



CITY OF ANN ARBOR, MICHIGAN

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

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July 26, 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 **Exhibits of the City of Ann Arbor 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
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, wound/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.

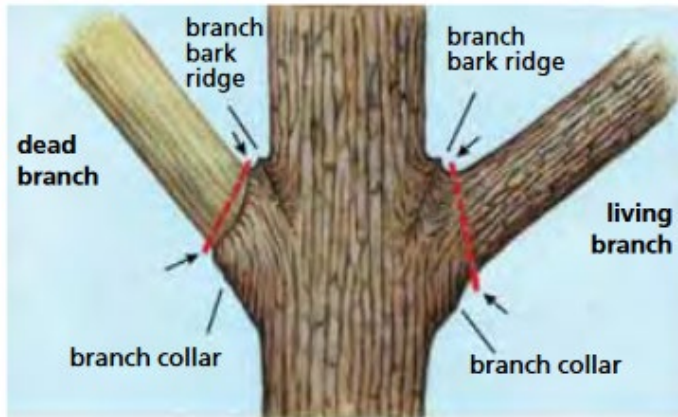


Figure A: Branch bark ridge & branch bark collar diagram. Source: "How to Prune Trees," USDA Forest Service

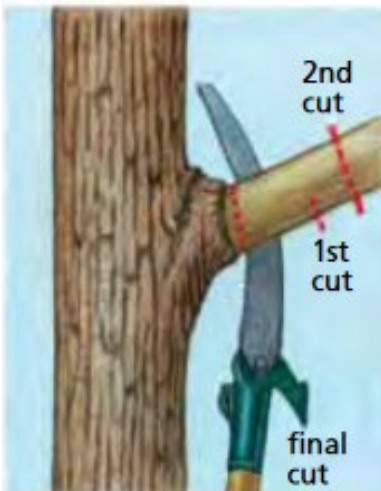


Figure B: Tri-cut method. Source: "How to Prune Trees," USDA Forest Service

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 gas line service drops to buildings**, 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.

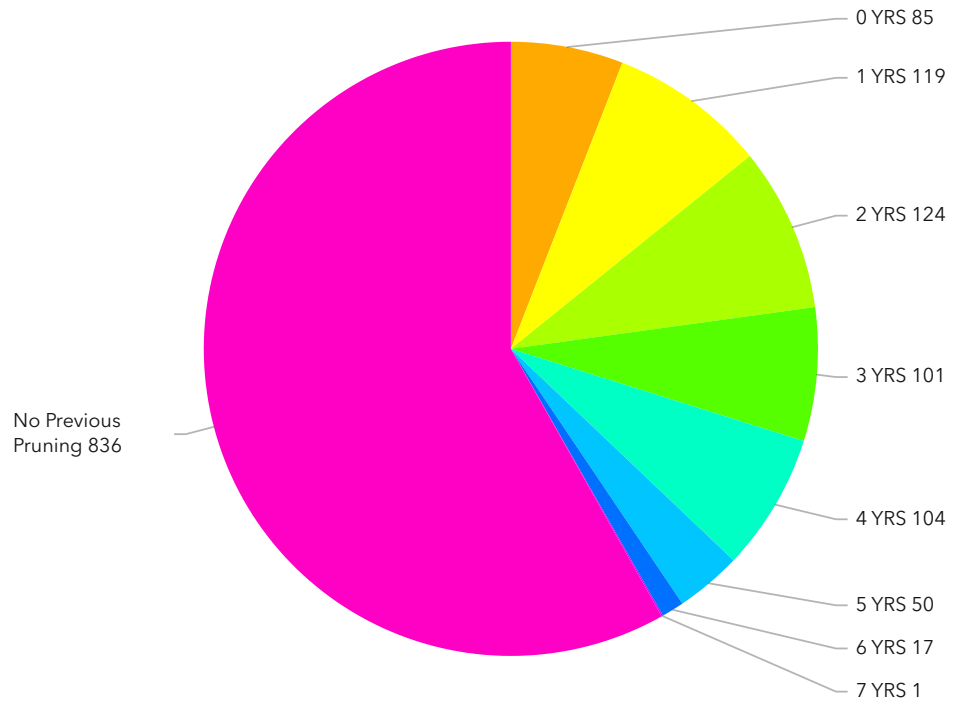
- B. Only qualified line-clearance arborist or trainees shall be assigned to work where an electrical hazard exists.
- C. If the utility company must remedy a hazard before tree work can commence, the Contractor shall notify the City to establish a work plan and scheduling.

Tree Damage and Pruning Habits

Select a date
1/1/2018 and after

Total Damaged Trees
1.4k

Damaged Trees and Previous Prune Interval



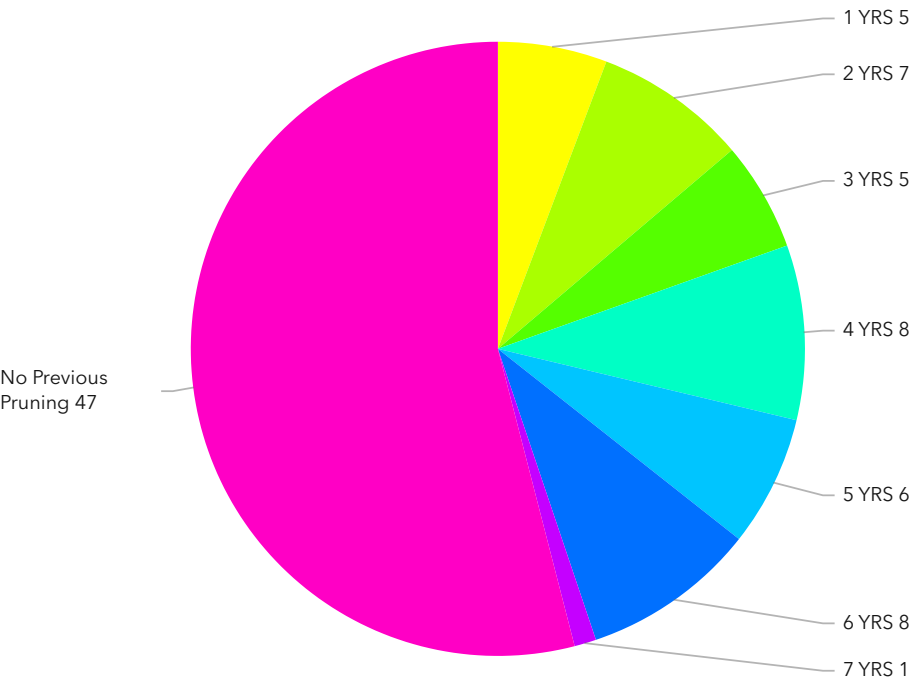
Data shows all of the damaged trees and the amount of years between their last prune date and when the damage happened.

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.

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 <i>Transportation Engineer III</i>	Ann Arbor, MI 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) <i>Senior Transportation Engineer</i>	Ann Arbor, MI 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 <i>Transportation Engineer I, II</i>	New York, NY 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 <i>Planning & Regional Development Internship – September 11th Memorial Scholarship Program</i>	New York, NY 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	

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

DIRECT TESTIMONY OF RAYMOND HESS
ON BEHALF OF
THE MICHIGAN MUNICIPAL ASSOCIATION FOR UTILITY ISSUES

May 19, 2022

1 **I. INTRODUCTION & QUALIFICATIONS**

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

3 A. My name is Raymond Hess. I am the Transportation Manager for the City of Ann Arbor
4 ("Ann Arbor" or "the City"). My office is located at 301 E. Huron Street, Ann Arbor, MI
5 48107 .

6 **Q. On whose behalf is this testimony being offered?**

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

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

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

15 **Q. Are you testifying today as an expert?**

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

19 **Q. What is the purpose of your testimony?**

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

25 **Q. Are you sponsoring any exhibits?**

26 A. Yes, I am sponsoring the following exhibits:

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

33 **II. MUNICIPAL STREETLIGHTING OVERVIEW**

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

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

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

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

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

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

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

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

63 **III. REMOVING STREETLIGHTS IS TOO EXPENSIVE**

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

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

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

71 **Q. Does the City remove DTE lights frequently?**

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

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

79 A. Yes, I can. My Exhibit MAUI-27 is a light-removal quote from DTE dated August 31,
80 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

155 Payment aside, this timeline does not factor into account the true timeline of when the
156 request is first made of DTE. For example, the City requested new streetlights at three
157 different locations on January 20, 2021: Newport at Lowell/White Oak; 3264/3265 Baylis;
158 and Stone School from Eisenhower to I-94. These installations were completed on March
159 17, 2022, March 31, 2022, and April 11, 2022, respectively – well over a year of the initial
160 request. This is fairly representative of our experience of how long it takes for a new
161 streetlight to be installed from the time of the initial request.

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

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

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

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

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

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

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

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

187 A. According to DTE's data, Ann Arbor had 1,413 outages to DTE owned streetlights in 2021
188 and 1,397 in 2020.¹ That means about 27% of all DTE-owned streetlights in the city
189 experienced a reported outage in each of those years.

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

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

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

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

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

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

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

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

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

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

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

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

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

220 A. No, it does not. Our observation is that a much higher percentage of lights are not working
221 properly on any given night. My understanding is that MAUI witness Bunch will present
222 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.

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

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

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

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

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

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

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

252 Notwithstanding, arguing over the appropriateness of a credit after 30 days of outage is
253 somewhat beside the point because I have never known DTE to issue Ann Arbor a bill
254 credit for any length of outage. According to the outage data DTE reported to us, we had
255 188 lights out in 30 different outage events that lasted 30 or more days in 2021.³ We
256 received no bill credits even though DTE's policy says we should. And, these longer
257 outages comprise only a fraction of the 14,668 days of service the City paid for in 2021 but
258 received no service owing to outages. This is like paying for a streetlight for more than 40
259 years that never works.

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

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

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

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

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

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

280 A. In summary, I recommend that the Commission:

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

15

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 <u>Attachment 1</u> .	
3. Total number of lights to be installed:	4,087	
4. Description of Equipment to be installed (the " <u>Equipment</u> "):	<u>Overhead Fed Streetlights on Wood Poles:</u> 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 <u>Underground Fed Streetlights on Fiberglass or Metal Posts:</u> 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 (" <u>CIAC Amount</u> ")	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:

DTE Electric Company

By: _____

Name: _____

Title: _____

Date: _____

Customer:

City of Ann Arbor

By: _____

Name: _____

Title: _____

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

Program Highlights

Luminaire Options

Decorative Post Top Lighting

LED Area Lighting

Poles & Posts

Additional Resources

Protect your home

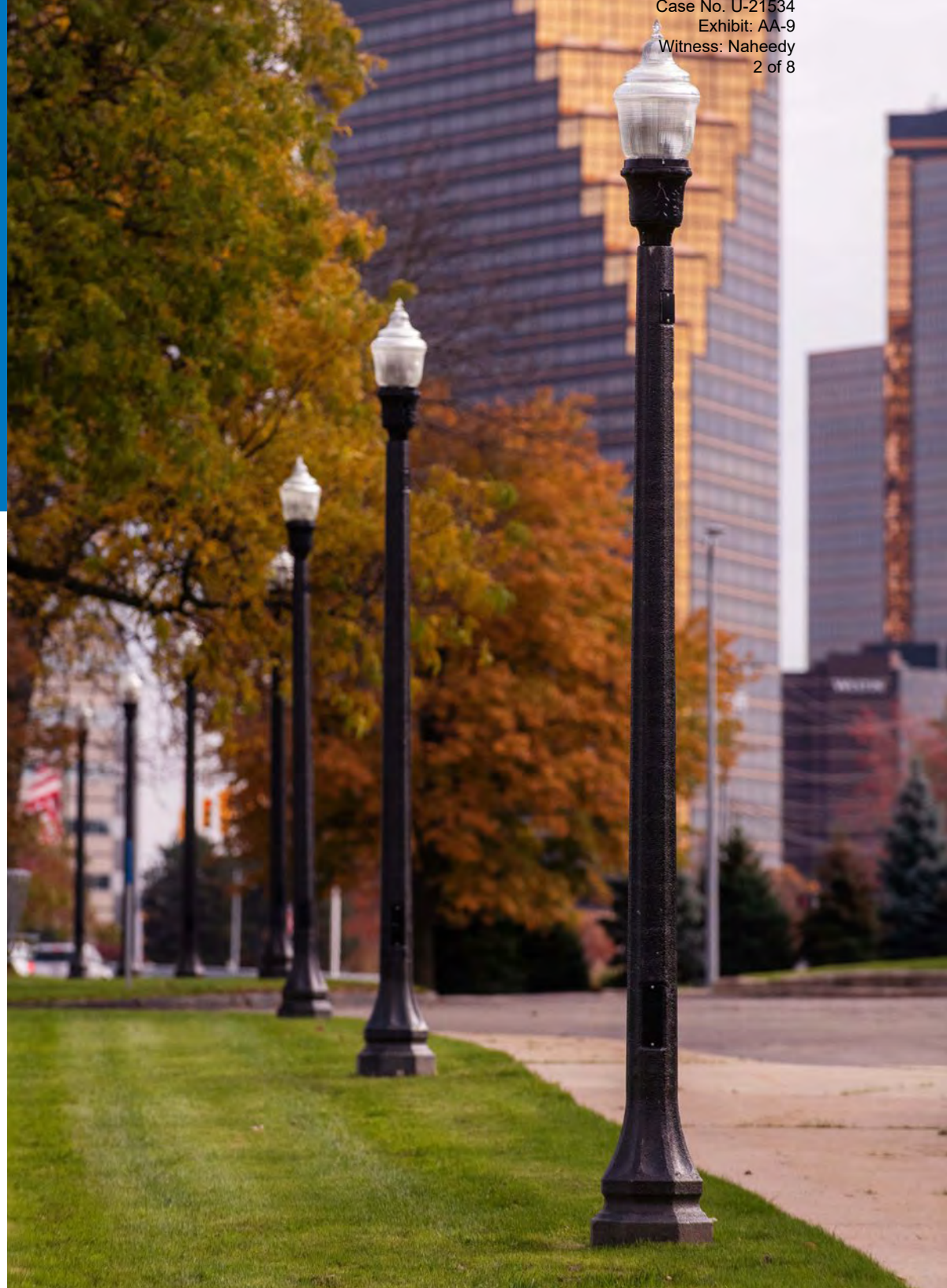
Outdoor Protective Lighting provides maintenance-free exterior lighting service to your home. Protecting your property and neighborhood with efficient and affordable outdoor lighting is easy with DTE Energy.

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



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 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).

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



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.

Product Information:

Product information can be provided to customers upon request.

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.

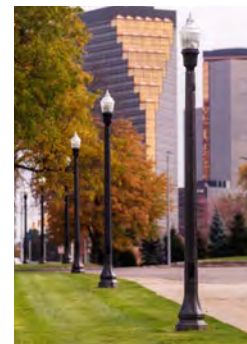
DTE provides a variety of options for flexibility during installations that include direct embedded posts and anchor base posts that can be mounted to standard or high-band concrete foundations.



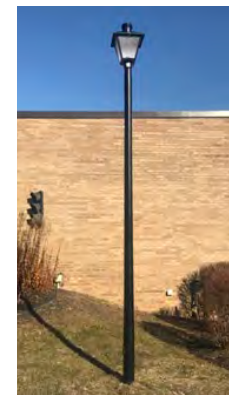
DTE Post Code 16: 12' or 14' black fiberglass post with concrete foundation. Engineered to support decorative dual lum brackets and receptacles.



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.

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



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,

A handwritten signature in black ink that reads "Robert Bellini". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

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.

EDUCATION

Gerald R. Ford School of Public Policy, University of Michigan
Master of Public Policy

Ann Arbor, MI
2010

- Focus: Public Administration and Policy Analysis

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

Birmingham, AL
2006

- Honors: Phi Beta Kappa, summa cum laude

PROFESSIONAL EXPERIENCE

City of Ann Arbor
Chief of Staff, Public Services Area

Ann Arbor, MI
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
Senior Consultant, State & Local Government Practice

Detroit, MI
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
Chief of Staff to Mayor Joseph A. Curtatone

Somerville, MA
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.

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 to identify 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	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, SEL	Ton	\$	130.00	2610	\$	339,300.00	\$ -
2	Road	08070.19	HMA, SEMPL	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

Contact Information

734-794-6430



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Ann Arbor, MI 48104



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

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.

CLIMATE AND SUSTAINABILITY CONSULTANT (CONT)

STULTS CONSULTING | FEB 2013 - JUL 2018

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

- 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.

Direct Testimony of Bente Villadsen

**DTE Electric Company
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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

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

3 A6. Yes, they were.

4 **II. SUMMARY OF CONCLUSIONS**

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

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

- 13
 - The estimated range determined by each of the implemented models is as follows:

14 **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%	

15

Direct Testimony of Bente Villadsen

**DTE Electric Company
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1 * The DCF method results in an estimated cost of equity of 10.3 percent prior to any financial
2 risk adjustments.²

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

8 Based on my analysis, I conclude as follows:

- 9 • DTE Electric has higher business risk than the comparable electric utilities
10 because of (1) the combined potential for a drop in customer demand due to
11 customer choice and the lack of a revenue decoupling mechanism, (2) the
12 challenging economic environment in DTE Electric's service territory, (3) the
13 higher than average capital expenditures for DTE Electric, and (4) its ownership
14 of nuclear generation, representing approximately 19% of its generation mix in
15 2023.³ Nevertheless, despite these risks, the recommended ROE is at the
16 midpoint of the reasonable range and thus is conservative.
- 17 • Interest rates have increased substantially since late 2021 / early 2022 (the time
18 of DTE Electric's last rate case).⁴ At the same time, systematic risk as measured
19 by beta remains relatively constant as does the historical Market Risk Premium,
20 so the estimated Cost of Equity is higher today than what is reflected in the data
21 the Commission reviewed in its recent decision regarding DTEE's allowed ROE
22 (9.9% in case no. U-20836).

23 **Q8. How is the remainder of your testimony organized?**

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.

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

Direct Testimony of Bente Villadsen

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

10 **Q64. Can you summarize your assessment of DTE Electric’s business risk relative to**
11 **the sample companies?**

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

14 **VII. COST OF CAPITAL RECOMMENDATION**

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

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

18 **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

19
20 Based on the figures above, it is evident that the current cost of equity is higher than in
21 DTE Electric’s last rate case, when a ROE of 9.9 percent was allowed. The average
22 of the low and high estimates results in a range of 9.9 to 10.6 percent, the midpoint
23 (rounded to the nearest ¼ percent) is 10.25 percent. This is a conservative estimate

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

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

13 **Q66. Does this conclude your testimony?**

14 A66. Yes.

⁸⁹ DTE Energy, 2020 10-K, p. 9.

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

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

12345

01 Ratings

RATING	ACTION	DATE	TYPE	Ratings Key	Outlook	Watch
A-	Affirmed	21-Mar-2024	Long Term Issuer Default Rating	POSITIVE		
F2	Affirmed	21-Mar-2024	Short Term Issuer Default Rating	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

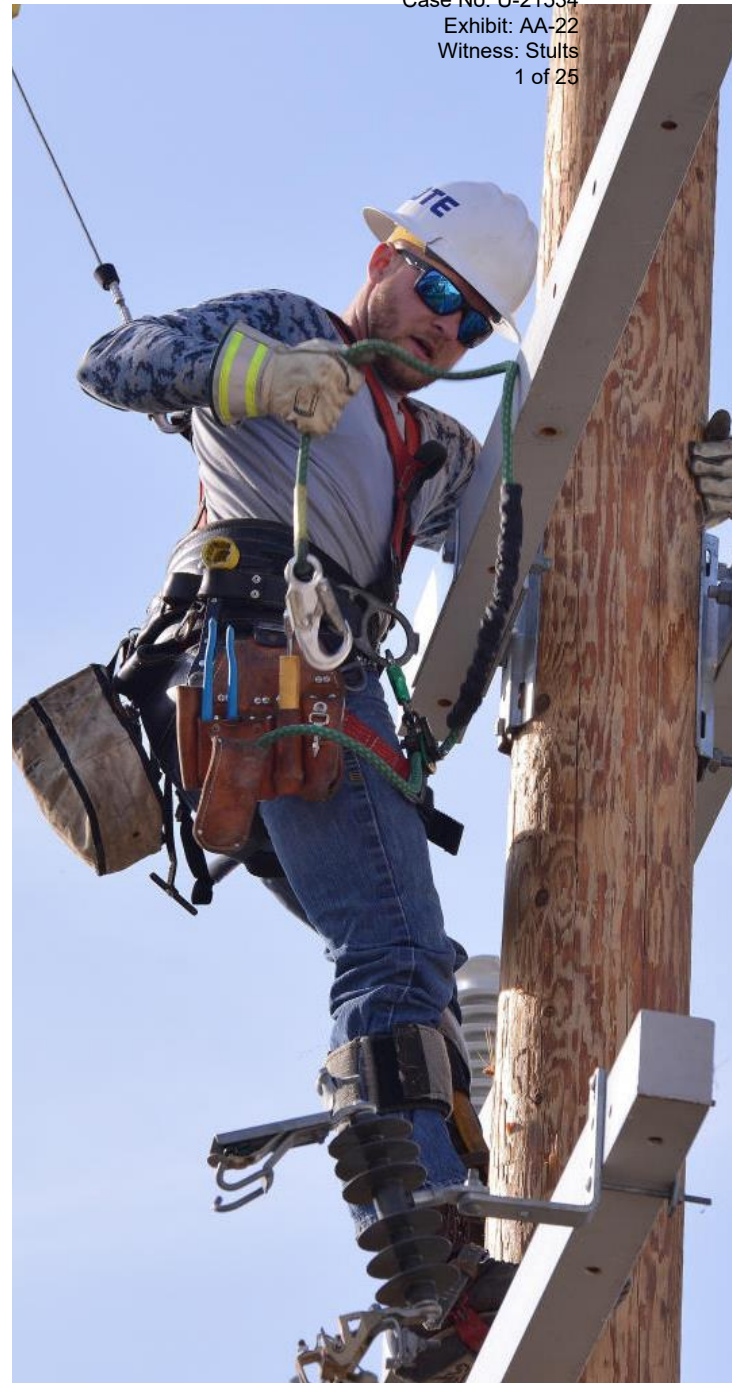
Fitch Rates DTE Electric Company's 2024 Series B and C Mortgage Bonds 'A+'

RATING ACTION COMMENTARY / MON 27 FEB, 2023

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

RATING ACTION COMMENTARY / MON 27 FEB, 2023

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



Safe harbor statement

The information contained herein is as of the date of this document. DTE Energy expressly disclaims any current intention to update any forward-looking statements contained in this document as a result of new information or future events or developments. Words such as “anticipate,” “believe,” “expect,” “may,” “could,” “projected,” “aspiration,” “plans” and “goals” signify forward-looking statements. Forward-looking statements are not guarantees of future results and conditions but rather are subject to various assumptions, risks and uncertainties that may cause actual future results to be materially different from those contemplated, projected, estimated or budgeted. Many factors may impact forward-looking statements including, but not limited to, the following: the impact of regulation by the EPA, EGLE, the FERC, the MPSC, the NRC, and for DTE Energy, the CFTC and CARB, as well as other applicable governmental proceedings and regulations, including any associated impact on rate structures; the amount and timing of cost recovery allowed as a result of regulatory proceedings, related appeals, or new legislation, including legislative amendments and retail access programs; economic conditions and population changes in our geographic area resulting in changes in demand, customer conservation, and thefts of electricity and, for DTE Energy, natural gas; the operational failure of electric or gas distribution systems or infrastructure; impact of volatility in prices in international steel markets and in prices of environmental attributes generated from renewable natural gas investments on the operations of DTE Vantage; the risk of a major safety incident; environmental issues, laws, regulations, and the increasing costs of remediation and compliance, including actual and potential new federal and state requirements; the cost of protecting assets and customer data against, or damage due to, cyber incidents and terrorism; health, safety, financial, environmental, and regulatory risks associated with ownership and operation of nuclear facilities; volatility in commodity markets, deviations in weather and related risks impacting the results of DTE Energy’s energy trading operations; changes in the cost and availability of coal and other raw materials, purchased power, and natural gas; advances in technology that produce power, store power or reduce power consumption; changes in the financial condition of significant customers and strategic partners; the potential for losses on investments, including nuclear decommissioning trust and benefit plan assets and the related increases in future expense and contributions; access to capital markets and the results of other financing efforts which can be affected by credit agency ratings; instability in capital markets which could impact availability of short and long-term financing; impacts of inflation and the timing and extent of changes in interest rates; the level of borrowings; the potential for increased costs or delays in completion of significant capital projects; changes in, and application of, federal, state, and local tax laws and their interpretations, including the Internal Revenue Code, regulations, rulings, court proceedings, and audits; the effects of weather and other natural phenomena, including climate change, on operations and sales to customers, and purchases from suppliers; unplanned outages at our generation plants; employee relations and the impact of collective bargaining agreements; the availability, cost, coverage, and terms of insurance and stability of insurance providers; cost reduction efforts and the maximization of plant and distribution system performance; the effects of competition; changes in and application of accounting standards and financial reporting regulations; changes in federal or state laws and their interpretation with respect to regulation, energy policy, and other business issues; successful execution of new business development and future growth plans; contract disputes, binding arbitration, litigation, and related appeals; the ability of the electric and gas utilities to achieve net zero emissions goals; and the risks discussed in DTE Energy’s public filings with the Securities and Exchange Commission. New factors emerge from time to time. We cannot predict what factors may arise or how such factors may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements speak only as of the date on which such statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. This document should also be read in conjunction with the Forward-Looking Statements section in DTE Energy’s public filings with the Securities and Exchange Commission.

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

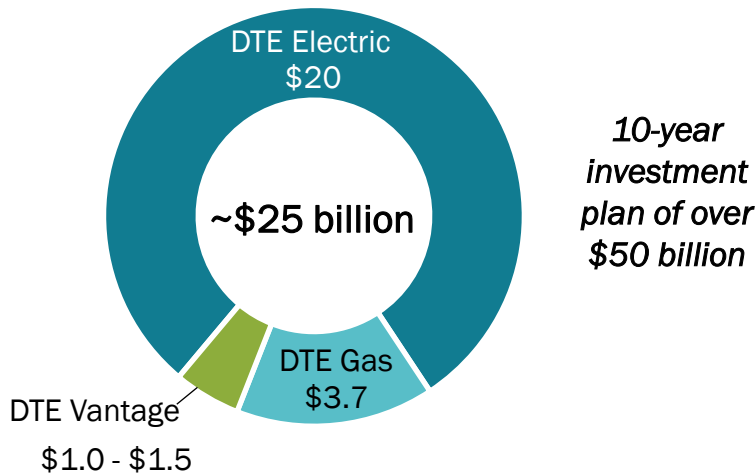
Supporting our communities

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

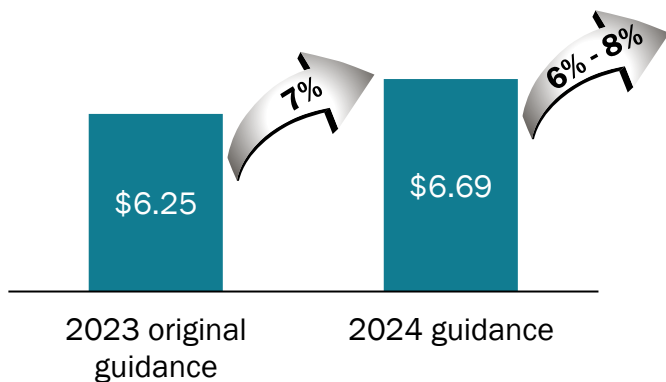
Delivering premium shareholder returns

- ✓ 2024 operating EPS¹ 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)



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

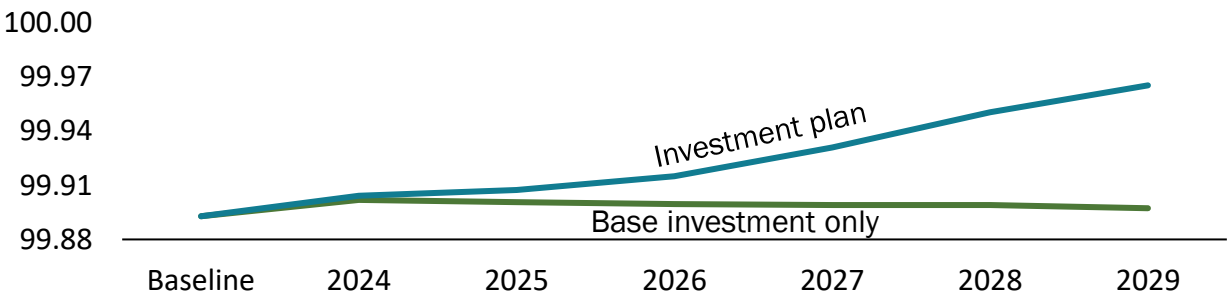
- ✓ Distinctive continuous improvement culture drives cost management
- ✓ Shift from coal to renewables and natural gas drives fuel and O&M cost reductions
- ✓ Inflation Reduction Act (IRA) supports transition to cleaner energy while supporting customer affordability goals and further enhancing DTE Vantage 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

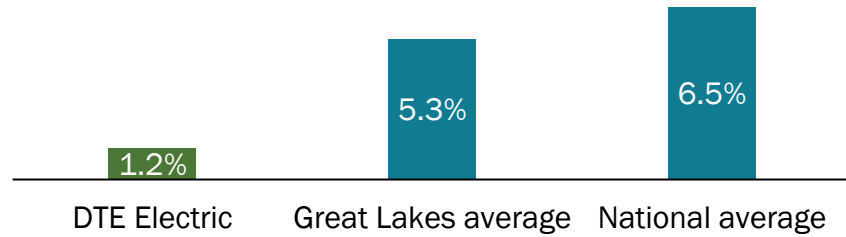
Targeting above industry median performance by 2029 for average system availability (%)



...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 2020¹



1. Source: Energy Information Administration (EIA)

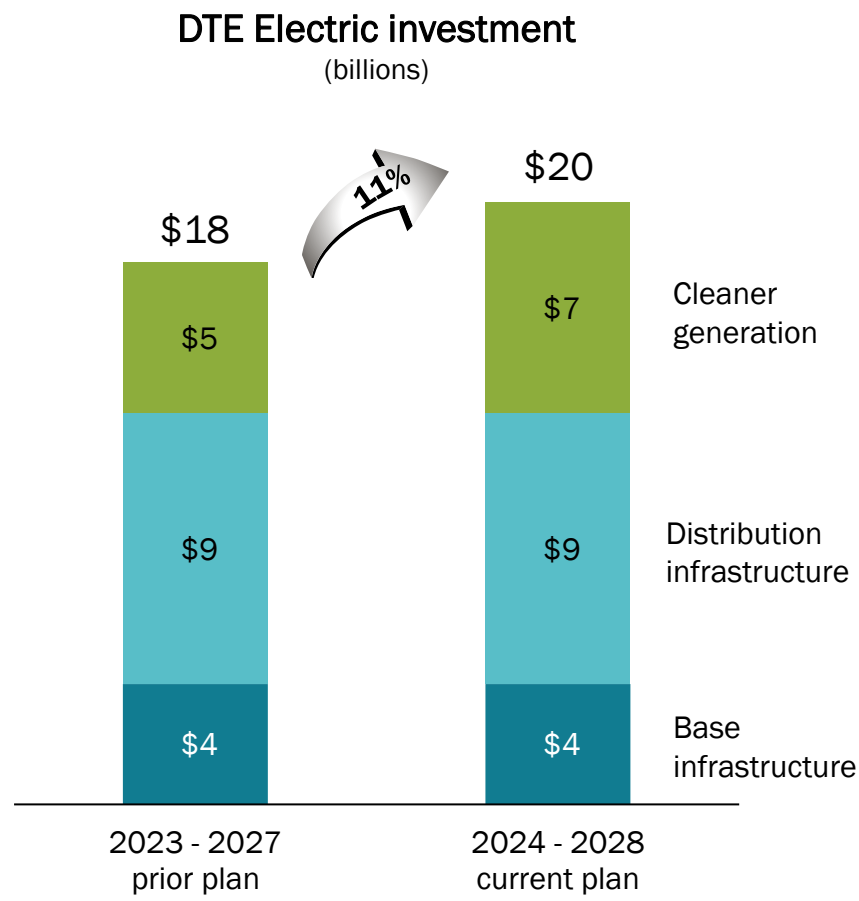
DTE Electric: transformational investments in distribution and generation

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 zero¹ 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

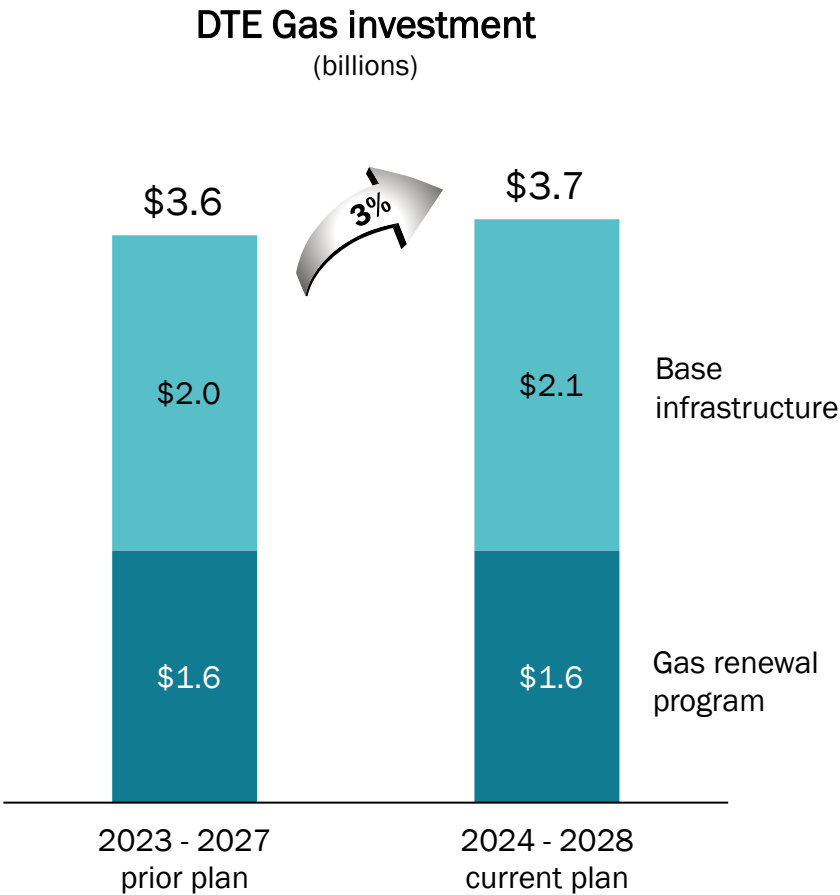
DTE Gas: replacing aging infrastructure to ensure reliability and transition to net zero emissions

