a2gov.org

EDUCATION

Gerald R. Ford School of Public Policy, University of Michigan **Ann Arbor, MI**
Master of Public Policy **2010**

- Focus: Public Administration and Policy Analysis

Birmingham-Southern College **Birmingham, AL**
Bachelor of Arts, Political Science and Sociology **2006**

- Honors: Phi Beta Kappa, summa cum laude

PROFESSIONAL EXPERIENCE

City of Ann Arbor **Ann Arbor, MI**
Chief of Staff, Public Services Area **Sept 2021 - Present**

- Provides strategic and operational leadership for the Systems Planning Unit that is responsible for the long-term planning and asset management of the city's public infrastructure.
- Leads the Public Services Area's performance metrics and public data dashboarding development efforts to enhance accountability, track progress towards goals, and improve service delivery.
- Serves as a strategic and tactical resource for the Public Services Area on the planning and implementation of various initiatives, projects, and programs.
- Coordinates the activities of Public Services units and other city functions to achieve shared goals around carbon reduction, mobility & safety, economic development, and resiliency.
- Collaborates with city officials, community leaders, and stakeholders to address public concerns and improve service responsiveness.

Guidehouse Consulting **Detroit, MI**
Senior Consultant, State & Local Government Practice **Oct 2020 - Sept 2021**

- Provided strategic guidance and tactical support to state and local government clients on a variety of engagements ranging from policy development, to business process improvements, to budget analysis, program development, evaluation, and compliance.
- Managed the Compliance and Program Monitoring workstream for a State COVID-19 Stimulus Project Management Office (PMO) by coordinating comprehensive compliance documentation and program monitoring needs across the various federal COVID-19 Stimulus funded programs.
- Liaised directly with various State agency points-of-contact to lead the effort to compile comprehensive compliance and program monitoring documentation for more than 180 federally funded programs.
- Supported the central oversight of Monitoring and Compliance for COVID-19 Stimulus Funded Programs across the State by developing a compliance matrix for each of the various federally-funded programs identifying the 2 CFR Part 200 (Uniform Guidance) requirements for each program administered by the State and provides actionable program design considerations to comply with federal guidance and minimize the risk of duplication of benefits.
- Led a workstream for a statewide budget assessment; identified and analyzed opportunities for cost savings and revenue optimization in order to bridge an anticipated $1 billion budget shortfall; conducted interviews with senior leaders from all executive agencies.

City of Somerville **Somerville, MA**
Chief of Staff to Mayor Joseph A. Curtatone **June 2016 - Sept 2019**

- Served as Chief Operating Officer and Senior Advisor to the Mayor.
- Managed a complex portfolio of projects and KPIs and Mayor's line of sight into high-priority projects: including, $256M renovation of the City's only high school; $150M upgrade to the City's utility infrastructure; expansion of the City's green and open space; labor negotiations; etc.
- Guided the development, implementation, and oversight of interdepartmental policies and strategic initiatives.

Skye Stewart, MPP skstewart@a2gov.org

PROFESSIONAL EXPERIENCE (cont'd)

- Supported internal and external communication strategies around key initiatives and policy changes.
- Managed City's snow emergency operations across multiple agencies (Public Works, Public Schools, Fire, Police, etc.).
- Supervised 12 City Department Heads including Communications, Finance, HR, IT, Public Works, Police, Fire, Planning, Economic Development, Law, and the Mayor's administrative staff.
- Oversaw internal investigations, senior-level hiring, and a variety of personnel matters.
- Represented the Mayor to outside stakeholders and agencies; represented the City at conferences on best practices and innovations in municipal management.

Director, SomerStat: Mayor's Office of Innovation & Analytics **July 2014 - June 2016**

- Advised the Mayor on systems thinking, data analysis, performance management, and operational innovation.
- Supervised eight Department Heads, including Constituent Services/311 Call Center, Health & Human Services, Office of Sustainability, Parks & Recreation, Libraries, and Inspectional Services.
- Managed a portfolio of complex projects and initiatives, including the City's "happiness survey," which measures neighborhood-level resident satisfaction across a number of indicators.
- Supported the Mayor's Office in the development, launch, and management of key initiatives.
- Led ongoing analysis of departmental operations, identifying problem areas or opportunities for improvement.
- Facilitated professional development and problem-solving charrettes for city staff on a range of topics including system-thinking, design thinking, human-centered design, and data-driven decision making.
- Directed the City's Open Data initiative and collaborated with departments to standardize and automate the reporting of agency data.
- Managed a team of analysts and the budget manager to monitor and evaluate municipal service delivery, financial performance, and the completion of specific projects and goals.

Budget Manager, SomerStat: Mayor's Office of Innovation & Analytics **Jan 2014 - June 2014**

- Managed the preparation and development of the City's $203M FY15 Municipal Operating Budget.
- Developed the City's $186M Five-Year Capital Investment Plan, including detailed narrative and cost estimation for 30+ current-year capital items and projected cost outlays.
- Provided oversight of the public budgeting community engagement process.
- Managed the Administration's participation in the legislative budget review and public hearing process.

Analyst/Senior Analyst, SomerStat: Mayor's Office of Innovation & Analytics **Nov 2011 - Jan 2014**

- Collaborated with departments to develop, track, and refine KPIs and other operational and financial metrics.
- Prepared reports, presentations, and data visualizations for internal and external consumption.
- Facilitated regular meetings with department managers and municipal leadership to report on KPIs and trends, evaluate and refine interventions, and make recommendations for operational improvements and/or cost savings.
- Spearheaded the development of the City's first Employee Wellness Program.

MPSC Case No: U-21534

Requester: MAUI

Question No.: MAUIDE-2.5

Respondent: J. Kryscynski

Page: 1 of 1

Question: Refer to witness Kryscynski's testimony on AJK-101 starting at line 5. Does the Company routinely review municipal Capital Improvement Plans toidentify projects that might be coordinated?

Answer: Assuming the question is referring to witness Kryscynski's testimony starting on AJK-102 line 5, no. Once a DTE project is selected to move forward, our local governmental affairs team reaches out to the affected municipalities to notify them of work and identify potential coordination opportunities.

Attachment: *N/A*

2024 Resurfacing Program Bid
Estimated savings from DTE Gas coordinating with City Project

Rosewood to 170 ft south of Malborough
Proposed DTE Gas Plan dated

Fund #	Funding Cat	Item Number	Item Description	Unit	Cadillac Unit Price	Total Quantity	Total Cost	Potential Savings Qty	Potential Savings Price	
1	General	01000.00	General Conditions, Max. $_____	LS	$ 300,000.00	0	$ -	0.15	$ 45,000	
2	Road	01000.01DS	Vacuum Type Cleaning, Max $_____	LS	$ 25,000.00	0	$ -		$ -	
1	General	01001.00	Project Supervision, Max $_____	LS	$ 50,000.00	0	$ -	0.15	$ 7,500	
1	General	01021.00	Erosion Control, Inlet Protection, Fabric Drop	Ea	$ 75.00	45	$ 3,375.00	15	$ 1,125	
1	General	01022.00	Erosion Control, Silt Fence	Ft	$ 10.00	0	$ -		$ -	
1	General	01040.00	Minor Traffic Control, Max $_____	LS	$ 140,000.00	0	$ -		$ -	
1	General	01041.00	Traffic Regulator Control, Max. $_____	LS	$ 25,000.00	0	$ -	0.1	$ 2,500	
1	General	01050.00	Sign, Type B, Temp, Prismatic, Furn & Oper	Sft	$ 6.50	162	$ 1,053.00	81	$ 527	
1	General	01051.00	Sign, Type B, Temp, Prismatic, Special, Furn & Oper	Sft	$ 12.50	16	$ 200.00	8	$ 100	
1	General	01052.00	Temporary "No Parking" Sign	Ea	$ 35.00	104	$ 3,640.00	15	$ 525	
1	General	01062.00	Lighted Arrow, Type C, Furn & Oper	Ea	$ 500.00	0	$ -		$ -	
1	General	01070.00	Sign, Portable, Changeable Message, Furn & Oper	Ea	$ 4,000.00	0	$ -		$ -	
1	General	01080.00	Plastic Drum, High Intensity, Lighted, Furn & Oper	Ea	$ 30.00	0	$ -		$ -	
1	General	01081.00	Channelizer Cone, High Intensity, 42 In., Furn & Oper	Ea	$ 30.00	150	$ 4,500.00		$ -	
1	General	01091.00	Barricade, Type III, High Intensity, Lighted, Furn & Oper	Ea	$ 75.00	10	$ 750.00		$ -	
1	General	01100.00	Pedestrian Type II Barricade, Temp, Furn & Oper	Ea	$ 75.00	8	$ 600.00		$ -	
1	General	01101.00	Pedestrian Channelizer Device, Furn & Oper	Ea	$ 75.00	0	$ -		$ -	
2	Road	01103.00	Temporary Pedestrian Mat, Furn & Oper	Ft	$ 2.00	700	$ 1,400.00		$ -	
6	Tree	02000.01	Tree, Rem, 6 in. - 12 in.	Ea	$ 300.00	3	$ 900.00		$ -	
6	Tree	02000.02	Tree, Rem, 13 in.- 36 in.	Ea	$ 1,500.00	4	$ 6,000.00		$ -	
6	Tree	02000.10DS	Tree Trimming	Dlr	$ 15,000.00	0	$ -		$ -	
2	Road	02020.00	HMA, Any Thickness, Rem	Syd	$ 10.00	11999	$ 119,990.00	35.56	$ 356	Road cuts at Gas Main Tie-ins 3 ea 10'x 10', 20 ea potholes for Witness of HDD crossing UG Utilities
2	Road	02022.00	HMA Patch, Rem	Syd	$ 10.00	0	$ -		$ -	
2	Road	02023.00	Cold-Milling HMA Surface	Syd	$ 6.70	0	$ -		$ -	
2	Road	02023.01DS	Cold Milling, Plunge Cut	Syd	$ 14.25	0	$ -		$ -	
2	Road	02023.02DS	HMA Surface, Around Structure Cover, Rem	Ea	$ 185.00	0	$ -		$ -	
2	Road	02023.03DS	Cold Milling for Concrete Curb and Gutter Reveal	Syd	$ 25.00	0	$ -		$ -	
2	Road	02030.00	Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	$ 7.00	2948	$ 20,636.00	60	$ 420	
2	Road	02040.00	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Sft	$ 1.00	251	$ 251.00	500	$ 500	
2	Road	03001.02DS	Grading Roadway	Syd	$ 2.20	11847	$ 26,063.40		$ -	
3	Sidewalk	03001.01DS	Grading, Sidewalk, Ramp & Driveway Approach	Sft	$ 0.40	16020	$ 6,408.00		$ -	
2	Road	03021.01DS	Undercutting, Type IIA	Cyd	$ 50.00	1205	$ 60,250.00		$ -	
2	Road	03021.02DS	Undercutting, Type IIC	Cyd	$ 70.00	0	$ -		$ -	
1	General	03030.01	Exploratory Excavation, (0-10' Deep), SD-TD-1	Ea	$ 2,000.00	4	$ 8,000.00		$ -	
1	General	03030.03	Exploratory Excavation, (0-10' Deep), SD-TD-2	Ea	$ 2,000.00	0	$ -		$ -	
2	Road	05100.01DS	Adjust Structure Cover	Ea	$ 1,450.00	21	$ 30,450.00		$ -	
2	Road	05100.02DS	Structure Frame	Ea	$ 500.00	22	$ 11,000.00		$ -	
2	Road	05100.03DS	Structure Covers	Ea	$ 500.00	22	$ 11,000.00		$ -	
4	Water	05100.04DS	Adjust Monument Box or Gate Valve Box	Ea	$ 1,250.00	0	$ -		$ -	
5	Storm	06000.01	12 In., CL IV RCP Storm Sewer, SD-TD-1	Ft	$ 225.00	215	$ 48,375.00		$ -	
5	Storm	06003.04	12 In., PE Storm Sewer, SD-TD-2	Ft	$ 175.00	48	$ 8,400.00		$ -	
5	Storm	06030.04	Storm Sewer Tap, 12 In. Dia	Ea	$ 750.00	10	$ 7,500.00		$ -	
5	Storm	06060.03	Storm Inlet-Junction, 48 In., Dia., (0-8'deep)	Ea	$ 5,850.00	4	$ 23,400.00		$ -	
5	Storm	06060.04	Storm Inlet-Junction, 48 In., Dia., Additional Depth	Ft	$ 650.00	0	$ -		$ -	
5	Storm	06070.01	Storm Single Inlet, 24 In. ,Dia., (0-8'deep)	Ea	$ 4,300.00	7	$ 30,100.00		$ -	
5	Storm	06070.02	Storm Single Inlet, 24In. ,Dia., Additional Depth	Ft	$ 450.00	0	$ -		$ -	
5	Storm	06080.01	Storm High Capacity Intet, 48 In. Dia., (0-8'deep)	Ea	$ 6,000.00	1	$ 6,000.00		$ -	
5	Storm	06120.02	Storm Sewer Pipe, 10 in. Dia., Rem	Ft	$ 35.00	0	$ -		$ -	
5	Storm	06120.03	Storm Sewer Pipe, 12 in. Dia., Rem	Ft	$ 35.00	295	$ 10,325.00		$ -	
5	Storm	06140.00	Storm Sewer Structure, Rem	Ea	$ 600.00	18	$ 10,800.00		$ -	
5	Storm	06160.01	Storm Structure Cover, Type K	Ea	$ 1,100.00	8	$ 8,800.00		$ -	
5	Storm	06160.03	Storm Structure Adjust, Additional Depth	Ft	$ 600.00	0	$ -		$ -	
2	Road	06180.02	Underdrain, Subgrade, 6 inch	Ft	$ 29.50	156	$ 4,602.00		$ -	
2	Road	06300.00DS	Dr Structure, Point	Ea	$ 300.00	8	$ 2,400.00		$ -	
7	Sanitary	06300.01DS	Structure, Reconstruct	Ea	$ 3,500.00	0	$ -		$ -	
4	Water	07121.00	Curb Box, Adjust	Ea	$ 800.00	3	$ 2,400.00		$ -	
2	Road	08010.06DS	Aggregate Base Course, 21AA, CIP	Ton	$ 45.00	460	$ 20,700.00		$ -	
2	Road	08050.01DS	Geotextile, Separator Fabric	Syd	$ 5.00	2000	$ 10,000.00		$ -	
2	Road	08051.01DS	Geotextile, Stabilization Fabric	Syd	$ 5.00	0	$ -		$ -	
2	Road	08052.01DS	Flowable Fill	Cyd	$ 297.50	0	$ -		$ -	
2	Road	08060.00	Hand Patching	Ton	$ 200.00	0	$ -	11.73	$ 2,347	
2	Road	08070.18	HMA, 5EL	Ton	$ 130.00	2610	$ 339,300.00		$ -	
2	Road	08070.19	HMA, 5EML	Ton	$ 300.00	0	$ -		$ -	
2	Road	08070.30DS	HMA, Soil Erosion, Wedge	Ft	$ 2.00	0	$ -		$ -	
2	Road	08070.31DS	HMA, Wedging	Ton	$ 447.96	0	$ -		$ -	
3	Sidewalk	08100.10DS	Sidewalk Retaining Wall, Integral, 6 inch to 18 inch Height	Sft	$ 40.00	0	$ -		$ -	
2	Road	08110.00	Conc, Curb or Curb & Gutter, All Types	Ft	$ 41.40	1766	$ 73,112.40	60	$ 2,484	
2	Road	08120.01	Conc, Driveway Opening, Type M	Ft	$ 41.90	1242	$ 52,039.80		$ -	

3	Sidewalk	08130.01	Conc, Sidewalk, 4 in	Sft	$	10.35	8400	$	86,940.00	300	$	3,105	
3	Sidewalk	08131.01	Conc, Sidewalk or Ramp, 6 inch	Sft	$	13.30	1288	$	17,130.40	200	$	2,660	
2	Road	08134.01DS	Driveway, Nonreinf Conc, 6 inch, Modified	Sft	$	13.40	1900	$	25,460.00		$	-	
2	Road	08134.02DS	Driveway, Nonreinf Conc, 8 inch, Modified	Sft	$	18.70	0	$	-		$	-	
3	Sidewalk	08140.00	Brick Pavers, Sidewalk, Rem and Reinstall	Sft	$	60.00	90	$	5,400.00		$	-	
9	Traffic	08140.01DS	Raised Intersection, Conc	Syd	$	180.00	152	$	27,360.00		$	-	
9	Traffic	08140.02DS	Speed Hump, Conc	Syd	$	180.00	0	$	-		$	-	
3	Sidewalk	08150.00	Detectable Warning Surface	Ft	$	50.00	140	$	7,000.00	20	$	1,000	4 ea locations
22	Pvt Marking	08180.02	Pavt Mrkg, Ovly Cold Plastic, Bike, Small Sym	Ea	$	120.00	0	$	-		$	-	
22	Pvt Marking	08180.04	Pavt Mrkg, Ovly Cold Plastic, Sharrow Sym	Ea	$	215.00	6	$	1,290.00		$	-	
22	Pvt Marking	08200.07	Pavt Mrkg, Polyurea, 12 In., Crosswalk	Ft	$	6.50	0	$	-		$	-	
22	Pvt Marking	08200.09	Pavt Mrkg, Polyurea, 24 In., Stop Bar	Ft	$	12.95	0	$	-		$	-	
22	Pvt Marking	08200.12	Pavt Mrkg, Polyurea, 4 In., Yellow	Ft	$	2.00	0	$	-		$	-	
22	Pvt Marking	08200.13	Pavt Mrkg, Polyurea, 6 In., White	Ft	$	3.00	0	$	-		$	-	
22	Pvt Marking	08200.31	Pavt Mrkg, Polyurea, Speed Hump Chevron, White	Ea	$	250.00	8	$	2,000.00		$	-	
22	Pvt Marking	08220.03	Pavt Mrkg, Thermopl, 12 In., Crosswalk	Ft	$	5.50	900	$	4,950.00		$	-	
22	Pvt Marking	08220.06	Pavt Mrkg, Thermopl, 24 In., Stop Bar	Ft	$	10.95	225	$	2,463.75		$	-	
22	Pvt Marking	08251.00	Recessing Pavt Mrkg, Longit	Ft	$	2.50	0	$	-		$	-	
22	Pvt Marking	08263.00	Rem Curing Compound, for Spec Mrkg	Sft	$	2.95	0	$	-		$	-	
3	Sidewalk	10030.00	Fence, Rem	Ft	$	18.00	110	$	1,980.00		$	-	
1	General	10051.01DS	Irrigation System, Protection and Maintenance, Allowance	Dlr	$	15,000.00	0	$	-		$	-	
2	Road	10060.00	Turf Restoration	Syd	$	14.00	1300	$	18,200.00	22.22	$	311	
											$	70,459	

Assumed Cost of Gas Main Replacement
$ 500,000
14%

MISSY STULTS, PHD

I am an urban sustainability and climate change practitioner with over 15 years experience helping make local communities more resilient and livable.

URBAN CLIMATE CHANGE EXPERT

RECENT PROFESSIONAL HISTORY

SUSTAINABILITY AND INNOVATIONS DIRECTOR

CITY OF ANN ARBOR, MI | JUL 2018 - PRESENT

- Design, manage, and implement the community's transition to carbon neutrality in a just and equitable manner by the year 2030.
- Manage 11 full time staff, multiple interns, and temporary employees
- Build and foster a coalition of community stakeholders to support the City's carbon neutrality and resilience work.
- Develop policies, programs, and initiatives to achieve goal.

NETWORK FOUNDER AND MANAGER

SCIENCE TO ACTION NETWORK | JAN 2017 - JUL 2018

- Founder and manager of a network of networks,composed of over 80 nonprofits, academic institutions, professional societies,for-profits, and former federal employees, focused on saving and advancing evidence-based decision-making as it pertains to climate action, environmental protection, and the production and use of science.
- Responsible for network fundraising, coordination, training, and recruitment.

PROGRAM OFFICER

THE CLIMATE RESILIENCE FUND| FEB 2016 - JUL 2018

- One of two staff working to launch a new philanthropy to invest in climate resilience initiatives in the United States. Includes actively seeking investments from existing foundations and venture capitalists, organizing a philanthropic working group on climate change adaptation, and building strategic partnerships with foundations, federal agencies, nonprofits, and for profit.

CLIMATE AND SUSTAINABILITY CONSULTANT

STULTS CONSULTING | FEB 2013 - JUL 2018

- Assisted The Kresge Foundation with designing and implementing evaluations of select grantees.
- Led development of a climate curriculum for The Kresge Foundation's partners, grantees, staff, and the public.
- Conducted evaluation for how professional societies integrate climate change into member engagement.

Contact Information

734-794-6430

301 E. Huron Street
Ann Arbor, MI 48104

mstults@a2gov.or

LinkedIn: https://www.linkedin.com/in/melissa-stults-959a348/

Professional Service

- Board Member, American Society of Adaptation Professionals
- Board Member, Southern Climate Impacts and Planning Program
- Member, Sierra Club Adaptation Strategy Development Working Group
- Advisory Board Member, Notre Dame Global Adaptation Index
- Advisory Board Member, Resilient Communities for America
- Advisory Board Member, Adaptation International
- Member, National Disaster Resilience Competition Advisory Committee
- Co-Editor in Chief, Michigan Journal of Sustainability
- Member, Advisory Panel for the United Nations Strategy for Disaster Reduction

Public Service

- Board Member, Ann Arbor YMCA
- Member, Washtenaw County Environmental Commission
- Committee Member, Michigan Environmental Rules Review Committee
- Member, City of Ann Arbor Climate Action Partnership Committee
- Commissioner, City of Ann Arbor Transportation Commission
- Commissioner, City of Ann Arbor Parks Advisory Commission
- Commissioner, City of Ann Arbor Environmental Commission
- Co-Chair, Ann Arbor Dog Park Sub-Committee
- Alumni Council Member, University of New England

CLIMATE AND SUSTAINABILITY CONSULTANT (CONT)

STULTS CONSULTING | FEB 2013 - JUL 2018

- Led development of a climate and socio-economic vulnerability assessment tool for Great Lakes and Mid-Atlantic communities.
- Assisted the City of Aspen, CO, Upper Snake River Tribe Foundation, Miami, OK, 1854 Ceded Territory, Jamestown S'Klallam Tribe, and North Olympic Peninsula Resource Conservation and Development District in the creation of a climate adaptation strategy.
- Co-developed a planning process that led to community-wide sustainability plan for the City of San Antonio.
- Co-developer of research protocol to assess the state of community-based adaptation activities in the United States in partnership with Abt Associates.
- Co-creator of the adaptation certification criteria for the New York State Climate Smart Communities program.
- Co-developed and delivered workshops in the San Francisco Bay area and New Orleans for communities recognized in the Rockefeller Foundation 100 Resilient™ Cities program.
- Co-developed agendas and support material and co-led a series of Climate Leadership Academies focused on climate adaptation activities for U.S. local government stakeholders.
- Organized and facilitated workshop to help Schneider Electric develop a new suite of climate and sustainability services for local government clients.

EDUCATIONAL BACKGROUND

DOCTORATE, URBAN RESILIENCE

UNIVERSITY OF MICHIGAN| OCT 2016

MASTERS, CLIMATE AND SOCIETY

COLUMBIA UNIVERSITY| AUG 2005

BACHELORS, MARINE BIOLOGY & ENV. SCIENCES

UNIVERSITY OF NEW ENGLAND| MAY 2004

SAMPLE PUBLICATIONS

- Stults,M. 2017. Integrating climate change into hazard mitigation planning: Opportunities and examples in practice. Climate Risk.
- Stults,M. & Woodruff, S.C. 2016.Looking under the hood of local adaptation plans: shedding light on the actions prioritized to build local resilience to climate change. Mitigation and Adaptation Strategies for Global Change.
- Woodruff, S.C. & Stults, M. 2016. Planning to be Prepared: Assessing the Content and Quality of U.S. Local Climate Adaptation Plans. Nature Climate Change. 1-13.
- Meerow, S., Newell, J., & Stults, M. 2016. Defining Urban Resilience: A Review. Landscape and Urban Planning. 147: 38-49.
- Meerow, S. & Stults, M. 2016. Comparing conceptualizations of urban climate resilience in theory and practice. Sustainability. 8(7): 701.

Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector,

by State, April 2024 and 2023 (Cents per Kilowatthour)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	**April 2024**	**April 2023**	**April 2024**	**April 2023**	**April 2024**	**April 2023**	**April 2024**	**April 2023**	**April 2024**	**April 2023**
New England	**27.31**	**31.10**	**19.68**	**19.25**	**15.93**	**15.22**	**12.39**	**10.92**	**22.33**	**23.37**
Connecticut	29.58	34.45	20.82	21.01	15.90	15.34	16.04	15.39	24.26	26.26
Maine	20.47	28.64	17.61	18.92	13.00	11.25	--	--	18.11	21.47
Massachusetts	29.50	32.06	19.76	19.23	17.78	17.37	9.38	7.50	23.25	23.65
New Hampshire	23.00	30.87	19.25	20.82	15.84	15.52	--	--	20.23	23.98
Rhode Island	27.93	23.57	19.13	13.36	19.47	18.11	19.41	16.70	22.60	17.68
Vermont	21.85	20.74	18.65	17.66	11.30	10.91	--	--	18.13	17.20
Middle Atlantic	**19.78**	**18.74**	**15.15**	**14.36**	**7.93**	**7.73**	**13.74**	**13.62**	**15.25**	**14.30**
New Jersey	18.45	17.39	14.54	13.75	11.48	10.93	10.38	13.52	15.62	14.75
New York	22.97	19.81	17.56	16.22	7.63	6.73	14.68	14.66	18.09	16.17
Pennsylvania	17.95	18.36	11.49	11.26	7.62	7.68	13.84	8.85	12.68	12.28
East North Central	**17.02**	**16.55**	**12.20**	**12.02**	**7.95**	**7.88**	**8.82**	**6.47**	**12.08**	**11.89**
Illinois	16.68	17.89	11.93	11.77	8.81	8.25	8.76	6.07	12.20	12.34
Indiana	15.33	15.08	12.70	12.55	8.03	8.34	12.19	13.69	11.31	11.37
Michigan	19.23	18.25	14.17	13.23	8.20	7.80	14.22	13.61	13.83	13.12
Ohio	16.75	15.03	10.69	10.68	6.96	7.05	7.23	5.57	11.24	10.71
Wisconsin	17.31	16.87	12.36	12.74	8.09	8.34	17.71	16.93	12.26	12.47
West North Central	**13.30**	**12.69**	**10.05**	**10.12**	**7.36**	**7.39**	**10.54**	**9.55**	**10.09**	**9.98**
Iowa	13.10	12.51	9.53	9.61	6.11	5.90	--	--	8.58	8.34
Kansas	14.38	13.83	11.05	11.00	7.85	7.90	--	--	11.00	10.84
Minnesota	15.08	14.54	11.92	12.50	8.89	9.29	13.42	12.44	11.98	12.16
Missouri	12.52	12.00	9.59	9.44	7.36	7.34	8.60	7.88	10.38	10.09
Nebraska	11.85	11.30	9.43	8.97	7.31	7.68	--	--	9.16	9.15
North Dakota	11.33	10.24	7.23	7.21	7.12	6.86	--	--	7.81	7.59
South Dakota	12.84	11.79	10.32	9.65	8.18	7.84	--	--	10.72	10.09
South Atlantic	**15.00**	**14.73**	**10.98**	**11.08**	**7.41**	**7.31**	**10.24**	**10.11**	**11.91**	**11.91**
Delaware	18.28	15.49	13.12	12.27	8.54	7.79	--	--	14.56	12.78
District of Columbia	17.85	15.24	17.01	16.86	10.92	11.18	10.34	9.86	16.87	16.15
Florida	14.65	15.75	11.43	12.24	8.85	9.44	11.35	12.23	12.86	13.85
Georgia	14.10	13.30	11.24	11.14	6.09	6.39	5.88	5.82	10.95	10.68
Maryland	17.85	15.91	12.57	12.69	10.08	9.60	11.58	11.18	14.65	13.87

North Carolina	14.98	13.21	10.68	9.36	7.64	6.95	10.27	8.03	11.68	10.36
South Carolina	14.90	14.30	10.31	10.45	6.50	6.43	--	--	10.52	10.37
Virginia	14.99	14.65	9.30	9.32	8.58	8.43	9.84	14.40	10.81	10.91
West Virginia	15.56	14.41	12.14	11.42	7.66	7.25	--	--	10.86	10.26
East South Central	**13.89**	**13.07**	**12.49**	**11.96**	**6.78**	**6.39**	**--**	**--**	**10.96**	**10.38**
Alabama	15.85	14.49	13.73	12.75	7.45	6.44	--	--	11.82	10.74
Kentucky	13.00	12.61	11.71	11.50	6.47	6.53	--	--	9.96	9.81
Mississippi	14.64	14.08	12.55	12.81	6.84	6.72	--	--	11.11	11.00
Tennessee	12.76	11.93	12.09	11.36	6.17	5.91	--	--	10.88	10.19
West South Central	**14.20**	**13.45**	**9.02**	**8.54**	**5.86**	**5.63**	**8.25**	**7.60**	**9.36**	**8.73**
Arkansas	12.60	12.34	10.20	10.26	5.86	6.26	13.36	15.76	9.07	9.22
Louisiana	12.08	11.17	10.79	10.12	6.10	5.36	12.25	10.51	8.81	8.13
Oklahoma	12.46	12.39	8.14	8.57	5.31	5.94	--	--	8.28	8.67
Texas	15.02	14.19	8.80	8.16	5.88	5.59	4.27	7.40	9.67	8.81
Mountain	**14.19**	**13.42**	**10.84**	**10.73**	**7.27**	**7.47**	**10.73**	**10.85**	**10.78**	**10.61**
Arizona	15.24	14.11	12.16	11.45	7.14	7.36	10.48	9.37	12.39	11.73
Colorado	14.77	13.56	11.65	11.19	8.97	8.22	9.90	9.93	11.91	11.08
Idaho	11.45	10.24	9.27	8.45	6.98	6.37	--	--	9.25	8.47
Montana	12.52	12.28	11.76	12.04	6.65	8.08	--	--	10.35	10.92
Nevada	16.59	17.59	10.37	11.74	7.80	9.71	11.58	13.15	11.24	12.80
New Mexico	14.29	13.79	10.40	10.26	5.78	5.70	--	--	8.96	8.93
Utah	11.07	10.84	8.29	8.54	6.60	6.92	12.05	12.20	8.63	8.84
Wyoming	12.20	11.21	8.98	9.77	7.39	6.96	--	--	8.68	8.36
Pacific Contiguous	**24.50**	**21.27**	**19.31**	**17.63**	**13.23**	**11.54**	**15.28**	**11.36**	**19.75**	**17.72**
California	34.26	29.56	22.86	21.39	19.30	16.00	16.23	11.50	25.69	23.27
Oregon	14.60	12.50	11.60	10.50	7.17	7.26	12.62	11.46	11.22	10.28
Washington	11.84	10.95	10.57	10.05	6.22	6.55	8.32	10.38	10.07	9.69
Pacific Noncontiguous	**35.94**	**34.49**	**31.30**	**31.07**	**31.08**	**31.44**	**--**	**--**	**32.65**	**32.26**
Alaska	24.89	23.38	21.64	20.98	19.38	18.88	--	--	22.19	21.30
Hawaii	45.19	43.18	40.82	40.52	36.11	36.67	--	--	40.20	39.82
U.S. Total	**16.88**	**16.10**	**12.66**	**12.21**	**7.82**	**7.50**	**12.64**	**11.96**	**12.71**	**12.18**

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

D5.15 CAPM / ECAPM Cost of Equity using Levered Betas

D5.16: Risk Premium Cost of Equity

D5.17: FERC-based MRP

D5.18: DTE Electric and Electric Sample's Capital Expenditure

Q6. Were these Exhibits and the accompanying schedules prepared by you or under your supervision?

A6. Yes, they were.

II. SUMMARY OF CONCLUSIONS

Q7. Can you summarize your primary conclusions and opinions on the appropriate allowed ROE and business risk characteristics for DTE Electric?

A7. Based on my estimation of the cost of equity for a sample of integrated electric utilities and my analysis of DTE Electric's business and financial risk relative to the electric peer group, I find that a ROE of 10.25 percent is reasonable. I note up front that the recommended ROE of 10.25 percent is near the average of the midpoints of the reasonable range. More specifically, my conclusion is based on the following key observations

- The estimated range determined by each of the implemented models is as follows:

Figure 1: Summary of Electric Estimates at 50% Equity

	Electric Sample	
	Low	High
CAPM / ECAPM	8.9%	11.5%
DCF*	8.9%	10.7%
Risk Premium	10.4%	

* The DCF method results in an estimated cost of equity of 10.3 percent prior to any financial risk adjustments. [2]

Based on these results, it is my opinion that the estimated cost of equity indicates a CAPM based ROE in the range 9.0 to 11.5 percent, a DCF-based ROE of 9.75 to 10.75 percent, and a risk premium ROE of 10.4 percent. Taking the average of the lows and highs in these ranges, I find an overall range of 9.7 percent to 10.9 percent for a midpoint of 10.3 percent and recommend a ROE of 10.25 percent.

Based on my analysis, I conclude as follows:

- DTE Electric has higher business risk than the comparable electric utilities because of (1) the combined potential for a drop in customer demand due to customer choice and the lack of a revenue decoupling mechanism, (2) the challenging economic environment in DTE Electric's service territory, (3) the higher than average capital expenditures for DTE Electric, and (4) its ownership of nuclear generation, representing approximately 19% of its generation mix in 2023.[3] Nevertheless, despite these risks, the recommended ROE is at the midpoint of the reasonable range and thus is conservative.

- Interest rates have increased substantially since late 2021 / early 2022 (the time of DTE Electric's last rate case).[4] At the same time, systematic risk as measured by beta remains relatively constant as does the historical Market Risk Premium, so the estimated Cost of Equity is higher today than what is reflected in the data the Commission reviewed in its recent decision regarding DTEE's allowed ROE (9.9% in case no. U-20836).

Q8. How is the remainder of your testimony organized?

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[2] For the DCF model, I consider the lowest estimate, which comes from the multi-stage DCF, unreasonable and therefore consider the lowest reasonable DCF result to be that determined as the average of the Low and High estimate, 9.8 percent, which rounded to the nearest ¼ percentage is 9.75 percent.

[3] DTE Energy, "EEI Financial Conference," November 13-15, 2022, p. 14.

[4] U-20836.

FitchRatings

RATING ACTION COMMENTARY

Fitch Affirms DTE Energy, DTE Electric Co. and DTE Gas Co.'s Ratings; Outlook Stable

Thu 21 Mar, 2024 - 9:31 AM ET

Fitch Ratings - New York - 21 Mar 2024: Fitch Ratings has affirmed DTE Energy Co.'s (DTE) Long-Term Issuer Default Rating (IDR) at 'BBB'. In addition, Fitch has affirmed the Long-Term IDRs of DTE Electric Company (DTEE) at 'A-' and DTE Gas Company (DTEG) at 'BBB+'. The Rating Outlooks for DTE, DTEE and DTEG are Stable.

Fitch projects funds from operations (FFO) leverage to remain largely stable for all three entities through 2026 despite significant capital expenditure plans at both utilities. Stable credit metrics are supported by a constructive regulatory environment in Michigan.

KEY RATING DRIVERS

DTE Energy

Stable Utility Business: Fitch believes Michigan's regulatory environment, overseen by the Michigan Public Service Commission (MPSC), remains constructive from a credit perspective. Fitch believes the last DTEE rate order issued in December 2023 is credit-supportive and reflects a constructive regulatory environment in Michigan. A supportive regulatory environment remains a key rating driver, as most of DTE's cash flow is derived from its two utilities. Non-regulated business contributes less than 10% of total earnings. Fitch does not expect RNG investments and other non-regulated investments to increase beyond 10% of DTE's total earnings.

Significant Utility-Focused Investments: DTE's current $25 billion capital program for 2024-2028 represents an approximately $2 billion increase compared with the 2023-2027 plan, driven by investment in cleaner generation. The plan also includes distribution, environmental compliance projects, gas generation, and pumped storage. Non-regulated investments, which represent about 5% of total capex, are focused on developing new renewable natural gas (RNG) and cogeneration projects.