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/renewables¹ and new decarbonization opportunities

- 2024 guidance of \$125 - \$135 million; 2028 operating earnings² 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 / Debt¹

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 EPS¹ 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)

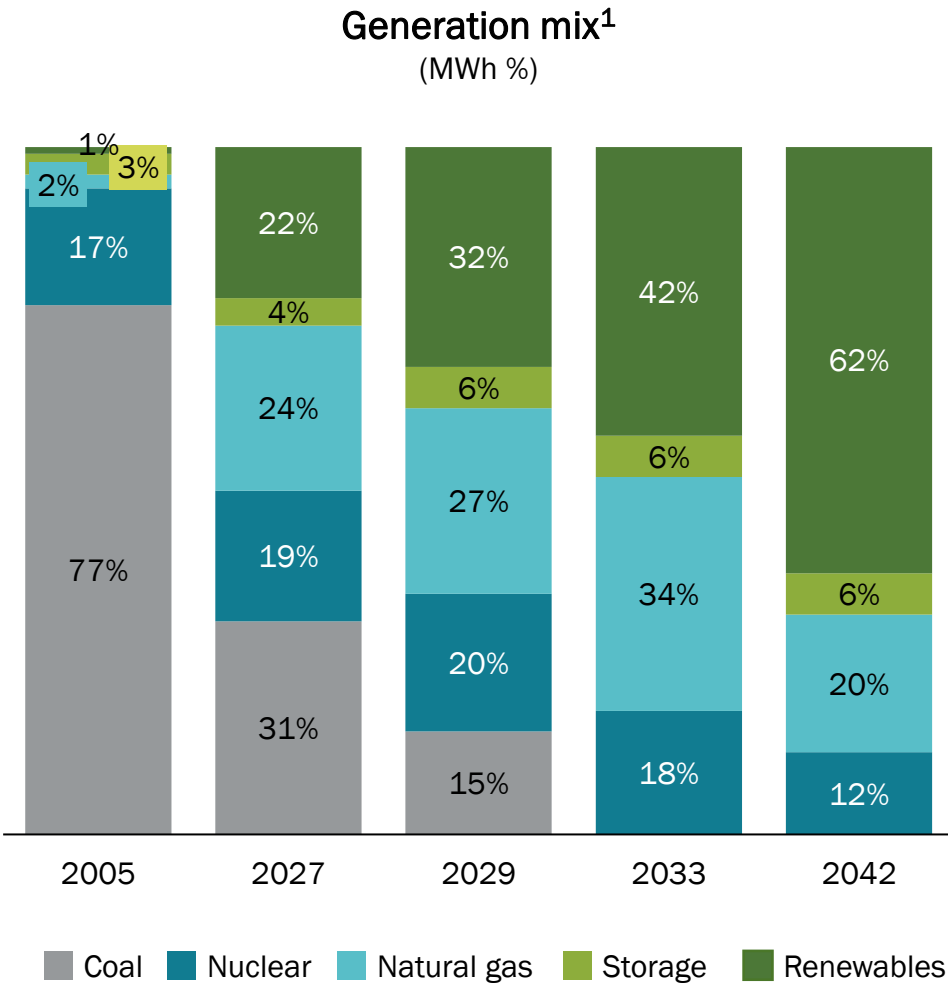
- Ceasing coal use at one Belle River unit in 2025 and remaining unit in 2026; converting to 1,300 MW natural gas peaking resource
- Adding 1,200 MW of solar
- Adding 350 MW of energy storage, increased from 240 MW

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

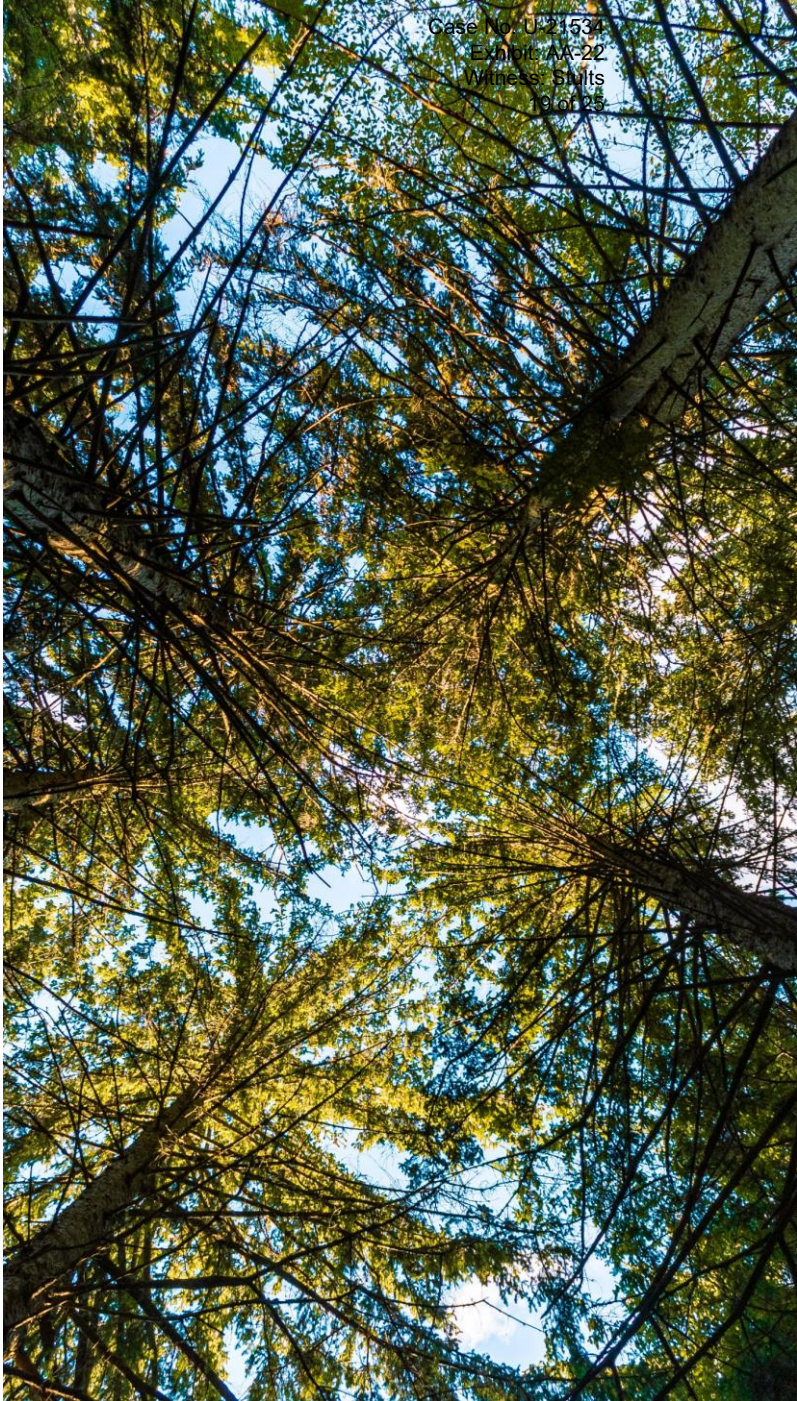
program inception

~13,000

customers subscribed

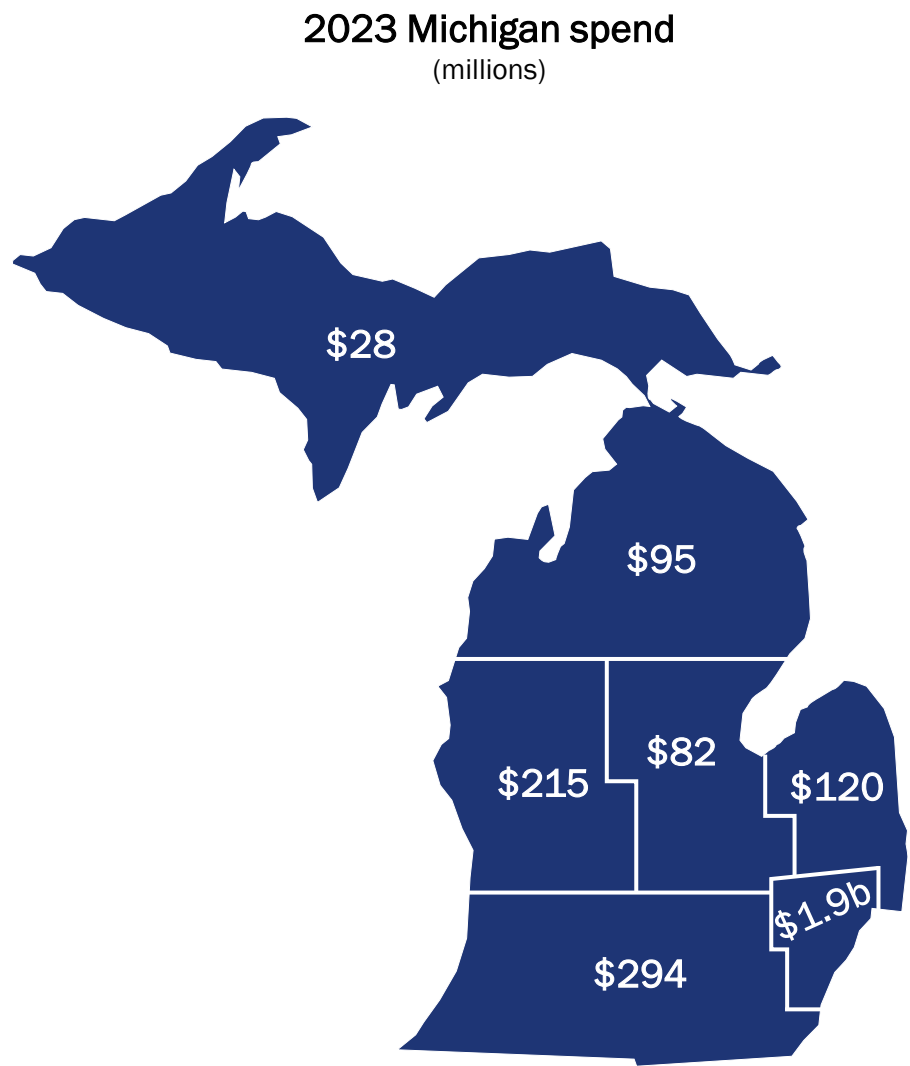
42,000

metric tons of CO2-e
have been offset



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

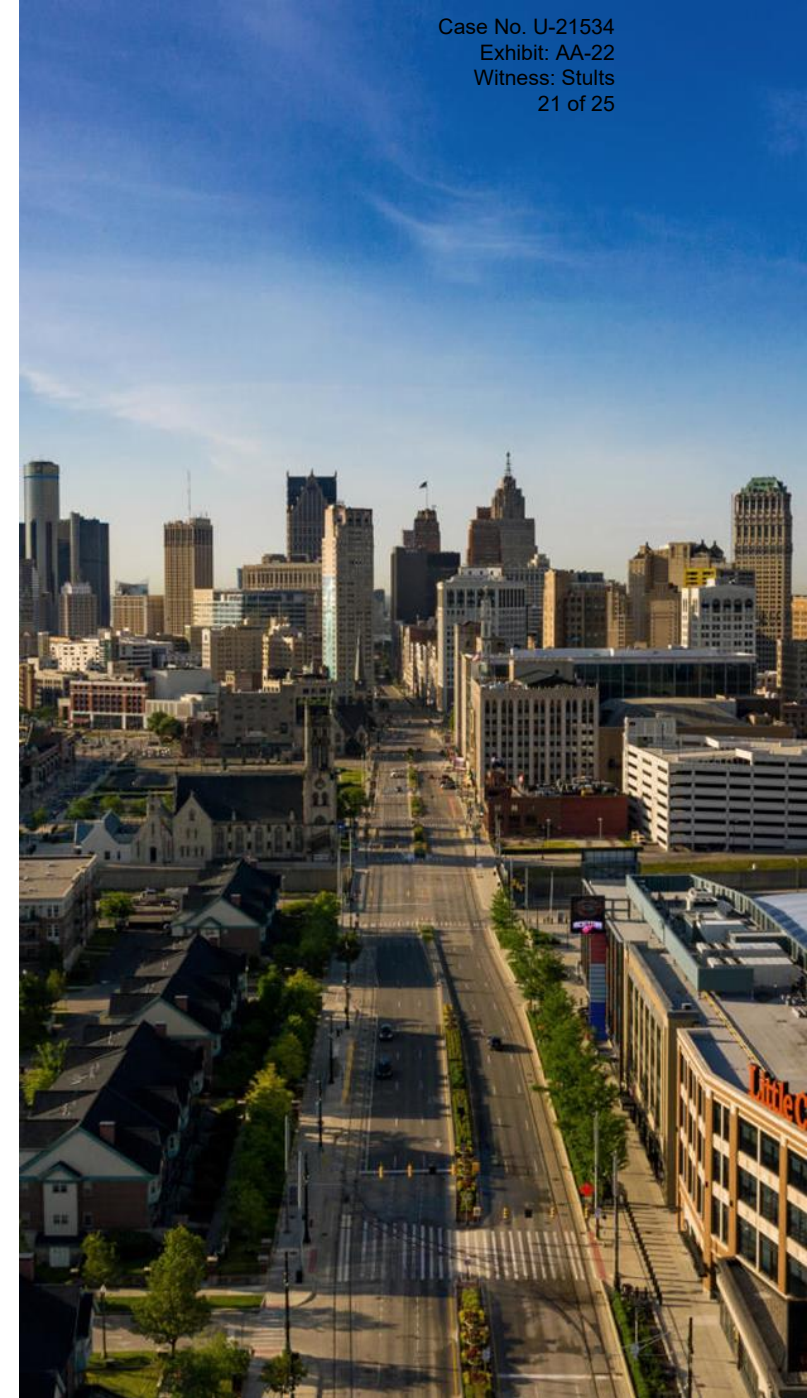
\$2.7b	invested with Michigan businesses in 2023
\$890m	invested with Detroit suppliers in 2023
\$990m	invested with suppliers owned by women, minorities, veterans, members of the LGBTQ+ community and disability-owned businesses in 2023
60+	supplier diversity awards earned since 2018
77,000	jobs created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



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 DART¹ 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



Employees with disabilities group



Asian and Middle Eastern American group



Family oriented group



LGBTQ+ group



Black professionals group



Latino and Hispanic group



Young professionals group



Military veterans group



Women's group

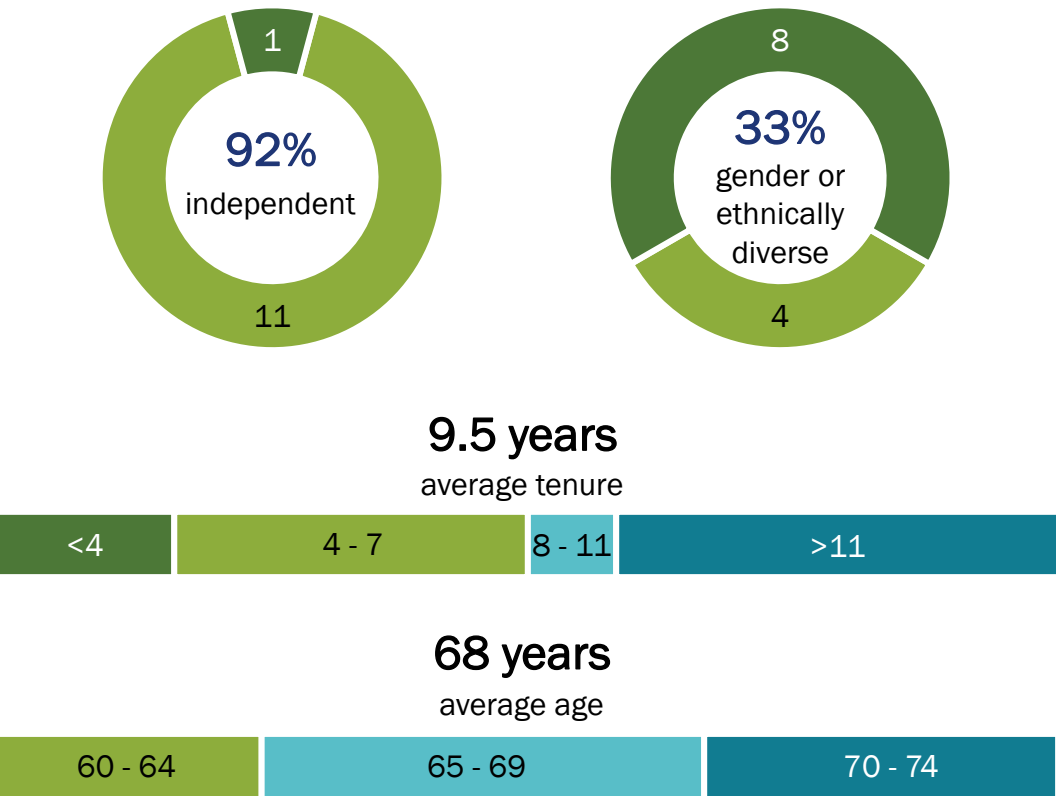
1. Days away, restricted or transferred

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



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

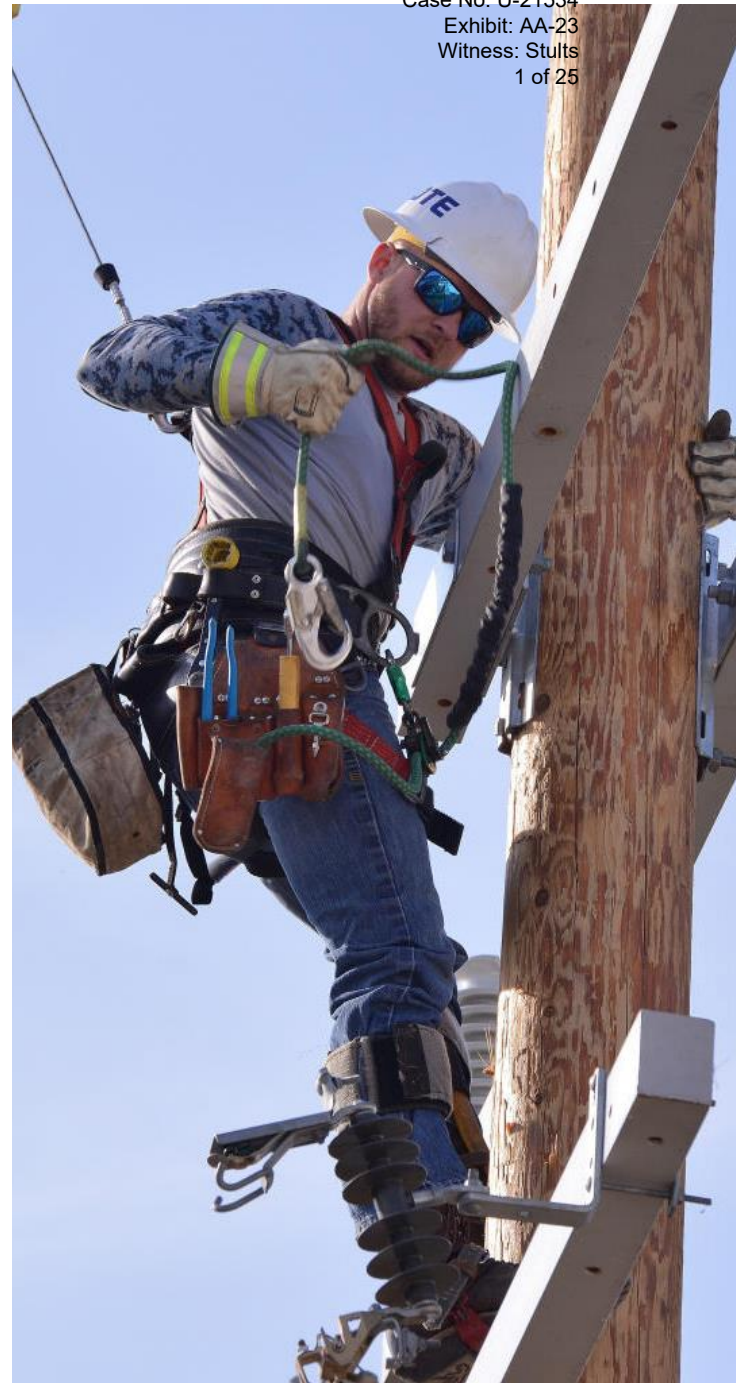
Goal for DTE Energy's utility operations and gas suppliers at DTE Gas that any carbon emissions put into the atmosphere will be balanced by those taken out of the atmosphere. Achieving this goal will include collective efforts to reduce carbon emissions and actions to offset any remaining emissions. 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



Safe harbor statement

The information contained herein is as of the date of this document. DTE Energy expressly disclaims any current intention to update any forward-looking statements contained in this document as a result of new information or future events or developments. Words such as “anticipate,” “believe,” “expect,” “may,” “could,” “projected,” “aspiration,” “plans” and “goals” signify forward-looking statements. Forward-looking statements are not guarantees of future results and conditions but rather are subject to various assumptions, risks and uncertainties that may cause actual future results to be materially different from those contemplated, projected, estimated or budgeted. Many factors may impact forward-looking statements including, but not limited to, the following: the impact of regulation by the EPA, EGLE, the FERC, the MPSC, the NRC, and for DTE Energy, the CFTC and CARB, as well as other applicable governmental proceedings and regulations, including any associated impact on rate structures; the amount and timing of cost recovery allowed as a result of regulatory proceedings, related appeals, or new legislation, including legislative amendments and retail access programs; economic conditions and population changes in our geographic area resulting in changes in demand, customer conservation, and thefts of electricity and, for DTE Energy, natural gas; the operational failure of electric or gas distribution systems or infrastructure; impact of volatility in prices in international steel markets and in prices of environmental attributes generated from renewable natural gas investments on the operations of DTE Vantage; the risk of a major safety incident; environmental issues, laws, regulations, and the increasing costs of remediation and compliance, including actual and potential new federal and state requirements; the cost of protecting assets and customer data against, or damage due to, cyber incidents and terrorism; health, safety, financial, environmental, and regulatory risks associated with ownership and operation of nuclear facilities; volatility in commodity markets, deviations in weather and related risks impacting the results of DTE Energy’s energy trading operations; changes in the cost and availability of coal and other raw materials, purchased power, and natural gas; advances in technology that produce power, store power or reduce power consumption; changes in the financial condition of significant customers and strategic partners; the potential for losses on investments, including nuclear decommissioning trust and benefit plan assets and the related increases in future expense and contributions; access to capital markets and the results of other financing efforts which can be affected by credit agency ratings; instability in capital markets which could impact availability of short and long-term financing; impacts of inflation and the timing and extent of changes in interest rates; the level of borrowings; the potential for increased costs or delays in completion of significant capital projects; changes in, and application of, federal, state, and local tax laws and their interpretations, including the Internal Revenue Code, regulations, rulings, court proceedings, and audits; the effects of weather and other natural phenomena, including climate change, on operations and sales to customers, and purchases from suppliers; unplanned outages at our generation plants; employee relations and the impact of collective bargaining agreements; the availability, cost, coverage, and terms of insurance and stability of insurance providers; cost reduction efforts and the maximization of plant and distribution system performance; the effects of competition; changes in and application of accounting standards and financial reporting regulations; changes in federal or state laws and their interpretation with respect to regulation, energy policy, and other business issues; successful execution of new business development and future growth plans; contract disputes, binding arbitration, litigation, and related appeals; the ability of the electric and gas utilities to achieve net zero emissions goals; and the risks discussed in DTE Energy’s public filings with the Securities and Exchange Commission. New factors emerge from time to time. We cannot predict what factors may arise or how such factors may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements speak only as of the date on which such statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. This document should also be read in conjunction with the Forward-Looking Statements section in DTE Energy’s public filings with the Securities and Exchange Commission.

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

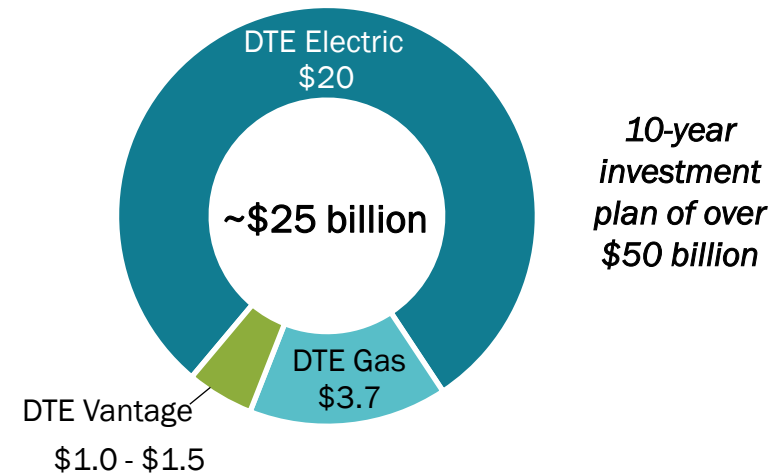
Supporting our communities

- ✓ 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

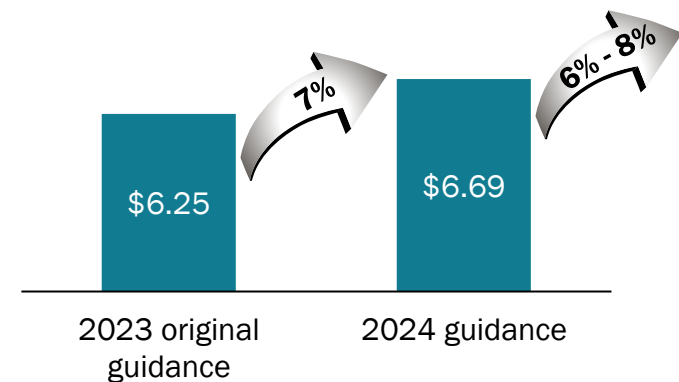
Delivering premium shareholder returns

- ✓ Increased 5-year utility capital investment by \$2 billion over previous plan
- ✓ 2024 operating EPS¹ 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)



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

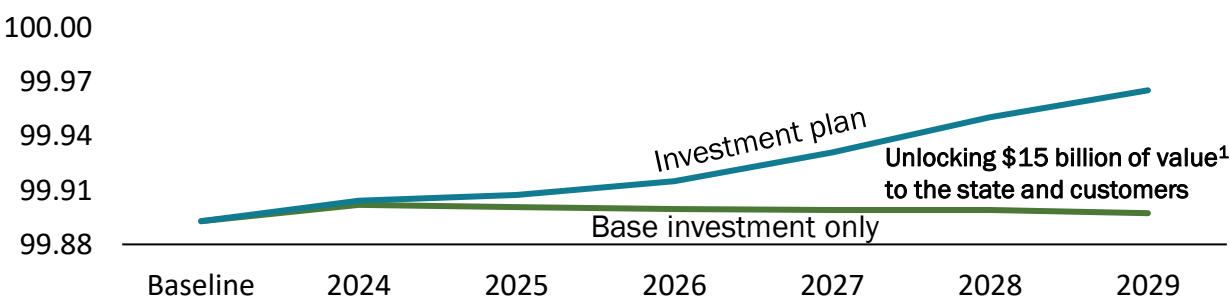
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- ✓ Shift from coal to renewables and natural gas drives fuel and O&M cost reductions
- ✓ Inflation Reduction Act (IRA) supports transition to cleaner energy while supporting customer affordability goals and further enhancing DTE Vantage opportunities
- ✓ 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

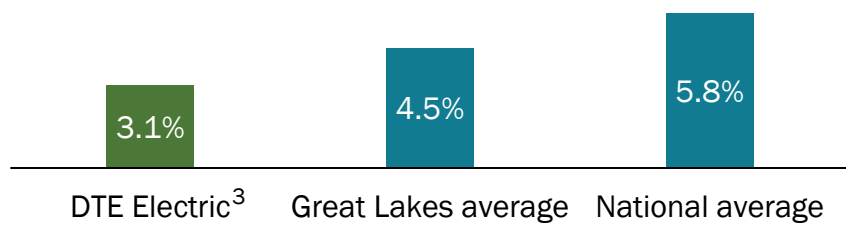
Above industry median performance by 2029 for average system availability (%)



...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 2021²

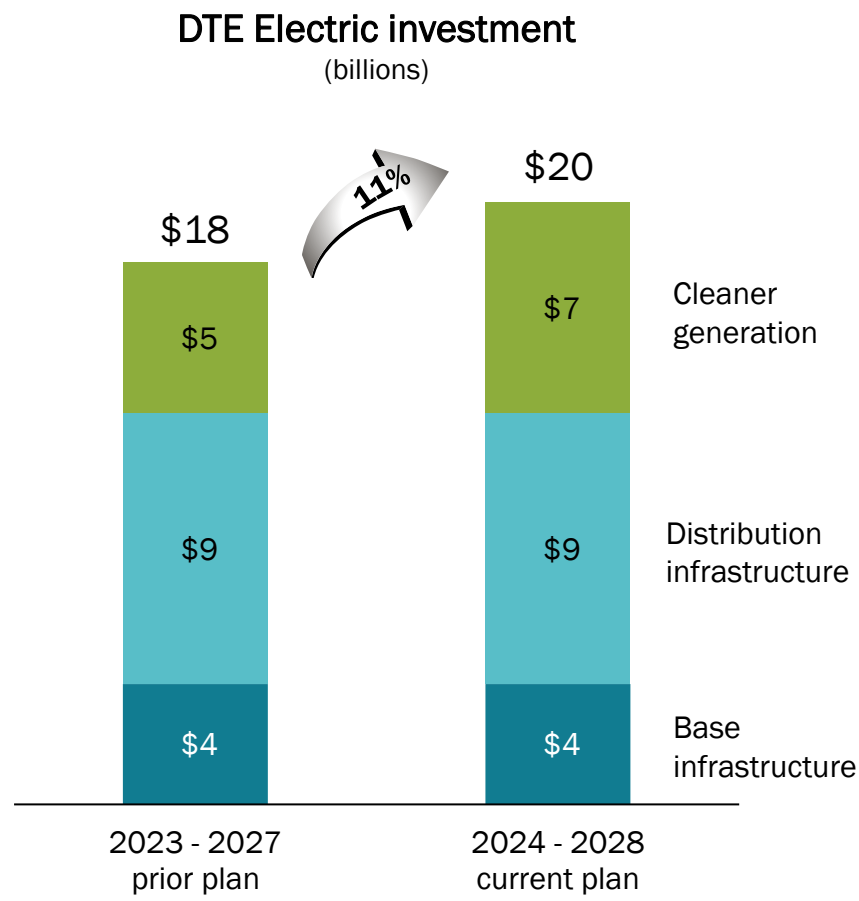


1. Source: Interruption Cost Estimate (ICE) Calculator developed by the Lawrence Berkeley National Laboratory
2. DTE forecasted through Jan 2025, peers actual through November 2023
3. Assumes rate relief of \$456 million

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 zero¹ 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

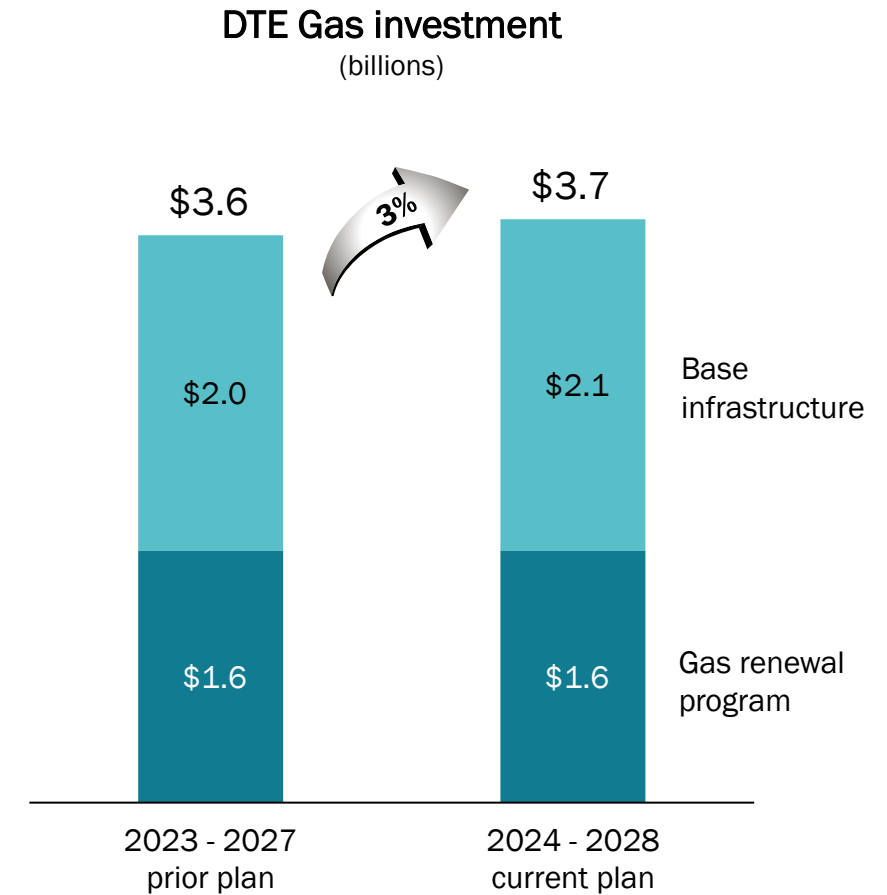


1. Definition of net zero included in the appendix

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/renewables¹ and new decarbonization opportunities

- Targeting operating earnings² 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 / Debt¹

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 EPS¹ 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)