Credit Metrics Support Ratings: Fitch projects that DTE's FFO leverage will remain in line with its ratings over the forecast period following near-term pressures from higher storm costs and unfavorable weather in 2023. DTE's FFO leverage was modestly elevated in 2023 at 5.9x, driven by unfavorable weather and above average storm activity and a lower than expected outcome of the 2022

DTE Electric rate case. The leverage is projected to improve and average 5.3x in 2024-2026 following DTEE' s 2023 rate case increase implementation. Fitch projects that DTE's parent debt will remain elevated at around 34%-35% of its total debt over the forecast period.

IRA Tailwinds: Fitch expects DTE's renewable plans will be supported by the extended and expanded tax incentives and introduction of tax credit transferability under the Inflation Reduction Act (IRA) passed in August 2022. Additionally, DTE does not project any impact from Alternate Minimum Tax (AMT) until it hits the $1 billion of pre-tax earnings threshold in 2025. Any potential negative cash impact should be mostly offset by accelerated depreciation and renewable tax credits.

DTE Vantage's RNG investments will also benefit from the tax credits and lower cost of construction. Fitch incorporates tax credit transferability estimated by the company in its leverage projections. Fitch assumes any changes in the ability to monetize tax credits at projected levels would result in DTE's financial plan adjustment supportive of credit ratings.

Parent/Subsidiary Linkage: There is parent subsidiary linkage between DTE and its rated subsidiaries. Fitch determines DTE's Standalone Credit Profile (SCP) based upon consolidated metrics. Fitch believes DTEE and DTEG have SCPs stronger than DTE. As such, Fitch has followed the stronger subsidiary path. Fitch places emphasis on DTEE's and DTEG's status as regulated entities. Legal ring fencing is porous given the general protections afforded by economic regulation. Access and control are also porous.

DTE centrally manages the treasury function for all of its entities and is the sole source of equity. However, each subsidiary issues its own short-term and long-term debt. Due to the aforementioned linkage considerations, Fitch limits the difference between DTE and its subsidiaries DTEE and DTEG to two notches.

DTE Electric

Supportive Regulatory Environment: Fitch views the regulatory environment for electric utilities in Michigan as mostly constructive from a credit perspective. The regulatory framework allows full pass-through of fuel costs and purchased power, forward-looking test years and a timely 10-month review period for general rate case resolution. DTEE's authorized ROE of 9.9% compares favorably with industry averages.

Increasing storm activity in Michigan and resultant power outages have attracted regulatory focus on reliability. In March 2023, the MPSC tightened performance standards for utilities, including enhancing outage credits and updating reliability standards. An MPSC led straw proposal for additional potential financial incentives and disincentives is also underway since August 2023.

Fitch does not expect a material negative outcome from the pending audit ordered by the MPSC to assess compliance with storm outages and safety regulations. In Fitch's view, the risk of reliability

related performance-based penalties is manageable within DTEE's current credit profile. The final audit report is expected in summer 2024.

Rate Case Resolution: Fitch believes the rate order issued in December is credit-supportive and reflects a constructive regulatory environment in Michigan. The approved revenue requirement increase of $368 million is based on the 9.9% ROE and 50% equity ratio on a rate base of $22.15 billion. The MPSC also approved a two-year investment recovery mechanism for recovery of a $350 million investment in the distribution grid to improve reliability and resilience over 2024-2025. The increase in base rates is partially offset by a $300 million reduction in fuel costs, resulting in an average customer bill increase of about $2.50 per month.

DTEE filed its last rate case in February 2023, for a $619 million rate increase effective Dec. 1, 2023. DTEE requested an ROE of 10.25% based on a 50% equity ratio on a rate base of $22.6 billion. About 50% of the requested rate increase was related to the rate base growth and $102 million was related to the expected lower residential sales margins, reflecting the post pandemic hybrid work environment.

Residential sales declined about 3% in 2022 on a weather normalized basis and continued to decline in 2023 by another 2.1%, although remain above pre-pandemic levels. DTEE has indicated it plans to file a new rate case in March 2024. Fitch projects a constructive outcome of the filing, in-line with the last rate case.

Elevated Capex Driven by Decarbonization: DTEE plans to invest approximately $20 billion in 2024-2028, with $7 billion for clean generation and other projects, $9 billion for distribution infrastructure and $4 billion for base infrastructure. This is a $2 billion increase compared with the previous plan for 2023-2027. The increase is driven by additional investments in cleaner generation. The investments will result in FCF negative in the intermediate term. Fitch expects the capital program will be funded with internal cash flow, debt and equity support to maintain DTEE's balanced capital structure.

Fitch believes an upward revision in capex in future is possible given the increasing focus on reliability and the string of legislations passed in Michigan in 2023 that target 100% clean generation by 2040 in Midcontinent Independent System Operator (MISO). However, any concerns regarding the large capex plan are mitigated by the MPSC's constructive ratemaking policies and alignment of planned capex with state policy. The new energy legislation provides expanded incentives for energy efficiency and improved economics for PPAs, which are beneficial in Fitch's view.

IRP's Decarbonization Path: DTEE is retiring coal-fired generation and replacing it with a mix of natural gas and renewable resources to meet its environmental targets. The 2022 integrated resource plan (IRP), approved in 2023, aims for a carbon dioxide (CO2) emissions reduction of 85% in 2032, 90% by 2040 and net-zero emissions by 2050. At DTEE, 15.4 gigawatts (GW) of renewables and 1.8GW of storage are expected to be added to the current 3GW and 1.1GW, respectively by 2042.

Belle River coal plant will be retired two years ahead of plan by 2026, and converted to a natural gas peaker plant. The Monroe unit retirement is also being accelerated, with two units retiring in 2028 and

the remainder in 2032, compared with a previous retirement date of 2035. All other coal units have been retired. DTE retired 11 of its 17 coal-fired units. The additional investment plans are supported by the passage of the Inflation Reduction Act.

Solid Financial Profile: Fitch believes DTEE's credit metrics are consistent with its rating. Debt maturities are manageable, and DTEE is expected to have continued access to capital markets. Fitch calculated FFO leverage at 4.5x in 2023, which was higher than previous years driven by unfavorable weather, storm activity and disappointing 2022 rate case decision. FFO leverage is expected to improve in 2024 and beyond following a supportive rate case decision in December 2023. FFO leverage is expected to improve and average 3.8x through 2026.

DTE Gas

Supportive Regulatory Environment: Fitch views the regulatory environment for natural gas utilities in Michigan as constructive. The regulatory framework allows full passthrough of fuel costs, forward-looking test years and timely resolution of rate proceedings. Furthermore, revenue decoupling and an infrastructure recovery mechanism (IRM) help DTE Gas reduce any exposure to regulatory lag. DTE Gas' authorized ROE of 9.9% compares favorably with industry averages.

Rate Case Filing: DTE Gas filed a rate case with the MPSC on Jan. 8, 2024, requesting an increase in base rates of $266 million based on a projected rate base ending Sept. 30, 2025, and an increase in return on equity from 9.9% to 10.25%. The request reflects a net increase to customer rates of $160 million, as an existing IRM surcharge of $106 million would be rolled into the new base rates. The requested increase is primarily due to increased investments in plant related to system reliability and pipeline safety and inflationary impact on operating costs, partially offset by higher sales. A final MPSC order in this case is expected in November 2024. DTE Gas tends to file a rate case every couple of years, and Fitch believes outcomes will remain constructive.

The last rate case was resolved in 2021. On Dec. 9, 2021, the Michigan Public Service Commission approved an increase of $84 million as of Jan. 1, 2022, including an ROE of 9.9%, which Fitch views as a credit-constructive outcome.

Capex Program: DTE Gas plans to spend $3.7 billion-$2.1 billion for base infrastructure and $1.6 billion for gas main renewal, meter move-out and pipeline integrity programs and capital investments in 2024-2028. This represents a 3% increase compared with the 2023-2027 plan. The timely cost-recovery mechanism provided under the Infrastructure Recovery Mechanism (IRM) covered approximately half projects in 2023. The investments will render FCF negative in the intermediate term. Fitch expects the capital program will be funded with internal cash flow, debt and equity support to maintain DTE Gas' balanced capital structure.

Strong Financial Metrics: DTE Gas' current and projected credit measures support its current rating. FFO leverage exceeded the negative sensitivity threshold in 2021 due to higher O&M and rate base

costs, but has improved materially in 2022 and 2023. Fitch calculated 2023 FFO leverage at 4.0x. Fitch estimates FFO leverage in the 4.2x-4.5x range through 2026.

DERIVATION SUMMARY

DTE

DTE's credit profile is in line with its peers, Dominion Energy, Inc. (DEI; BBB+/Stable) and CMS Energy (BBB/Stable), which are also parents to regulated utility operations and with sizeable debt at the parent-level. DTE's consolidated operations are smaller than Dominion's, which is geographically diversified in six states. DTE's operations are larger than CMS Energy's, which is also limited to a single state, Michigan.

Fitch expects 90% of DTE's EBITDA to come from its single-state regulated utility businesses over the forecast period. Similarly, approximately 90% of DEI's EBITDA will come from state-regulated utility businesses. Most of CMS's EBITDA comes from a regulated utility in Michigan. Fitch expects DTE's parent-level debt to stay around 35% over our forecast period. Although still elevated it is similar to 35%-40% projected for DEI (prior to restructuring) but higher than about 25% at CMS Energy.

Fitch anticipates DTE's FFO leverage to average 5.3x in 2024-2026, in line with CMS's, and modestly worse than DEI. Fitch projects that DEI will average above 5.0x as it funds a large offshore wind project in the next couple of years.

DTEE

DTEE compares favorably with regulated single-state peers Consumers Energy Company (A-/Stable) and Northern States Power Company-Wisconsin (NSP-W; A-/Stable). All three operate in supportive regulatory environments with favorable recovery mechanisms. DTEE and Consumers operate in Michigan and are similarly sized, while NSP-W is smaller and based in Wisconsin.

However, Consumers also operates a gas utility, while DTE and NSP are both electric utilities. DTEE's financial profile compares favorably with Consumers' and NSP-W's. Fitch forecasts FFO leverage to average 3.8x at DTEE through 2026, modestly better than 4.1x at Consumers and 3.8x-4.0x expected at NSP-W over the forecast period.

DTEG

DTEG's business risk profile compares well with local distribution peers Southwest Gas Corporation (SWG; BBB+/Stable) and Wisconsin Gas LLC (A-/Stable). All three risk profiles benefit from low-risk businesses, supportive regulatory environments and favorable recovery mechanisms. SWG benefits from regulatory diversity in three states and above-average customer growth.

DTE Gas' financial profile is slightly weaker than peer Wisconsin Gas, but is modestly stronger than SWG's. Fitch forecasts DTE Gas' FFO leverage will remain approximately 4.2x-4.5x in 2024-2026,

better than SWG's projected leverage of approximately 5.0x for 2024. Wisconsin Gas has a more favorable financial profile, with forecast leverage metrics of 3.7x projected over 2024-2027.

KEY ASSUMPTIONS

--Constructive regulatory environment in Michigan with ROEs for DTEE and DTEG in line with the currently approved going forward;

--No material equity issuances;

--Securitization debt and revenues are excluded from the FFO and debt calculations.

--DTE Vantage business growing earnings over $15 million annually and remaining below 10% EBITDA target over the forecast period;

--Capital structure commensurate with regulatory structure.

RATING SENSITIVITIES

DTE

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--While not anticipated at this time, given the sizable capital program and elevated leverage, sustained improvement in FFO leverage of 4.8x or lower through the forecast period.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--A significant deviation from the current business risk with the regulated businesses comprising less than 90% of consolidated cash flow due to growth in the non-utility businesses;

--An adverse change in Michigan's regulatory environment;

--Sustained weakening in FFO leverage of 5.8x or higher through the forecast period;

--Sustained increase in Parent Level debt beyond currently projected 35% of total.

DTEE

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Sustained FFO leverage of 3.5x or better.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--A notch downgrade at the parent DTE;

--An adverse change in Michigan's regulatory environment;

--Sustained FFO leverage greater than 4.5x.

DTEG

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Sustained FFO leverage at or below 4.0x.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--An unexpected change in the regulatory environment that limits the utility's ability to recover cost of capital investments in a timely manner;

--Sustained FFO leverage greater than 5.0x.

LIQUIDITY AND DEBT STRUCTURE

Adequate Liquidity: DTE had around $1.8 billion of available liquidity as of Dec. 31, 2023, consisting of cash and amounts available under revolving credit facilities and letter of credit facilities. DTE's revolving credit facilities expire in 2028.

The revolving credit facilities are $1.5 billion at DTE, $800 million at DTEE and $300 million at DTEG. DTE, DTEE and DTEG were compliant with consolidated debt/capitalization of 63%, 51% and 48%, respectively, as defined under the credit agreement, as of Dec. 31, 2023. Debt maturities remain manageable given the history of successful refinancing and Fitch expects DTE to have continued access to the capital markets.

Fitch assigns 50% equity credit to $883 million junior subordinated debentures issued by DTE.

ISSUER PROFILE

DTE Energy Co. (DTE) is the parent holding company of DTE Electric (DTEE) and DTE Gas (DTEG), regulated electric and natural gas utilities that provide electric and natural gas sales, distribution, and storage services throughout Michigan. DTE also owns non-utility operations consisting of industrial energy projects and energy trading.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

of capital for potential loss. Second, the empirical tests of the effect of nuclear power plants on the cost of capital are likely too "weak" in the sense that is extremely difficult to develop a test likely to detect the effects of nuclear generating assets on the cost of capital for a company. That is because there are so many other factors that affect the cost of capital. For example, nuclear plants are generally owned by holding companies with many other types of assets and are affected by varying regulatory policies. It may well be that nuclear generating plants increase the cost of capital even though empirical tests have not been able to detect it. I regard ownership of Fermi 2 as one more factor indicating that the Company is riskier than the sample on average.

Q64. Can you summarize your assessment of DTE Electric's business risk relative to the sample companies?

A64. In consideration of the factors mentioned above, I believe DTE Electric is of higher than average business risk relative to the sample companies.

VII. COST OF CAPITAL RECOMMENDATION

Q65. What do you recommend for DTE Electric's cost of equity in this proceeding?

A65. The cost of equity estimates from my analyses range widely as summarized below in Figure 19.

Figure 19: Summary ROE Results

	Electric		Gas & Water	
	Low	High	Low	High
CAPM / ECAPM	10.25%	11.50%	10.25%	11.25%
DCF	9.50%	10.50%	9.50%	11.00%
Risk Premium	9.80%	9.90%	n/a	n/a

Based on the figures above, it is evident that the current cost of equity is higher than in DTE Electric's last rate case, when a ROE of 9.9 percent was allowed. The average of the low and high estimates results in a range of 9.9 to 10.6 percent, the midpoint (rounded to the nearest ¼ percent) is 10.25 percent. This is a conservative estimate

given DTE Electric's risk profile. The increase in the cost of equity is predominantly caused by higher systematic risk and equity risk premia – indicating that investors required return on equity has increased relative to the return available on, for example, government bond.

Based on the data above I recommend that DTE Electric be allowed a ROE of 10.25 percent on the 50 percent equity-financed rate base. The recommendation is based on my finding that DTE Electric has higher business risk than the electric sample group because (1) the presence of potential drop in demand from customer choice combined with no decoupling mechanism and (2) its ownership of nuclear generation, representing approximately 10% of its generation capacity.[89] Consequently, it is reasonable to place DTE Electric in the upper half of the estimates. I therefore conservatively recommend a ROE of 10.25 percent.

Q66. Does this conclude your testimony?

A66. Yes.

[89] DTE Energy, 2020 10-K, p. 9.

FitchRatings

RATING ACTION COMMENTARY

Fitch Rates DTE Electric Company's 2023 Series A and B Mortgage Bonds 'A+'

Mon 27 Feb, 2023 - 9:00 AM ET

Fitch Ratings - New York - 27 Feb 2023: Fitch Ratings has assigned an 'A+' rating to DTE Electric Company's (DTEE; Long-Term Issuer Default Rating [IDR] A-) 2023 series A and B general and refunding mortgage bonds. The mortgage bonds will rank pari passu with DTEE's existing secured mortgage debt. Net proceeds of the bonds will be used for the repayment of short-term borrowings and for other general corporate purposes. DTEE's Rating Outlook is Stable.

KEY RATING DRIVERS

Supportive Regulatory Environment: Fitch views the regulatory environment for electric utilities in Michigan as mostly constructive from a credit perspective. The regulatory framework allows full pass-through of fuel costs, forward-looking test years and a timely 10-month review period for general rate case resolution. DTEE's currently authorized ROE of 9.9% compares favorably with industry averages.

Rate Case Resolution: Fitch believes the recent rate order is modestly negative from a credit rating viewpoint. The approved revenue requirement increase is lower than Fitch's estimate, driven primarily by the differences in residential sales forecasts. Fitch assumes DTEE will be able to offset near-term pressures with cost reductions.

Following a two-year deferral period due to the pandemic, DTEE filed a rate case with the Michigan Public Service Commission (MPSC) on Jan. 21, 2022. In November 2022, the MPSC authorized a $30.6 million increase in base rates, with ROE maintained at 9.9% and a 50% equity ratio. This compares with the company's request of $367 million. DTEE's residential sales forecast, which projected a further decline and return of residential sale to pre-pandemic levels in 2023 was supported by the MPSC staff and the administrative law judge. The MPSC adopted a higher residential sales forecast in its final decision, resulting in approximately $100 million of lower revenue requirement than the company requested.

2023 Rate Case Filing: DTEE filed a new rate case in February 2023, for a $619 million rate increase effective Dec. 1, 2023. DTEE is requesting an ROE of 10.25% based on a 50% equity ratio on a rate base of $22.6 billion. About 50% of the requested rate increase is related to the rate base growth and $102 million is related to the expected lower residential sales margin reflecting the post-pandemic hybrid

work environment. Residential sales declined about 3% in 2022 on a weather-normalized basis and continue to decline in 2023 but still remain above pre-pandemic levels. Fitch assumes a more constructive rate case outcome vs. the last rate case, more in-line with historical levels. The expected impact to the average customer would be somewhere between $8-$9 per month based on the requested increase.

Elevated Capex Driven by Decarbonization: DTEE plans to invest approximately $18 billion ($5 billion for clean generation and other projects, $9 billion for distribution infrastructure and $4 billion for base infrastructure) during 2023-2027, a 20% increase compared with the previous plan for 2022-2026. The investments will render FCF negative in the intermediate term. Fitch expects the capital program will be funded with internal cash flow, debt and equity support to maintain DTEE's balanced capital structure.

DTEE is retiring coal-fired generation and replacing it with a mix of natural gas and renewable resources to meet its environmental targets. On Nov. 3, 2022, DTEE filed its 2022 integrated resource plan (IRP), accelerating its decarbonization goals. DTEE now plans to retire all coal plants by 2035 (vs. previous retirement date of 2040). The IRP aims for a carbon dioxide (CO2) emissions reduction of 65% in 2028, 85% in 2035, 90% by 2040 and net-zero emissions by 2050. At DTEE, 15.4 gigawatts (GW) of renewables and 1.8GW of storage is expected to be added to the current 3GW and 1.1GW, respectively, by 2042. The additional investment plan is supported by the recent passage of the Inflation Reduction Act.

Solid Financial Profile: Fitch believes DTEE's credit metrics are consistent with the current rating. Debt maturities are manageable, and DTEE is expected to have continued access to capital markets. FFO leverage is expected to average 4.0x through 2025 assuming regular annual rate case filings and recovery of fuel and purchase power deferrals.

Parent-Subsidiary Linkage: There is parent-subsidiary linkage between DTE and its rated subsidiaries. Fitch determines DTE's Standalone Credit Profile (SCP) based upon consolidated metrics. Fitch considers DTEE to have a stronger SCP than DTE. As such, Fitch has followed the stronger subsidiary path. Emphasis is placed on DTEE's status as a regulated entity. Legal ring-fencing is considered porous given the general protections afforded by economic regulation. Access and control are evaluated as porous. DTE centrally manages the treasury function for all of its entities and is the sole source of equity. However, DTEE issues its own short- and long-term debt. Due to the aforementioned linkage considerations, Fitch will limit the difference between DTE and DTEE to two notches

DERIVATION SUMMARY

DTEE compares favorably with other regulated single-state peers Consumers Energy Company (A-/Stable) and Northern States Power Company-Wisconsin (NSP-Wisconsin; A-/Stable). All three operate in supportive regulatory environments with favorable recovery mechanisms. DTEE and Consumers both operate in Michigan and are similarly sized, while NSP is smaller and based in Wisconsin. However, Consumers also operates a gas utility, while DTEE and NSP are both electric utilities.

DTEE's financial profile compares favorably with Consumers' and more in-line with NSP-Wisconsin's. Fitch forecasts FFO leverage to average 4.0x at DTEE through 2025, modestly better than 4.3x at Consumers and modestly worse than a projected 3.9x through 2026 at NSP-Wisconsin.

KEY ASSUMPTIONS

Fitch's Key Assumptions Within Our Rating Case for the Issuer Include

--A constructive regulatory environment in Michigan with ROEs for DTEE in line with the currently approved going forward;

--Capital program in line with management projections;

--A rate case filing in 2023;

--Securitization debt and revenues are excluded from the FFO and debt calculations;

--Capital structure commensurate with regulatory structure.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Sustained FFO leverage of 3.5x or better.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--A one-notch downgrade at parent DTE;

--An adverse change in Michigan's regulatory environment;

--Sustained FFO leverage greater than 4.5x.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit https://www.fitchratings.com/site/re/10111579.

LIQUIDITY AND DEBT STRUCTURE

FitchRatings

ENTITY

DTE Electric Company

Corporate Finance / Utilities and Power/Global / North America/United States

EU Endorsed, UK Endorsed; Solicited by or on behalf of the issuer (sell side)

ESG RELEVANCE

1	2	3	4	5

01 Ratings

RATING	ACTION	DATE	TYPE
A-	Affirmed	21-Mar-2024	Long Term Issuer Default Rating
F2	Affirmed	21-Mar-2024	Short Term Issuer Default Rating

Ratings Key	Outlook	Watch
POSITIVE		
NEGATIVE		
EVOLVING		
STABLE		

* Ratings displayed in orange denotes EU or UK Unsolicited and Non-Participatory Ratings

Where there was a review with no rating action (Review – No Action), please refer to the "Latest Rating Action Commentary" for an explanation of key rating drivers

*Premium Content is displayed in Fitch Red

RATING HISTORY

LONG TERM ISSUER DEFAULT RATING

SHORT TERM ISSUER DEFAULT RATING

DATE :	21-Mar-2024	06-Oct-2023	03-Feb-2023	07-Nov-2022	09-Mar-2022	08-Oct-2021	27-Oct-2020	15-Oct-2020
RATING :	A-	A-	A-	A-	A-	A-	A-	A-
ACTION :	Affirmed	Review - No Action	Review - No Action	Affirmed	Review - No Action	Affirmed	Affirmed	Review - No Act

02 Rating Actions

RATING ACTION COMMENTARY / THU 21 MAR, 2024

Fitch Affirms DTE Energy, DTE Electric Co. and DTE Gas Co.'s Ratings; Outlook Stable

RATING ACTION COMMENTARY / TUE 20 FEB, 2024

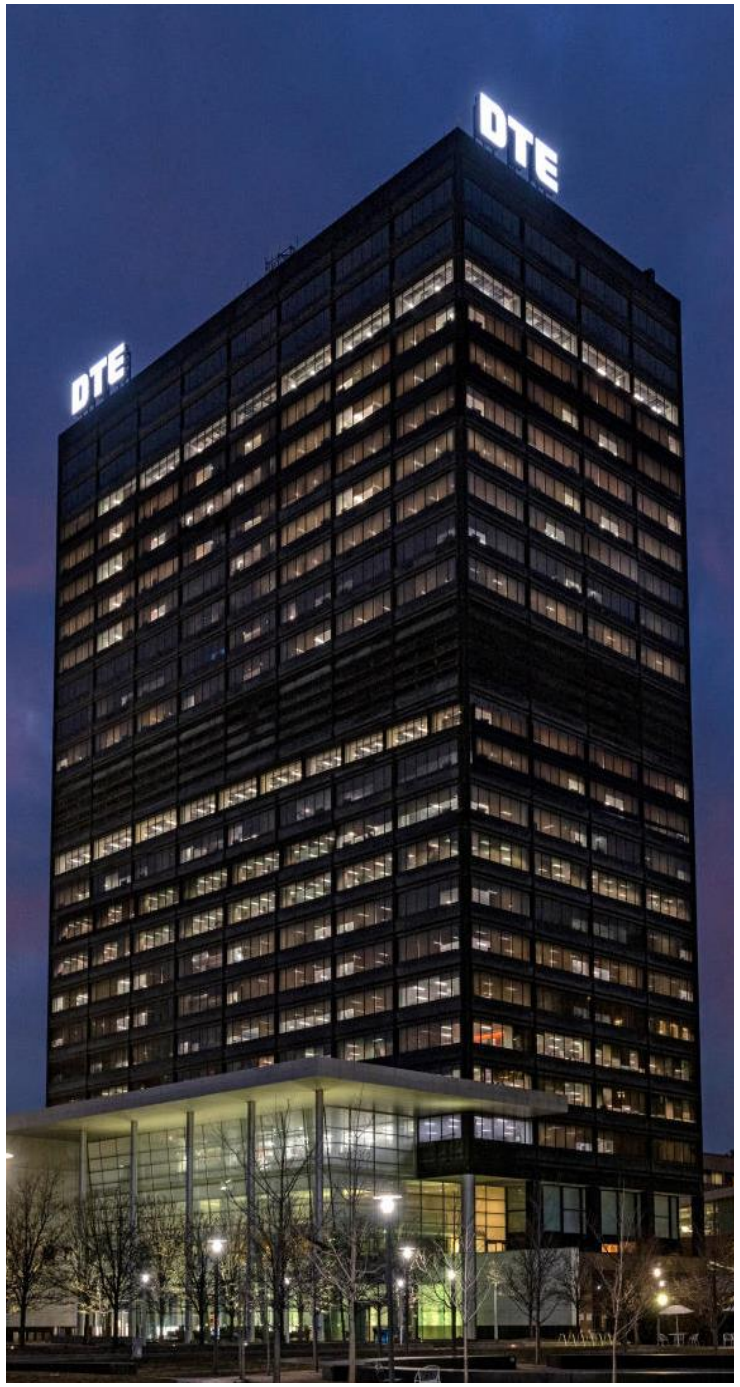
Fitch Rates DTE Electric Company's 2024 Series B and C Mortgage Bonds 'A+'

RATING ACTION COMMENTARY / MON 27 FEB, 2023

Fitch Rates DTE Electric Company's 2023 Series A and B Mortgage Bonds 'A+'

RATING AC

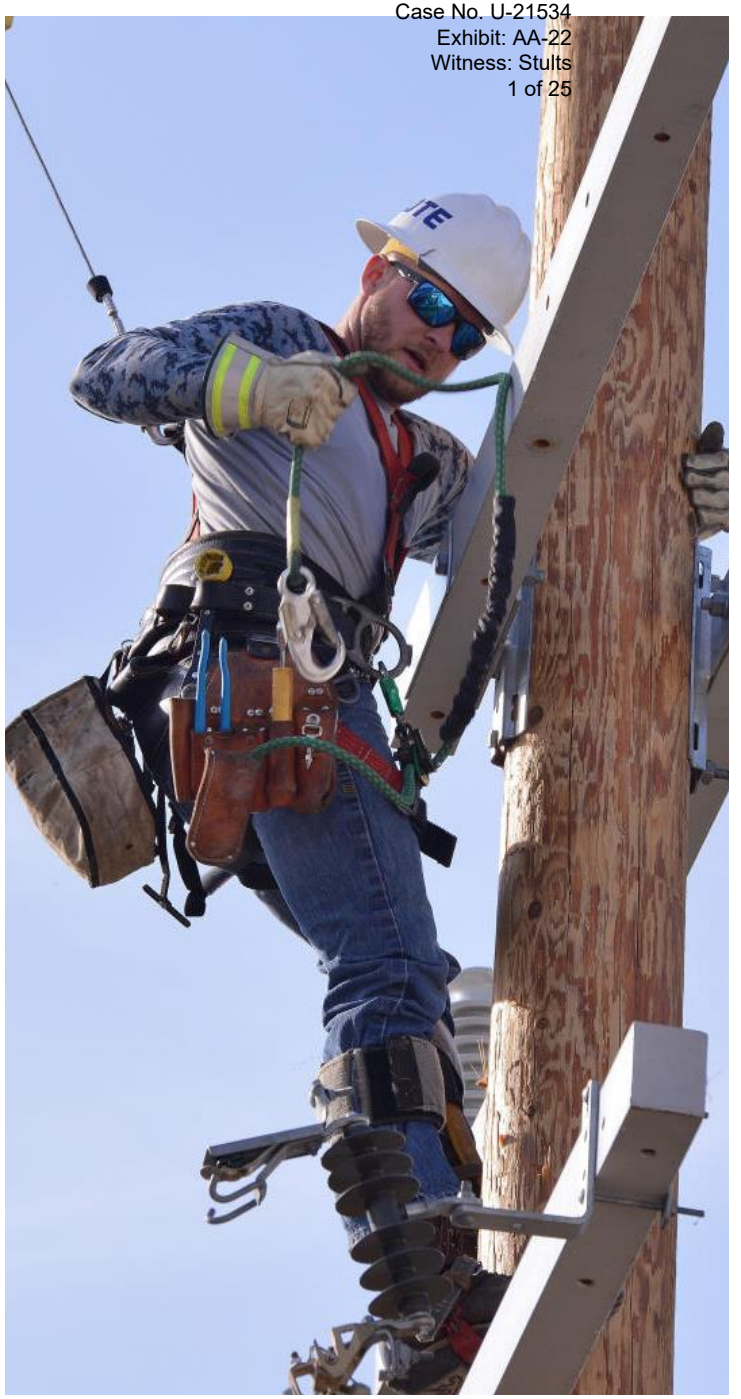
Fitch Elect Ratin



DTE

Business Update

June 18, 2024



Safe harbor statement

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Highly engaged team committed to delivering best-in-class results for our customers, communities and investors

Continuing best-in-class engagement, health and safety of our employees

- ✓ *Received Gallup Great Workplace Award for 12th consecutive year*
- ✓ *2024 Best Employers award for excellence in health and well-being*

Addressing our customers' most vital needs

- ✓ *DTE Gas celebrates 175 years of delivering natural gas in Michigan*
- ✓ *Received the EPA's ENERGY STAR Partner of the year award recognizing best practices in energy efficiency*

Supporting our communities

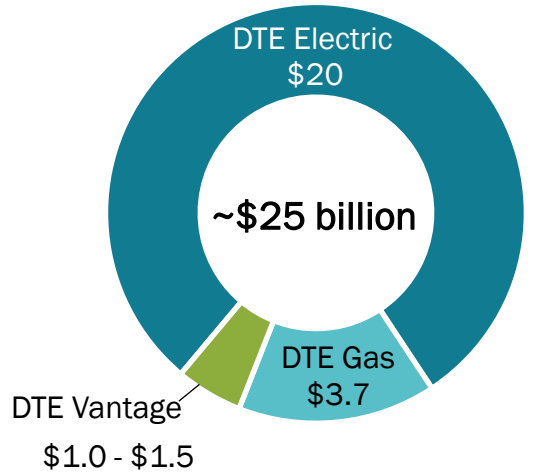
- ✓ *Continuing focus on Michigan investments; invested $890 million with Detroit suppliers and $2.7 billion with Michigan businesses in 2023*

Delivering premium shareholder returns

- ✓ *2024 operating EPS[1] guidance provides 7% growth from 2023 original guidance midpoint; long-term operating EPS growth rate target of 6% - 8% through 2028*
- ✓ *Celebrating 115 years of being continuously listed on New York Stock Exchange*

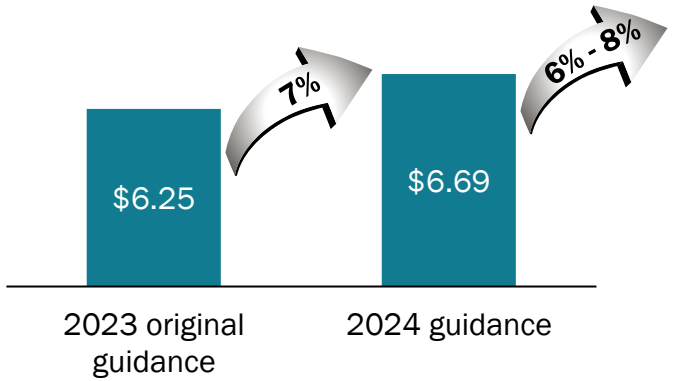
95% of 5-year investment plan in utilities 2024 - 2028

(billions)



10-year investment plan of over $50 billion

Operating EPS guidance midpoint



1. Refer to the appendix for information regarding the reconciliation of operating earnings (non-GAAP) to reported earnings

Executing customer-focused capital investment plan while maintaining affordability

Investing in customer-focused initiatives…

Modernizing electric grid

Preparing for impacts of increased extreme weather events and increased demand from vehicle electrification

Transitioning to cleaner generation

Shifting generation from coal to renewables supported by cleaner natural gas and storage

Renewing gas infrastructure

Continuing gas main renewal to maintain long-term safety and reliability and reduce GHG emissions

…while maintaining affordability

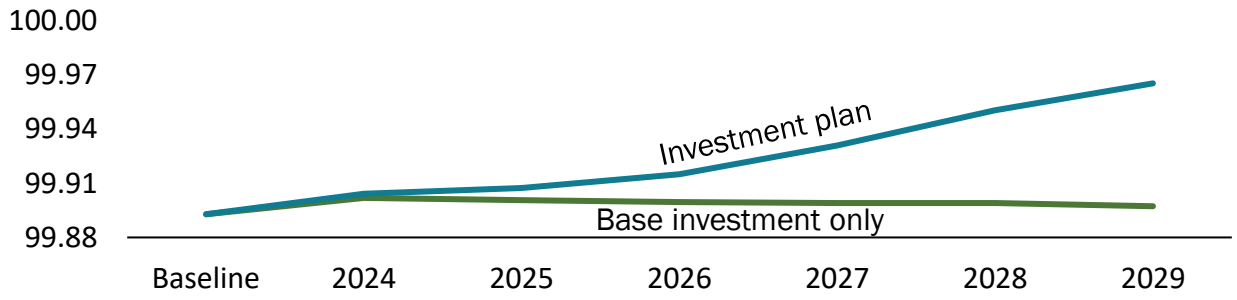
- ✓ Distinctive continuous improvement culture drives cost management
- ✓ Shift from coal to renewables and natural gas drives fuel and O&M cost reductions
- ✓ Inflation Reduction Act (IRA) supports transition to cleaner energy while supporting customer affordability goals and further enhancing DTE Vantage opportunities
- ✓ IRP reduces future costs to customers by up to $2.5 billion

Rate case underpins next step in our $9 billion grid reliability and $7 billion cleaner generation investment commitment while maintaining affordability

Committed to improve reliability…

- Creating a more reliable grid over the next five years, reducing power outages by 30% and cutting outage time in half by 2029
  - Accelerating the deployment of grid automation technology and rebuilding significant portions of aging grid
  - Upgrading existing infrastructure including stronger poles and fiberglass crossarms which can better withstand extreme weather
  - Continuing to trim trees around equipment and power lines; trees falling and damaging our equipment accounts for 50% of customer outages

Targeting above industry median performance by 2029 for average system availability (%)

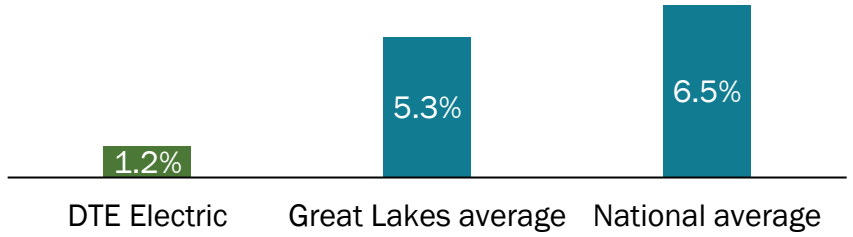


…while transitioning to cleaner generation and keeping bill increases below Great Lakes and National average