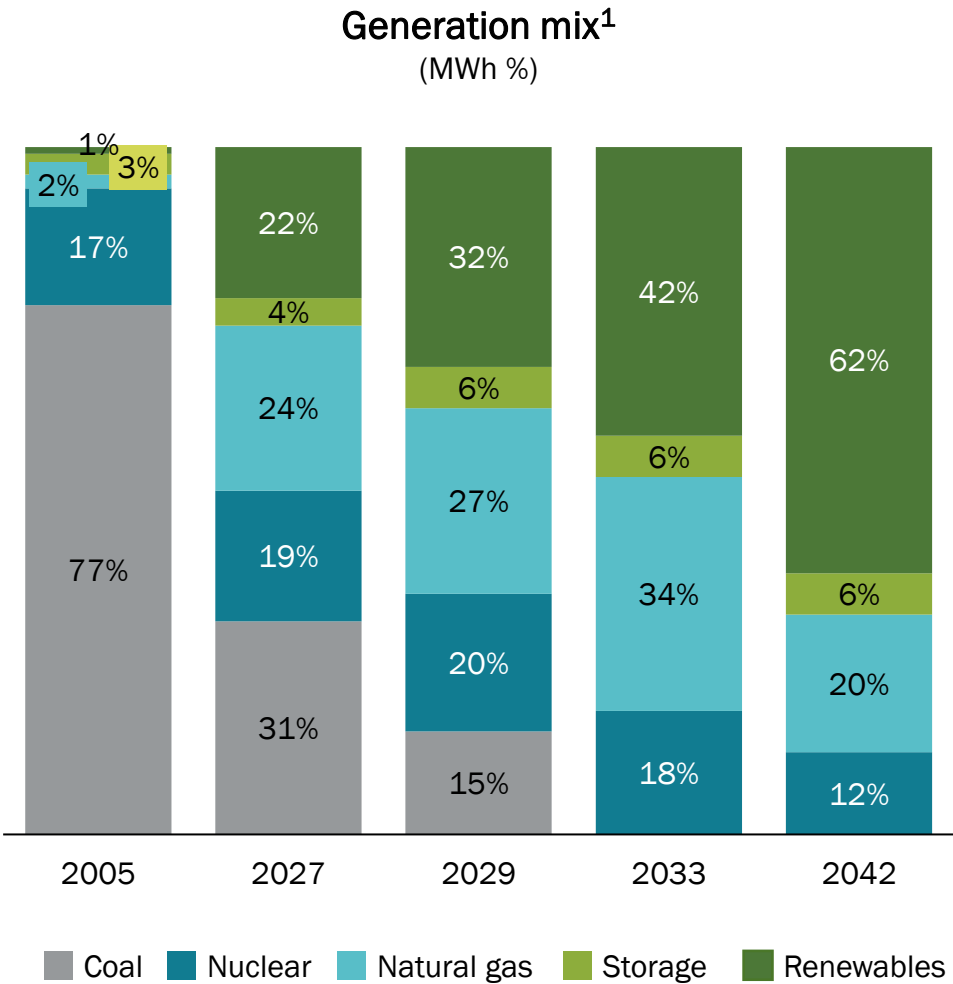
- Ceasing coal use at one Belle River unit in 2025 and remaining unit in 2026; converting to 1,300 MW natural gas peaking resource
- Adding 1,200 MW of solar
- Adding 350 MW of energy storage, increased from 240 MW

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

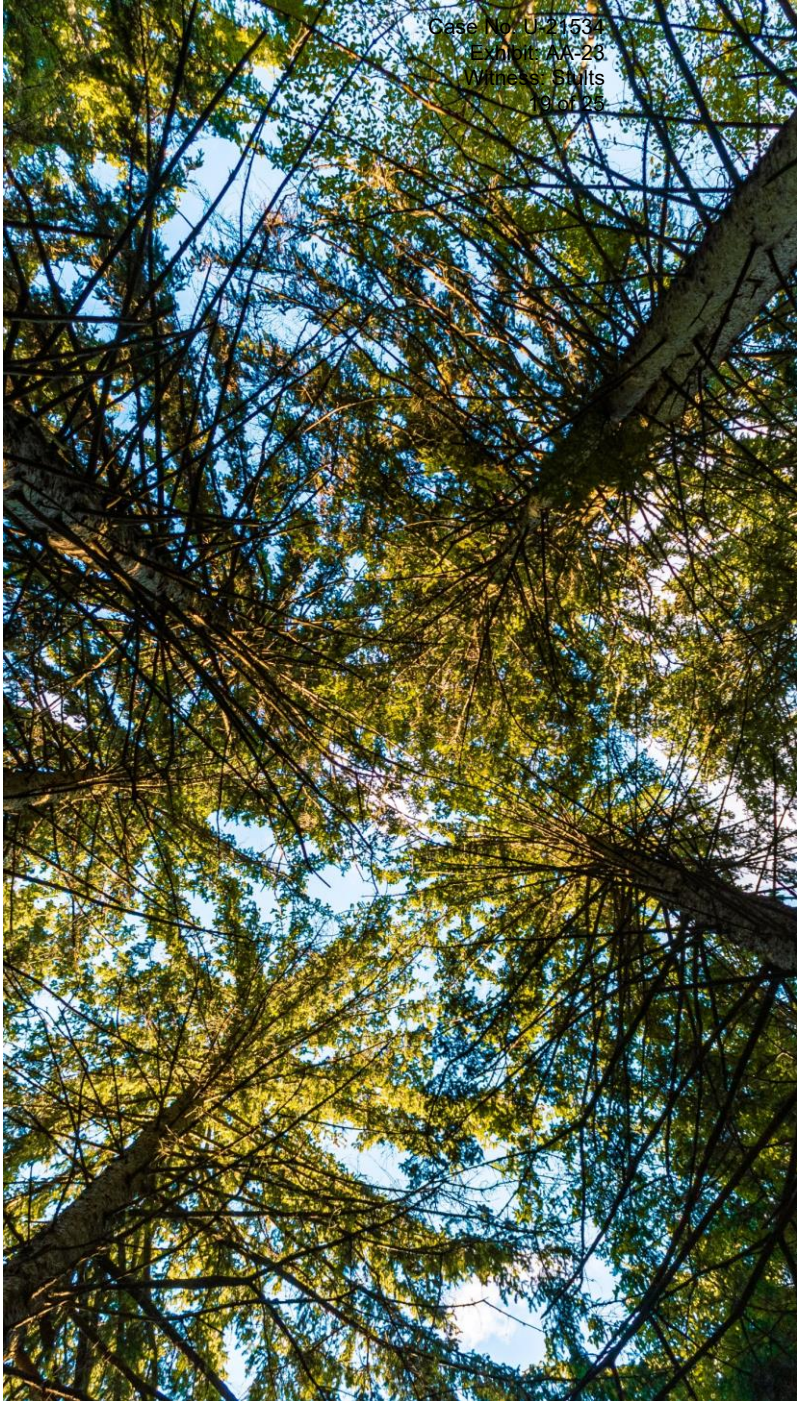
program inception

~13,000

customers subscribed

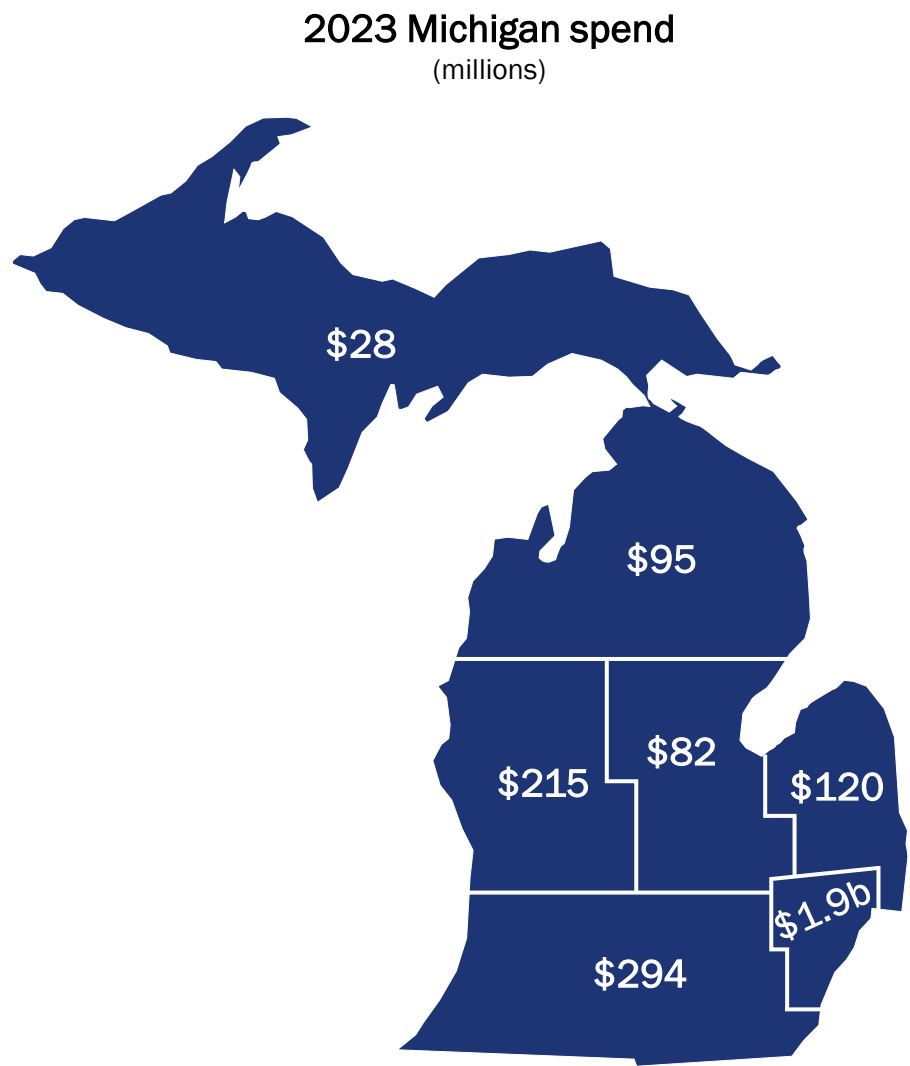
38,725

metric tons of CO2-e
have been offset



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

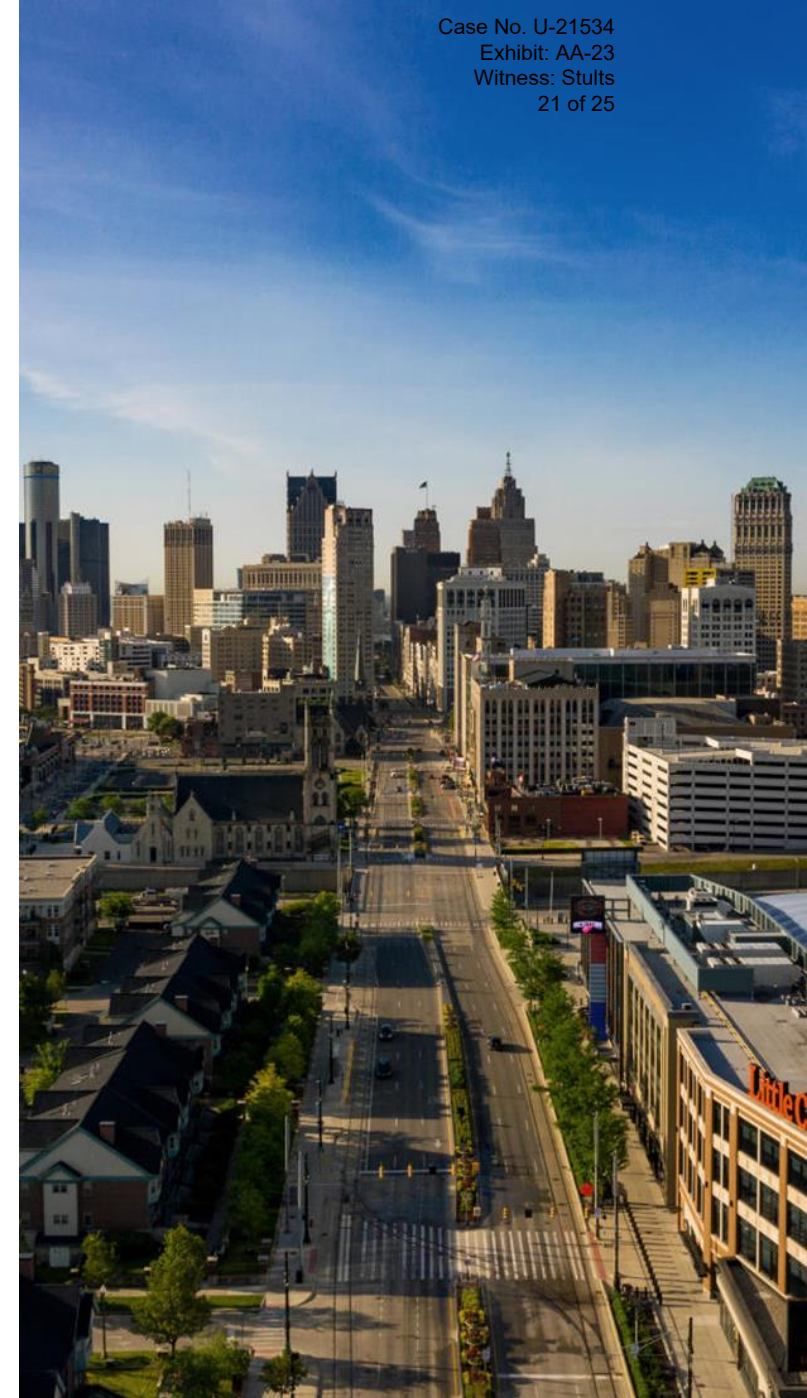
\$2.7b	invested with Michigan businesses in 2023
\$890m	invested with Detroit suppliers in 2023
\$990m	invested with suppliers owned by women, minorities, veterans, members of the LGBTQ+ community and disability-owned businesses in 2023
60+	supplier diversity awards earned since 2018
77,000	jobs created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



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 DART¹ 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



Employees with disabilities group



Asian and Middle Eastern American group



Family oriented group



LGBTQ+ group



Black professionals group



Latino and Hispanic group



Young professionals group



Military veterans group



Women's group

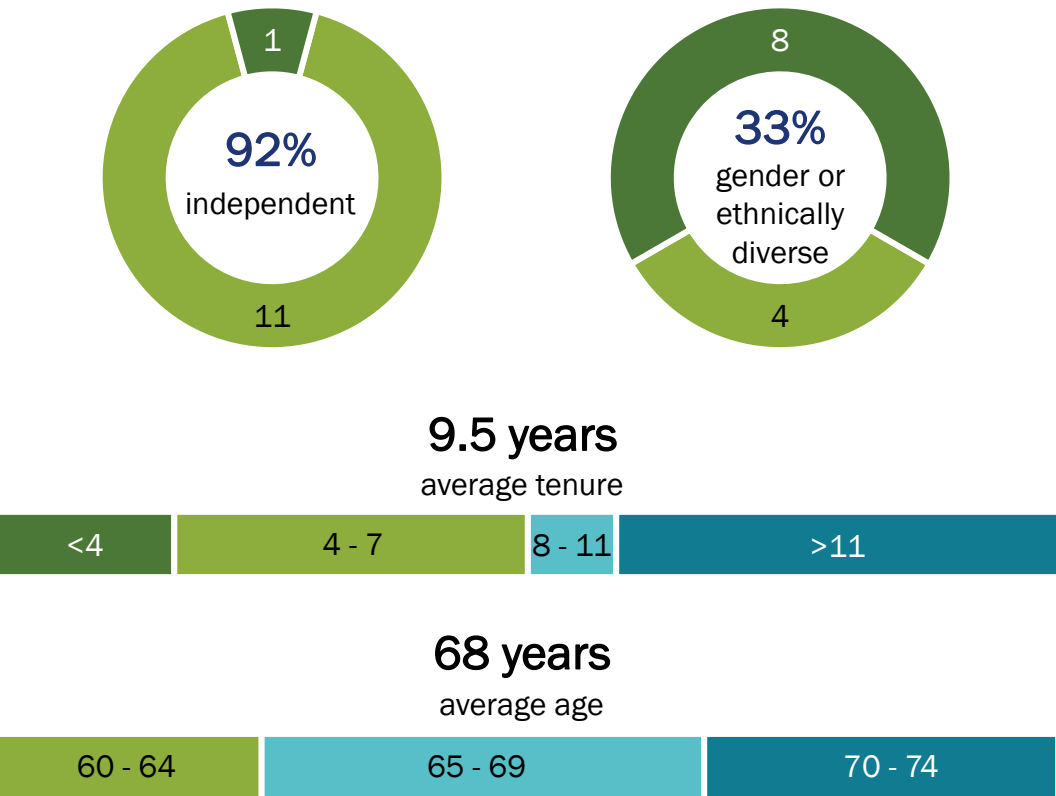
1. Days away, restricted or transferred

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



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

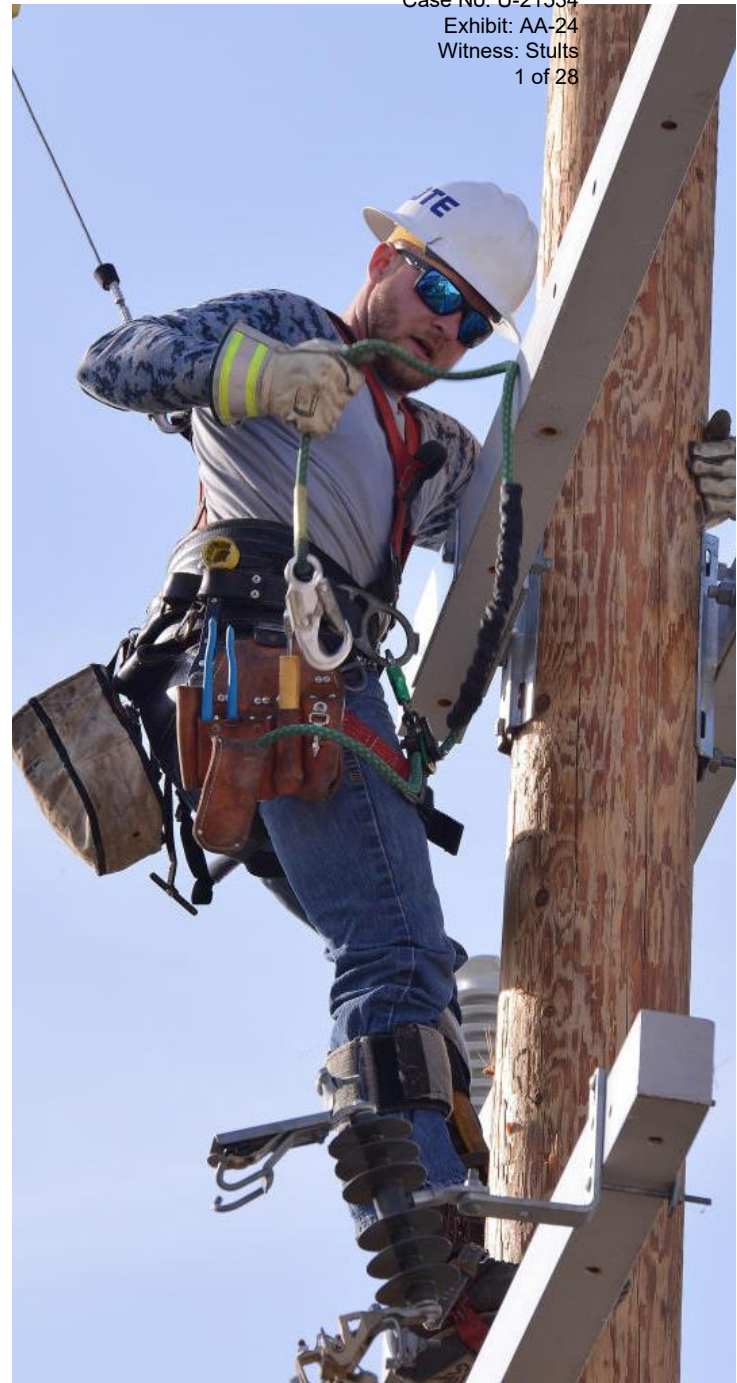
Goal for DTE Energy's utility operations and gas suppliers at DTE Gas that any carbon emissions put into the atmosphere will be balanced by those taken out of the atmosphere. Achieving this goal will include collective efforts to reduce carbon emissions and actions to offset any remaining emissions. 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

December 8, 2023



Safe harbor statement

The information contained herein is as of the date of this document. DTE Energy expressly disclaims any current intention to update any forward-looking statements contained in this document as a result of new information or future events or developments. Words such as “anticipate,” “believe,” “expect,” “may,” “could,” “projected,” “aspiration,” “plans” and “goals” signify forward-looking statements. Forward-looking statements are not guarantees of future results and conditions but rather are subject to various assumptions, risks and uncertainties that may cause actual future results to be materially different from those contemplated, projected, estimated or budgeted. Many factors may impact forward-looking statements including, but not limited to, the following: the impact of regulation by the EPA, EGLE, the FERC, the MPSC, the NRC, and for DTE Energy, the CFTC and CARB, as well as other applicable governmental proceedings and regulations, including any associated impact on rate structures; the amount and timing of cost recovery allowed as a result of regulatory proceedings, related appeals, or new legislation, including legislative amendments and retail access programs; economic conditions and population changes in our geographic area resulting in changes in demand, customer conservation, and thefts of electricity and, for DTE Energy, natural gas; the operational failure of electric or gas distribution systems or infrastructure; impact of volatility in prices in international steel markets and in prices of environmental attributes generated from renewable natural gas investments on the operations of DTE Vantage; the risk of a major safety incident; environmental issues, laws, regulations, and the increasing costs of remediation and compliance, including actual and potential new federal and state requirements; the cost of protecting assets and customer data against, or damage due to, cyber incidents and terrorism; health, safety, financial, environmental, and regulatory risks associated with ownership and operation of nuclear facilities; volatility in commodity markets, deviations in weather and related risks impacting the results of DTE Energy’s energy trading operations; changes in the cost and availability of coal and other raw materials, purchased power, and natural gas; advances in technology that produce power, store power or reduce power consumption; changes in the financial condition of significant customers and strategic partners; the potential for losses on investments, including nuclear decommissioning trust and benefit plan assets and the related increases in future expense and contributions; access to capital markets and the results of other financing efforts which can be affected by credit agency ratings; instability in capital markets which could impact availability of short and long-term financing; impacts of inflation and the timing and extent of changes in interest rates; the level of borrowings; the potential for increased costs or delays in completion of significant capital projects; changes in, and application of, federal, state, and local tax laws and their interpretations, including the Internal Revenue Code, regulations, rulings, court proceedings, and audits; the effects of weather and other natural phenomena, including climate change, on operations and sales to customers, and purchases from suppliers; unplanned outages at our generation plants; employee relations and the impact of collective bargaining agreements; the availability, cost, coverage, and terms of insurance and stability of insurance providers; cost reduction efforts and the maximization of plant and distribution system performance; the effects of competition; changes in and application of accounting standards and financial reporting regulations; changes in federal or state laws and their interpretation with respect to regulation, energy policy, and other business issues; successful execution of new business development and future growth plans; contract disputes, binding arbitration, litigation, and related appeals; the ability of the electric and gas utilities to achieve net zero emissions goals; and the risks discussed in DTE Energy’s public filings with the Securities and Exchange Commission. New factors emerge from time to time. We cannot predict what factors may arise or how such factors may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements speak only as of the date on which such statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. This document should also be read in conjunction with the Forward-Looking Statements section in DTE Energy’s public filings with the Securities and Exchange Commission.

Participants

Jerry Norcia – Chairman and CEO

Dave Ruud – Executive Vice President and CFO

Barbara Tuckfield – Director of Investor Relations

Significant utility investment improves reliability and provides cleaner generation, while maintaining affordability

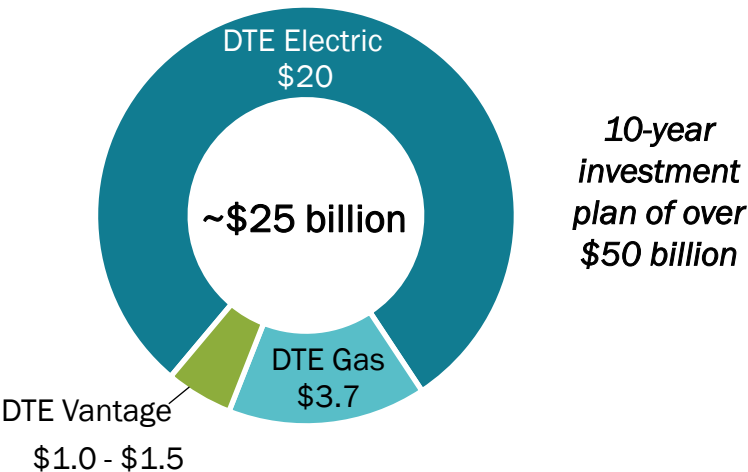
Customer-focused capital investments support building the grid of the future and cleaner energy transition

- ✓ *Constructive electric rate order supports customer-focused investments*
- ✓ *Distribution Grid Plan (DGP), new energy policy and Integrated Resource Plan (IRP) outline acceleration of reliability improvement and transition to cleaner generation*
- ✓ *Distinctive culture of managing costs and Inflation Reduction Act (IRA) underpin customer affordability*

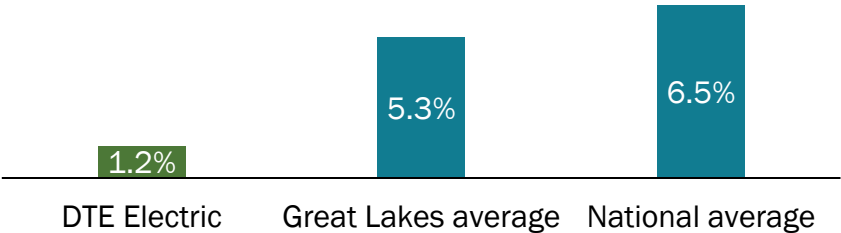
Utility investment and affordability commitment support long-term growth

- ✓ *Increasing 5-year utility capital investment by \$2 billion over previous plan*
- ✓ *Long-term operating EPS¹ growth rate target of 6% - 8% through 2028, with 2023 original guidance midpoint as the base*
- ✓ *2024 operating EPS early outlook provides 7% growth from 2023 original guidance midpoint*
- ✓ *2024 annualized dividend of \$4.08 per share is in line with operating EPS growth*
- ✓ *Strong balance sheet and solid investment-grade credit profile support capital investment plan*

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



Bill increase well below national average
Average annual residential bill growth since 2020



1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix
2. Subject to Board approval

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

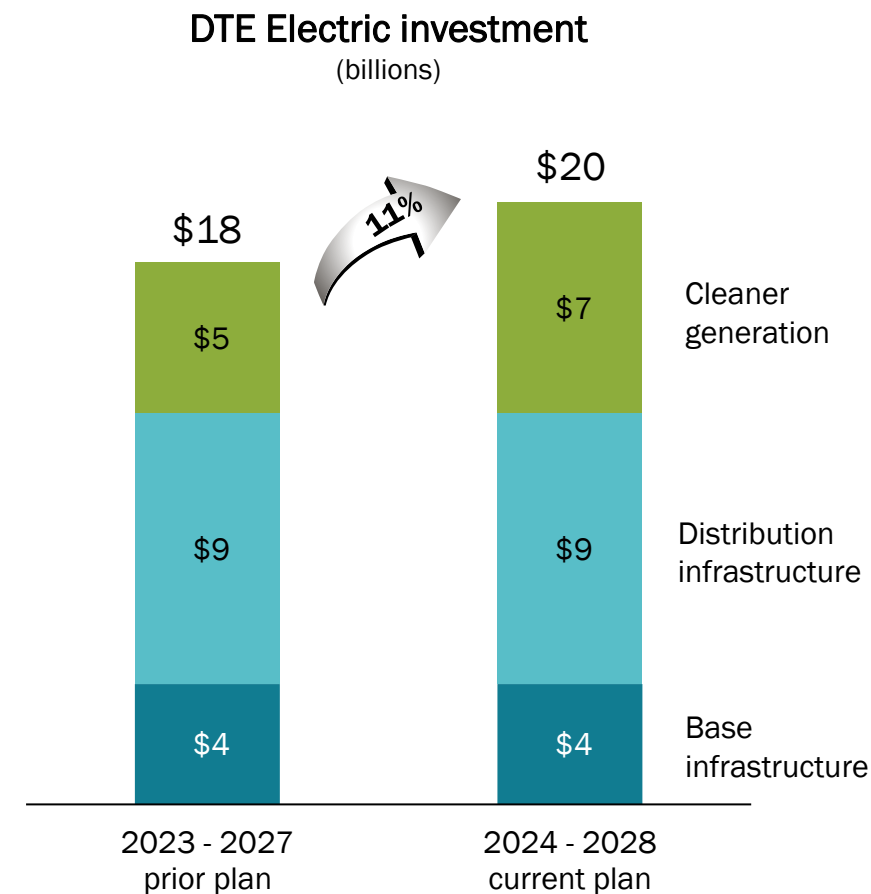
- Accelerates the pace of decarbonization and deployment of renewables
 - Renewable compliance standard of 50% by 2030 and 60% by 2035
 - Clean energy standard of 80% by 2035 and 100% by 2040
 - Allows MPSC to approve emerging low and zero carbon technologies, including carbon capture and sequestration
 - 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



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
 - Continuing preventative maintenance by upgrading more than 10,000 miles of infrastructure
 - 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 zero¹ 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

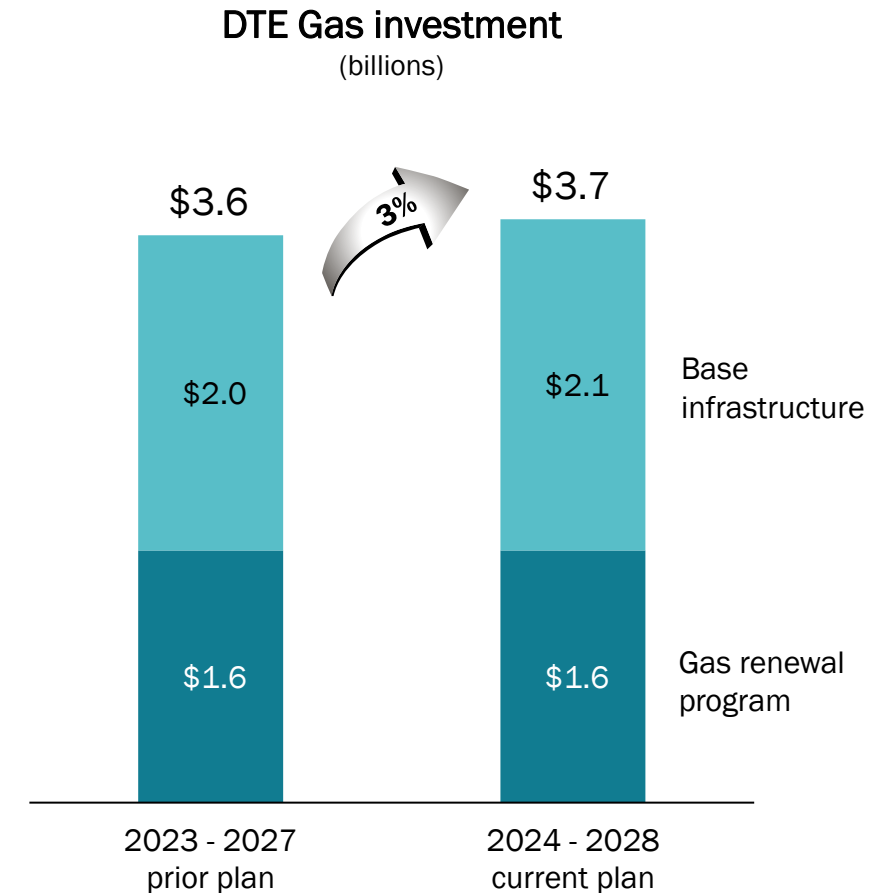


1. Definition of net zero included in the appendix

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 to support main renewal
 - Renewed 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 with opportunities in RNG and large custom energy solutions projects while expanding into carbon capture and sequestration
 - Advanced discussions on custom energy solutions, RNG and carbon capture and sequestration projects
 - IRA improves opportunities in decarbonization as enhanced tax credits allow carbon capture, RNG and combined heat and waste energy recovery 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/renewables¹ and new decarbonization opportunities

- Targeting operating earnings² growth of over \$15 million annually
 - 2024 early outlook 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. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

2024 operating EPS¹ early outlook midpoint provides 7% growth over 2023 original guidance midpoint

(millions, except EPS)

	2023 original guidance	2024 early outlook
DTE Electric	\$1,010 - \$1,030	\$1,100 - \$1,120
DTE Gas	262 - 272	295 - 305
DTE Vantage	115 - 125	125 - 135
Energy Trading	20 - 30	30 - 40
Corporate & Other	(150) - (136)	(195) - (185)
DTE Energy	\$1,257 - \$1,321	\$1,355 - \$1,415
Operating EPS	\$6.09 - \$6.40	\$6.54 - \$6.83

1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

Maintaining strong cash flows, balance sheet and credit profile

Strong balance sheet supports robust customer-focused investment agenda

- Generating 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 / Debt¹

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

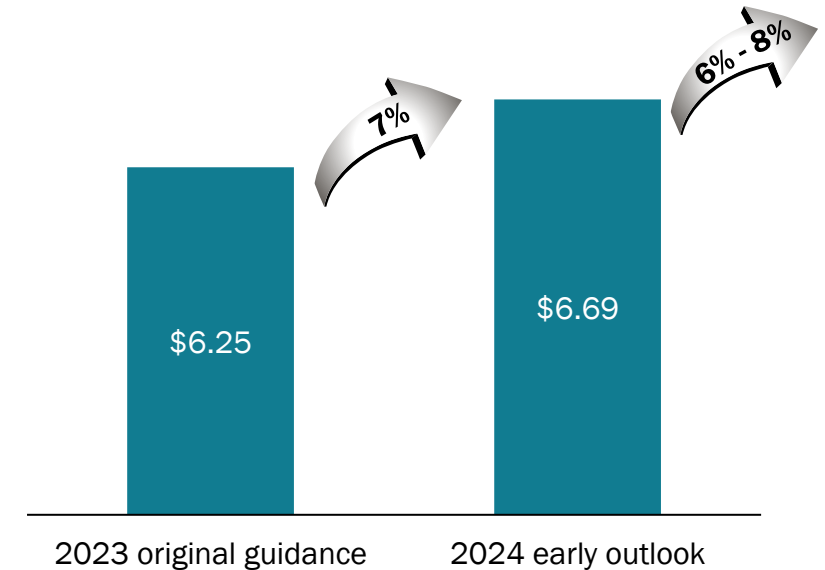
1. Funds from Operations (FFO) is calculated using operating earnings, debt excludes a portion of DTE Gas' short-term debt and considers 50% of the junior subordinated notes as equity



Increased utility investment focused on improved reliability and cleaner generation; well-positioned for long-term growth