- Transitioning to cleaner generation and ending coal use in 2032 to reduce carbon emissions
  - Ceasing coal use at Belle River power plant in 2026; converting to a natural gas peaking resource
  - Retiring two coal units at Monroe power plant in 2028; retiring the remaining two units in 2032
  - Repurposing the former Trenton Channel power plant to a battery energy storage system; expected to be operational in 2026

Electric bill increase well below national average

Average annual residential bill growth since 2020[1]



1. Source: Energy Information Administration (EIA)

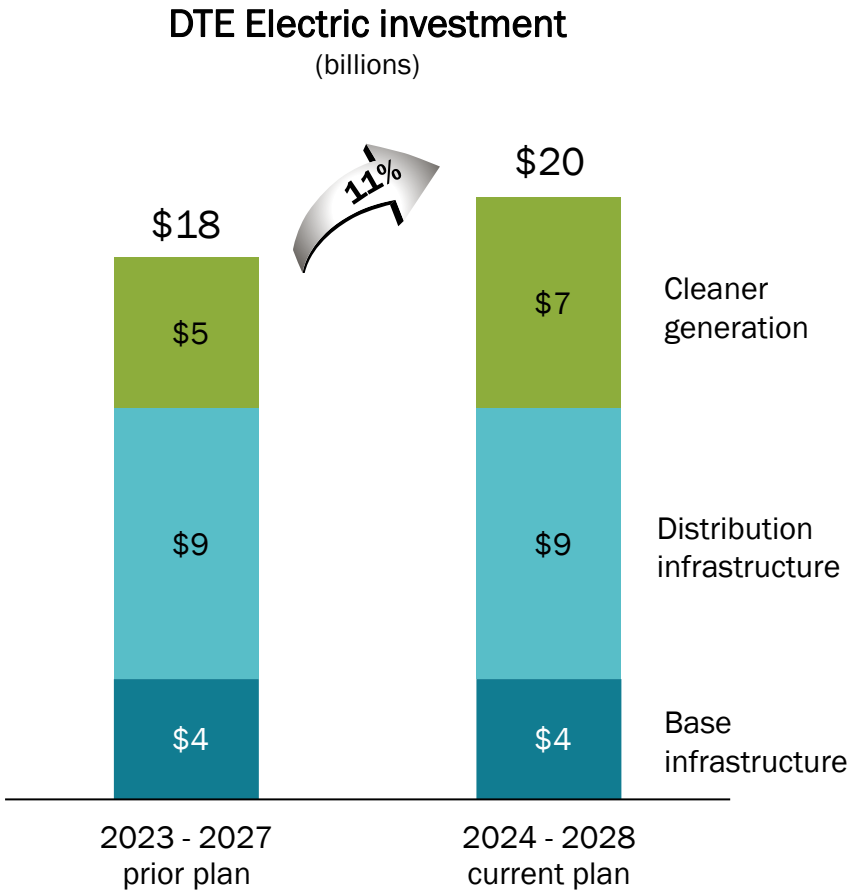
DTE Electric: transformational investments in distribution and generation

Achieving success in cleaner generation and reliability in 2024

- Received approval to construct a 220 MW, 880 MWh battery energy storage system at the site of the former Trenton Channel power plant; expected to be operational in 2026, will be the largest standalone battery energy storage project in the Great Lakes region
- Filed rate case in March that underpins customer-focused investments in system reliability, grid modernization and cleaner generation while managing affordability
- Achieved one of our fastest restorations for a large storm in January, restoring 96% of customers within 48 hours
- Continuing infrastructure rebuild with the replacement of 4.8kV system; customers experienced 90% reliability improvement on circuits in communities where conversion work was completed

Capital investment plan focused on building the grid of the future and transitioning to cleaner generation

- Transforming generation by targeting carbon emission reductions of 85% in 2032, 90% by 2040 and net zero[1] by 2050
  - Cleaner generation investment driven by expanded renewables and utility-scale energy storage; provides more affordable energy for customers over the long term
  - Renewable investment supports continued success of MIGreenPower voluntary program



1. Definition of net zero included in the appendix

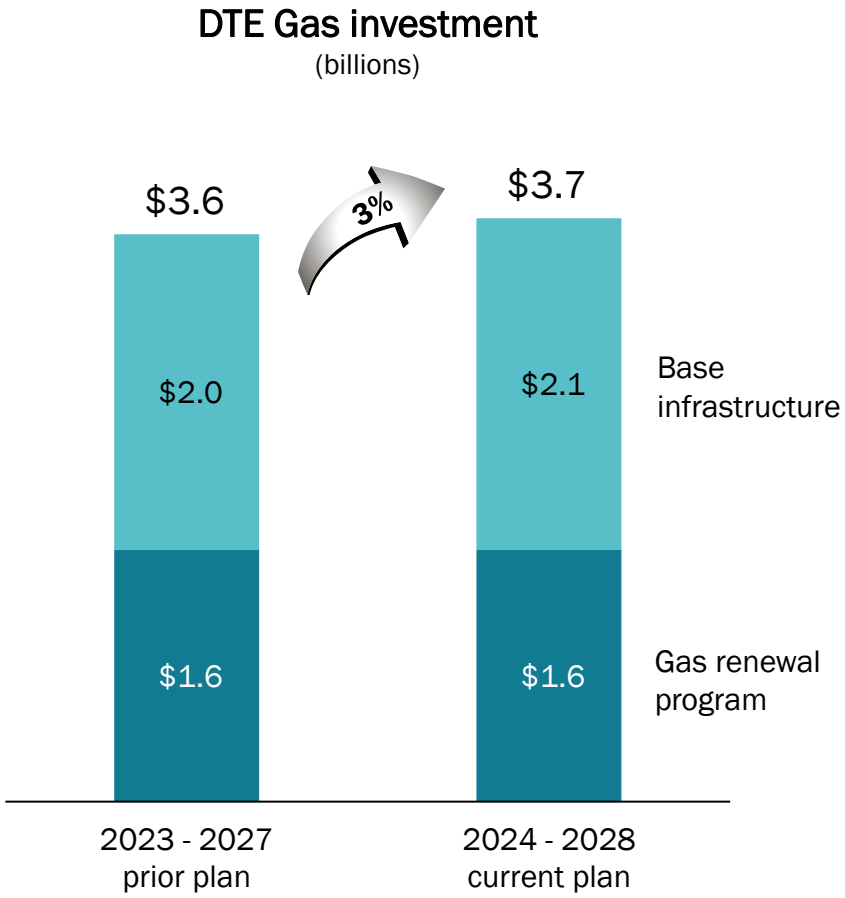
DTE Gas: replacing aging infrastructure to ensure reliability and transition to net zero emissions

Continuing main renewal to improve system reliability in 2024

- Targeting over 200 miles of main renewal in 2024
- Filed rate case in January focusing on continued system reliability and reducing carbon emissions, with a continued focus on safety and affordability for customers

Capital investment focused on infrastructure improvements and decarbonization

- Significant investment recovered through Infrastructure Recovery Mechanism (IRM) to support main renewal
  - Renewed over 1,700 miles since program inception
  - Gas renewal investments minimize leaks and reduce costs
- Base infrastructure investments enhance transmission, compression, distribution and storage
- Targeting to reduce GHG emissions by 65% by 2030, 80% by 2040 and net zero by 2050
  - Natural Gas Balance program empowers customers to manage their carbon footprint using both carbon offsets and RNG



DTE Vantage: strategic focus on decarbonization solutions for customers

Opportunities and strong project pipeline in 2024

- Placing large custom energy solutions project into commercial operation in 2024

Capitalizing on a growing preference for cleaner, more efficient energy

- Strong development pipeline in RNG, large custom energy solutions and carbon capture and sequestration projects
  - Expanded long-term, fixed-fee custom energy solutions agreement with Ford Motor Company in Tennessee to build, own, operate and maintain its central utility plant and distribution infrastructure
  - IRA improves opportunities in decarbonization as enhanced tax credits allow carbon capture, RNG and combined heat and power to be more economic
  - Strong RNG market growth supported by the federal RFS and California's LCFS

Long-term growth driven by a combination of custom energy solutions, RNG/renewables[1] and new decarbonization opportunities

- 2024 guidance of $125 - $135 million; 2028 operating earnings[2] projection of $200 - $210 million
  - Targeting operating earnings growth of over $15 million annually
- $1.0 - $1.5 billion capital investment 2024 - 2028

1. Renewables includes wood and landfill gas facilities
2. Refer to the appendix for information regarding the reconciliation of operating earnings (non-GAAP) to reported earnings

Maintaining strong cash flows, balance sheet and credit profile

Strong balance sheet supports robust customer-focused investment agenda

- Customer-focused capital investment plan is supported by consistent, healthy cash flows
- Targeting minimal equity issuances of $0 - $100 million annually through 2026
- Effectively managing near-term debt maturities to support long-term plan
- Maintaining solid investment-grade credit ratings; targeting 15% - 16% FFO / Debt[1]

Credit ratings	S&P	Moody's	Fitch
DTE Energy (unsecured)	BBB	Baa2	BBB
DTE Electric (secured)	A	Aa3	A+
DTE Gas (secured)	A	A1	A

1. Funds from Operations (FFO) is calculated using operating earnings, debt excludes a portion of DTE Gas' short-term debt and considers 50% of the junior subordinated notes as equity

Appendix

2024 operating EPS[1] guidance midpoint provides 7% growth over 2023 original guidance midpoint

(millions, except EPS)

	2024 guidance
DTE Electric	$1,100 - $1,120
DTE Gas	295 - 305
DTE Vantage	125 - 135
Energy Trading	30 - 40
Corporate & Other	(195) - (185)
DTE Energy	**$1,355 - $1,415**
Operating EPS	**$6.54 - $6.83**

1. Refer to the appendix for information regarding the reconciliation of operating earnings (non-GAAP) to reported earnings

Cash flow and capital expenditures guidance

Cash flow

(billions)

	2024 guidance
Cash from operations[1]	$3.3
Capital expenditures	(4.7)
Free cash flow	**($1.4)**
Dividends	(0.8)
Other	-
Net cash	**($2.2)**
Debt financing	
Issuances	$4.3
Redemptions	(2.1)
Total debt financing	**$2.2**

Capital expenditures

(millions)

	2024 guidance
DTE Electric	
Base infrastructure	$630
New generation	1,200
Distribution infrastructure	1,550
	$3,380
DTE Gas	
Base infrastructure	$380
Gas renewal program	335
	$715
Non-utility	**$550 - $650**
Total	**$4,645 - $4,745**

1. Includes equity issued for employee benefit programs

Environmental, social and governance (ESG) efforts are key priorities; aspiring to be the best in the industry

Environment

- Transitioning towards net zero emissions at both utilities
- Accelerating transition to cleaner generation
- Protecting our natural resources

Social

- Focusing on the diversity, safety, well-being and success of employees
- Investing in communities
- Leader in volunteerism

Governance

- Focusing on the oversight of environmental sustainability, social and governance
- Ensuring board diversity
- Providing incentive plans tied to safety and customer satisfaction targets

Award-winning commitment to ESG priorities

Superior corporate citizenship and community involvement

2024 Energy STAR Partner of the Year Award

2023 Edison Electric Institute Business Diversity Excellence Award

Gallup Exceptional Workplace Award 12 consecutive years

IRP outlines accelerated path to cleaner energy

First 5 years (2023 - 2027)

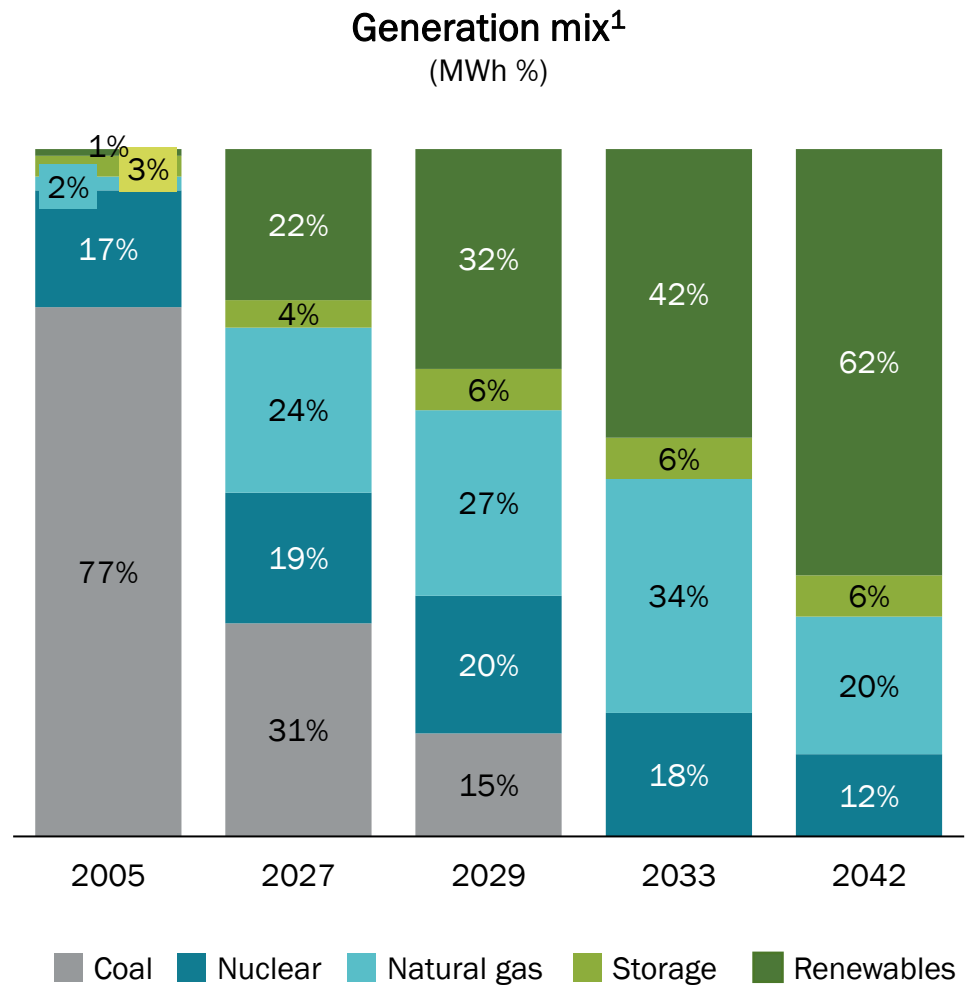
- Ceasing coal use at one Belle River unit in 2025 and remaining unit in 2026; converting to 1,300 MW natural gas peaking resource
- Adding 1,200 MW of solar
- Adding 350 MW of energy storage, increased from 240 MW

Second 5 years (2028 - 2032)

- Retiring two coal units at Monroe in 2028 and accelerating retirement of two remaining units to 2032 from 2035
- Adding 3,200 MW of solar
- Adding 1,000 MW of wind
- Adding 430 MW of energy storage

Next 10 years (2033 - 2042)

- Adding 2,100 MW of solar
- Adding 7,900 MW of wind
- Adding 1,050 MW of energy storage



1. Generation mix subject to change

IRP supports transition to cleaner energy future while focusing on reliability and affordability

Accelerating path to cleaner generation…

- Transforming generation by targeting carbon emission reductions of 85% in 2032, 90% by 2040 and net zero by 2050
- Ceasing coal use at Belle River power plant in 2026; converting to 1,300 MW natural gas peaking resource
- Retiring two coal units at Monroe power plant in 2028; accelerating retirement of remaining two units from 2035 to 2032; studying a range of replacement technology solutions
- Accelerating the development of energy storage, targeting 780 MW through 2030 and 1,830 MW by 2042
- Developing 6,500 MW of solar and 8,900 MW of wind by 2042

…while continuing to focus on customer affordability and economic development

- Investing over $11 billion in the next 10 years in the cleaner energy transition, supporting more than 32,000 Michigan jobs
- Developing more than 15,000 MW of Michigan-generated renewable energy by 2042, the equivalent of powering approximately 4 million homes
- Directing an additional $110 million to support most vulnerable customers
- Reducing future costs to customers by up to $2.5 billion

Energy policy drives Michigan's clean energy future and supports our cleaner energy journey

- Accelerates the pace of decarbonization and deployment of renewables
  - Renewable compliance standard of 50% by 2030 and 60% by 2035
  - Clean energy standard of 80% by 2035 and 100% by 2040
  - Allows MPSC to approve emerging low and zero carbon technologies, including carbon capture and sequestration
  - Sets 2,500 MW statewide energy storage target
  - Raises energy efficiency targets and increases incentives
  - Provides flexibility in meeting targets and off-ramps for resource adequacy, excessive cost and feasibility
  - Allows financial compensation mechanism on power purchase agreements for renewable energy and energy storage
- Supportive of IRP plan and clean energy goals

Progressing on EV initiatives

Charging Forward Program

- Promoting EV education, infrastructure and adoption
- Providing residential and commercial rebates, infrastructure support and fleet advisory services
- Offering unique solutions such as EV rebates for low and moderate income customers

Program-to-date major milestones

- 1,880 level 2 public chargers approved and over 1,300 installed; over 60 direct current fast chargers installed
- 12 electric bus deployments with the local regional transit agencies
- 16 electric school buses deployed and an additional 91 buses awarded through the first and second rounds of the EPA's Clean School Bus Program

2019
program inception

1.3 million
gallons of gasoline saved

6,260
residential rebates

MIGreenPower program continues significant growth

- Allows customers to attribute up to 100% of electricity use to renewable sources
- Recognized by National Renewable Energy Laboratory as having the largest Green Tariff program in the country, fulfilling more load under contracted subscriptions than any other program
- Two largest renewable energy purchases from a utility announced with Ford Motor Company and Stellantis

Voluntary renewable customers

1,830
business customers

99,400
residential customers

2,440 MW
subscribed

Natural Gas Balance program empowers customers to manage their carbon footprint

- Offering an affordable way to balance 25% to 100% of customers' GHG emissions
- RNG will be sourced by transforming landfill emissions and wastewater treatment plant by-products into usable gas
- Carbon offset program is focused on protecting Michigan forests that naturally absorb greenhouse gases
- Partnered with Anew, the nation's largest carbon offset developer, on the Greenleaf Improved Forest Management project in Michigan's Upper Peninsula to protect and preserve forests