- ✓ Highly engaged team committed to delivering best-in-class results for our customers, communities and investors
- ✓ Customer-focused capital investments support building the grid of the future and cleaner energy transition
- ✓ Utility investment and affordability commitment support long-term growth
- ✓ 2024 operating EPS¹ early outlook provides 7% growth from 2023 original guidance midpoint
- ✓ Long-term operating EPS growth rate target of 6% - 8% through 2028, with 2023 original guidance midpoint as the base
- ✓ 2024 annualized dividend of \$4.08 per share is in line with operating EPS growth
- ✓ Strong balance sheet and solid investment-grade credit profile support capital investment plan

Operating EPS guidance midpoint



1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

Appendix

Overcoming majority of unprecedented headwinds in 2023

(millions, except EPS)

	2023 original guidance	2023 current guidance	Primary drivers
DTE Electric	\$1,010 - \$1,030	\$813 - \$827	Headwinds from lower-than-expected rate order, higher storm expenses and cooler weather partially offset by one-time O&M reductions
DTE Gas	262 - 272	285 - 295	One-time O&M reductions partially offset by warmer 1Q weather
DTE Vantage	115 - 125	141 - 145	RNG performance, additional projects coming into service and opportunistic sales in steel business
Energy Trading	20 - 30	75 - 85	Strong performance in the physical power portfolio
Corporate & Other	(150) - (136)	(149) - (145)	
DTE Energy	\$1,257 - \$1,321	\$1,165 - \$1,207	
Operating EPS ¹	\$6.09 - \$6.40	\$5.65 - \$5.85	

1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

2023 cash flow and capital expenditures guidance

Cash flow

(billions)

	2023 guidance
Cash from operations ¹	\$3.2
Capital expenditures	(4.2)
Free cash flow	(\$1.0)
Dividends	(0.8)
Other	-
Net cash	(\$1.8)
Debt financing	
Issuances	\$3.6
Redemptions	(1.7)
Total debt financing	\$1.9
Change in cash on hand	\$0.1

Capital expenditures

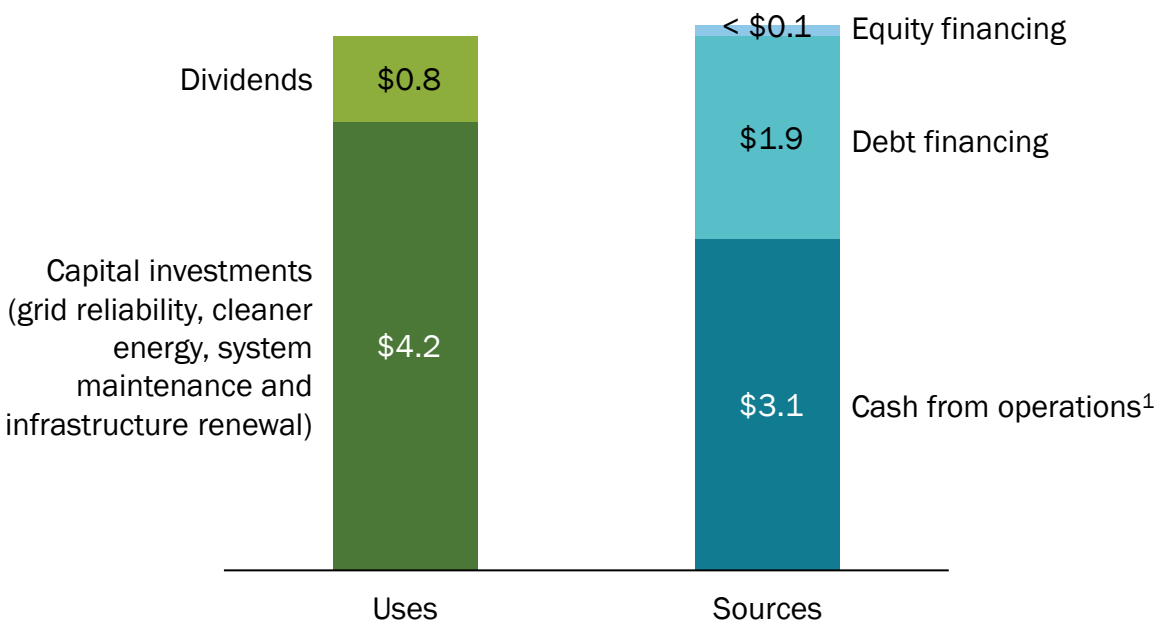
(millions)

	2023 guidance
DTE Electric	
Base infrastructure	\$1,200
Cleaner generation	500
Distribution infrastructure	1,500
	\$3,200
DTE Gas	
Base infrastructure	\$375
Gas renewal program	310
	\$685
Non-utility	\$300 - \$400
Total	\$4,185 - \$4,285

1. Includes equity issued for employee benefit programs

Strong cash flows, supportive energy policy and constructive regulatory environment supports customer-focused capital investments

2023 sources and uses of cash
(billions)



Over 80% of DTE’s sources of cash are reinvested in the business to support grid reliability, cleaner energy and infrastructure renewal

Three funding sources enable investments in grid reliability, cleaner energy and infrastructure renewal

- Cash from operations
- Debt financing: fixed income investors and insurance companies seek certainty of interest payments and principal repayment
- Equity financing: pension funds, 401(k)s and other retail and institutional investors seek a low-risk investment with stable earnings, cash flows and a modest dividend yield in line with peer average of ~3.5%

1. Cash from Operations net of change in cash on hand

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



Gallup Exceptional
Workplace Award 11
consecutive years

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

IRP outlines accelerated path to cleaner energy

First 5 years (2023 - 2027)

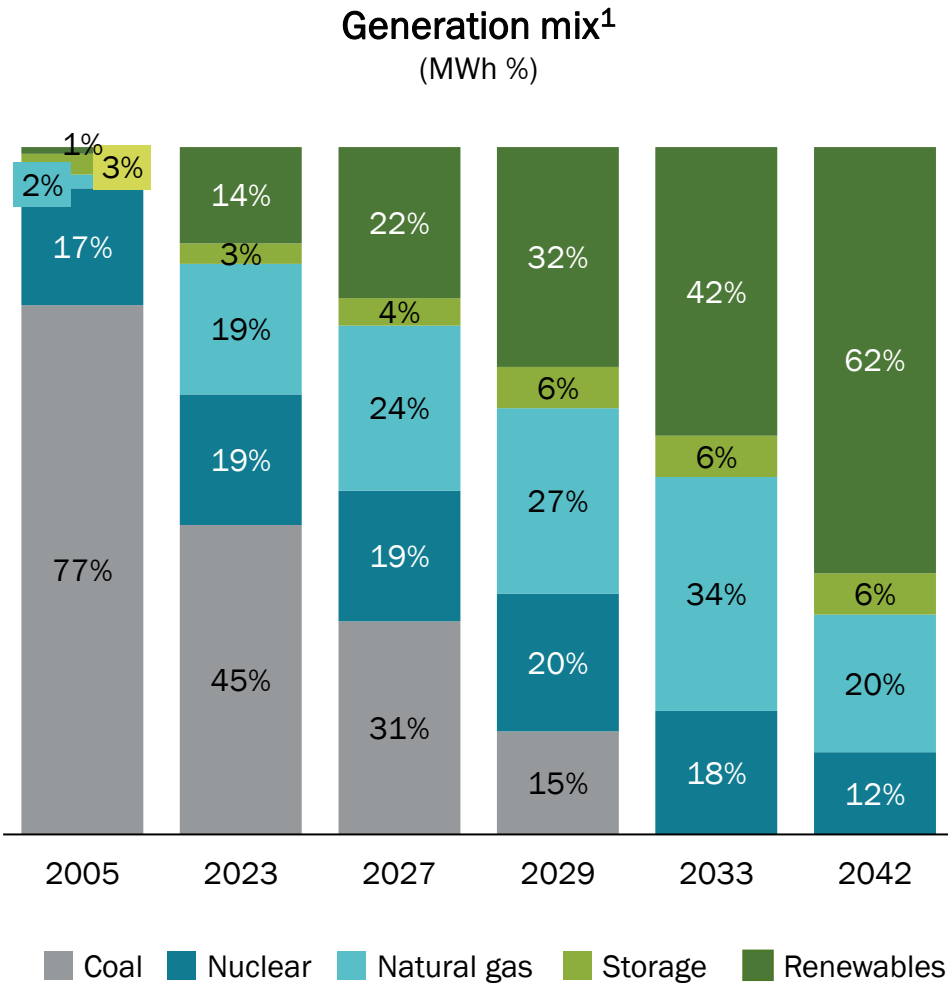
- Ceasing coal use at one Belle River unit in 2025 and remaining unit in 2026; converting to 1,300 MW natural gas peaking resource
- Adding 1,200 MW of solar
- Adding 350 MW of energy storage, increased from 240 MW

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

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 1,400 level 2 public chargers approved and 1,150 installed
- 150 direct current fast charger rebates approved and over 60 installed
- 12 electric bus deployments with the local regional transit agencies
- 6 electric school bus deployments with another 66 awarded from the first round of the EPA’s Clean School Bus Program

2019

program inception

1 million

gallons of gasoline saved

4,850

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



1,600

business customers

97,000

residential customers

2,410 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

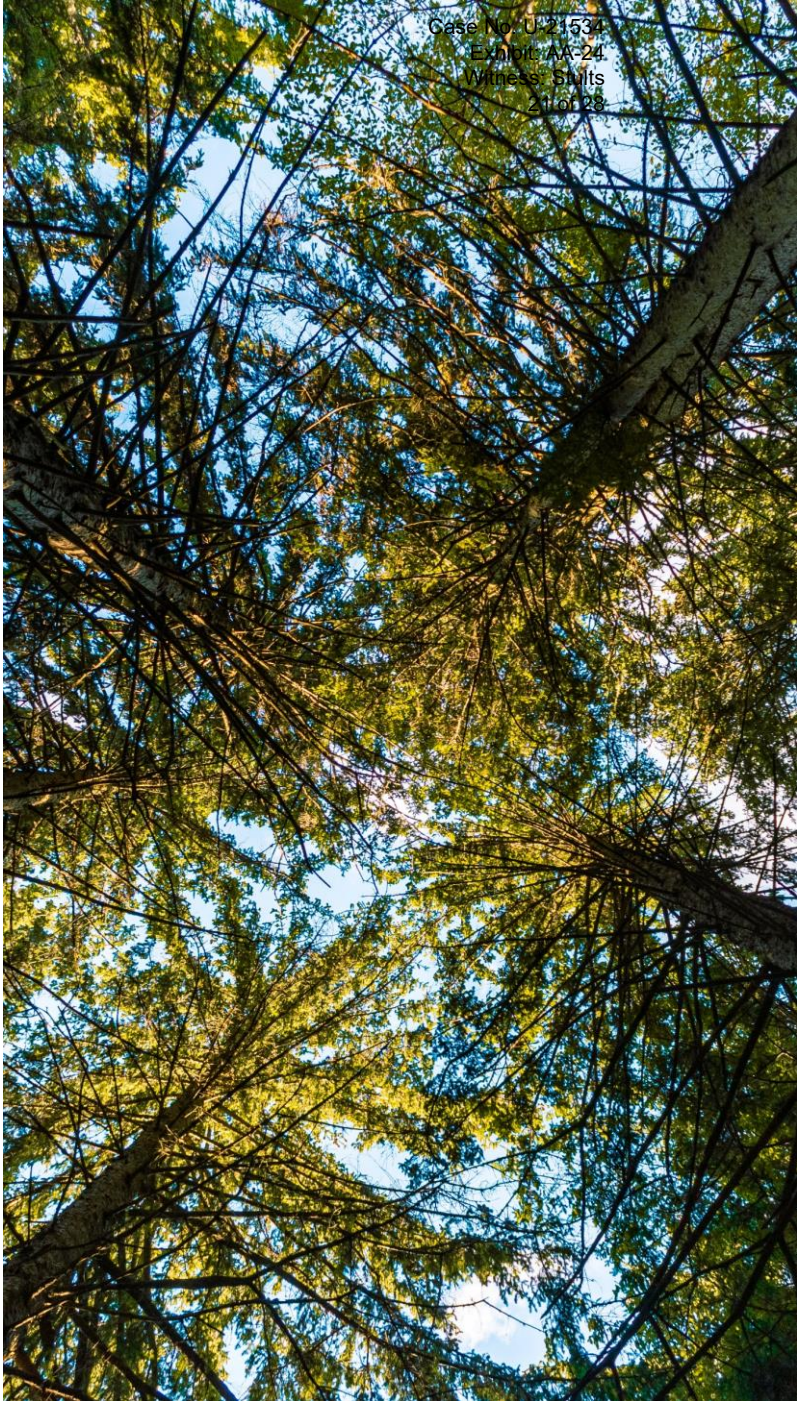
program inception

13,050

customers subscribed

31,900

metric tons of CO2-e
have been offset



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

\$2.5b | invested in Michigan businesses in 2022

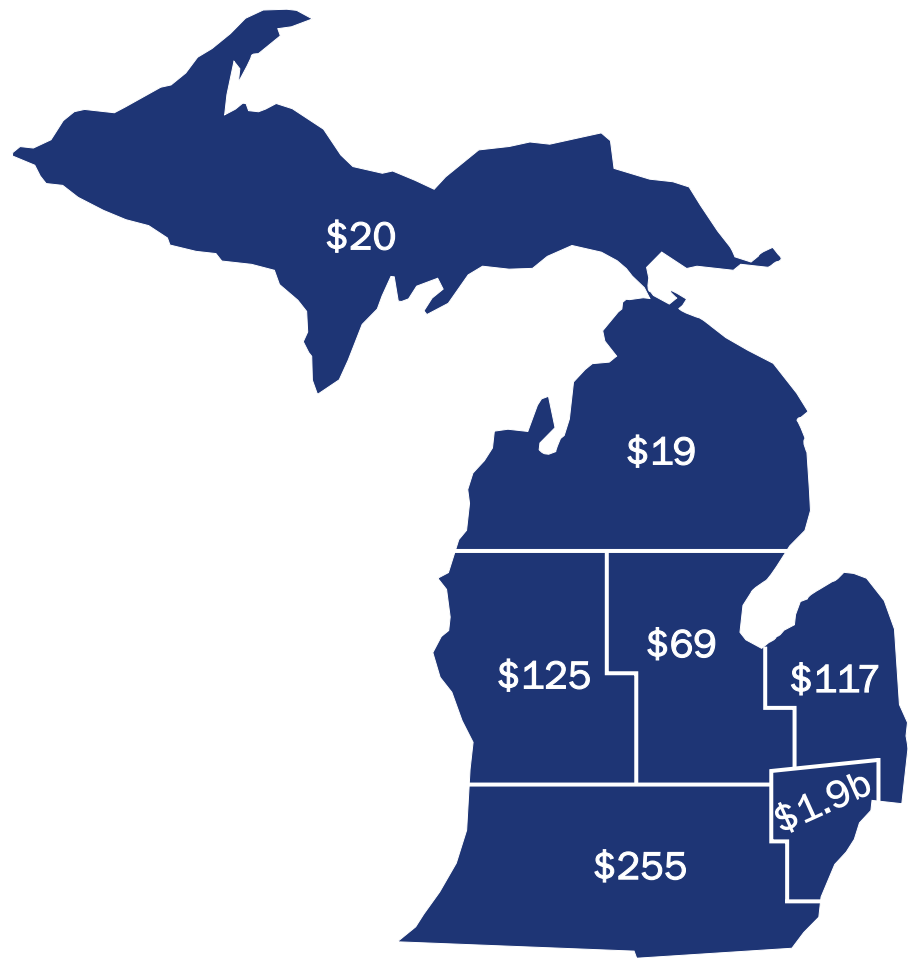
65,000 | jobs created since 2010

\$900m | invested with Detroit suppliers in 2022

\$895m | invested with suppliers owned by women, minorities, veterans, members of the LGBTQ+ community and disability-owned businesses in 2022

50+ | supplier diversity awards earned since 2018

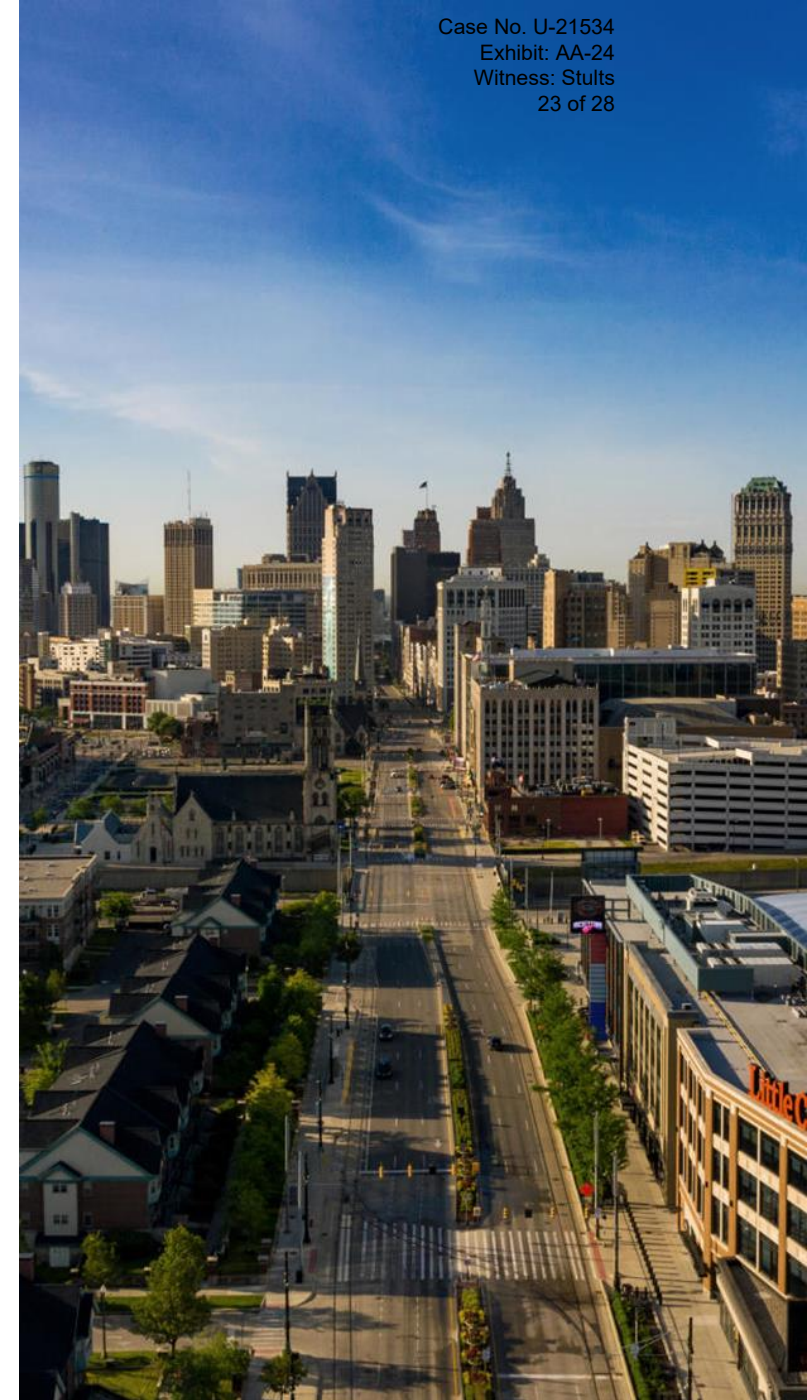
2022 Michigan spend
(millions)



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
- ✓ \$2.4 billion Gotion investment to build a new manufacturing facility, creating 2,350 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

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 DART¹ 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, including a Director of DEI
- 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



Employees with disabilities group



Asian and Middle Eastern American group



Family oriented group



LGBTQ+ group



Black professionals group



Latino and Hispanic group



Young professionals group



Military veterans group



Women's group

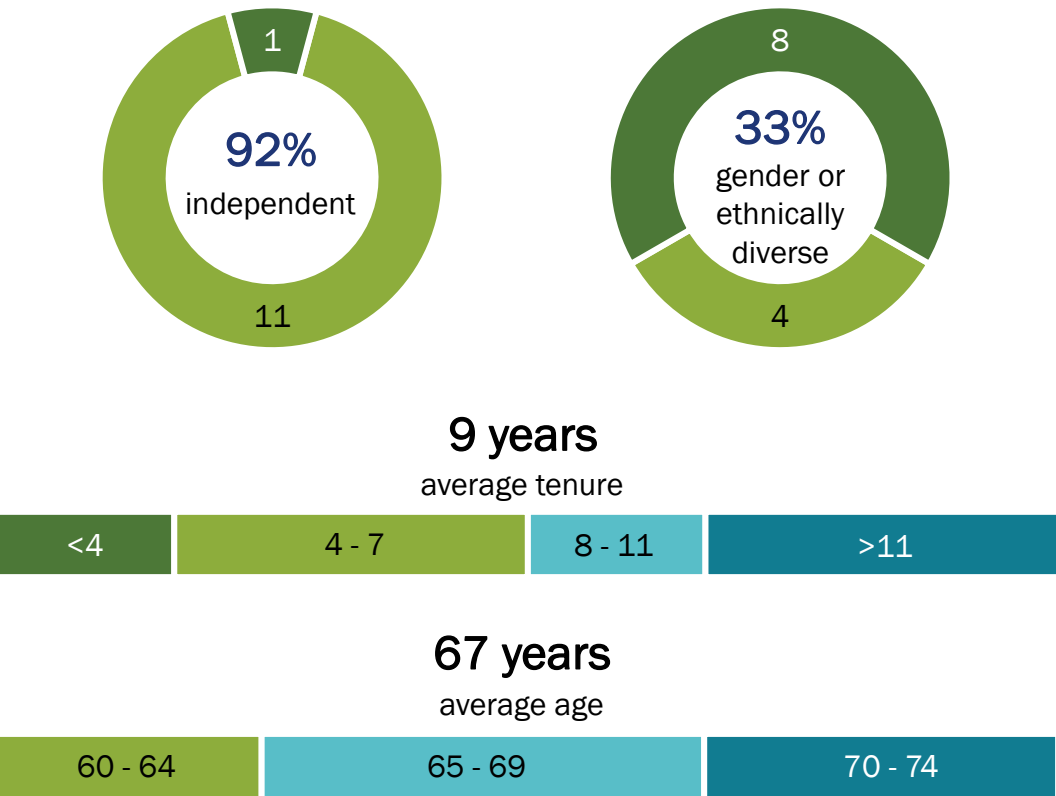
1. Days away, restricted or transferred

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



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 • Customer complaints • System reliability
 Our communities	• Customer satisfaction • Customer complaints • System reliability
 Our investors	• EPS • Cash flow • Relative total shareholder return • Balance sheet health



Overcame a significant portion of the ~\$370 million of unprecedented operating earnings¹ headwinds through one-time cost management initiatives and opportunities throughout the portfolio

	4Q 2022	1H 2023	3Q 2023	Total impact
Headwinds	\$100 million headwind (\$0.49 per share) Lower-than-expected rate order received in 2022 driven by difference in sales forecast	\$165 million headwinds (\$0.80 per share) - Historical winter storms: \$92 million 4th warmest winter in over 60 years and cooler spring weather: \$73 million	\$106 million headwinds (\$0.52 per share) - Additional storms: \$53 million - One of the coolest summers in over 20 years: \$53 million	= ~\$370 million headwinds (\$1.81 per share) Unprecedented combination of unfavorable weather and high storm activity combined with low rate order at end of 2022
Actions	Through 1H 2023 Identified \$265 million of annualized offsets (\$1.29 per share) - Implemented significant one-time O&M actions and created opportunities throughout the portfolio - Through 1H, identified offsets to headwinds to achieve midpoint of guidance while remaining focused on customer service excellence		3Q 2023 \$270 million response through 3Q (\$1.31 per share) - Identified actions to partially offset additional headwinds - Continued earnings pressure drove a revision to operating EPS guidance	Total response = \$270 million response (\$1.31 per share) Accomplished through one-time savings and favorability across our diverse portfolio of businesses

Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

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 3-4, 2023



Safe harbor statement

The information contained herein is as of the date of this document. DTE Energy expressly disclaims any current intention to update any forward-looking statements contained in this document as a result of new information or future events or developments. Words such as “anticipate,” “believe,” “expect,” “may,” “could,” “projected,” “aspiration,” “plans” and “goals” signify forward-looking statements. Forward-looking statements are not guarantees of future results and conditions but rather are subject to various assumptions, risks and uncertainties that may cause actual future results to be materially different from those contemplated, projected, estimated or budgeted. Many factors may impact forward-looking statements including, but not limited to, the following: the impact of regulation by the EPA, the EGLE, the FERC, the MPSC, the NRC, and for DTE Energy, the CFTC and CARB, as well as other applicable governmental proceedings and regulations, including any associated impact on rate structures; the amount and timing of cost recovery allowed as a result of regulatory proceedings, related appeals, or new legislation, including legislative amendments and retail access programs; economic conditions and population changes in our geographic area resulting in changes in demand, customer conservation, and thefts of electricity and, for DTE Energy, natural gas; the operational failure of electric or gas distribution systems or infrastructure; impact of volatility in prices in the international steel markets and in prices of environmental attributes generated from renewable natural gas investments on the operations of DTE Vantage; the risk of a major safety incident; environmental issues, laws, regulations, and the increasing costs of remediation and compliance, including actual and potential new federal and state requirements; the cost of protecting assets and customer data against, or damage due to, cyber incidents and terrorism; health, safety, financial, environmental, and regulatory risks associated with ownership and operation of nuclear facilities; volatility in commodity markets, deviations in weather and related risks impacting the results of DTE Energy’s energy trading operations; changes in the cost and availability of coal and other raw materials, purchased power, and natural gas; advances in technology that produce power, store power or reduce power consumption; changes in the financial condition of significant customers and strategic partners; the potential for losses on investments, including nuclear decommissioning and benefit plan assets and the related increases in future expense and contributions; access to capital markets and the results of other financing efforts which can be affected by credit agency ratings; instability in capital markets which could impact availability of short and long-term financing; impacts of inflation and the timing and extent of changes in interest rates; the level of borrowings; the potential for increased costs or delays in completion of significant capital projects; changes in, and application of, federal, state, and local tax laws and their interpretations, including the Internal Revenue Code, regulations, rulings, court proceedings, and audits; the effects of weather and other natural phenomena, including climate change, on operations and sales to customers, and purchases from suppliers; unplanned outages at our generation plants; employee relations and the impact of collective bargaining agreements; the availability, cost, coverage, and terms of insurance and stability of insurance providers; cost reduction efforts and the maximization of plant and distribution system performance; the effects of competition; changes in and application of accounting standards and financial reporting regulations; changes in federal or state laws and their interpretation with respect to regulation, energy policy, and other business issues; successful execution of new business development and future growth plans; contract disputes, binding arbitration, litigation, and related appeals; the ability of the electric and gas utilities to achieve net zero emissions goals; and the risks discussed in DTE Energy’s public filings with the Securities and Exchange Commission. New factors emerge from time to time. We cannot predict what factors may arise or how such factors may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements speak only as of the date on which such statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. This document should also be read in conjunction with the Forward-Looking Statements section in DTE Energy’s public filings with the Securities and Exchange Commission.

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Financial Update

Environmental, Social & Governance (ESG)

Appendix

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

Best-in-class engagement, health and safety of our employees

- Received Gallup Great Workplace Award for 10th consecutive year, achieving top decile employee engagement

Addressing our customers' most vital needs

- Ranked first in residential customer satisfaction for gas by J.D. Power
- Trimmed more than 6,500 miles of trees and completed upgrades on more than 8,500 miles of circuits in 2022

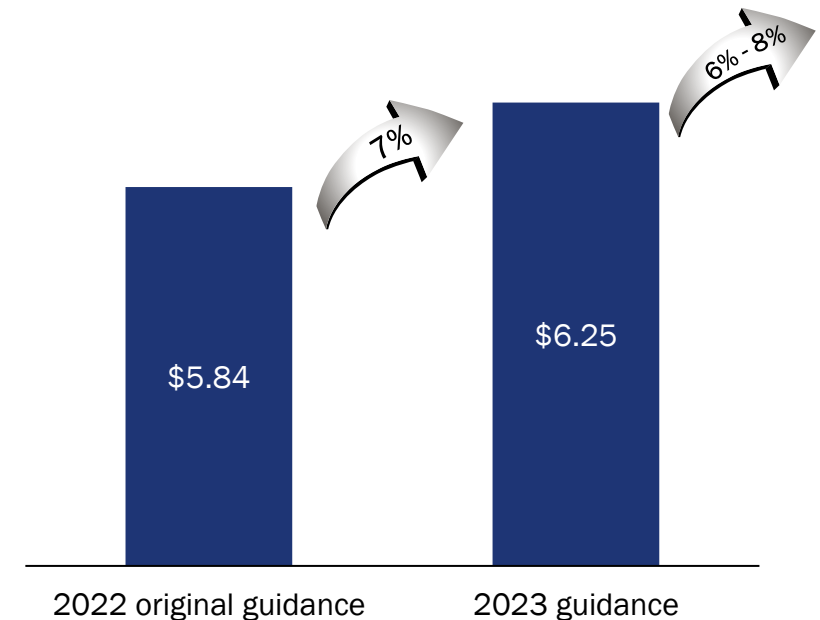
Supporting our communities

- Skilled trade academy offering Detroiters jobs and energy efficient home repairs
- Invested \$2.5 billion with Michigan businesses in 2022, creating and sustaining more than 11,000 jobs across the state

Delivering premium shareholder returns

- 2023 operating EPS¹ guidance midpoint provides 7% growth from 2022 original guidance midpoint; long-term operating EPS growth rate of 6% - 8%

Operating EPS guidance midpoint



Executing on significant customer-focused capital investment plan while maintaining affordability

Investing in customer-focused initiatives...