2021

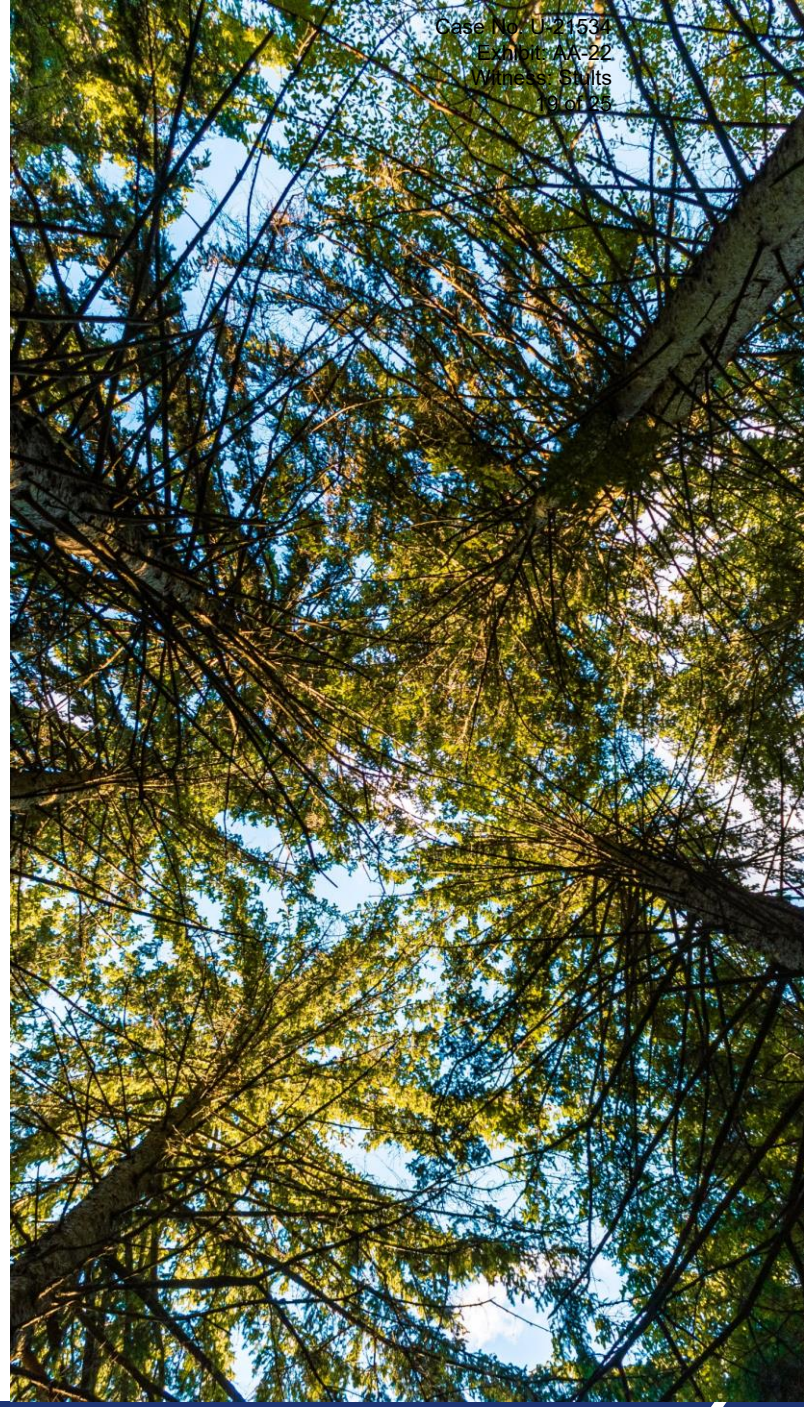
program inception

~13,000

customers subscribed

42,000

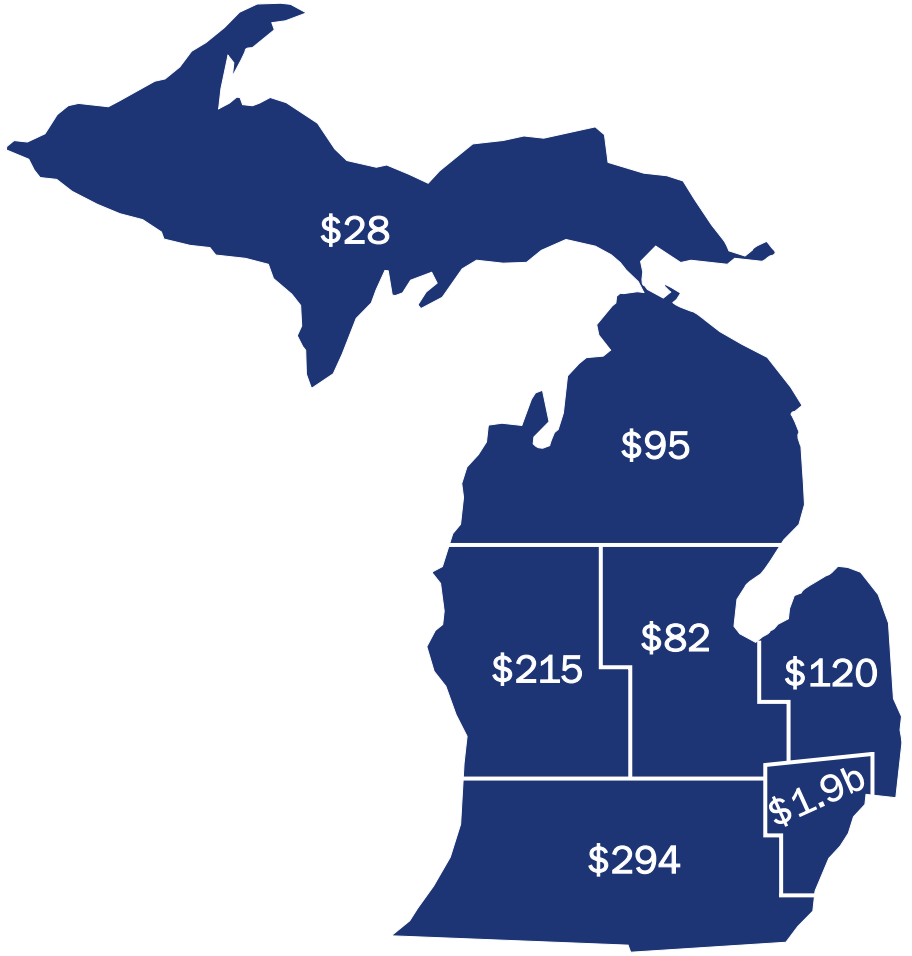
metric tons of CO2-e have been offset



Building on the momentum of the last decade, committed to Michigan investments and supplier diversity

$2.7b	invested with Michigan businesses in 2023
$890m	invested with Detroit suppliers in 2023
$990m	invested with suppliers owned by women, minorities, veterans, members of the LGBTQ+ community and disability-owned businesses in 2023
60+	supplier diversity awards earned since 2018
77,000	jobs created since 2010

2023 Michigan spend
(millions)



Economic development fuels Michigan's growth

- ✓ Michigan ranked in the top 10 by CNBC for America's Top States for Business in 2023
- ✓ $4 billion General Motors investment to convert an assembly plant to produce full-size electric pickup trucks, creating 2,300 jobs
- ✓ $1.7 billion LG Energy Solution investment to expand battery manufacturing facility, creating 1,200 jobs
- ✓ $1 billion in federal funding to develop a new hydrogen production plant and a refueling center, creating 1,500 jobs
- ✓ $773 million Henry Ford Health, Detroit Pistons and Michigan State University investment in Detroit's New Center neighborhood for a leading-edge medical research center alongside mixed-use residential and commercial buildings, creating 735 jobs
- ✓ $425 million Copperwood Resources Inc. investment to open Copperwood Mine to supply copper material for the mobility and clean tech industries, creating 380 jobs
- ✓ $400 million Nel Hydrogen investment for a new manufacturing facility to produce green hydrogen, creating 500 jobs
- ✓ $397 million Sterling Group investment for a hotel on the former site of Joe Louis Arena in Detroit, creating 350 jobs

DTE Energy named one of the 2023 Top Utilities in Economic Development by Site Selection Magazine

Committed to Diversity, Equity and Inclusion (DEI); creating a safe and welcoming environment

Health and safety of our people is a priority

- Multiple safety committees spanning all levels of the company providing input into safety plans, addressing unique challenges of each business unit
- Earned Accident Prevention Certificate from the American Gas Association by achieving a DART[1] incident rate below the industry average

Commitment to create a diverse, equitable and inclusive workforce

- Office of DEI led by our CEO and key executive leaders
- Focused on sustaining a diverse workforce which is representative of the communities we serve
- Annual review of compensation practices to ensure equitable pay
- Formal training programs, including unconscious bias training, for employees and leaders

Employee groups create an inclusive environment where differences are celebrated and a sense of belonging exists for all employees

AIM — Employees with disabilities group

AMEA — Asian and Middle Eastern American group

FAMILY — Family oriented group

POP — LGBTQ+ group

REACH — Black professionals group

SOMOS — Latino and Hispanic group

SURGE — Young professionals group

VETS — Military veterans group

WOMEN OF DTE — Women's group

1. Days away, restricted or transferred

Governance framework provides shareholder rights and enables sustainable value creation

Best-in-class governance practices

- Lead Independent Director
- All board committees are composed exclusively of independent Directors
- Stock ownership guidelines for non-employee Directors
- Majority voting standard
- Annual Director elections
- Established corporate governance guidelines
- Publication of Sustainability report
- Shareholder ability to call a special meeting
- No supermajority voting provisions to approve mergers or amend charter
- Overboarding policy

Composition of DTE Board of Directors

9.5 years
average tenure

68 years
average age

Executive management compensation plan is aligned with our stakeholder priorities

Annual or long-term incentive metrics	
Our team	• Employee engagement • Employee safety
Our customers	• Customer satisfaction • System reliability
Our communities	• Customer satisfaction • System reliability
Our investors	• EPS • Cash flow • Relative total shareholder return

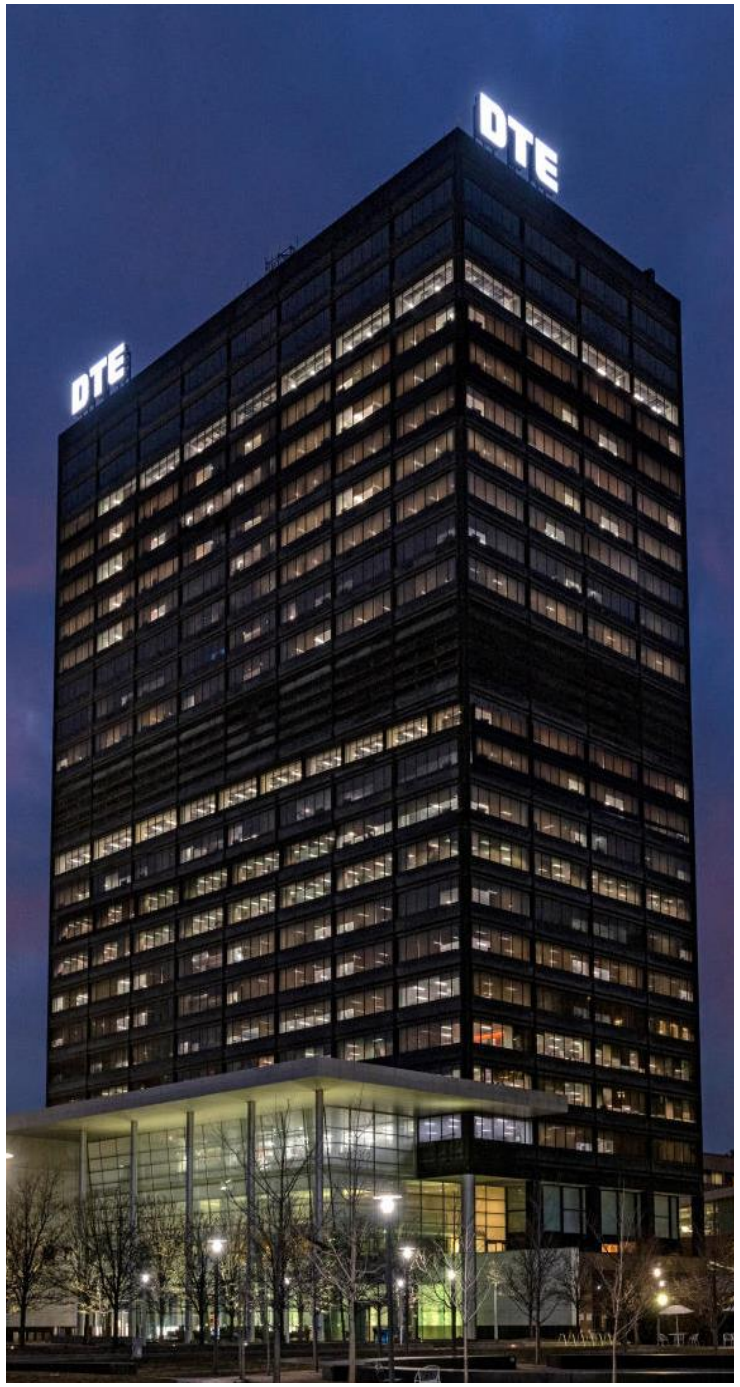
Reconciliation of reported to operating earnings (non-GAAP)

Use of Operating Earnings Information – Operating earnings exclude non-recurring items, certain mark-to-market adjustments and discontinued operations. DTE Energy management believes that operating earnings provide a meaningful representation of the company's earnings from ongoing operations and uses operating earnings as the primary performance measurement for external communications with analysts and investors. Internally, DTE Energy uses operating earnings to measure performance against budget and to report to the Board of Directors. Operating earnings is a non-GAAP measure and should be viewed as a supplement and not a substitute for reported earnings, which represents the company's net income and the most comparable GAAP measure.

In this presentation, DTE Energy provides guidance for future period operating earnings. It is likely that certain items that impact the company's future period reported results will be excluded from operating results. A reconciliation to the comparable future period reported earnings is not provided because it is not possible to provide a reliable forecast of specific line items (i.e., future non-recurring items, certain mark-to-market adjustments and discontinued operations). These items may fluctuate significantly from period to period and may have a significant impact on reported earnings.

Definition of net zero

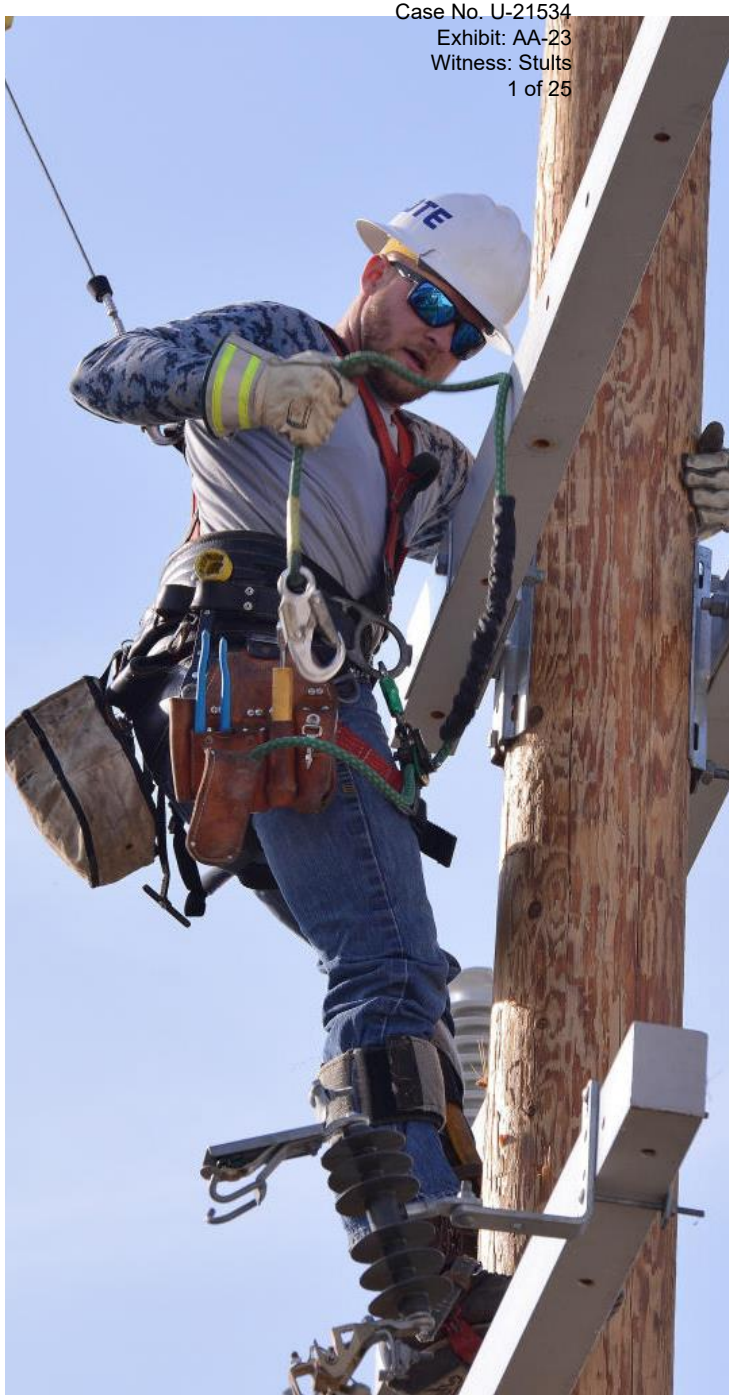
Goal for DTE Energy's utility operations and gas suppliers at DTE Gas that any carbon emissions put into the atmosphere will be balanced by those taken out of the atmosphere. Achieving this goal will include collective efforts to reduce carbon emissions and actions to offset any remaining emissions. Progress towards net zero goals is estimated and methodologies and calculations may vary from those of other utility businesses with similar targets. Carbon emissions is defined as emissions of carbon containing compounds, including carbon dioxide and methane, that are identified as greenhouse gases.