Transitioning to cleaner generation

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



Modernizing electric grid

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



Renewing gas infrastructure

Continuing gas main renewal for reducing greenhouse gas emissions and maintaining long-term safety and reliability

...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
- ✓ Diversified energy mix maintains flexibility to adapt to future technology advancements
- ✓ Inflation Reduction Act (IRA) supports transition to cleaner energy while supporting customer affordability goals and further enhancing DTE Vantage opportunities

Distinctive continuous improvement culture drives strong track record of managing cost and affordability

Distinctive continuous improvement embedded in our culture

- All 10,000+ employees engaged in continuous improvement and productivity efforts drive cost management

Process automation

- Shifting repeatable and repetitive process steps to automated software routines allowing employees to shift to higher-level work

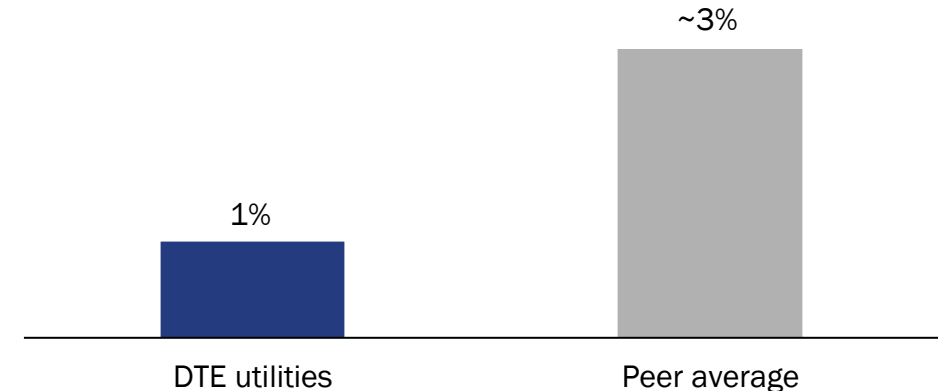
Digital solutions

- Improving scheduling to optimize crew productivity and efficiency

Clean generation

- Transitioning from coal to natural gas and renewables drives O&M reductions
- Diversifying energy mix maintains flexibility to adapt to future technology advancements and reduces fuel costs
- Integrated Resource Plan (IRP) reduces cost of our clean energy transition by \$1.4 billion from previous plan

Average annual percentage change in utility
O&M¹ costs 2008 - 2021



Overview

Business Update

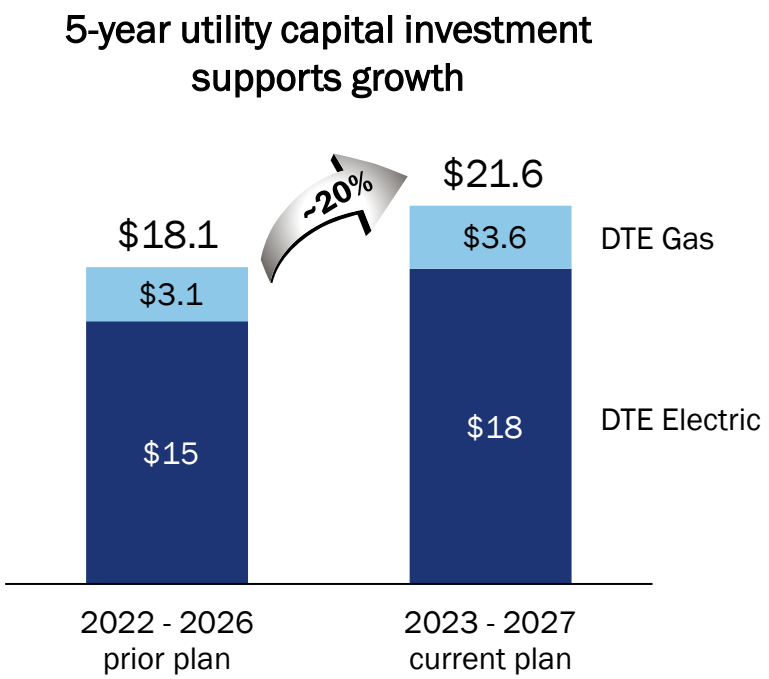
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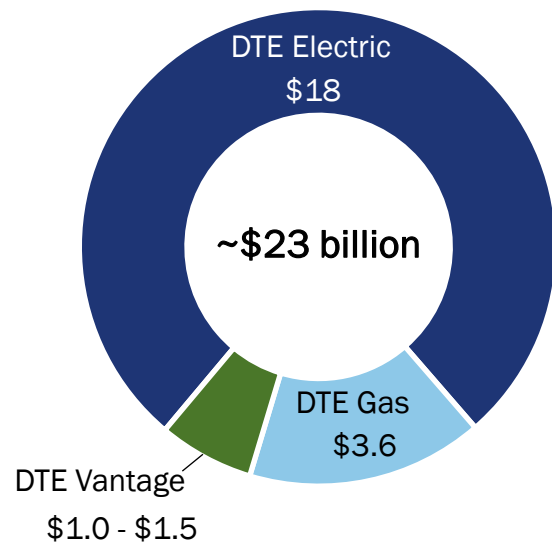
Increased customer-focused utility investment in 5-year plan supports 6% - 8% operating EPS¹ growth through 2027

(billions)



10-year utility capital plan of \$45 billion

95% of 5-year investment plan in utilities 2023 - 2027



1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

DTE Electric: transformational investments in generation and distribution; signed two of the largest voluntary utility contracts in the country

Significant progress on voluntary renewables in 2022

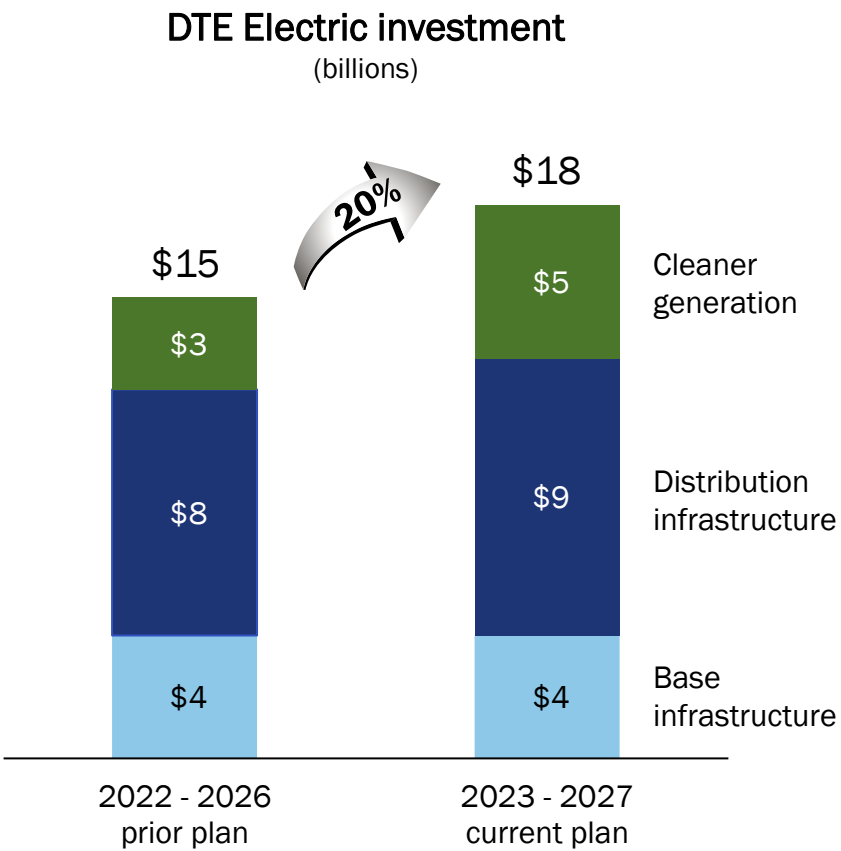
- Signed solar contracts with Ford and Stellantis; two of the largest renewable utility contracts in the country
- 2,250 MW currently subscribed to the voluntary renewables program

Accelerating decarbonization goals while ensuring reliability and affordability for our customers

- Two coal plant retirements in 2022 support cleaner energy future and lower O&M expense

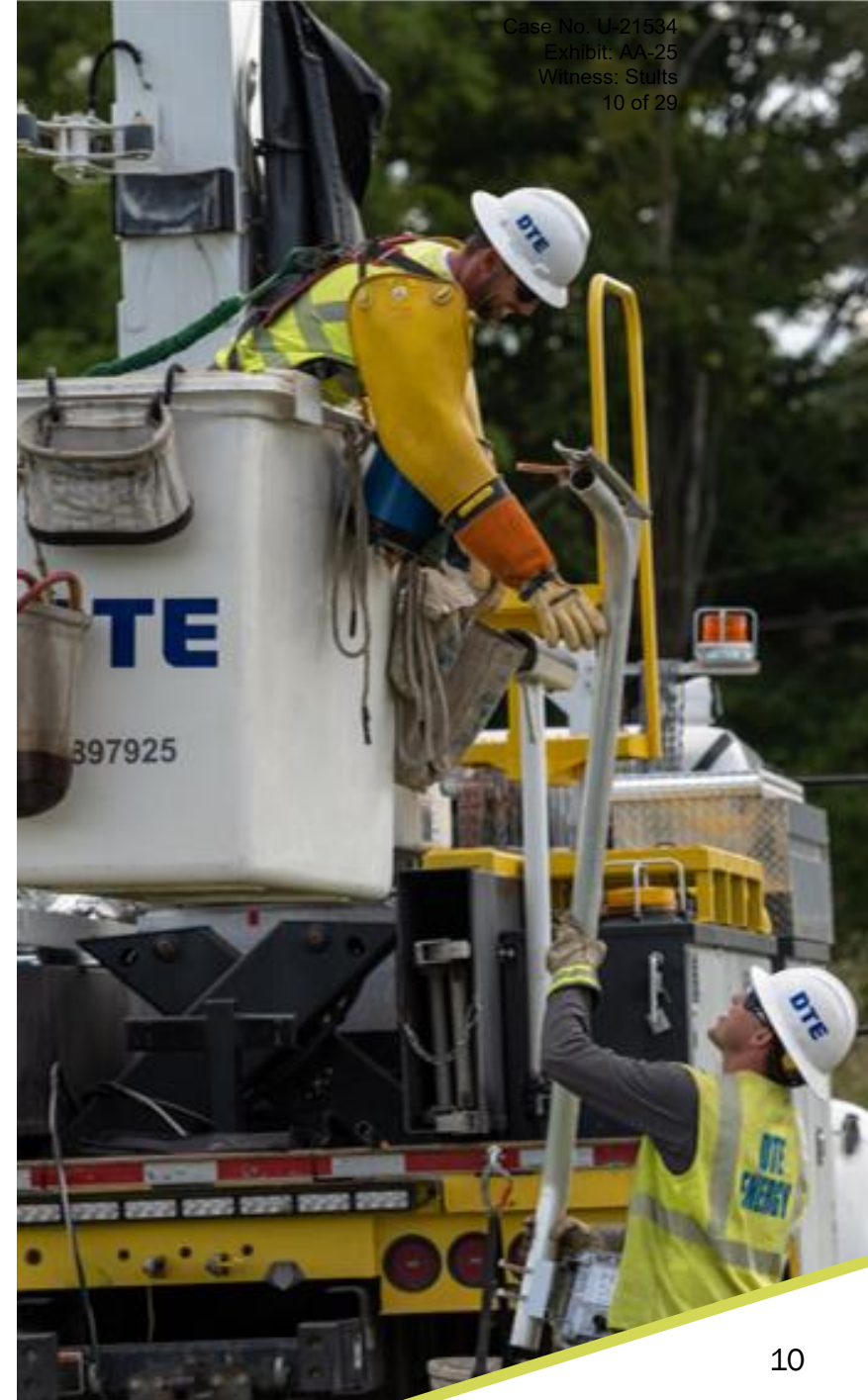
Distribution infrastructure renewal

- Modernizing grid to support electrification, meet changing customer needs and prepare for increased extreme weather events
- Continuing reliability and resiliency investment focus



Significant progress on utility initiatives supports cleaner generation with focus on affordability

- IRP filing prioritizes electric reliability with a focus on decarbonization and affordability
 - Outlines generation transformation to achieve carbon reduction of 85% in 2035, 90% by 2040 and net zero¹ by 2050
 - Supports the Michigan economy and tax base with power generated in Michigan
 - Invests \$9 billion over the next 10 years into Michigan's economy supporting more than 25,000 jobs
 - Reduces cost of clean energy transition by \$1.4 billion from previous plan
- IRA and a distinctive culture of managing costs support customer affordability and position DTE for continued long-term growth
- Electric rate case filing underpins reliability and cleaner generation investments
 - Second general rate case filing since 2019; executed significant customer-focused investments since that date while keeping base rates essentially flat
 - Majority of filing is attributable to capital, sales and the cost of debt
 - Continue practice of pursuing settlement with all stakeholders



IRP accelerates transition to cleaner energy future while ensuring reliability

First 5 years (2023 - 2027)

- Retire one unit at Belle River in 2025 and remaining unit in 2026
 - Convert Belle River to 1,300 MW natural gas peaking resource in 2025 - 2026
- Add 800 MW of solar
- Add 240 MW of battery storage

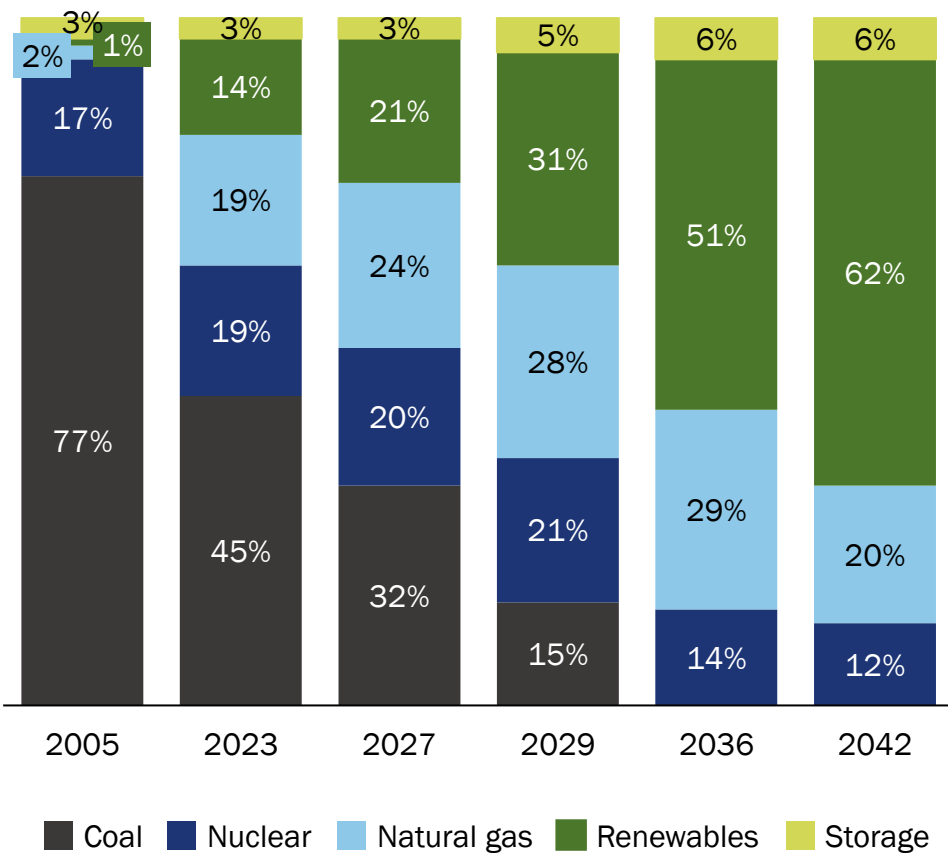
Second 5 years (2028 - 2032)

- Retire two units at Monroe in 2028
- Add 4,600 MW of renewables
- Add 520 MW of battery storage

Next 10 years (2033 - 2042)

- Retire two units at Monroe in 2035
 - Identifying dispatchable resources to replace Monroe units, including as a placeholder, a 950 MW natural gas plant with carbon capture and sequestration in 2035
- Add 10,000 MW of renewables
- Add 1,050 MW of battery storage

Generation mix¹
(MWh %)



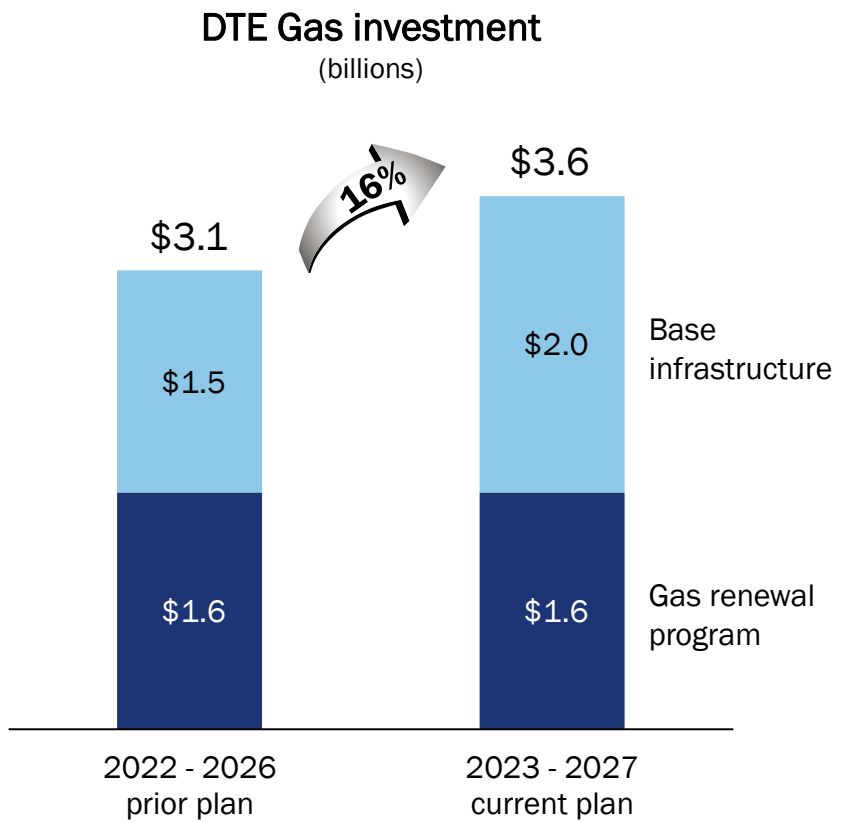
DTE Gas: replacing aging infrastructure to ensure reliability and transition to net zero emissions

Successful 2022

- Completed 220 miles of main renewal; on track for additional 13-year investment plan
- Ranked first for residential customer satisfaction by J.D. Power

Capital investment opportunities focus on infrastructure improvements and decarbonization

- Gas renewal investments minimize leaks and reduce costs
- Base infrastructure enhances transmission, compression, distribution and storage
- Targeting to reduce greenhouse gas emissions by 65% by 2030, 80% by 2040 and net zero by 2050
- Reducing end-use customer emissions by 35% by 2040
- CleanVision Natural Gas Balance program allows customers to lower their emissions footprint with both carbon offsets and renewable natural gas (RNG)



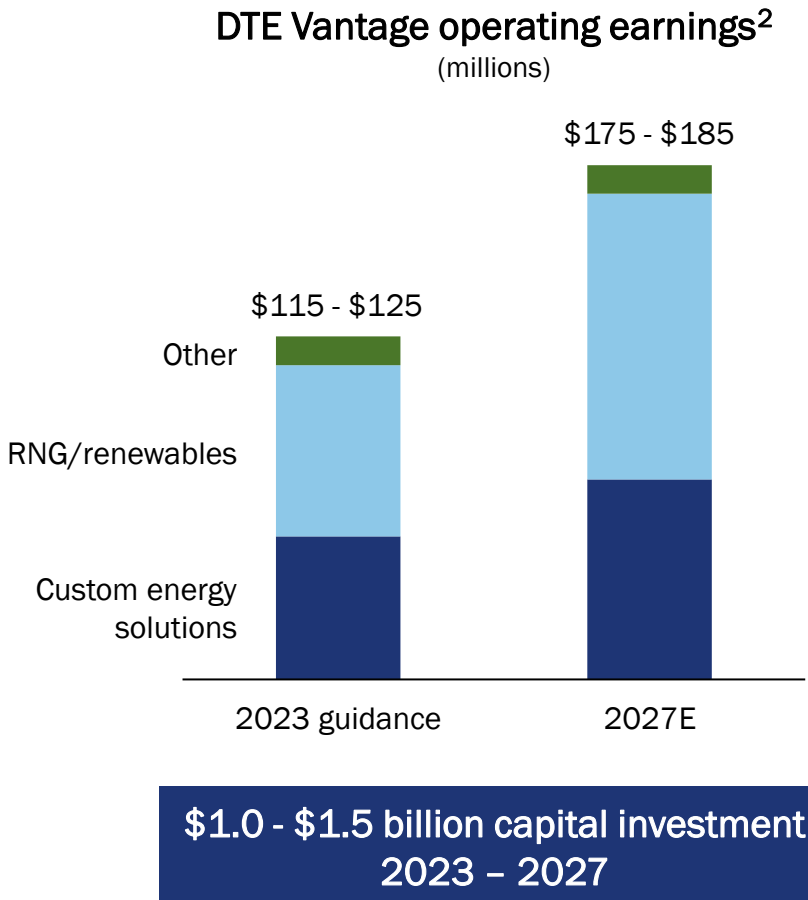
DTE Vantage: strategic focus on decarbonization solutions for customers

Strong project development in 2022 and 2023

- Placed one RNG project and one custom energy solutions project in service in 2022
- Placing three RNG projects and one custom energy solutions project in service in 2023
- Executed long-term, fixed-fee custom energy solutions agreement in 2022 with Ford Motor Company for its new electric vehicle and battery manufacturing complex
 - Complex will be Ford’s largest EV manufacturing facility in North America; DTE to provide steam, hot and chilled water to Ford and electricity to Tennessee Valley Authority

Capitalizing on a growing preference for cleaner, more efficient energy

- Growth driven by strong development pipeline in RNG/renewables¹ and custom energy solutions while expanding into carbon capture and sequestration
 - IRA improves opportunities in decarbonization as enhanced tax credits allow carbon capture, RNG and combined heat and waste energy recovery to be more economic
 - Strong market growth supported by the federal RFS and California’s LCFS



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2023 operating EPS¹ guidance midpoint provides 7% growth over 2022 original guidance midpoint

(millions, except EPS)

	2023 guidance	Drivers / comments
DTE Electric	\$1,010 - \$1,030	Distribution and cleaner generation investments
DTE Gas	262 - 272	Continued main renewal and other infrastructure improvements
DTE Vantage	115 - 125	New projects in service in 2H
Energy Trading	20 - 30	Quarterly variances ² expected due to revenue recognition timing of contracted transactions
Corporate & Other	(150) - (136)	Interest expense
DTE Energy	\$1,257 - \$1,321	
Operating EPS	\$6.09 - \$6.40	

Maintaining strong cash flow, balance sheet and credit profile

Continued balance sheet strength...

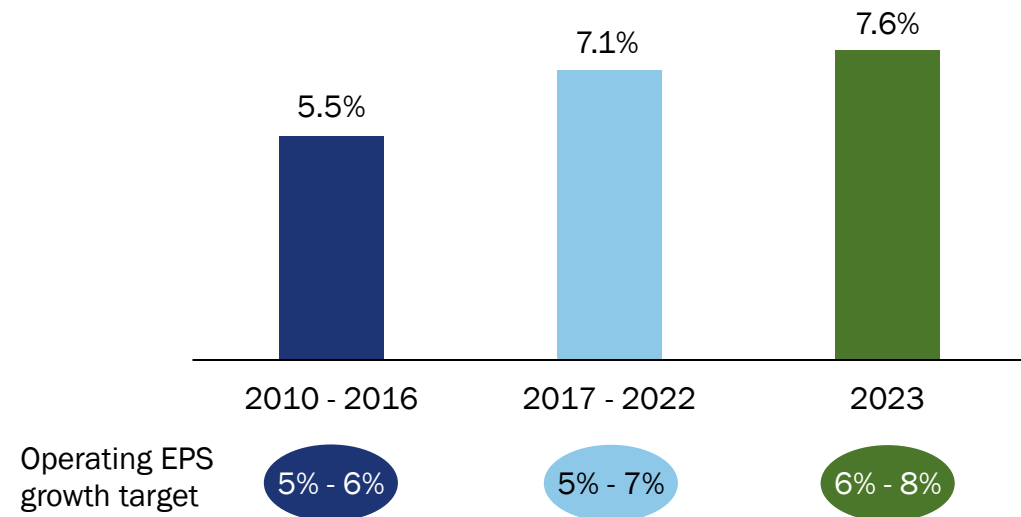
- Targeting equity issuances of \$0 - \$100 million annually through 2025
- Maintaining solid investment-grade credit ratings
 - Targeting 15% - 16% FFO¹ / Debt²

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

...while providing a healthy dividend

- Increased 2023 annualized dividend 7.6% to \$3.81 per share
- Over 100 consecutive years of paying a cash dividend and 14th consecutive annual increase
- Future dividend growth³ in line with operating EPS⁴ growth

Average annual dividend increase



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Environmental, Social & Governance (ESG)

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Environmental, social and governance 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
- Revitalizing neighborhoods and 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

THE FOREFRONT 50
TOP CORPORATIONS FOR MINORITY BUSINESSES

NMSDC Forefront 50
Top Corporations for
Minority Businesses



Gallup Great
Workplace Award 10
consecutive years



America's Greatest
Workplaces for
Diversity 2023



America's Most
Responsible
Companies 2023

MIGreenPower program continues significant growth

- Allows customers to purchase up to 100% of electricity needs generated from renewable sources
- One of the largest voluntary renewable programs in the nation
- Largest renewable energy purchase from a utility announced with Ford Motor Company
 - 650 MW project to be completed in 2025

Voluntary renewable customers



900

business customers

85,000

residential customers

2,250 MW

subscribed



Natural Gas Balance program reducing GHG emissions

- Offering an affordable way to offset 25% to 100% of customers' GHG emissions from an average home's natural gas use
- 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

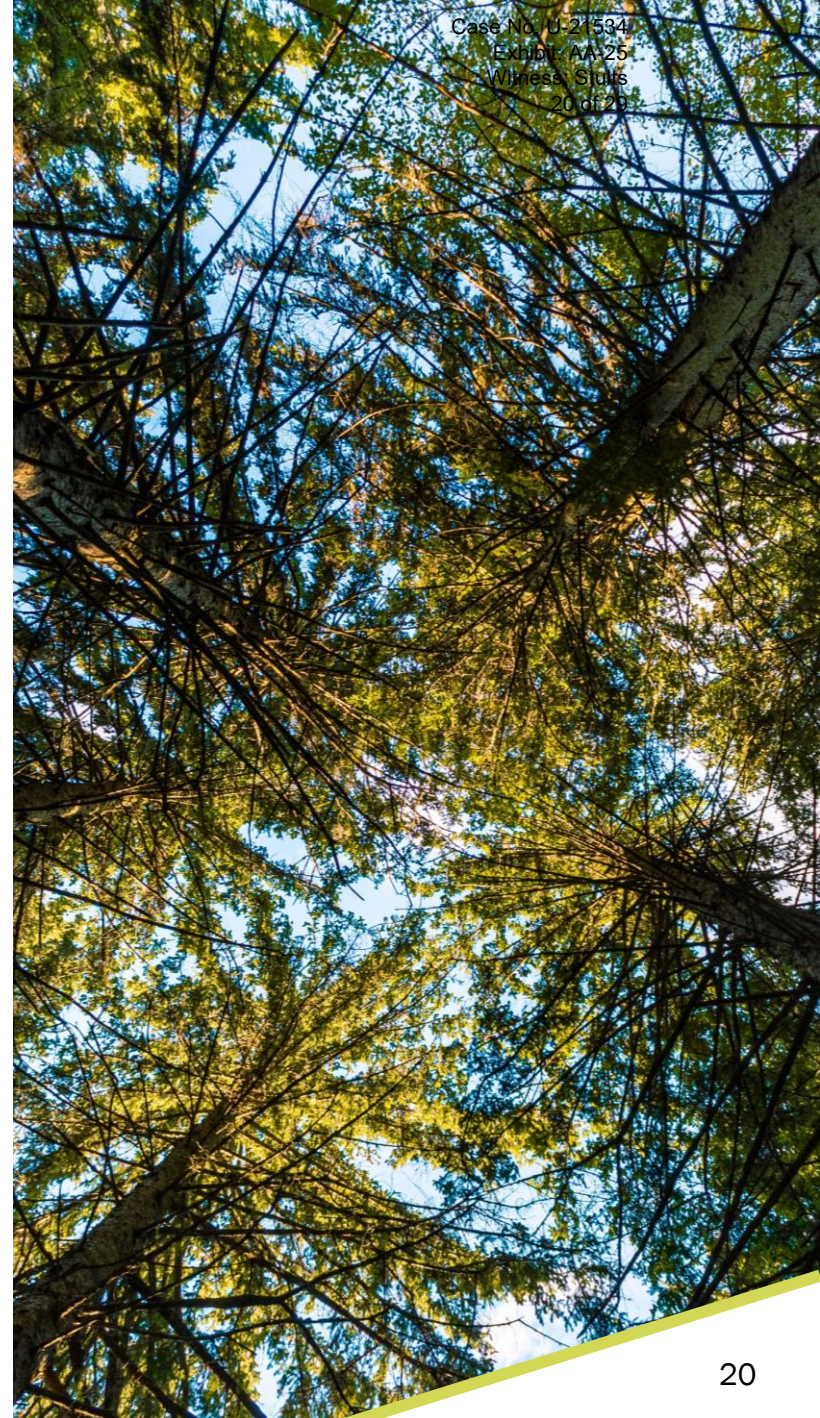
program inception

11,200

customers subscribed

6.1 million

metric tons of GHG¹
reduced by 2050



Progressing on EV initiatives

Charging Forward Program

- Promoting EV education, infrastructure and adoption
- Providing residential and commercial rebates, infrastructure support and fleet advisory services

Program-to-date major milestones

- 1,240 Level 2 public chargers approved and 800 installed
- 130 direct current fast charger rebates approved and 50 installed
- 12 electric bus deployments with the local regional transit agencies
- 6 electric school bus deployments with another 66 awarded from the first round of the EPA's Clean School Bus Program
- Received regulatory approval for eFleets program

2019

program inception

660,000+

gallons of gasoline
saved

2,750

residential rebates



Committed to diversity, equity and inclusion; 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
- Received American Gas Association Safety Achievement Award for excellence in employee safety

Office of Diversity, Equity and Inclusion

- Led by our CEO and key executive leaders, including a Director of Diversity, Equity and Inclusion
- Focused on sustaining a diverse workforce which is representative of the communities we serve

Commitment to create a diverse, equitable and inclusive workforce

- 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



Differently-abled group



Asian and Middle Eastern group



Family oriented group



LGBTQ+ group



Black professionals group



Latinx professionals group



Young professionals group



Veteran empowerment group

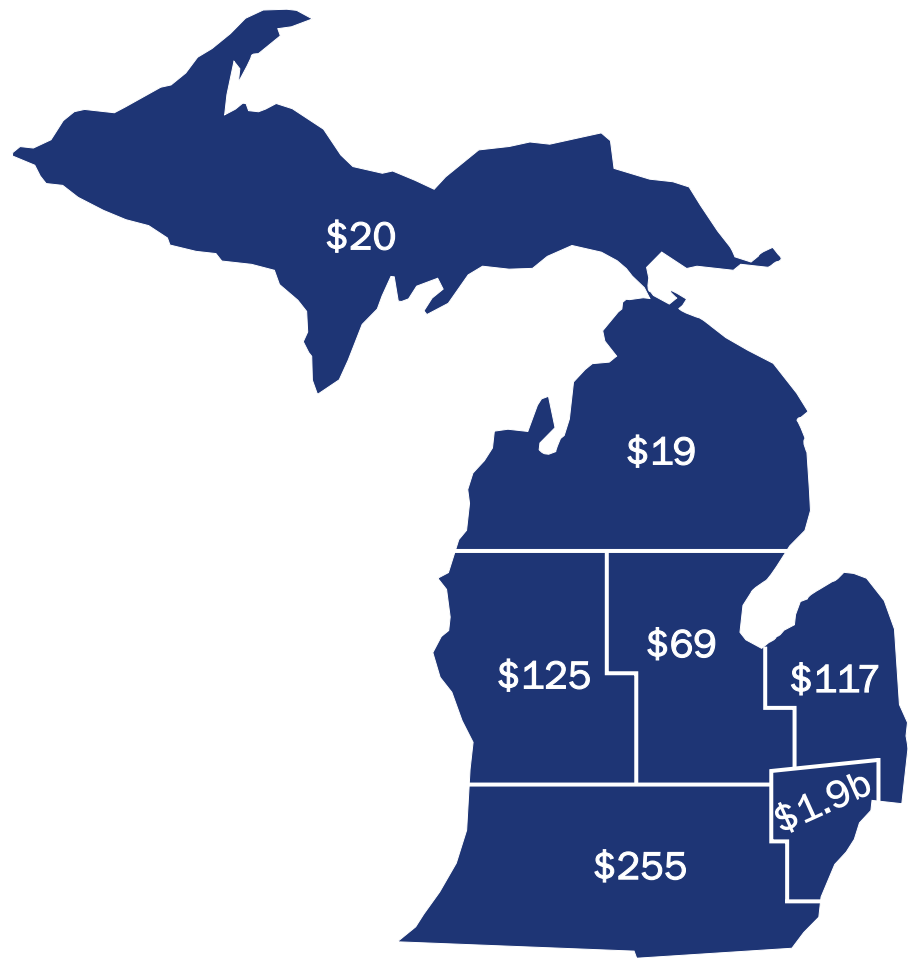


Women's group

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

- \$2.5b** | invested in Michigan businesses in 2022
- 65,000** | jobs created since 2010
- \$900m** | invested with Detroit suppliers in 2022
- \$895m** | invested with suppliers owned by women, minorities, veterans, members of the LGBTQ+ community and disability-owned businesses in 2022
- 50+** | supplier diversity awards earned since 2018

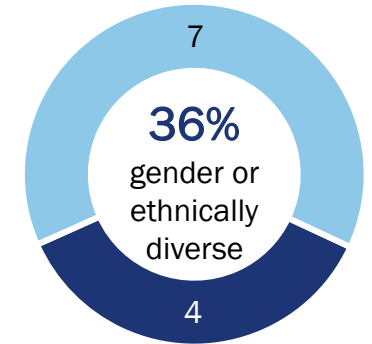
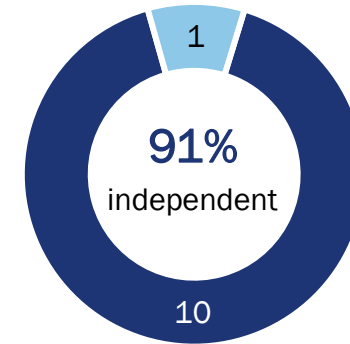
2022 Michigan spend
(millions)



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



10 years

average tenure



67 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 • Customer complaints • System reliability
 Our communities	• Customer satisfaction • Customer complaints • System reliability
 Our investors	• EPS • Cash flow • Relative total shareholder return • Balance sheet health



Overview

Business Update

Financial Update

Environmental, Social & Governance (ESG)

Appendix

IRA supports cleaner energy transition and customer affordability

Supports accelerated clean energy transition and customer affordability and eliminates the need for tax equity structures

- Wind and solar production tax credit
- Production tax credit for existing nuclear generation
- Clean fuel production tax credits and biogas investment tax credits for RNG
- Investment tax credits for combined heat and waste energy recovery and stand-alone energy storage
- Increased tax credit for carbon capture and sequestration

No material impact to our plan from corporate minimum tax

- Accelerated depreciation
- Tax credit carryforwards



2023 cash flow and capital expenditures guidance

Cash flow

(billions)

	2023 guidance
Cash from operations ¹	\$3.2
Capital expenditures	(4.2)
Free cash flow	(\$1.0)
Dividends	(0.8)
Other	-
Net cash	(\$1.8)
Debt financing	
Issuances	\$2.6
Redemptions	(0.7)
Total debt financing	\$1.9
Cash on hand	\$0.1

Capital expenditures

(millions)

	2023 guidance
DTE Electric	
Base infrastructure	\$1,200
New generation	500
Distribution infrastructure	1,500
	\$3,200
DTE Gas	
Base infrastructure	\$375
Gas renewal program	310
	\$685
Non-utility	\$300 - \$400
Total	\$4,185 - \$4,285

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

AUGUST 11, 2020

DTE

Safe harbor statement

Certain information presented herein includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 with respect to the financial condition, results of operations, and businesses of DTE Energy. Words such as “anticipate,” “believe,” “expect,” “projected,” “aspiration,” and “goals” signify forward-looking statements. Forward-looking statements are not guarantees of future results and conditions, but rather are subject to numerous assumptions, risks, and uncertainties that may cause actual future results to be materially different from those contemplated, projected, estimated, or budgeted. Many factors impact forward-looking statements including, but not limited to, the following: the duration and impact of the COVID-19 pandemic on DTE Energy and customers, impact of regulation by the EPA, the FERC, the MPSC, the NRC, and for DTE Energy, the CFTC and CARB, as well as other applicable governmental proceedings and regulations, including any associated impact on rate structures; the amount and timing of cost recovery allowed as a result of regulatory proceedings, related appeals, or new legislation, including legislative amendments and retail access programs; economic conditions and population changes in our geographic area resulting in changes in demand, customer conservation, and thefts of electricity and, for DTE Energy, natural gas; the operational failure of electric or gas distribution systems or infrastructure; impact of volatility of prices in the oil and gas markets on DTE Energy's gas storage and pipelines operations and the volatility in the short-term natural gas storage markets impacting third-party storage revenues related to DTE Energy; impact of volatility in prices in the international steel markets on DTE Energy's power and industrial projects operations; the risk of a major safety incident; environmental issues, laws, regulations, and the increasing costs of remediation and compliance, including actual and potential new federal and state requirements; the cost of protecting assets against, or damage due to, cyber incidents and terrorism; health, safety, financial, environmental, and regulatory risks associated with ownership and operation of nuclear facilities; volatility in commodity markets, deviations in weather, and related risks impacting the results of DTE Energy's energy trading operations; changes in the cost and availability of coal and other raw materials, purchased power, and natural gas; advances in technology that produce power, store power, or reduce power consumption; changes in the financial condition of significant customers and strategic partners; the potential for losses on investments, including nuclear decommissioning and benefit plan assets and the related increases in future expense and contributions; access to capital markets and the results of other financing efforts which can be affected by credit agency ratings; instability in capital markets which could impact availability of short and long-term financing; the timing and extent of changes in interest rates; the level of borrowings; the potential for increased costs or delays in completion of significant capital projects; changes in, and application of, federal, state, and local tax laws and their interpretations, including the Internal Revenue Code, regulations, rulings, court proceedings, and audits; the effects of weather and other natural phenomena on operations and sales to customers, and purchases from suppliers; unplanned outages; employee relations and the impact of collective bargaining agreements; the availability, cost, coverage, and terms of insurance and stability of insurance providers; cost reduction efforts and the maximization of plant and distribution system performance; the effects of competition; changes in and application of accounting standards and financial reporting regulations; changes in federal or state laws and their interpretation with respect to regulation, energy policy, and other business issues; contract disputes, binding arbitration, litigation, and related appeals; and the risks discussed in the Registrants' public filings with the Securities and Exchange Commission. New factors emerge from time to time. We cannot predict what factors may arise or how such factors may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements speak only as of the date on which such statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. This document should also be read in conjunction with the Forward-Looking Statements section of the joint DTE Energy and DTE Electric 2019 Form 10-K and 2020 Forms 10-Q (which sections are incorporated by reference herein), and in conjunction with other SEC reports filed by DTE Energy and DTE Electric.