DTE

Business Update

April 2 - 3, 2024



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Highly engaged team committed to delivering best-in-class results for our customers, communities and investors

Continuing best-in-class engagement, health and safety of our employees

- ✓ *Named one of Metro Detroit's Best and Brightest Companies to Work For*

Addressing our customers' most vital needs

- ✓ *Distribution Grid Plan (DGP) provides roadmap to improved reliability and accelerated automation; improved reliability by 33% in 2023 on upgraded circuits*
- ✓ *Integrated Resource Plan (IRP) supports transition to cleaner energy future while providing $2.5 billion in reduced future costs to customers*
- ✓ *Energy policy drives Michigan's clean energy future; consistent with IRP*

Supporting our communities

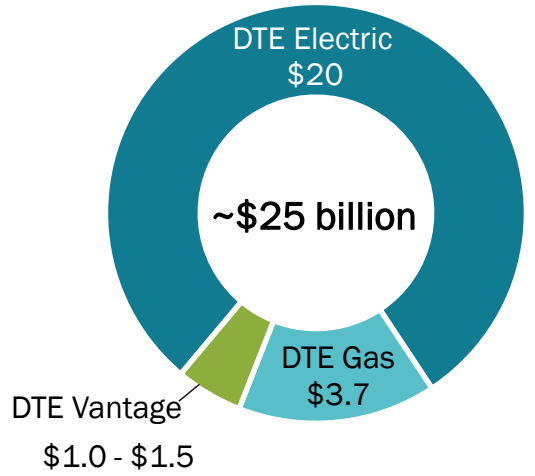
- ✓ *Received approval to construct a 220 MW, 880 MWh battery energy storage system at the site of the former Trenton Channel power plant; expected to be operational in 2026, will be the largest standalone battery energy storage project in the Great Lakes region*
- ✓ *Named one of the most community-minded companies in the U.S. with Points of Light's Civic 50 award for the 6th consecutive year*

Delivering premium shareholder returns

- ✓ *Increased 5-year utility capital investment by $2 billion over previous plan*
- ✓ *2024 operating EPS[1] guidance provides 7% growth from 2023 original guidance midpoint; long-term operating EPS growth rate target of 6% - 8% through 2028*

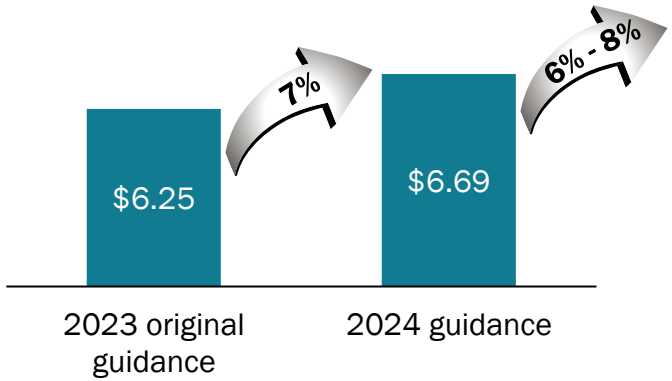
95% of 5-year investment plan in utilities 2024 - 2028

(billions)



10-year investment plan of over $50 billion

Operating EPS guidance midpoint



1. Refer to the appendix for information regarding the reconciliation of operating earnings (non-GAAP) to reported earnings

Executing customer-focused capital investment plan while maintaining affordability

Investing in customer-focused initiatives…

Modernizing electric grid

Preparing for impacts of increased extreme weather events and increased demand from vehicle electrification

Transitioning to cleaner generation

Shifting generation from coal to renewables supported by cleaner natural gas and storage

Renewing gas infrastructure

Continuing gas main renewal to maintain long-term safety and reliability and reduce GHG emissions

…while maintaining affordability

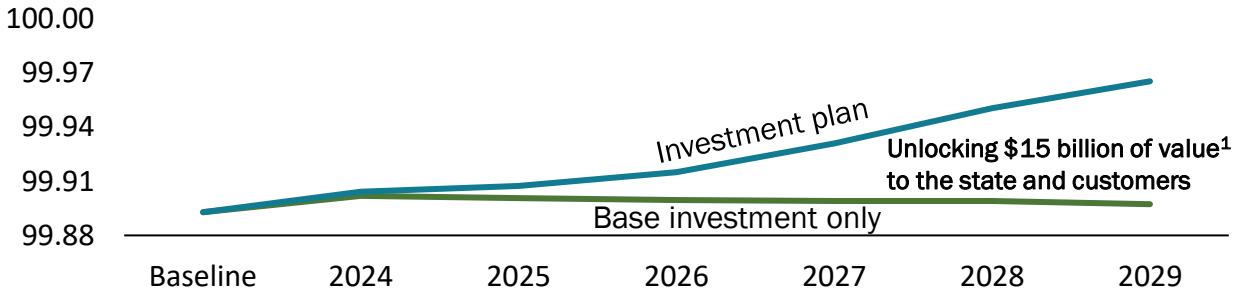
- ✓ Distinctive continuous improvement culture drives cost management
- ✓ Shift from coal to renewables and natural gas drives fuel and O&M cost reductions
- ✓ Inflation Reduction Act (IRA) supports transition to cleaner energy while supporting customer affordability goals and further enhancing DTE Vantage opportunities
- ✓ IRP reduces future costs to customers by up to $2.5 billion

Electric rate case filing underpins $9 billion grid reliability and $7 billion cleaner energy investment commitment while maintaining affordability

Committed to improve reliability…

- Creating a more reliable grid over the next five years, reducing power outages by 30% and cutting outage time in half by 2029
  - Accelerating the deployment of grid automation technology and rebuilding significant portions of aging grid
  - Upgrading existing infrastructure with equipment including stronger poles and fiberglass crossarms which can better withstand extreme weather
  - Continuing to trim trees around equipment and power lines; trees falling and damaging our equipment accounts for 50% of customer outages

Above industry median performance by 2029 for average system availability (%)

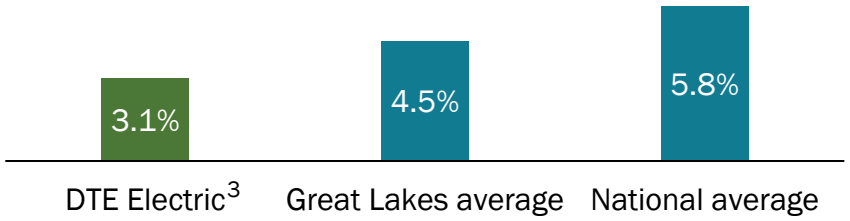


…while transitioning to cleaner energy and keeping bill increases below Great Lakes and National average

- Transitioning to cleaner energy and ending coal use in 2032 to reduce carbon emissions
  - Ceasing coal use at Belle River by 2026; converting to a natural gas peaking resource
  - Retiring two coal units at Monroe in 2028; retiring the remaining two units in 2032
  - Repurposing the former Trenton Channel power plant to a battery energy storage system; expected to be operational in 2026

Electric bill increase well below national average

Average annual residential bill growth since 2021[2]

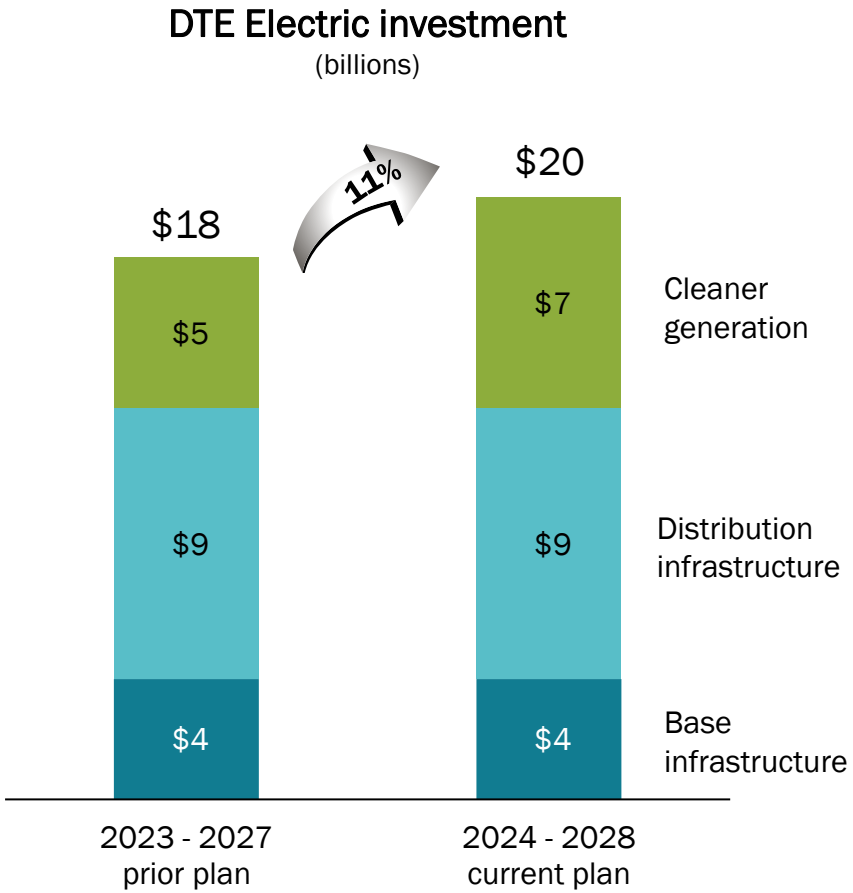


1. Source: Interruption Cost Estimate (ICE) Calculator developed by the Lawrence Berkeley National Laboratory
2. DTE forecasted through Jan 2025, peers actual through November 2023
3. Assumes rate relief of $456 million

DTE Electric: transformational investments in distribution and generation

Capital investment plan focused on building the grid of the future and transitioning to cleaner generation

- DGP outlines detailed roadmap to increase reliability by over 60% over the next 5 years
  - Continuing accelerated tree trimming; over 5,000 miles of trees trimmed in 2023
  - Continuing preventative maintenance by upgrading more than 10,000 miles of infrastructure; upgraded more than 1,300 miles in 2023
  - Advancing infrastructure rebuild by accelerating the replacement of 4.8kV system and pursuing undergrounding
  - Enhancing grid automation by accelerating installation of 10,000 smart grid devices to greatly reduce outage duration
- Transforming generation by targeting carbon emission reductions of 85% in 2032, 90% by 2040 and net zero[1] by 2050
  - Cleaner generation investment driven by expanded renewables and utility-scale energy storage; provides more affordable energy for customers over the long term
  - Renewable investment supports continued success of MIGreenPower voluntary program which allows customers to attribute up to 100% of electric use to renewable sources

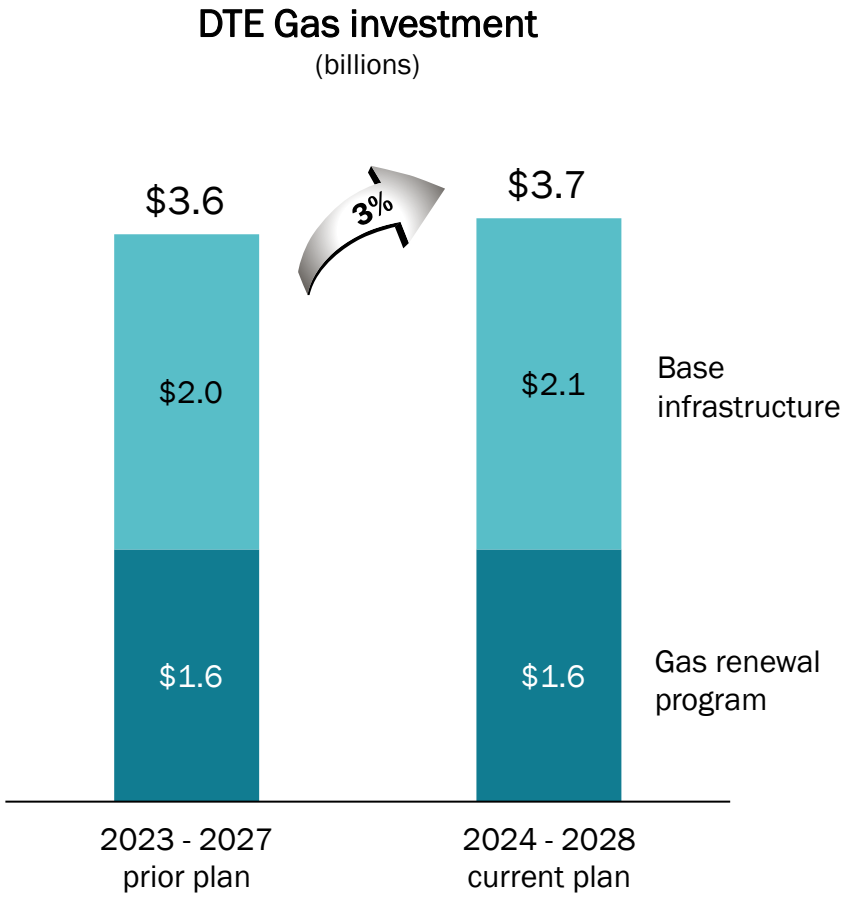


1. Definition of net zero included in the appendix

DTE Gas: replacing aging infrastructure to ensure reliability and transition to net zero emissions

Capital investment focused on infrastructure improvements and decarbonization

- Significant investment recovered through Infrastructure Recovery Mechanism (IRM) to support main renewal
  - Renewed over 1,700 miles since program inception
  - Gas renewal investments minimize leaks and reduce costs
- Base infrastructure investments enhance transmission, compression, distribution and storage
- Targeting to reduce GHG emissions by 65% by 2030, 80% by 2040 and net zero by 2050
  - Natural Gas Balance program empowers customers to manage their carbon footprint using both carbon offsets and RNG



DTE Vantage: strategic focus on decarbonization solutions for customers

Capitalizing on a growing preference for cleaner, more efficient energy

- Strong development pipeline in RNG, large custom energy solutions and carbon capture and sequestration projects
  - Expanded long-term, fixed fee custom energy solutions agreement with Ford Motor Company in Tennessee to build, own, operate and maintain its central utility plant and distribution infrastructure
  - IRA improves opportunities in decarbonization as enhanced tax credits allow carbon capture, RNG and combined heat and power to be more economic
  - Strong RNG market growth supported by the federal RFS and California's LCFS

Long-term growth driven by a combination of custom energy solutions, RNG/renewables[1] and new decarbonization opportunities

- Targeting operating earnings[2] growth of over $15 million annually
  - 2024 guidance of $125 - $135 million
  - 2028 operating earnings projection of $200 - $210 million
- $1.0 - $1.5 billion capital investment 2024 - 2028

1. Renewables includes wood and landfill gas facilities
2. Refer to the appendix for information regarding the reconciliation of operating earnings (non-GAAP) to reported earnings

Maintaining strong cash flows, balance sheet and credit profile

Strong balance sheet supports robust customer-focused investment agenda

- Investment is primarily funded with consistent, healthy cash flows
- Targeting minimal equity issuances of $0 - $100 million annually through 2026
- Effectively managing near-term debt maturities to support long-term plan
- Maintaining solid investment-grade credit ratings; targeting 15% - 16% FFO / Debt[1]

Credit ratings	S&P	Moody's	Fitch
DTE Energy (unsecured)	BBB	Baa2	BBB
DTE Electric (secured)	A	Aa3	A+
DTE Gas (secured)	A	A1	A

1. Funds from Operations (FFO) is calculated using operating earnings, debt excludes a portion of DTE Gas' short-term debt and considers 50% of the junior subordinated notes as equity

Appendix

2024 operating EPS[1] guidance midpoint provides 7% growth over 2023 original guidance midpoint

(millions, except EPS)

	2024 guidance
DTE Electric	$1,100 - $1,120
DTE Gas	295 - 305
DTE Vantage	125 - 135
Energy Trading	30 - 40
Corporate & Other	(195) - (185)
DTE Energy	**$1,355 - $1,415**
Operating EPS	**$6.54 - $6.83**

1. Refer to the appendix for information regarding the reconciliation of operating earnings (non-GAAP) to reported earnings

Cash flow and capital expenditures guidance

Cash flow

(billions)

	2024 guidance
Cash from operations[1]	$3.3
Capital expenditures	(4.7)
Free cash flow	**($1.4)**
Dividends	(0.8)
Other	-
Net cash	**($2.2)**
Debt financing	
Issuances	$4.3
Redemptions	(2.1)
Total debt financing	**$2.2**

Capital expenditures

(millions)

	2024 guidance
DTE Electric	
Base infrastructure	$630
New generation	1,200
Distribution infrastructure	1,550
	$3,380
DTE Gas	
Base infrastructure	$380
Gas renewal program	335
	$715
Non-utility	**$550 - $650**
Total	**$4,645 - $4,745**

1. Includes equity issued for employee benefit programs

Environmental, social and governance (ESG) efforts are key priorities; aspiring to be the best in the industry

Environment

- Transitioning towards net zero emissions at both utilities
- Accelerating transition to cleaner generation
- Protecting our natural resources

Social

- Focusing on the diversity, safety, well-being and success of employees
- Investing in communities
- Leader in volunteerism

Governance

- Focusing on the oversight of environmental sustainability, social and governance
- Ensuring board diversity
- Providing incentive plans tied to safety and customer satisfaction targets

Award-winning commitment to ESG priorities

Superior corporate citizenship and community involvement

NMSDC Forefront 50 Top Corporations for Minority Businesses

2023 Edison Electric Institute Business Diversity Excellence Award

IRP outlines accelerated path to cleaner energy

First 5 years (2023 - 2027)