Focusing on our employees, customers and communities; positioned to deliver on our financial targets



Employees

- Ensuring the health and safety of our employees
 - Successfully implemented work from home for over half of our employees
 - Engagement and safety performance is extraordinary



Investors

- Reaffirming 2020 operating EPS¹ guidance
- Confirming 5% – 7% operating EPS growth target through 2024
- Ensuring strong balance sheet and liquidity position; delivering on cash and capital targets
- 7% dividend increase in 2020; targeting 7% dividend increase in 2021²



Customers

- Delivering safe and reliable energy
- Providing support to customers
 - Significantly streamlined energy assistance payments



Community

- Addressing our communities' most vital needs through philanthropy and volunteerism
 - Providing resources to serve families' basic needs, such as food, shelter and access to core medical services



Supporting employees, customers and communities and delivering on financial targets

- Executing plan to **achieve 2020 operating earnings¹ guidance**
- Confirming **5% – 7% operating EPS growth** target
- Driving utility growth by **investing 80% of total 5-year capital in utility infrastructure** and cleaner energy
- Continuing strategic and **sustainable growth in non-utility businesses**
- Ensuring **strong balance sheet** and liquidity position; delivering on cash and capital targets
- **7% dividend increase** in 2020; targeting 7% dividend increase in 2021²

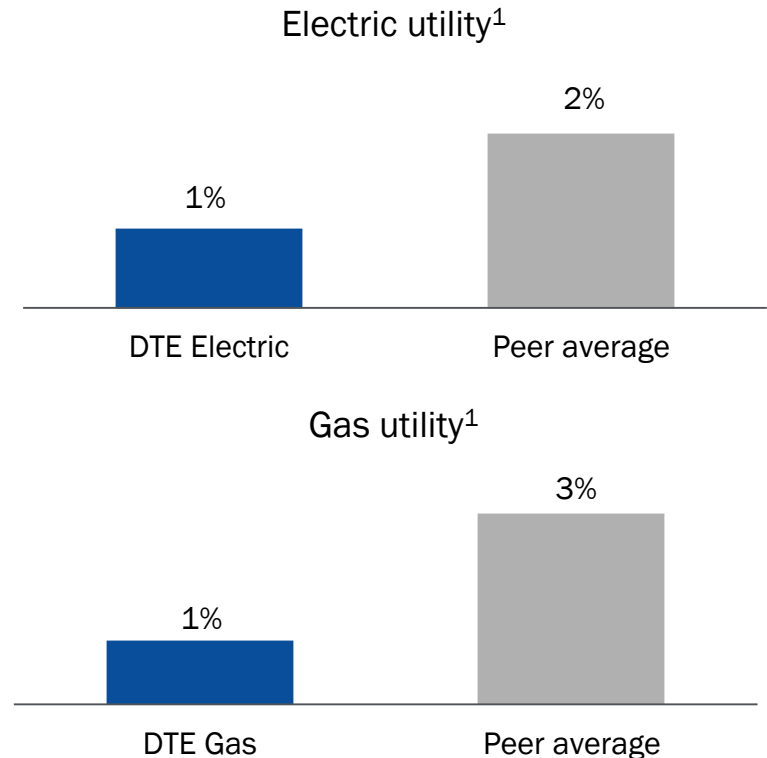


Distinctive continuous improvement culture drives strong track record of cost management vs. peer average

All 10,000+ employees engaged in CI to surface and solve problems

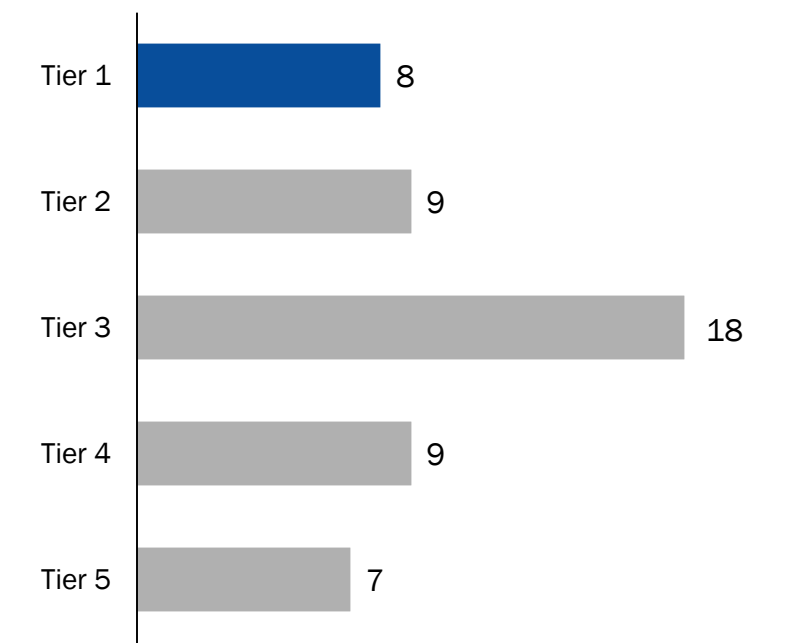
- Controlling costs while improving the customer experience and targeting rate increases below 3%
 - Productivity enhancements
 - Technology innovations
 - Automation
 - Infrastructure replacements
 - Transition to cleaner energy
- Lowered average electric industrial customer rate 13% since 2012

Average annual percentage change in O&M costs 2008 – 2018



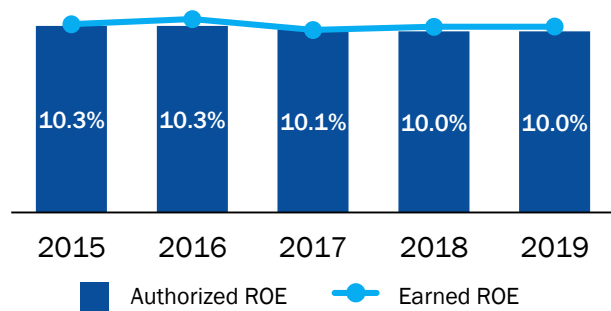
Consistently earning authorized ROE in a constructive regulatory environment

Ranking of U.S. regulatory jurisdictions¹
(Michigan in tier 1)

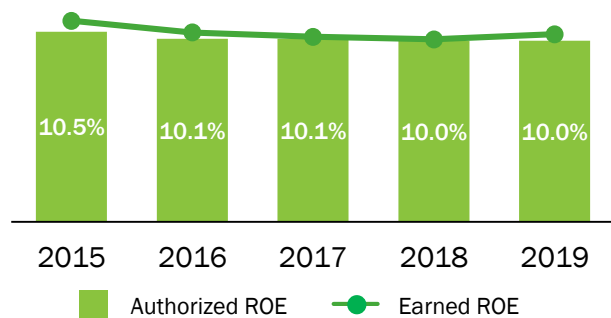


10-month rate cases supported by legislation; recovery mechanisms for renewables and gas infrastructure; 5-year distribution planning

DTE Electric ROE



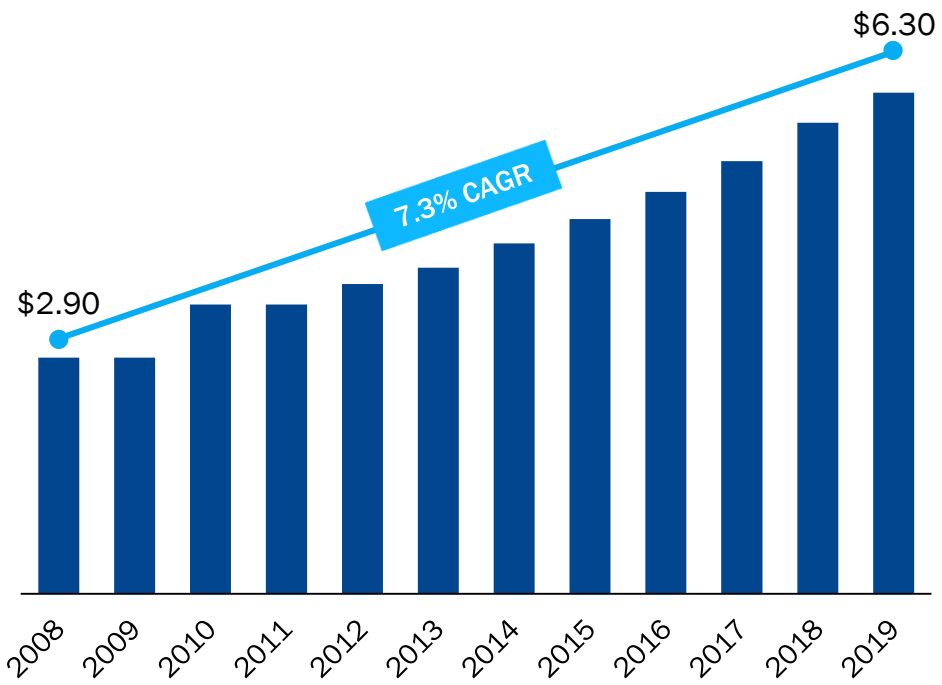
DTE Gas ROE



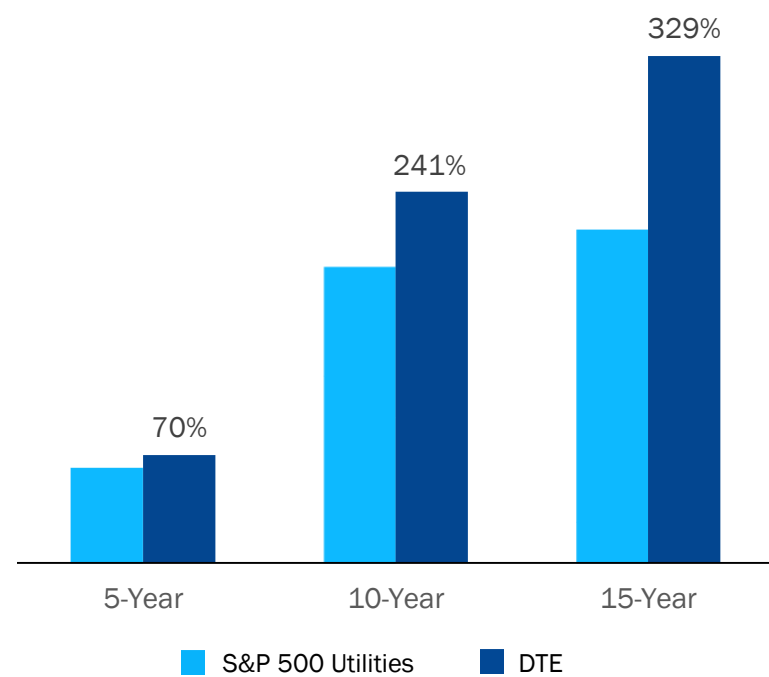
1. UBS, July 2020 (50 states and Washington, D.C.)

Delivering premium results through disciplined planning and management

History of exceeding operating EPS¹ guidance



Delivering total shareholder return² well above industry average

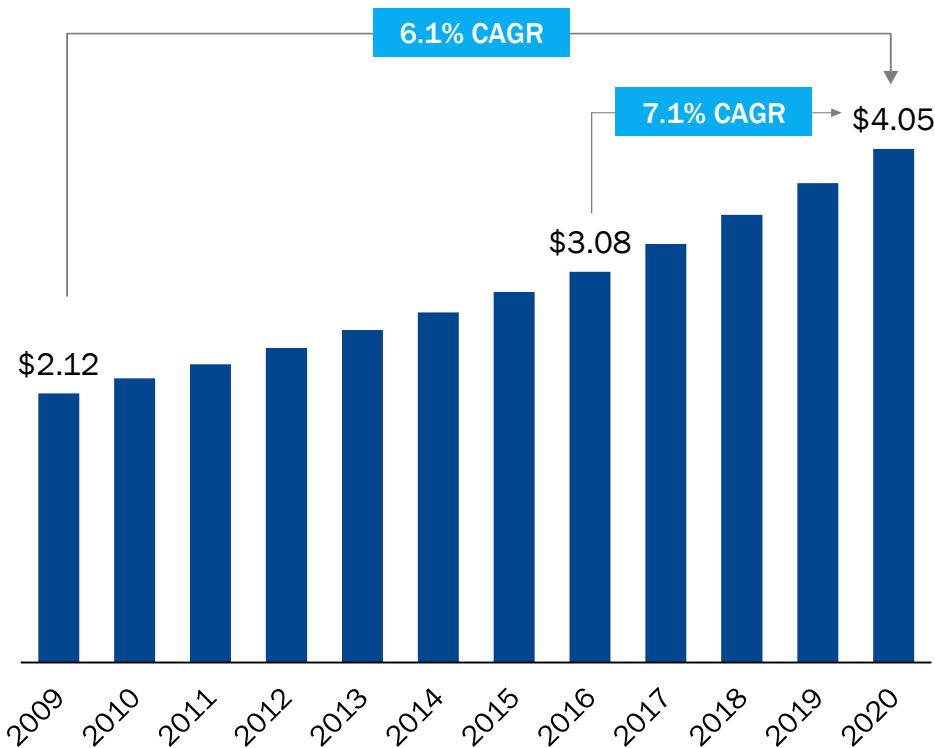


1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix
2. Bloomberg as of 6/30/2020

Increased dividend every year since 2010; 7% dividend growth through 2021¹

(\$ per share)

Annualized dividend



- Increased annualized dividend per share every year since 2010
 - 6.1% average increase over that time
 - 7.1% average increase since 2016
- Continuing 7% dividend increase in 2020
- Targeting 7% dividend growth through 2021
 - Moving payout ratio to be in line with peer average

More than 100 consecutive years of dividend payments

Executing on our economic response plan

Economic impact update

- Overall tracking below the \$60 million impact originally forecasted
 - Electric residential sales better than anticipated; commercial and industrial sales in-line with May start scenario
 - COVID-19 costs tracking to plan

Economic response update

- On target with our economic response plan
- Weather and residential sales favorability allows for potential cost pull-ahead from future years
 - Positions us to minimize future rate impacts on customers
- Non-utilities continue to track ahead of plan



On track to achieve our 2020 operating earnings¹ guidance with robust economic response plan and additional growth

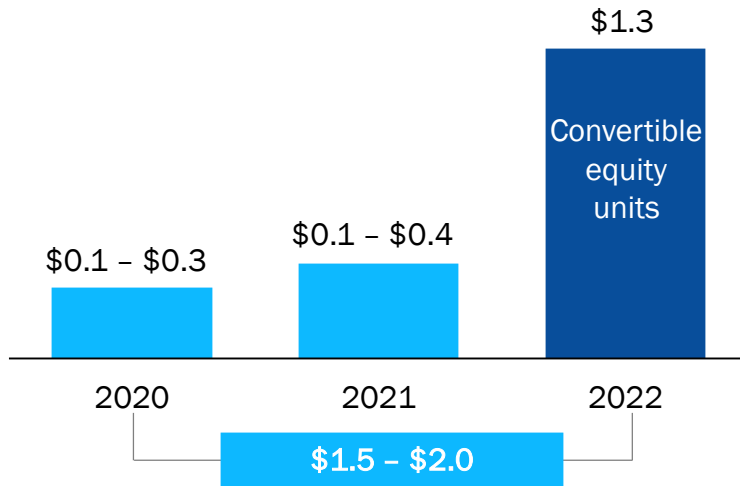
(millions, except EPS)

	2020 guidance	Primary drivers
DTE Electric	\$759 - \$773	↑ Weather and economic response plan
DTE Gas	185 - 193	
Gas Storage & Pipelines	277 - 293	↑ Strong 1H performance
Power & Industrial Projects	133 - 148	
Energy Trading	15 - 25	↑ Strong 1H performance
Corporate & Other	(122) - (132)	
DTE Energy	<u>\$1,247 - \$1,300</u>	↑
Operating EPS	<u>\$6.47 - \$6.75</u>	

Maintaining strong cash flow, balance sheet and credit profile

(billions)

Planned equity issuances 2020 – 2022



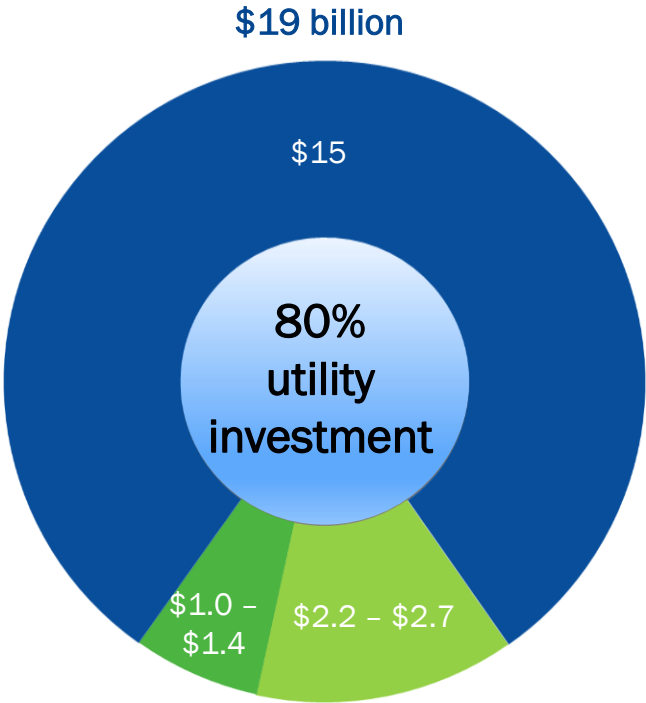
- Maintaining strong investment-grade credit rating and FFO¹/Debt² target at 18%
- \$3.4 billion of available liquidity at end of 2Q 2020

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

Clear line of sight for growth supported by investment in utility infrastructure and disciplined non-utility opportunities

(billions)

2020 – 2024 DTE Energy investment



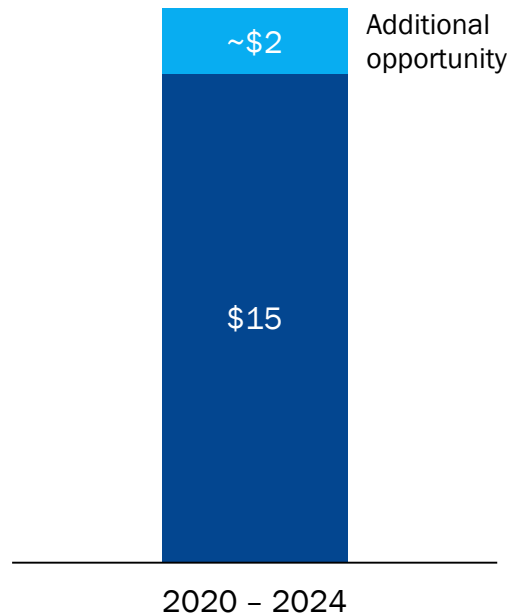
- Electric:** Distribution infrastructure, cleaner generation, maintenance
- Gas:** Base infrastructure, main renewal
- GSP:** Organic growth on existing platforms
- GSP:** Blue Union/LEAP contracted capital
- P&I:** Industrial energy services, renewable natural gas (RNG)

Investing 80% of 5-year capital in utilities

Potential \$2 billion upside to 5-year utility investment plan with visible infrastructure investment

(billions)

Utility investment plan



\$1.0 – \$1.5 billion additional electric investments above 5-year plan

- Additional voluntary renewables
 - Current 600 MW in plan with long-term goal of 1,400 MW
- Sub-transmission investments
- Increased reliability investments including pole top maintenance

\$500 million additional gas investments above 5-year plan

- 200 miles of transmission renewal
 - 10% of transmission miles will need to be modernized in the future

Utility infrastructure investments deliver significant growth and improve the customer experience

DTE Electric: providing customers clean, reliable and affordable energy

DTE Electric

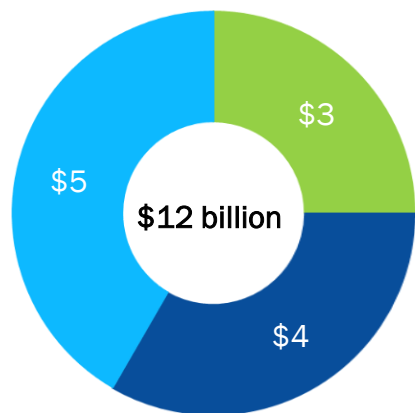
- **Constructive regulatory approvals provide certainty to plan**
 - General rate case order issued in May supports investment plans
 - Order issued in July delays rate case filing to 2021, maintains financial health and keeps electric base rates unchanged until 2022
 - Renewable energy plan order expands wind and solar power generation, improves energy efficiency and achieves carbon reduction goals
- Commissioned **largest wind park** in Michigan, powering 64,000 homes and growing our renewable portfolio



Transformational investments in generation and distribution provide customers cleaner, more reliable energy

(billions)

2020 – 2024 electric investment



- Distribution infrastructure
- Base infrastructure
- Cleaner generation

Transformational investments

Cleaner energy

Delivering 80% carbon emissions reduction by 2040

Infrastructure renewal

Addressing substation load growth and aging infrastructure

Technology innovation

Focusing on grid automation, superior customer channels and enhanced cybersecurity

Targeting 7% – 8% operating earnings¹ growth

1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

Continuing to secure a greener future

Wind

- 15 wind parks
- Polaris is largest operating wind park in Michigan

Solar

- 31 solar parks
- Lapeer solar park one of the largest solar parks east of the Mississippi

Voluntary renewables

- ~725 MW of commitments to date
- ~525 MW approved by MPSC
 - Filing in August for additional ~450 MW; operational 2023
- More than 15,000 customers enrolled

Net zero

carbon emissions by
2050

80%

carbon emissions
reduction by 2040

50%

carbon emissions
reduction by 2030

DTE Gas: advancing toward net zero emissions through infrastructure investments and innovative planning

DTE Gas

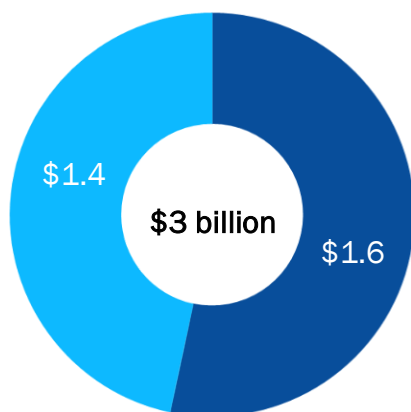
- Announced first-of-its-kind plan to reduce greenhouse gas emissions to **net zero by 2050**
 - Partnering with suppliers and customers across the natural gas chain
 - Reducing 6 million metric tons of greenhouse gases per year
- Constructive **rate case settlement filed in July supports investment plans** providing regulatory certainty
- Resumed main renewal work and **on target to complete 200 miles in 2020**
- Began construction of **transmission system renewal project**



Replacing aging infrastructure reduces methane emissions while improving performance, cost and productivity

(billions)

2020 – 2024 gas investment



- Infrastructure renewal
- Base infrastructure

Transformational investments

Main renewal

Minimizing leaks to reduce costs and improve customer satisfaction

Pipeline/transmission integrity

Strengthening the system to decrease the potential for system issues

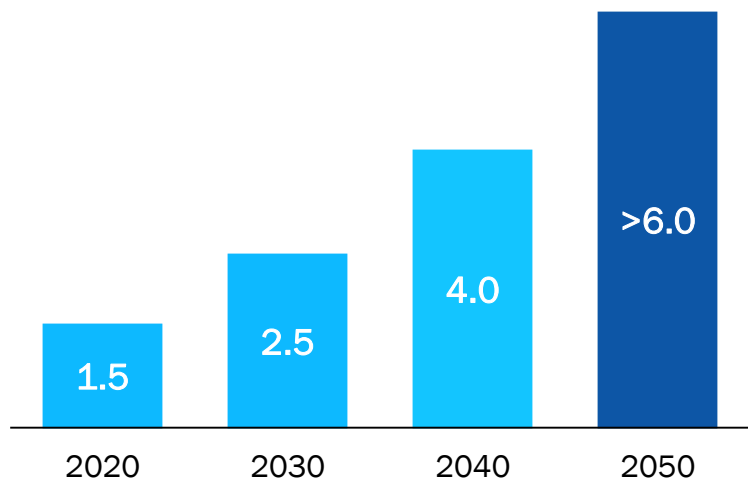
Technology enhancement

Reducing manual meter reading to improve operational efficiencies and customer satisfaction

Targeting 9% operating earnings¹ growth

Unique and comprehensive plan to achieve net zero greenhouse gas emissions

Emissions reductions
(Million metric tons, annually)



Reducing emissions by over 6 million metric tons by 2050

Working with suppliers

Aspiring to procure net zero natural gas to serve the needs of customers by 2050

Advocating for consistent reporting and measuring of emissions

Incorporating emissions as purchasing criteria

Enhancing utility operations

Continuing infrastructure main renewal upgrades and operational improvements

Utilizing technologies such as bio-sequestration and RNG

Partnering with customers

Assisting customers to reduce usage through robust energy efficiency programs

Implementing new initiatives such as a voluntary emissions offset program and advanced technologies such as hydrogen and carbon capture

Non-utility businesses complement utility growth and provide portfolio mix to manage business cycles

Non-utility value creation

Extension of our utility business core competencies into other geographies

Proven ability of early identification of value-creating platforms

Disciplined approach to assessing investments to minimize risk

Contributing over the last 10 years:

- 2% operating EPS CAGR increase
- \$3 billion of cash with ~\$700 million in 2019

Delivering higher than utility returns

Cash contribution allows for lower equity issuances

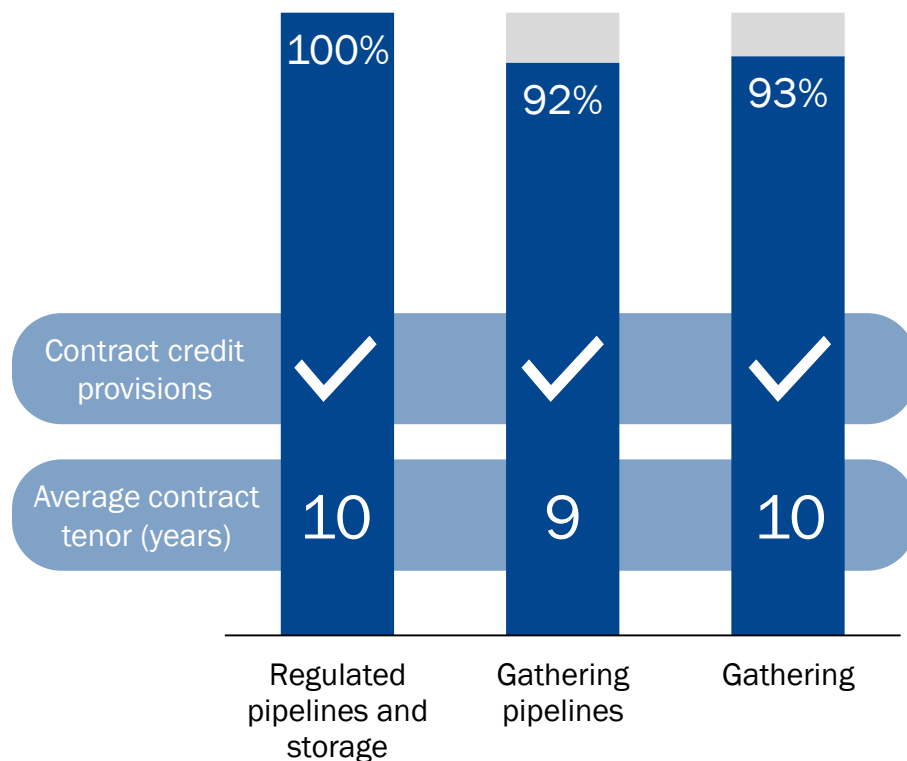
Positions DTE at top end of utility peers for operating EPS¹ growth with a 7.3% CAGR over the last decade

GSP: continuing to deliver successful results; well-positioned for future growth

Gas Storage & Pipelines

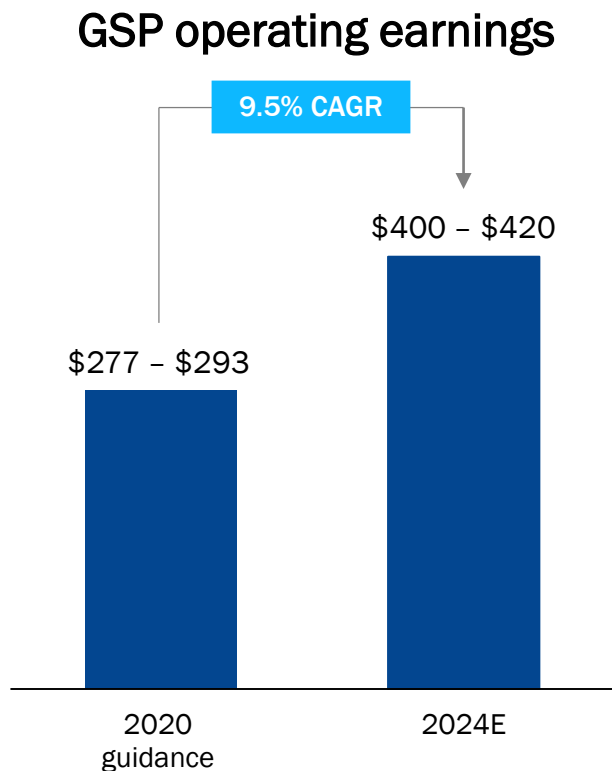
- **LEAP placed in-service** August 1; on time and under budget
- Assets are **well-positioned for future growth**
 - Located in premium natural gas basins
- Adjusted EBITDA¹ and allocated debt¹ provide **visibility into GSP's financial strength**

Percentage of revenue from demand-based contracts or MVCs/flowing gas



Delivering higher operating earnings¹ with increased certainty

(millions)

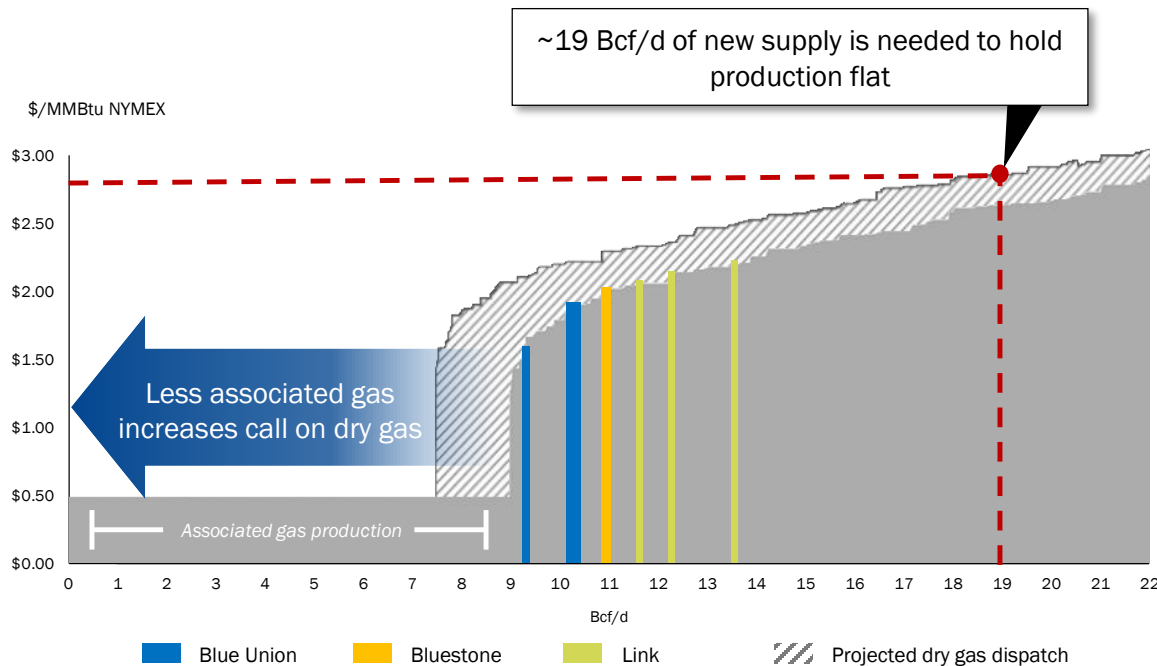


- Continued organic growth from well-positioned platforms
 - Supported by strong contracts
 - Connected to power and industrial markets
- Adjusted EBITDA² and allocated debt²
 - Producing strong adjusted EBITDA of 2.4x operating earnings
 - 2020 adjusted EBITDA range is \$665 – \$703 million
 - 2020 allocated debt/adjusted EBITDA is ~4.0x; decreasing after first full year of LEAP in-service
- \$2.2 – \$2.7 billion of investment in 2020 – 2024
 - \$1.0 billion of growth contractually secured on Blue Union/LEAP assets
 - \$1.2 – \$1.7 billion highly accretive organic growth

Confident in securing growth to meet long-term targets

As associated gas supply decreases due to lower oil prices, demand for other sources of dry gas increase

2021 – 2023 drilling supply curve (Bcf/d)



- The quality of the resource underlying our assets ensures gas will continue to flow on our systems
 - Additionally, our assets are well-positioned in supply basins that connect to growing markets with highly-contracted provisions
- Our major producers are in solid positions:
 - Attractive resources
 - Highly hedged over the next couple of years
 - Connected to premium markets
 - Minimal near-term maturities
 - Planning to operate within their cash flows

P&I: underpinned by strong growth in RNG and industrial energy services

Power & Industrial Projects

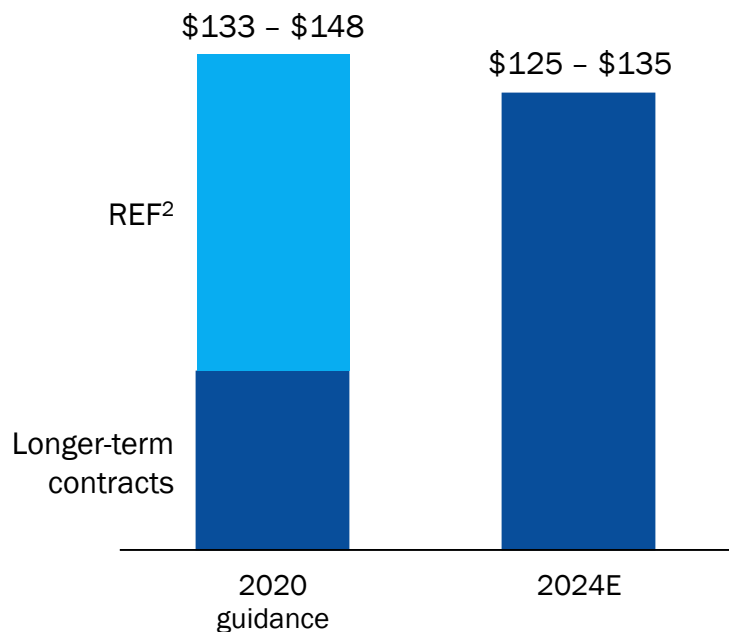
- RNG and industrial energy services **projects drive long-term growth**
 - Finalized cogeneration agreement in June
 - Operationalized large Wisconsin RNG and Ford Motor projects this year
- Developing **high-potential investment opportunities** with additional projects in late-stage development
 - Strong project pipeline to continue executing growth strategy in RNG and industrial energy services businesses
 - On track to originate \$15 million of new operating earnings¹



Operating earnings¹ are underpinned by RNG and cogeneration growth opportunities

(millions)

P&I operating earnings



Industrial energy services

Developing new cogeneration projects to improve customer environmental attributes and lower energy costs

Renewable energy

Expanding RNG business at landfill and agricultural sites to meet growing demand for carbon reduction

Reduced emissions fuel

Maximizing cash flows while reducing emissions from coal-fired plants

Continuing origination success to reach 2024 target with \$1.0 – \$1.4 billion 5-year investment

Environmental, social and governance efforts are key priorities

Environmental

Delivering clean and reliable energy to customers

Transitioning towards net zero greenhouse gas emissions

Protecting our natural resources

Social

Focusing on the safety, well-being and success of our employees

Commitment to strong culture provides a solid framework for success

Revitalizing neighborhoods and investing in communities

Governance

Focusing on the oversight of environmental stewardship, sustainability and governance

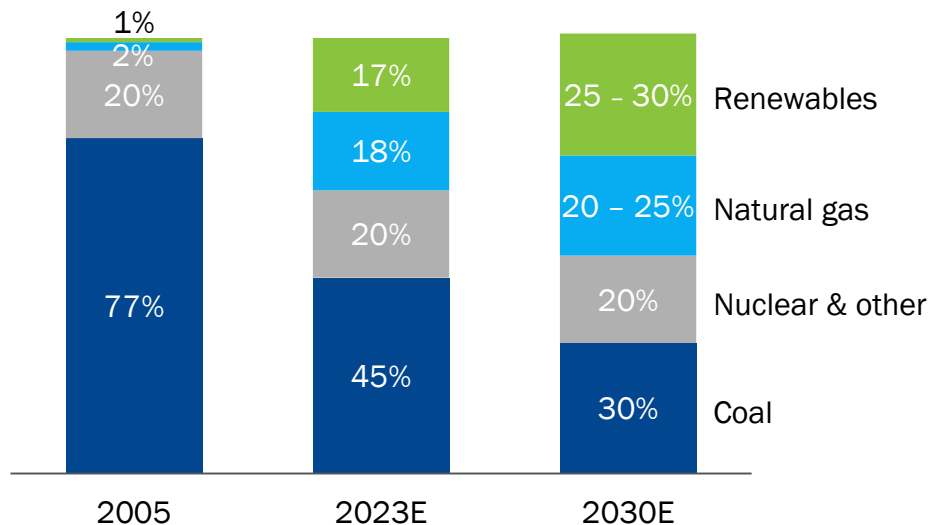
Maintaining board diversity

Providing incentive plans tied to safety and customer satisfaction targets



More than doubling renewable energy by 2024

Cleaner generation mix



River Rouge



St. Clair



Trenton Channel



Belle River



Monroe

2021

2022

2030

2040



Continuing to secure a greener future for continuous generation

Blue Water Energy Center



70%

reduction¹ in CO₂ emissions

95%

reduction¹ in SO₂ and NO_x

850k

homes powered

\$1b

investment in Michigan

Ludington Hydropower Plant



2nd

largest pumped storage facility in the U.S.