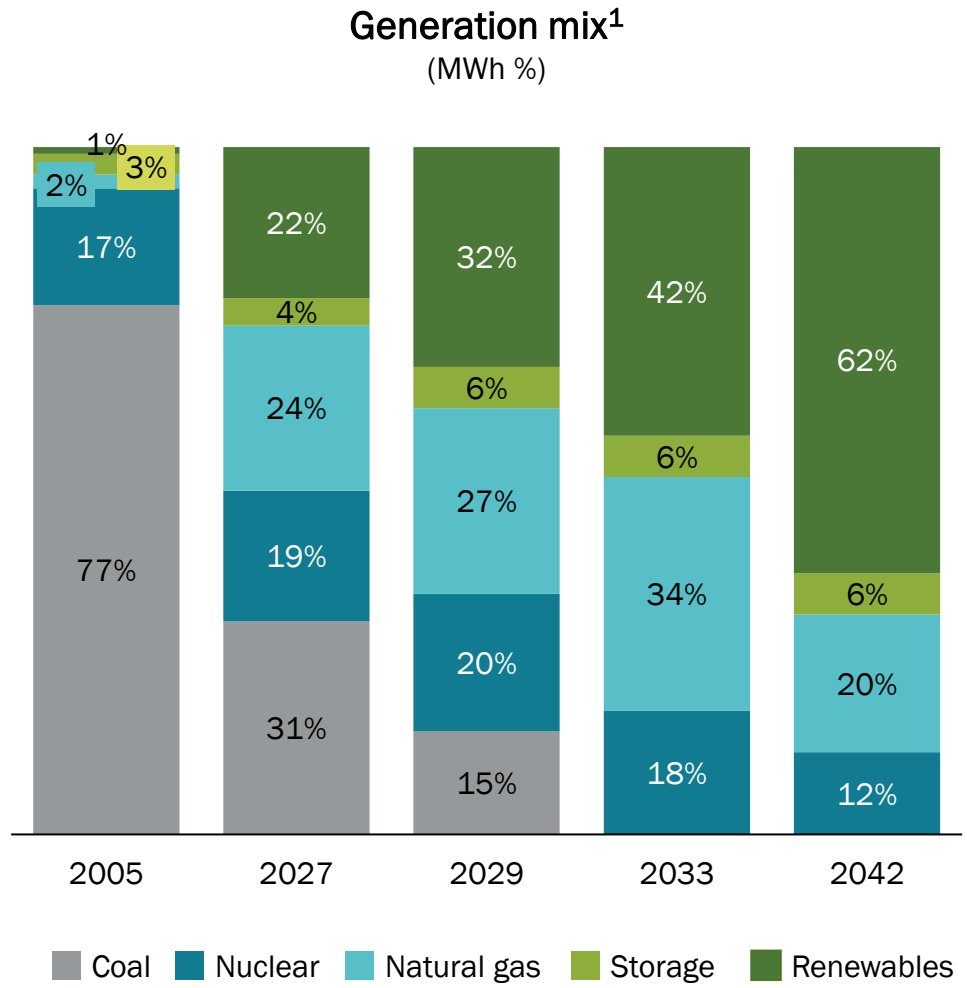
- Ceasing coal use at one Belle River unit in 2025 and remaining unit in 2026; converting to 1,300 MW natural gas peaking resource
- Adding 1,200 MW of solar
- Adding 350 MW of energy storage, increased from 240 MW

Second 5 years (2028 - 2032)

- Retiring two coal units at Monroe in 2028 and accelerating retirement of two remaining units to 2032 from 2035
- Adding 3,200 MW of solar
- Adding 1,000 MW of wind
- Adding 430 MW of energy storage

Next 10 years (2033 - 2042)

- Adding 2,100 MW of solar
- Adding 7,900 MW of wind
- Adding 1,050 MW of energy storage



1. Generation mix subject to change

IRP supports transition to cleaner energy future while focusing on reliability and affordability

Accelerating path to cleaner generation…

- Transforming generation by targeting carbon emission reductions of 85% in 2032, 90% by 2040 and net zero by 2050
- Ceasing coal use at Belle River by 2026; converting to 1,300 MW natural gas peaking resource
- Retiring two coal units at Monroe in 2028; accelerating retirement of remaining two units from 2035 to 2032; studying a range of replacement technology solutions
- Accelerating the development of energy storage, targeting 780 MW through 2030 and 1,830 MW by 2042
- Developing 6,500 MW of solar and 8,900 MW of wind by 2042

…while continuing to focus on customer affordability and economic development

- Investing over $11 billion in the next 10 years in the cleaner energy transition, supporting more than 32,000 Michigan jobs
- Developing more than 15,000 MW of Michigan-generated renewable energy by 2042, the equivalent of powering approximately 4 million homes
- Directing an additional $110 million to support most vulnerable customers
  - $70 million over the next four years for energy efficiency programs, $30 million over 15 years for bill assistance and $8 million over the next four years for home repairs to facilitate cleaner energy
- Reducing future costs to customers by up to $2.5 billion

Energy policy drives Michigan's clean energy future and supports our cleaner energy journey

- Accelerates the pace of decarbonization and deployment of renewables
  - Renewable compliance standard of 50% by 2030 and 60% by 2035
  - Clean energy standard of 80% by 2035 and 100% by 2040
  - Allows MPSC to approve emerging low and zero carbon technologies, including carbon capture and sequestration
  - Sets 2,500 MW statewide energy storage target
  - Raises energy efficiency targets and increases incentives
  - Provides flexibility in meeting targets and off-ramps for resource adequacy, excessive cost and feasibility
  - Allows financial compensation mechanism on power purchase agreements for renewable energy and energy storage
- Supportive of IRP plan and clean energy goals

Progressing on EV initiatives

Charging Forward Program

- Promoting EV education, infrastructure and adoption
- Providing residential and commercial rebates, infrastructure support and fleet advisory services
- Offering unique solutions such as home charger installation financing and EV rebates for low and moderate income customers

Program-to-date major milestones

- Over 1,800 level 2 public chargers approved and 1,270 installed
- Over 150 direct current fast charger rebates approved and over 60 installed
- 12 electric bus deployments with the local regional transit agencies
- 6 electric school buses deployed and an additional 101 buses awarded through the first and second rounds of the EPA's Clean School Bus Program

2019

program inception

1.2 million

gallons of gasoline saved

5,850

residential rebates

MIGreenPower program continues significant growth

- Allows customers to attribute up to 100% of electricity use to renewable sources
- Recognized by National Renewable Energy Laboratory as having the largest Green Tariff program in the country, fulfilling more load under contracted subscriptions than any other program
- Two largest renewable energy purchases from a utility announced with Ford Motor Company and Stellantis

Voluntary renewable customers

1,765
business customers

98,900
residential customers

2,420 MW
subscribed

Natural Gas Balance program empowers customers to manage their carbon footprint

- Offering an affordable way to balance 25% to 100% of customers' GHG emissions
- RNG will be sourced by transforming landfill emissions and wastewater treatment plant by-products into usable gas
- Carbon offset program is focused on protecting Michigan forests that naturally absorb greenhouse gases
- Partnered with Anew, the nation's largest carbon offset developer, on the Greenleaf Improved Forest Management project in Michigan's Upper Peninsula to protect and preserve forests

2021

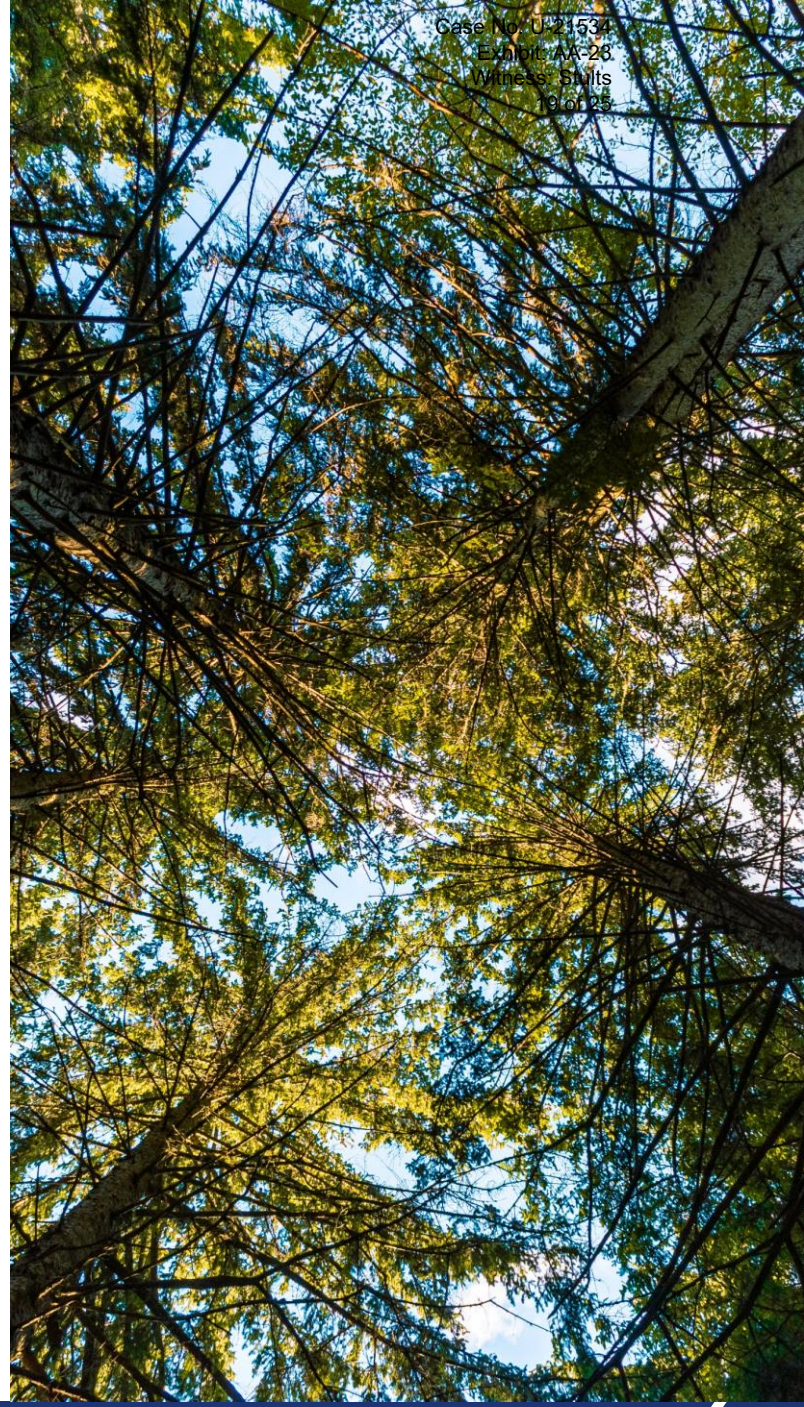
program inception

~13,000

customers subscribed

38,725

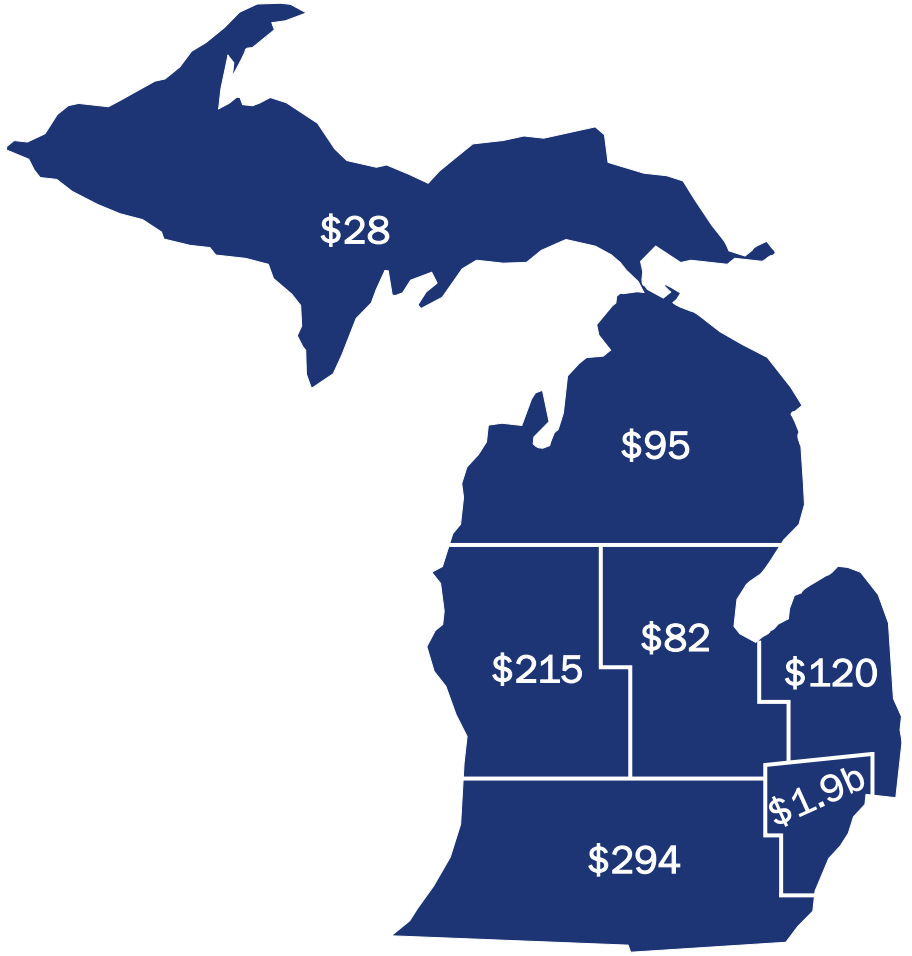
metric tons of CO2-e have been offset



Building on the momentum of the last decade, committed to Michigan investments and supplier diversity

$2.7b	invested with Michigan businesses in 2023
$890m	invested with Detroit suppliers in 2023
$990m	invested with suppliers owned by women, minorities, veterans, members of the LGBTQ+ community and disability-owned businesses in 2023
60+	supplier diversity awards earned since 2018
77,000	jobs created since 2010

2023 Michigan spend
(millions)



Economic development fuels Michigan's growth

- ✓ Michigan ranked in the top 10 by CNBC for America's Top States for Business in 2023
- ✓ $4 billion General Motors investment to convert an assembly plant to produce full-size electric pickup trucks, creating 2,300 jobs
- ✓ $1.7 billion LG Energy Solution investment to expand battery manufacturing facility, creating 1,200 jobs
- ✓ $1 billion in federal funding to develop a new hydrogen production plant and a refueling center, creating 1,500 jobs
- ✓ $500 million Magna International investment expanding a facility and building two additional facilities to help support the production of EVs, creating over 1,000 jobs
- ✓ $400 million Nel Hydrogen investment for a new manufacturing facility to produce green hydrogen, creating 500 jobs
- ✓ $103 million Niagara Bottling investment in a bottled water facility
- ✓ $35 million Fortescue Future Industries investment in a new manufacturing center to develop automotive batteries and hydrogen generators, creating 600 jobs

DTE Energy named one of the 2023 Top Utilities in Economic Development by Site Selection Magazine

Committed to Diversity, Equity and Inclusion (DEI); creating a safe and welcoming environment

Health and safety of our people is a priority

- Multiple safety committees spanning all levels of the company providing input into safety plans, addressing unique challenges of each business unit
- Earned Accident Prevention Certificate from the American Gas Association by achieving a DART[1] incident rate below the industry average

Commitment to create a diverse, equitable and inclusive workforce

- Office of DEI led by our CEO and key executive leaders
- Focused on sustaining a diverse workforce which is representative of the communities we serve
- Annual review of compensation practices to ensure equitable pay
- Formal training programs, including unconscious bias training, for employees and leaders

Employee groups create an inclusive environment where differences are celebrated and a sense of belonging exists for all employees

AIM — Employees with disabilities group

AMEA — Asian and Middle Eastern American group

FAMILY — Family oriented group

POP — LGBTQ+ group

REACH — Black professionals group

SOMOS — Latino and Hispanic group

SURGE — Young professionals group

VETS — Military veterans group

WOMEN OF DTE — Women's group

1. Days away, restricted or transferred

Governance framework provides shareholder rights and enables sustainable value creation

Best-in-class governance practices

- Lead Independent Director
- All board committees are composed exclusively of independent Directors
- Stock ownership guidelines for non-employee Directors
- Majority voting standard
- Annual Director elections
- Established corporate governance guidelines
- Publication of Sustainability report
- Shareholder ability to call a special meeting
- No supermajority voting provisions to approve mergers or amend charter
- Overboarding policy

Composition of DTE Board of Directors

9.5 years
average tenure

68 years
average age

Executive management compensation plan is aligned with our stakeholder priorities

Annual or long-term incentive metrics	
Our team	• Employee engagement • Employee safety
Our customers	• Customer satisfaction • System reliability
Our communities	• Customer satisfaction • System reliability
Our investors	• EPS • Cash flow • Relative total shareholder return

Reconciliation of reported to operating earnings (non-GAAP)

Use of Operating Earnings Information – Operating earnings exclude non-recurring items, certain mark-to-market adjustments and discontinued operations. DTE Energy management believes that operating earnings provide a meaningful representation of the company's earnings from ongoing operations and uses operating earnings as the primary performance measurement for external communications with analysts and investors. Internally, DTE Energy uses operating earnings to measure performance against budget and to report to the Board of Directors. Operating earnings is a non-GAAP measure and should be viewed as a supplement and not a substitute for reported earnings, which represents the company's net income and the most comparable GAAP measure.

In this presentation, DTE Energy provides guidance for future period operating earnings. It is likely that certain items that impact the company's future period reported results will be excluded from operating results. A reconciliation to the comparable future period reported earnings is not provided because it is not possible to provide a reliable forecast of specific line items (i.e., future non-recurring items, certain mark-to-market adjustments and discontinued operations). These items may fluctuate significantly from period to period and may have a significant impact on reported earnings.

Definition of net zero

Goal for DTE Energy's utility operations and gas suppliers at DTE Gas that any carbon emissions put into the atmosphere will be balanced by those taken out of the atmosphere. Achieving this goal will include collective efforts to reduce carbon emissions and actions to offset any remaining emissions. Progress towards net zero goals is estimated and methodologies and calculations may vary from those of other utility businesses with similar targets. Carbon emissions is defined as emissions of carbon containing compounds, including carbon dioxide and methane, that are identified as greenhouse gases.

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.	U-21534

PROOF OF SERVICE

On the date below, an electronic copy of the **City of Ann Arbor's Official Exhibit List and Exhibits AA-1 through AA-23** were served on the following:

Name/Party	E-mail Address
Michigan Office of Administrative Hearings and Rules Sally L. Wallace, ALJ	 wallaces2@michigan.gov
DTE Electric Company Jon P. Christinidis Paula Johnson-Bacon Andrea E. Hayden John A. Janiszewski Breanne K. Reitzel	 mpscfilings@dteenergy.com jon.christinidis@dteenergy.com paula.bacon@dteenergy.com andrea.hayden@dteenergy.com john.janiszewski@dteenergy.com breanne.reitzel@dteenergy.com
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Michigan Energy Innovation Business Council; Institute for Energy Innovation; Advanced Energy United; The Foundry Association of Michigan Laura A. Chappelle Timothy J. Lundgren Justin K. Ooms	lchappelle@potomaclaw.com tlundgren@potomaclaw.com jooms@potomaclaw.com
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The statements above are true to the best of my knowledge, information and belief.

Dated September 10, 2024

CITY OF ANN ARBOR

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