175k

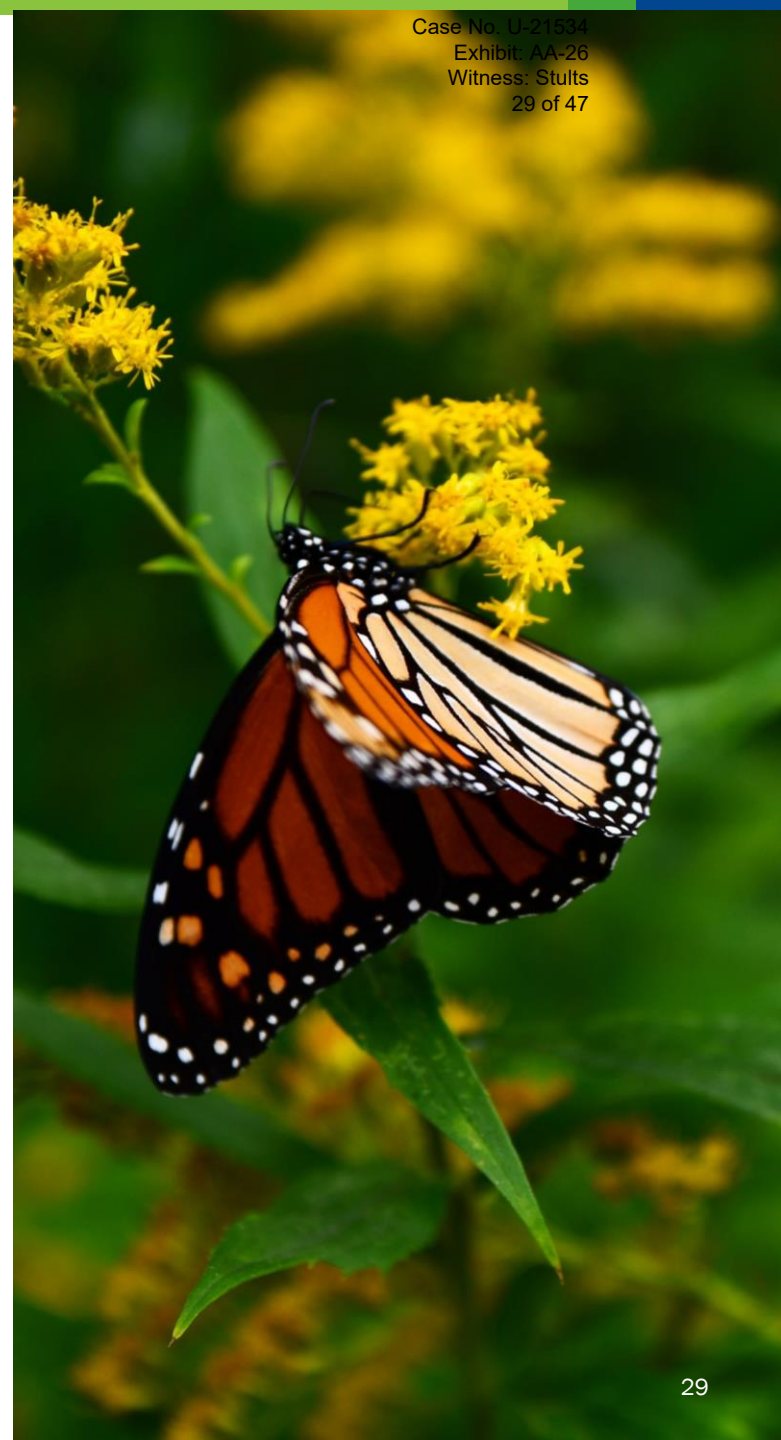
homes powered

\$800m

turbine upgrades by 2020

Promoting environmental sustainability through stewardship and conservation

- Received Corporate Conservation Leadership award from the Wildlife Habitat Council for leadership in wildlife management
- **36** sites certified under the Wildlife Habitat Council
- Taking care of land, water and living creatures
 - Providing habitat for hundreds of species of birds, mammals, fish and insects in the service territory and beyond
 - Maintaining thousands of acres of land in its natural state
- Corporate-wide certification to the **ISO14001** Standard for Environmental Management Systems



Commitment to strong culture provides a solid framework for success

Safety

National Safety Council's top 2% of companies surveyed in safety culture

Employee engagement

Top 3% in the world by Gallup; 8 consecutive Gallup Great Workplace Awards

Customer satisfaction

Top quartile at both utilities for residential satisfaction as ranked by J.D. Power

Community involvement

One of the country's top corporate citizens as named by Points of Light and J.D. Power

One of our top priorities for 2020 is to advance our culture of service excellence



World class volunteerism and community service

5,610

Volunteers

\$16m

value of in-kind
services since
2015

101,618

hours volunteered

1,335

nonprofits helped



Promoting employee resource groups creates an atmosphere of diversity and inclusion



Black professionals group



LGBTQ group



Young professionals group



Family oriented group



Differently-abled group



Latinx professionals group



Women's group



Asian and Middle Eastern group



Veteran empowerment group

Our award-winning commitment to being a top ESG employer in the country



Superior corporate citizenship and community involvement



Company diversity



Top quartile in customer satisfaction



Named as one of America's best large employers



Outstanding contribution to AESP

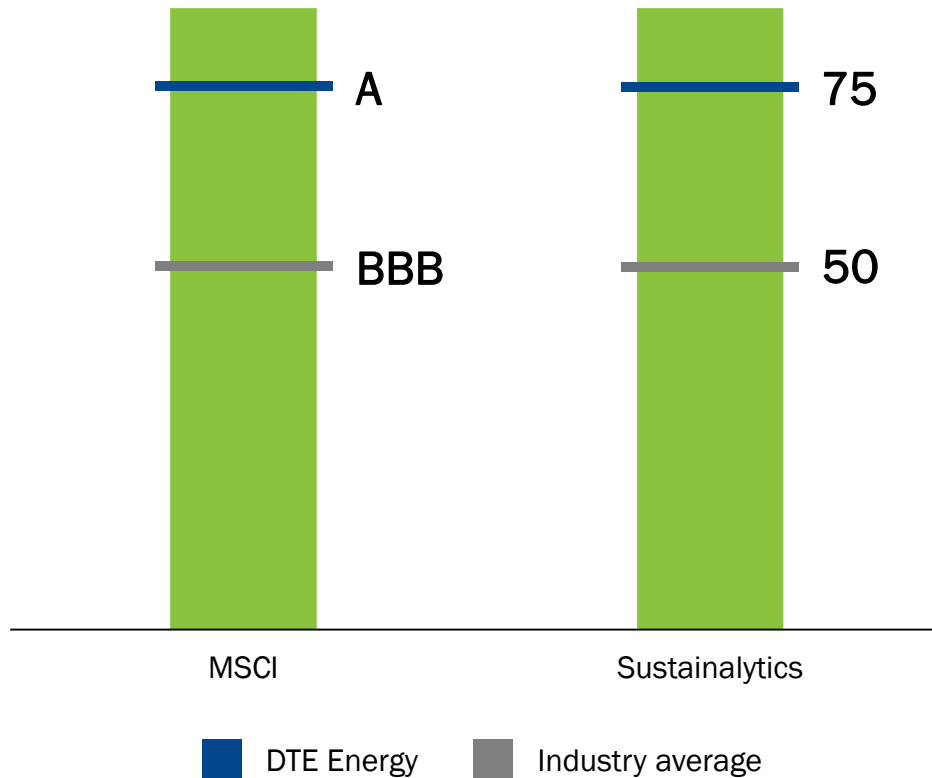


Inclusion of women-owned businesses in their supply chains



Overall excellence in diversity

Outperforming industry average in ESG scores



- Continuing to make progress on ESG performance
 - Improved MSCI rating from BBB to A
- Aspiring to be the best in the industry



Environmental, social and governance
[2020 ESG Report](#)

DTE Investor Relations
www.dteenergy.com/investors
313.235.8030

Appendix

DTE Energy

70% – 75% utility

DTE Electric

Electric generation and distribution

DTE Gas

Natural gas transmission, storage and distribution

25% – 30% non-utility

Gas Storage & Pipelines (GSP)

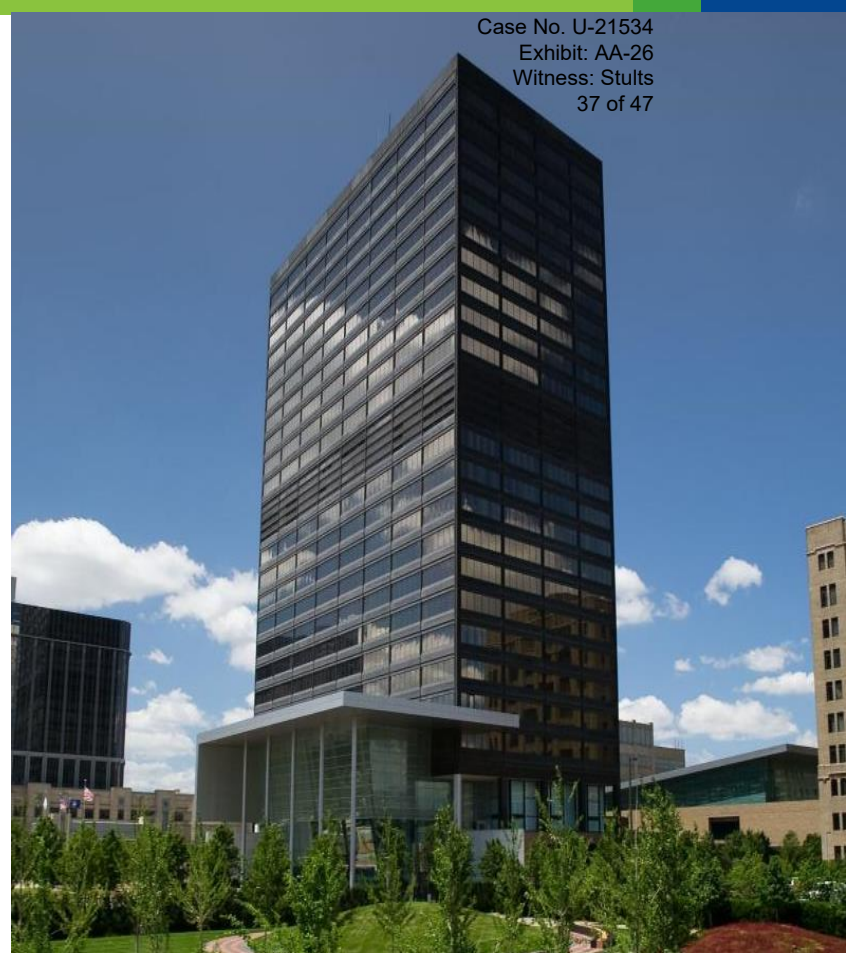
Transport, store and gather natural gas

Power & Industrial Projects (P&I)

Own and operate energy related assets

Energy Trading

Gas, power and renewables marketing



DTE Energy

10,000+ employees

2.2 million electric customers

1.3 million gas customers

2,000 miles of GSP pipelines

P&I projects in 16 states

Cash flow and capital expenditures guidance

Cash flow

(billions)

	2020 guidance
Cash from operations ¹	\$3.0
Capital expenditures	(4.5)
Free cash flow	(\$1.5)
Dividends	(\$0.8)
Net cash	(\$2.3)
Debt financing	
Issuances	\$3.0
Redemptions	(0.7)
Change in debt	\$2.3

Capital expenditures

(millions)

	2020 guidance
DTE Electric	
Base infrastructure	\$680
New generation	1,050
Distribution infrastructure	850
	\$2,580
DTE Gas	
Base infrastructure	\$270
Main renewal	300
	\$570
Non-utility	\$1,200 – \$1,400
Total	\$4,350 – \$4,550

DTE Electric and DTE Gas regulatory update

DTE Electric

- General rate case final order (U-20561)
 - Effective: May 15, 2020
 - Rate recovery: \$188 million
 - ROE: 9.9%
 - Capital structure: 50% debt, 50% equity
 - Rate base: \$17.9 billion
- Renewable energy plan (U-18232)
 - Received order: July 9, 2020
 - 350 MW of additional renewable energy by 2022 (225 MW of wind and 125 MW of solar)
- Alternative rate case strategy (U-20835)
 - Received order: July 9, 2020
 - Delays rate case filing until 2021

DTE Gas

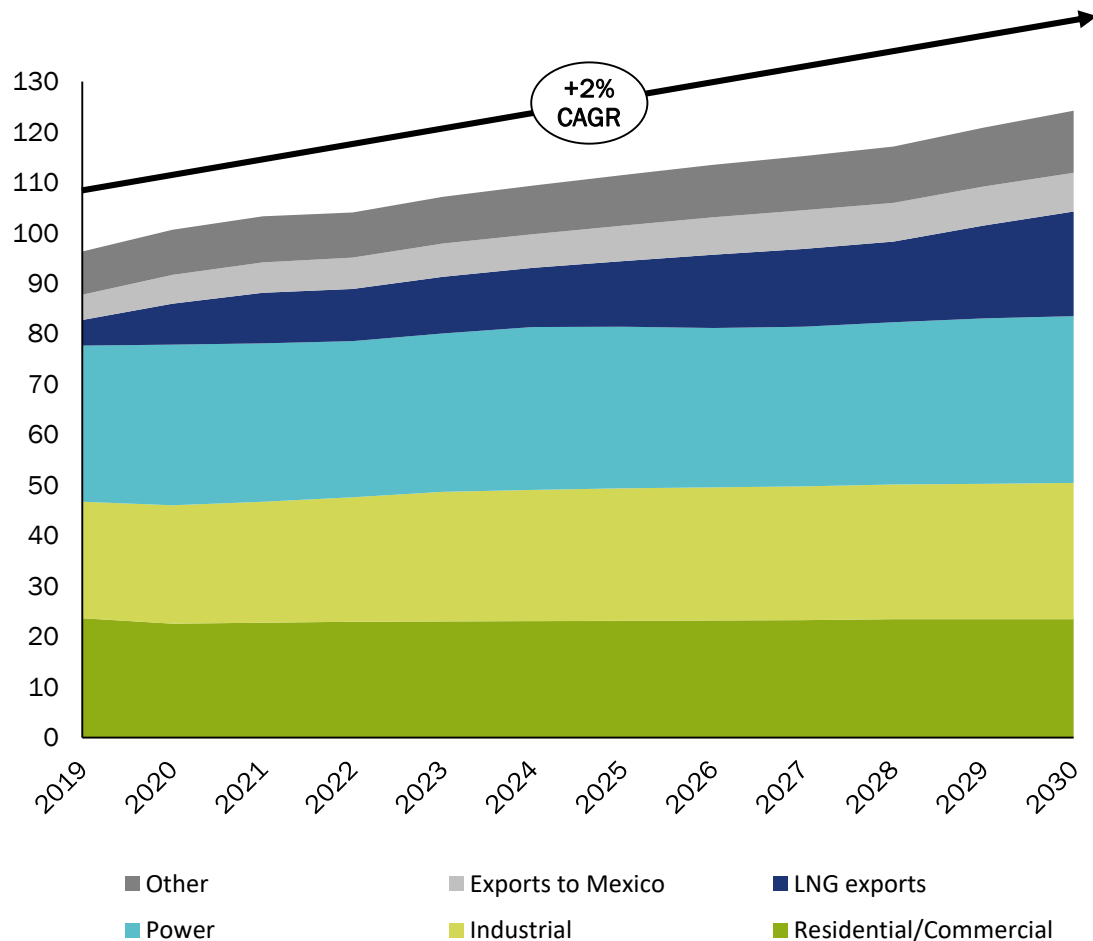
- General rate case (U-20642): filed settlement agreement July 2020
 - Order expected before September 25, 2020
 - Effective: October 1, 2020
 - Rate recovery: \$110 million and \$20 million of accelerated deferred tax amortization
 - ROE: 9.9%
 - Capital structure: 52% equity, 48% debt

MPSC order on COVID-19

- Received approval to begin deferring uncollectible expense in excess of amount in base rates starting March 2020

Longer-term demand increases will require continued production growth through new drilling

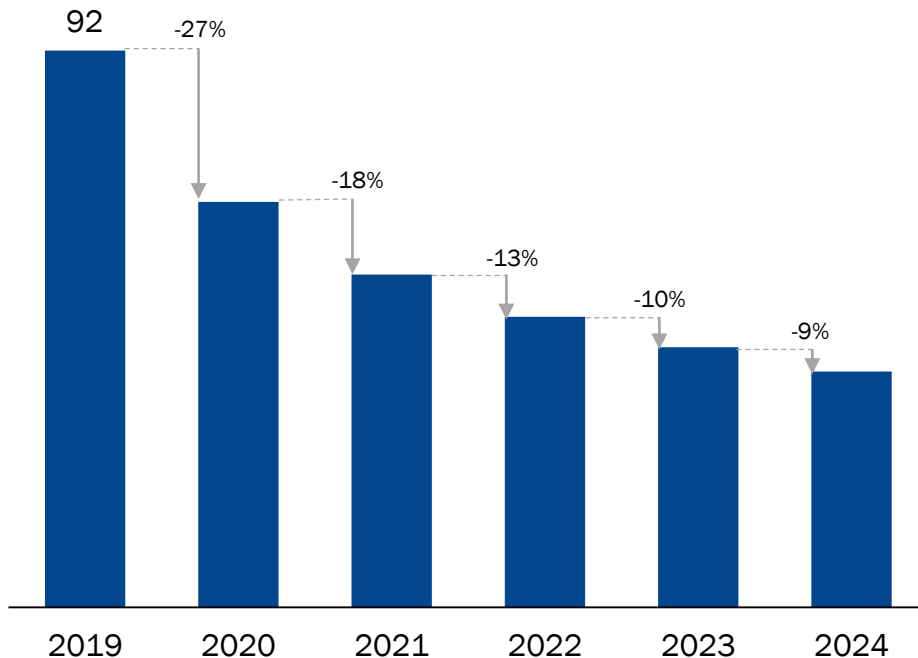
U.S. natural gas demand forecast (Bcf/d)



- Longer-term natural gas supply/demand fundamentals remain attractive; shorter-term gas prices remain challenged
- Gas demand is forecasted to grow at a 2% CAGR through 2030, mainly driven by LNG exports
- Wood Mackenzie expects supply to come from areas where our assets are located, including the northeast and gulf coast
- Short-term demand is less certain
 - In the 2008/2009 recession, gas demand dropped by ~2%, then increased post recession by 5% in 2010
 - We have experienced low price commodity cycles before and have emerged in a strong position

It is necessary to drill 19 Bcf/d of new natural gas supply on an annual basis to hold production flat

Annual decline of U.S. natural gas supply from currently-flowing wells (Bcf/d)



- Given decline profiles of flowing wells, new production is needed to just keep supply flat
 - Wood Mackenzie forecasts it is necessary to drill 19 Bcf/d on an annual basis to hold production flat
 - Replacing this supply requires prices that allow supply/demand to regain balance
- Low oil prices will decrease oil production and associated natural gas production and positively affect the natural gas market
 - This will stimulate additional natural gas drilling
 - IHS and Wood Mackenzie forecast gas prices need to be \$2.50/MMBtu or higher in 2021/2022 to meet demand

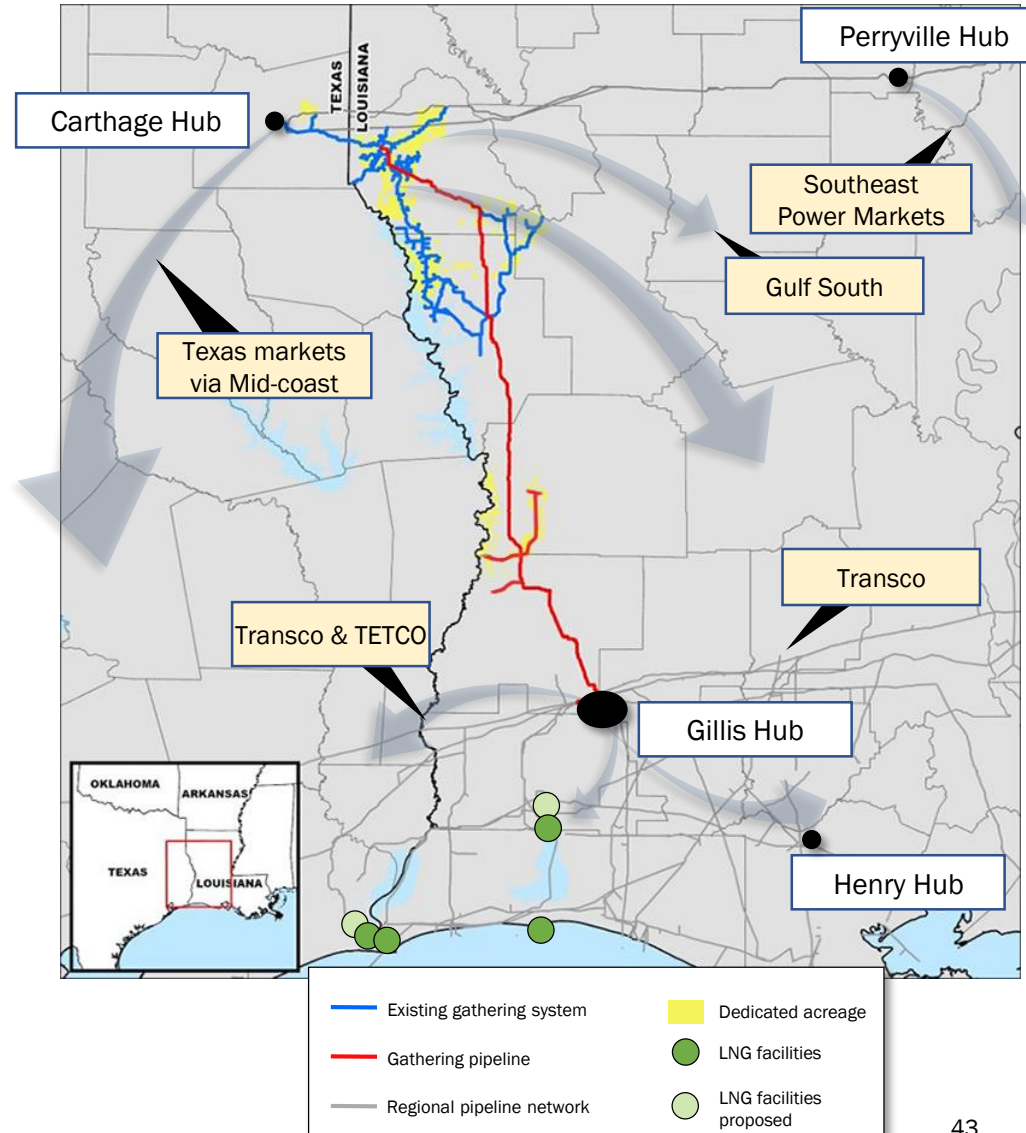
Well-positioned platforms provide confidence in securing highly accretive growth

Platforms	Regulation	Phase	Growth Opportunities
Blue Union		Early	Gathering build-outs
LEAP System		Early	Gathering build-outs/compression/ market connections
NEXUS Pipeline	FERC	Early	Compression/market connections
Generation Pipeline	PUCO ¹	Early/Mid	Market connections
Link Lateral and Gathering		Early/Mid	Gathering build-outs
Bluestone		Advanced	Market connections
Vector Pipeline	FERC	Advanced	Compression/ bi-directional service/market connections
Millennium Pipeline	FERC	Advanced	Compression/ bi-directional service/market connections
Storage	MPSC / FERC	Advanced	Compression

- \$2.2 – \$2.7 billion of investment in 2020 – 2024
 - \$1.0 billion of growth contractually secured on Blue Union/LEAP assets
- Unique characteristics of our assets allow for highly accretive organic growth
 - **Pipelines and storage** offer growth from compression/bi-directional services
 - **Gathering** systems provide access to market connections and additional build-outs
 - **Storage** continues growth with compression

Blue Union and LEAP asset additions to portfolio provide great value and growth

- Premier assets in high-quality Haynesville basin
 - Existing fully contracted gathering system
 - Fully contracted large-diameter gathering pipeline
- Highly and immediately accretive transaction
- High-quality resource well-positioned on supply stack
- Experienced and well-capitalized producer
- Solidifies earnings growth and accelerates achievement of GSP's 5-year investment plan



2018 – 2019 reconciliation of reported to operating EPS (non-GAAP)

Use of Operating Earnings Information – DTE Energy management believes that operating earnings provide a more 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.

	Year Ended December 31,							
	2019				2018			
	Reported Earnings	Pre-tax Adjustments	Income Taxes ⁽¹⁾	Operating Earnings	Reported Earnings	Pre-tax Adjustments	Income Taxes ⁽¹⁾	Operating Earnings
DTE Electric	\$ 3.86	\$ (0.06) A	\$ 0.02	\$ 3.87	\$ 3.66	\$ —	\$ 0.04 F	\$ 3.69
		0.07 B	(0.02)			0.02 G	(0.01)	
		—	—			(0.03) H	0.01	
DTE Gas	1.00	(0.03) A	0.01	0.98	0.83	—	0.06 F	0.89
		—	—			0.01 G	—	
		—	—			(0.02) H	0.01	
Non-utility operations								
Gas Storage and Pipelines	1.10	0.07 C	(0.02)	1.15	1.30	—	(0.01) F	1.29
Power and Industrial Projects	0.72	—	—	0.72	0.89	—	(0.01) F	0.89
		—	—			(0.03) H	0.01	
						0.04 I	(0.01)	
Energy Trading	0.26	(0.14) D	0.04	0.16	0.22	0.01 D	—	0.23
Total Non-utility operations	2.08	(0.07)	0.02	2.03	2.41	0.02	(0.02)	2.41
Corporate and Other	(0.63)	0.04 E	(0.01)	(0.58)	(0.73)	—	0.04 F	(0.69)
		0.03 C	(0.01)			—	—	
Net Income Attributable to DTE Energy Company	\$ 6.31	\$ (0.02)	\$ 0.01	\$ 6.30	\$ 6.17	\$ —	\$ 0.13	\$ 6.30

Adjustments key

- A) MPSC approval of the deferral for the new customer billing system post-implementation expenses – recorded in Operating Expenses – Operation and maintenance
- B) MPSC disallowance of power plant capital expenses – recorded in Operating Expenses – Asset (gains) losses and impairments, net
- C) Transaction-related costs resulting from the acquisition of Blue Union and LEAP
- D) Certain adjustments resulting from derivatives being marked-to-market without revaluing the underlying non-derivative contracts and assets – recorded in Operating Expenses – Fuel, purchased power, and gas – non-utility
- E) Impairment of equity method investment – recorded in Other income
- F) True-up of remeasurement of deferred taxes as a result of the enactment of the Tax Cuts and Jobs Act of 2017 – recorded in Income Tax Expense
- G) Implementation costs related to a new customer billing system, net of authorized regulatory deferral – recorded in Operating Expenses – Operation and maintenance
- H) One-time benefits expense reimbursement – recorded in Operating Expenses – Operation and maintenance
- I) Asset impairment at a renewable power generating facility – recorded in Operating Expenses – Assets (gains) losses and impairments, net

2008 reconciliation of reported to operating EPS (non-GAAP)

Use of Operating Earnings Information – DTE Energy management believes that operating earnings provide a more 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.

2008 Segment Diluted Earnings Per Share

	Pre-tax adjustments	Income taxes	EPS
DTE Energy Reported EPS			\$3.36
DTE Electric			
	-	-	-
DTE Gas			
Performance excellence process	0.04	(0.01)	0.03
Gas Storage & Pipelines			
	-	-	-
Power & Industrial Projects			
Performance excellence process	0.01	-	0.01
Energy Trading			
Performance excellence process	0.01	-	0.01
Corporate & Other			
Residual hedge impact from Antrim sale	0.12	(0.04)	0.08
Tax true-up from sale of joint venture - Crete	0.01	-	0.01
Discontinued operations			
Synfuel	(0.20)	0.07	(0.13)
Unconventional gas production	(0.74)	0.27	(0.47)
DTE Energy Operating EPS	(\$0.75)	\$0.29	\$2.90

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 more 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.

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.

Adjusted EBITDA and Allocated Debt are non-GAAP measures

Adjusted EBITDA is calculated using net income, the most comparable GAAP measure and adding back expenses for interest, taxes, depreciation and amortization. Adjusted EBITDA also includes an adjustment for DTE's proportional share of joint venture net income, excluding taxes and depreciation. Allocated debt is calculated by excluding utility debt from DTE Energy debt, the most comparable GAAP measure, and allocating the residual debt. The GSP portion of the residual debt is allocated to achieve a 50/50 debt/equity structure with adjustments to accommodate off-balance sheet financing for joint venture investments.

For GSP, DTE Energy management believes that Adjusted EBITDA is a meaningful disclosure to investors as it is more commonly used as the primary performance measurement for external communications with analysts and investors in the midstream industry. Allocated debt is a meaningful disclosure to provide visibility to GSP's capital structure.

Reconciliation of net income to Adjusted EBITDA as projected for full-year 2020 is not provided. We do not forecast net income as we cannot, without unreasonable efforts, estimate or predict with certainty the components of net income. These components, net of tax, may include, but are not limited to, impairments of assets and other charges, divestiture costs, acquisition costs, or changes in accounting principles. All of these components could significantly impact such financial measures. At this time, management is not able to estimate the aggregate impact, if any, of these items on future period reported earnings. Accordingly, we are not able to provide a corresponding GAAP equivalent for Adjusted EBITDA. Similarly, reconciliation of DTE Energy debt to GSP allocated debt is not provided. We do not forecast debt as we cannot, without unreasonable efforts, estimate or predict it with certainty. Debt may be significantly impacted by DTE Energy's cash flows. At this time, management is not able to estimate the aggregate impact of operating, investing, and other financing cash flows on future period debt. Accordingly, we are not able to provide a GAAP equivalent for allocated debt.



DTE

**Year-end Earnings
Conference Call**

February 23, 2023



Safe harbor statement

The information contained herein is as of the date of this document. DTE Energy expressly disclaims any current intention to update any forward-looking statements contained in this document as a result of new information or future events or developments. Words such as “anticipate,” “believe,” “expect,” “may,” “could,” “projected,” “aspiration,” “plans” and “goals” signify forward-looking statements. Forward-looking statements are not guarantees of future results and conditions but rather are subject to various assumptions, risks and uncertainties that may cause actual future results to be materially different from those contemplated, projected, estimated or budgeted. Many factors may impact forward-looking statements including, but not limited to, the following: the impact of regulation by the EPA, the EGLE, the FERC, the MPSC, the NRC, and for DTE Energy, the CFTC and CARB, as well as other applicable governmental proceedings and regulations, including any associated impact on rate structures; the amount and timing of cost recovery allowed as a result of regulatory proceedings, related appeals, or new legislation, including legislative amendments and retail access programs; economic conditions and population changes in our geographic area resulting in changes in demand, customer conservation, and thefts of electricity and, for DTE Energy, natural gas; the operational failure of electric or gas distribution systems or infrastructure; impact of volatility in prices in the international steel markets and in prices of environmental attributes generated from renewable natural gas investments on the operations of DTE Vantage; the risk of a major safety incident; environmental issues, laws, regulations, and the increasing costs of remediation and compliance, including actual and potential new federal and state requirements; the cost of protecting assets and customer data against, or damage due to, cyber incidents and terrorism; health, safety, financial, environmental, and regulatory risks associated with ownership and operation of nuclear facilities; volatility in commodity markets, deviations in weather and related risks impacting the results of DTE Energy’s energy trading operations; changes in the cost and availability of coal and other raw materials, purchased power, and natural gas; advances in technology that produce power, store power or reduce power consumption; changes in the financial condition of significant customers and strategic partners; the potential for losses on investments, including nuclear decommissioning and benefit plan assets and the related increases in future expense and contributions; access to capital markets and the results of other financing efforts which can be affected by credit agency ratings; instability in capital markets which could impact availability of short and long-term financing; impacts of inflation and the timing and extent of changes in interest rates; the level of borrowings; the potential for increased costs or delays in completion of significant capital projects; changes in, and application of, federal, state, and local tax laws and their interpretations, including the Internal Revenue Code, regulations, rulings, court proceedings, and audits; the effects of weather and other natural phenomena, including climate change, on operations and sales to customers, and purchases from suppliers; unplanned outages at our generation plants; employee relations and the impact of collective bargaining agreements; the availability, cost, coverage, and terms of insurance and stability of insurance providers; cost reduction efforts and the maximization of plant and distribution system performance; the effects of competition; changes in and application of accounting standards and financial reporting regulations; changes in federal or state laws and their interpretation with respect to regulation, energy policy, and other business issues; successful execution of new business development and future growth plans; contract disputes, binding arbitration, litigation, and related appeals; the ability of the electric and gas utilities to achieve net zero emissions goals; and the risks discussed in DTE Energy’s public filings with the Securities and Exchange Commission. New factors emerge from time to time. We cannot predict what factors may arise or how such factors may cause results to differ materially from those contained in any forward-looking statement. Any forward-looking statements speak only as of the date on which such statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. This document should also be read in conjunction with the Forward-Looking Statements section in DTE Energy’s public filings with the Securities and Exchange Commission.

Participants

Jerry Norcia – Chairman, President and CEO

Dave Ruud – Senior Vice President and CFO

Barbara Tuckfield – Director of Investor Relations

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

Best-in-class engagement, health and safety of our employees

- Received Gallup Great Workplace Award for 10th consecutive year, achieving top decile employee engagement

Addressing our customers' most vital needs

- Ranked first in residential customer satisfaction for gas by J.D. Power
- 21% electric reliability improvement from 2021 to 2022

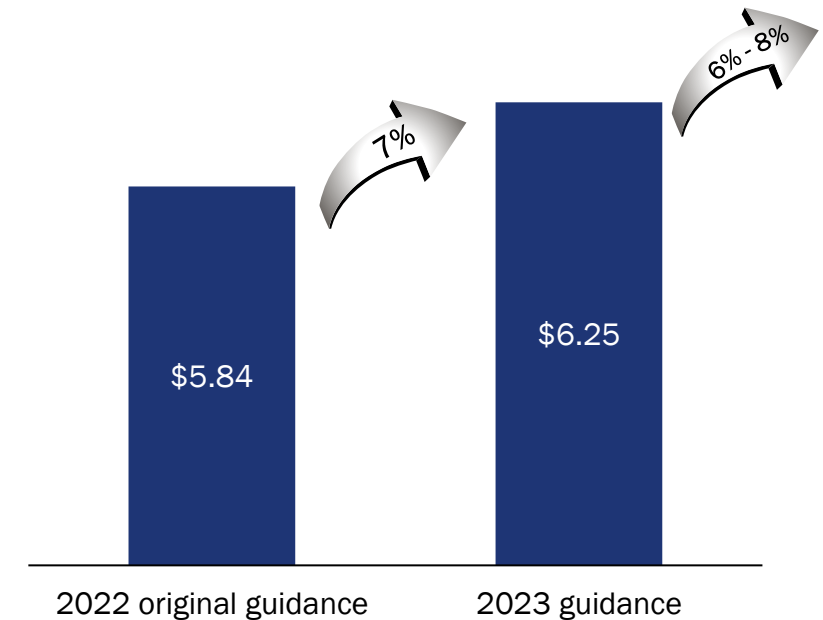
Supporting our communities

- Largest producer of and investor in renewable energy in Michigan
- Invested \$2.5 billion with Michigan businesses in 2022, creating and sustaining more than 11,000 jobs across the state

Delivering premium shareholder returns

- Delivered strong 2022 operational performance and operating EPS¹ growth of over 10% from 2021 original guidance midpoint
- Reaffirming 2023 operating EPS guidance; executing on a series of one-time O&M actions to address recent electric rate case order and support the midpoint of guidance

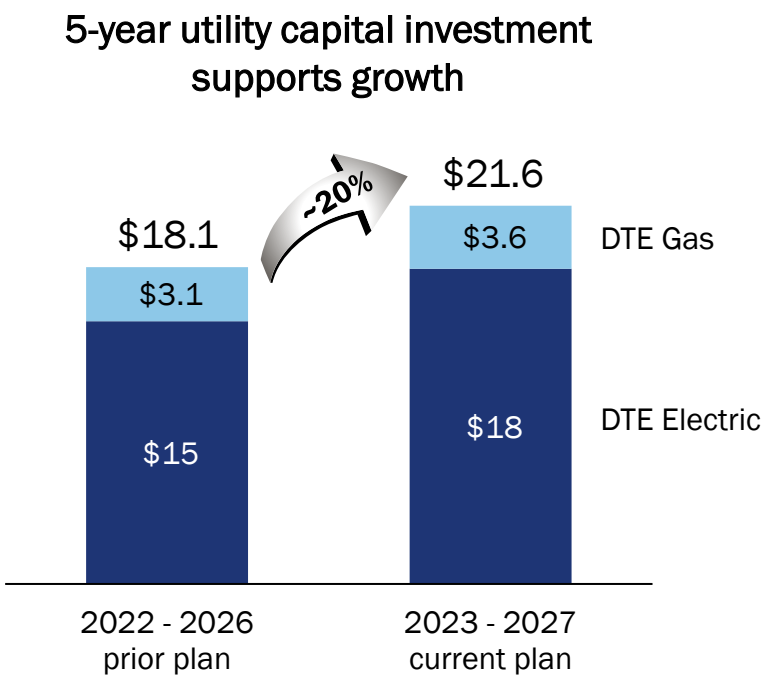
Operating EPS guidance midpoint



2023 operating EPS guidance midpoint provides 7% growth from 2022 original guidance midpoint; long-term operating EPS growth rate of 6% - 8%

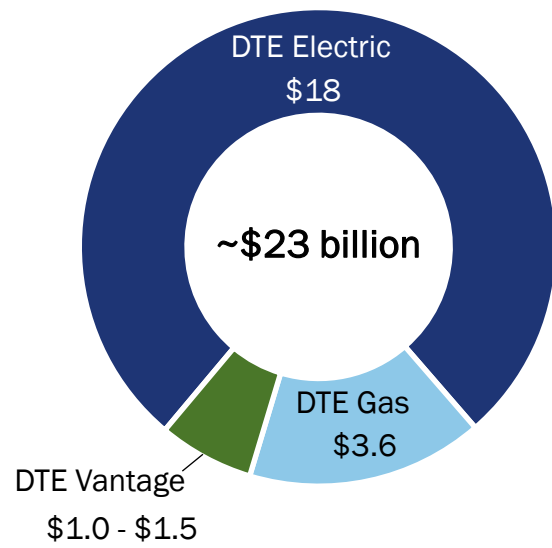
Increased customer-focused utility investment in 5-year plan supports 6% - 8% operating EPS¹ growth through 2027

(billions)



10-year utility capital plan of \$45 billion

95% of 5-year investment plan in utilities 2023 - 2027



1. Reconciliation of operating earnings (non-GAAP) to reported earnings included in the appendix

DTE Electric: transformational investments in generation and distribution; signed two of the largest voluntary utility contracts in the country

Significant progress on voluntary renewables in 2022

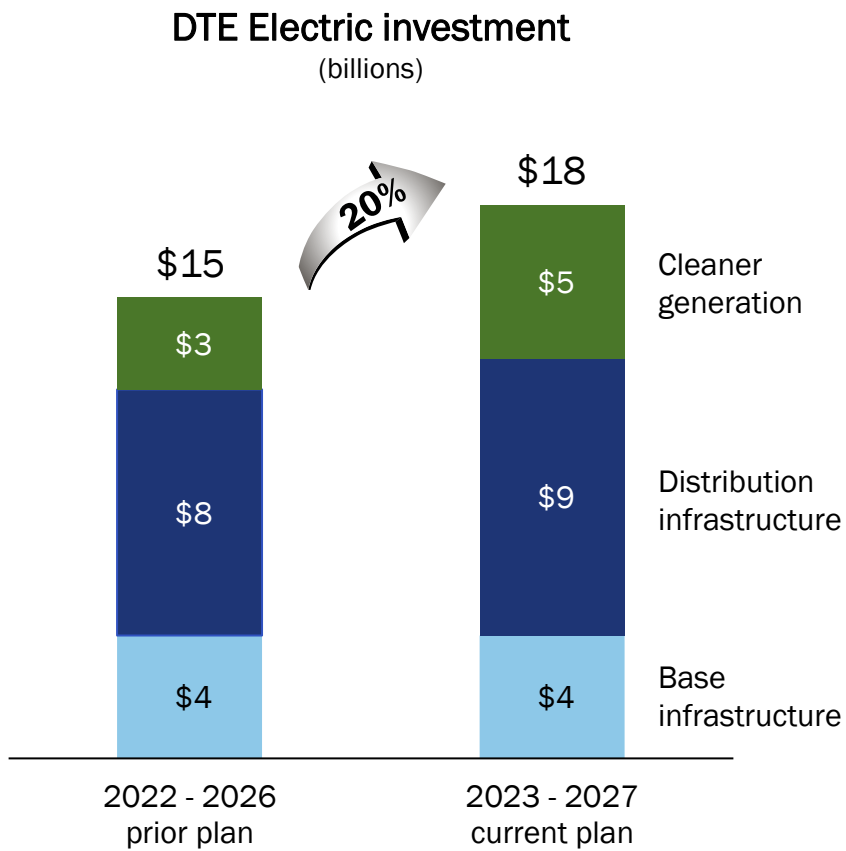
- Signed solar contracts with Ford and Stellantis; two of the largest renewable utility contracts in the country
- 2,250 MW currently subscribed to the voluntary renewables program

Accelerating decarbonization goals while ensuring reliability and affordability for our customers

- Two coal plant retirements in 2022 support cleaner energy future and lower O&M expense

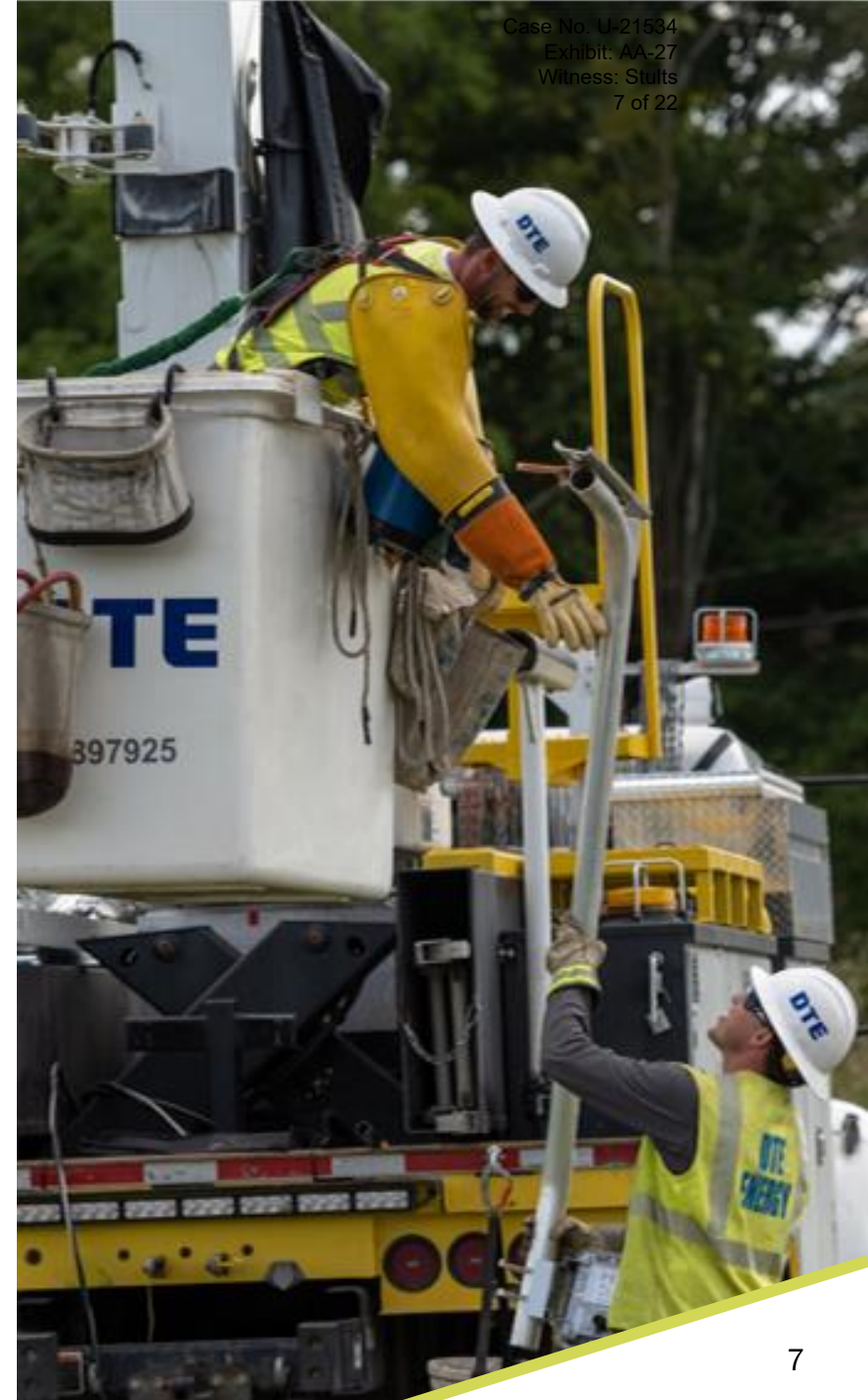
Distribution infrastructure renewal

- Modernizing grid to support electrification, meet changing customer needs and prepare for increased extreme weather events
- Continuing reliability and resiliency investment focus



Significant progress on utility initiatives supports cleaner generation with focus on affordability

- Integrated Resource Plan (IRP) filing prioritizes electric reliability with a focus on decarbonization and affordability
 - Outlines generation transformation to achieve carbon reduction of 85% in 2035, 90% by 2040 and net zero¹ by 2050
 - Supports the Michigan economy and tax base with power generated in Michigan
 - Invests \$9 billion over the next 10 years into Michigan's economy supporting more than 25,000 jobs
 - Reduces cost of clean energy transition by \$1.4 billion from previous plan
- Inflation Reduction Act (IRA) and a distinctive culture of managing costs support customer affordability and position DTE for continued long-term growth
- Electric rate case filing underpins reliability and cleaner generation investments
 - Second general rate case filing since 2019; executed significant customer-focused investments since that date while keeping base rates essentially flat
 - Majority of filing is attributable to capital, sales and the cost of debt
 - Continue practice of pursuing settlement with all stakeholders



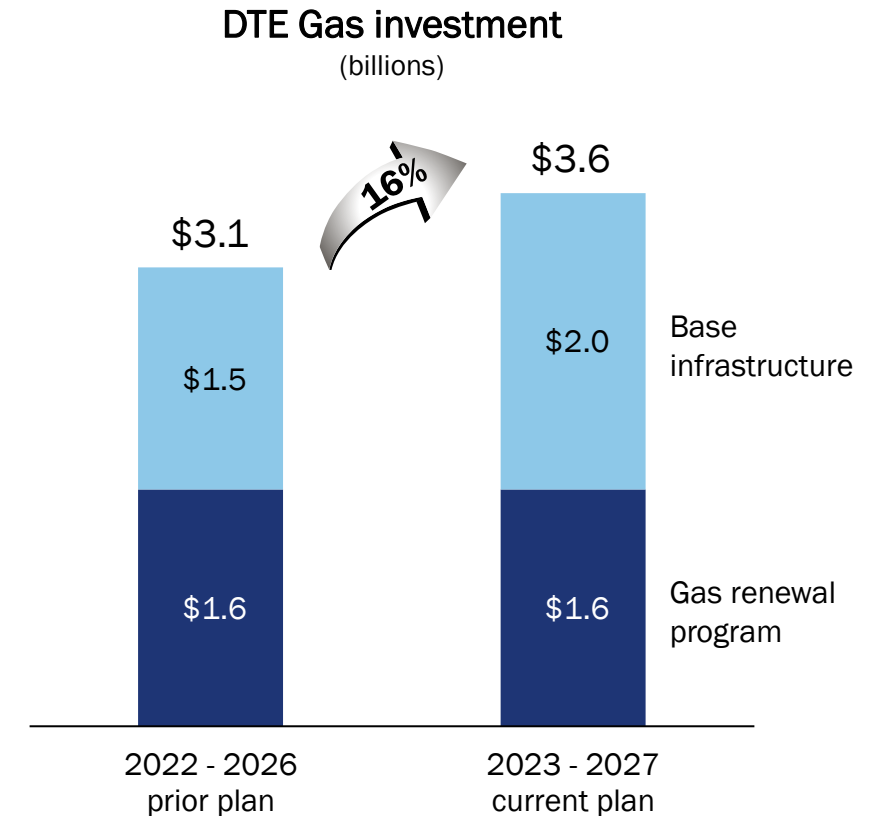
DTE Gas: replacing aging infrastructure to ensure reliability and transition to net zero emissions

Successful 2022

- Completed 220 miles of main renewal; on track for additional 13-year investment plan
- Ranked first for residential customer satisfaction by J.D. Power

Capital investment opportunities focus on infrastructure improvements and decarbonization

- Gas renewal investments minimize leaks and reduce costs
- Base infrastructure enhances transmission, compression, distribution and storage
- Targeting to reduce greenhouse gas emissions by 65% by 2030, 80% by 2040 and net zero by 2050
- Reducing end-use customer emissions by 35% by 2040
- CleanVision Natural Gas Balance program allows customers to lower their emissions footprint with both carbon offsets and renewable natural gas (RNG)



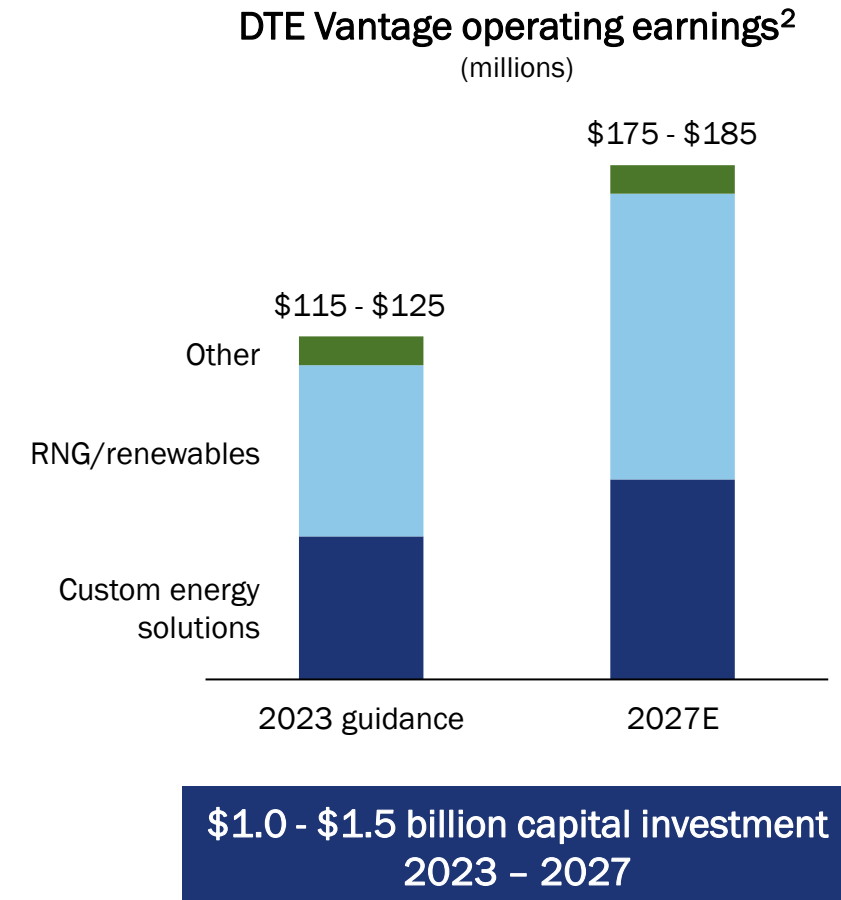
DTE Vantage: strategic focus on decarbonization solutions for customers

Strong project development in 2022 and 2023

- Placed one RNG project and one custom energy solutions project in service in 2022
- Placing three RNG projects and one custom energy solutions project in service in 2023
- Executed long-term, fixed-fee custom energy solutions agreement in 2022 with Ford Motor Company for its new electric vehicle and battery manufacturing complex
 - Complex will be Ford's largest EV manufacturing facility in North America; DTE to provide steam, hot and chilled water to Ford and electricity to Tennessee Valley Authority

Capitalizing on a growing preference for cleaner, more efficient energy

- Growth driven by strong development pipeline in RNG/renewables¹ and custom energy solutions while expanding into carbon capture and sequestration
 - IRA improves opportunities in decarbonization as enhanced tax credits allow carbon capture, RNG and combined heat and waste energy recovery to be more economic
 - Strong market growth supported by the federal RFS and California's LCFS



2022 operating earnings¹ variance

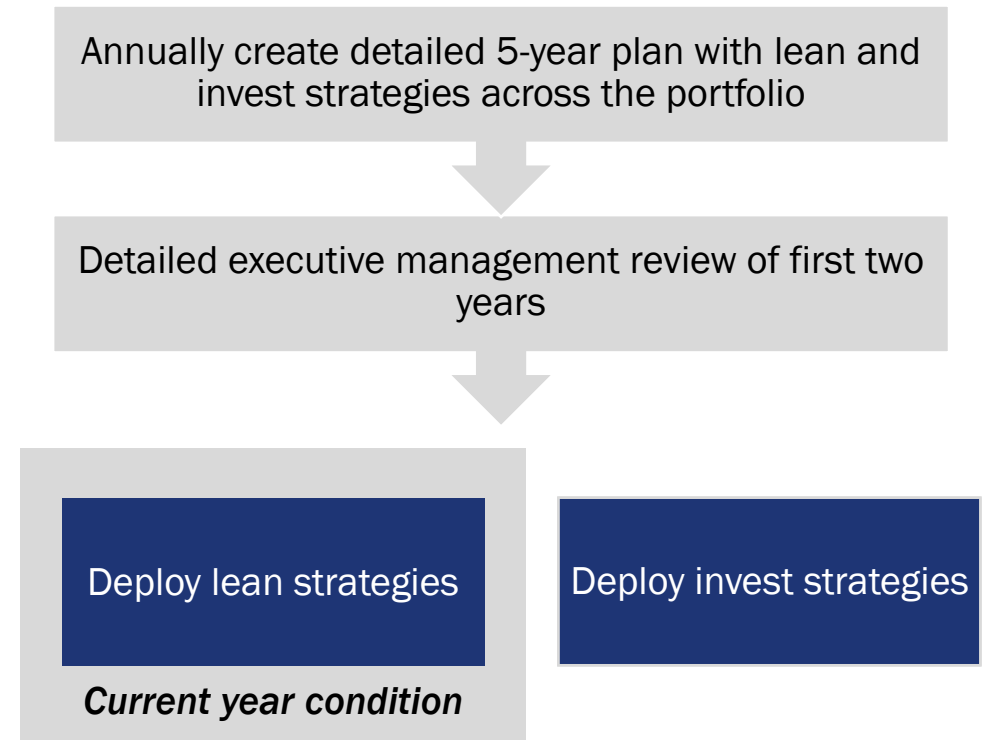
(millions, except EPS)

	2021	2022	Variance	Primary drivers
DTE Electric	\$864	\$961	\$97	2021 tree trim deferral, accelerated deferred tax amortization in 2022 and lower O&M expenses partially offset by higher rate base costs and lower sales
DTE Gas	214	272	58	Rate implementation and cooler weather partially offset by higher rate base costs
DTE Vantage	176	93	(83)	REF sunset at end of 2021 partially offset by higher custom energy solutions and RNG earnings
Energy Trading	52	14	(38)	Power portfolio performance partially offset by strong physical gas performance
Corporate & Other	(145)	(144)	1	
DTE Energy	\$1,161	\$1,196	\$35	
Operating EPS from continuing operations	\$5.99	\$6.10	\$0.11	
Avg. Shares Outstanding	194	196		

Implementing lean actions to ensure a successful 2023

- Following our proven planning process to identify opportunities without impacting safety or reliability
- Strong history of successfully achieving targeted results, including during the pandemic and the last recession
- Lean actions include one-time O&M reductions
 - Delaying hiring
 - Reducing contractor workforce
 - Limiting overtime
 - Deferring maintenance work

DTE's robust planning process



2023 operating EPS¹ guidance midpoint provides 7% growth over 2022 original guidance midpoint

(millions, except EPS)

	2023 guidance	Drivers / comments
DTE Electric	\$1,010 - \$1,030	Distribution and cleaner generation investments
DTE Gas	262 - 272	Continued main renewal and other infrastructure improvements
DTE Vantage	115 - 125	New projects in service in 2H
Energy Trading	20 - 30	Quarterly variances ² expected due to revenue recognition timing of contracted transactions
Corporate & Other	(150) - (136)	Interest expense
DTE Energy	\$1,257 - \$1,321	
Operating EPS	\$6.09 - \$6.40	

Maintaining strong cash flow, balance sheet and credit profile

Continued balance sheet strength...

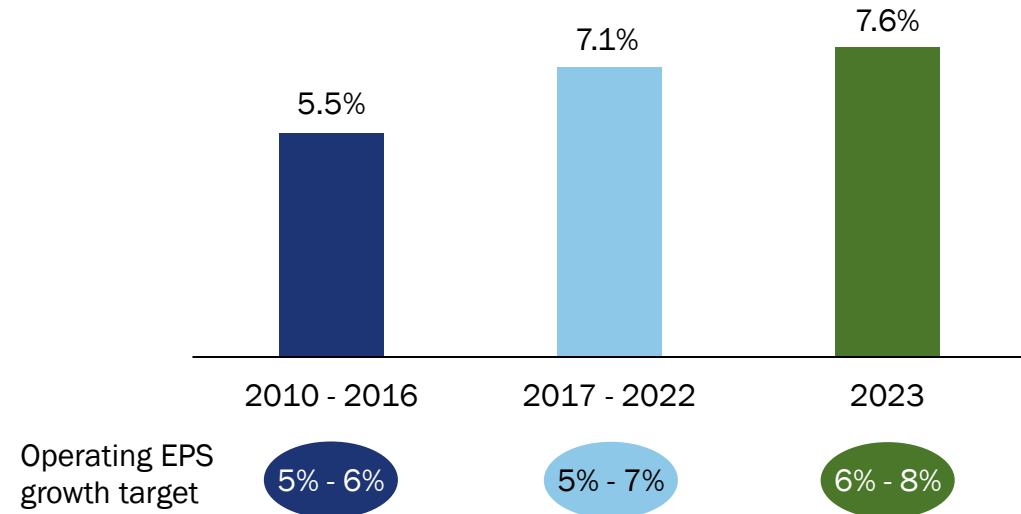
- Targeting equity issuances of \$0 - \$100 million annually through 2025
- Maintaining solid investment-grade credit ratings
 - Targeting 15% - 16% FFO¹ / Debt²

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

...while providing a healthy dividend

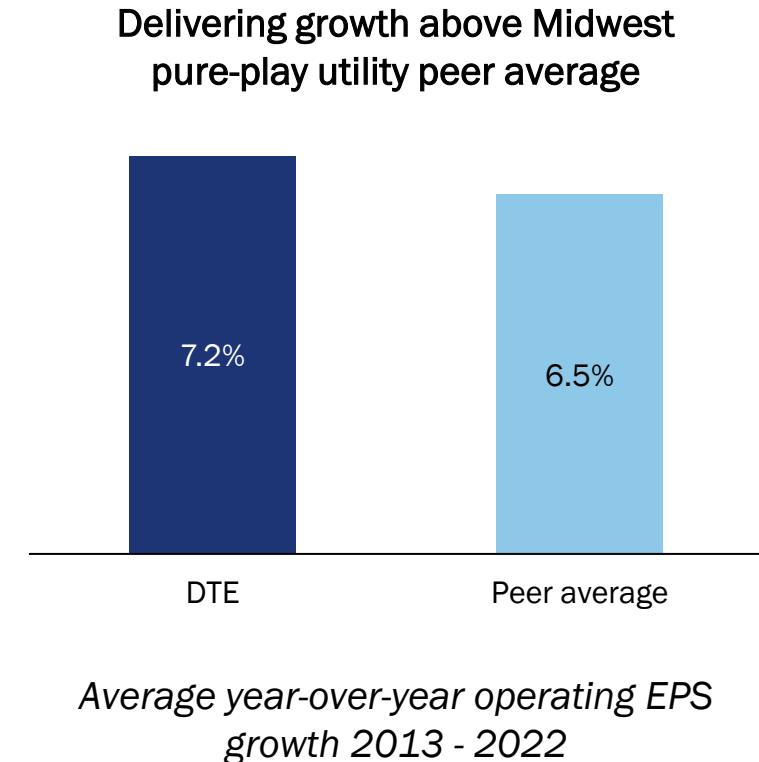
- Increased 2023 annualized dividend 7.6% to \$3.81 per share
- Over 100 consecutive years of paying a cash dividend and 14th consecutive annual increase
- Future dividend growth³ in line with operating EPS⁴ growth

Average annual dividend increase



Delivered strong results in 2022; well-positioned for long-term growth

- ✓ Strong operational and financial performance in 2022
- ✓ 2023 operating EPS¹ guidance midpoint of \$6.25 provides 7% growth from 2022 original guidance midpoint
- ✓ Robust customer-focused capital investment plan supports clean energy transition and building the grid of the future
- ✓ Delivering operating EPS growth above the Midwest pure-play utility peer average over the last 10 years
- ✓ Operating EPS growth target of 6% - 8% through 2027



Appendix

Weather impact on sales

DTE Electric

Cooling degree days¹

	2021	2022	% Change
Actuals	1,028	980	(5%)
Normal	875	899	3%
Deviation from normal	17%	9%	

Operating earnings² impact of weather

	(millions)		(per share)	
	4Q	YTD	4Q	YTD
2021	\$1	\$32	\$0.01	\$0.17
2022	(\$3)	\$25	(\$0.02)	\$0.13

Weather normal sales¹

(GWh)	2021	2022	% Change
Residential	16,122	15,647	(3%)
Commercial	19,038	19,011	0%
Industrial	10,066	10,213	2%
Other	216	210	(3%)
	45,442	45,081	(1%)

DTE Gas

Heating degree days³

	4Q 2021	4Q 2022	% Change	2021	2022	% Change
Actuals	1,935	2,108	9%	5,845	6,422	10%
Normal	2,191	2,177	(1%)	6,323	6,314	0%
Deviation from normal	(12%)	(3%)		(8%)	2%	

Operating earnings² impact of weather

	(millions)		(per share)	
	4Q	YTD	4Q	YTD
2021	(\$12)	(\$23)	(\$0.06)	(\$0.12)
2022	(\$4)	\$11	(\$0.02)	\$0.06

Cash flow and capital expenditures

Cash flow

(billions)

	2022 actuals	2023 guidance
Cash from operations ¹	\$2.0	\$3.2
Capital expenditures	(3.4)	(4.2)
Free cash flow	(\$1.4)	(\$1.0)
Dividends	(0.7)	(0.8)
Other	(0.2)	-
Net cash	(\$2.3)	(\$1.8)
Debt financing ²		
Issuances	\$2.6	\$2.6
Redemptions	(1.6)	(0.7)
Total debt financing	\$1.0	\$1.9
Equity financing	\$1.3	-
Cash on hand	-	\$0.1

Capital expenditures

(millions)

	2022 actuals	2023 guidance
DTE Electric		
Base infrastructure	\$1,044	\$1,200
New generation	117	500
Distribution infrastructure	1,457	1,500
	\$2,618	\$3,200
DTE Gas		
Base infrastructure	\$357	\$375
Gas renewal program	336	310
	\$693	\$685
Non-utility	\$92	\$300 - \$400
Total	\$3,403	\$4,185 - \$4,285

IRA supports cleaner energy transition and customer affordability

Supports accelerated clean energy transition and customer affordability and eliminates the need for tax equity structures

- Wind and solar production tax credit
- Production tax credit for existing nuclear generation
- Clean fuel production tax credits and biogas investment tax credits for RNG
- Investment tax credits for combined heat and waste energy recovery and stand-alone energy storage
- Increased tax credit for carbon capture and sequestration

No material impact to our plan from corporate minimum tax

- Accelerated depreciation
- Tax credit carryforwards



IRP accelerates transition to cleaner energy future while ensuring reliability

First 5 years (2023 - 2027)

- Retire one unit at Belle River in 2025 and remaining unit in 2026
 - Convert Belle River to 1,300 MW natural gas peaking resource in 2025 - 2026
- Add 800 MW of solar
- Add 240 MW of battery storage

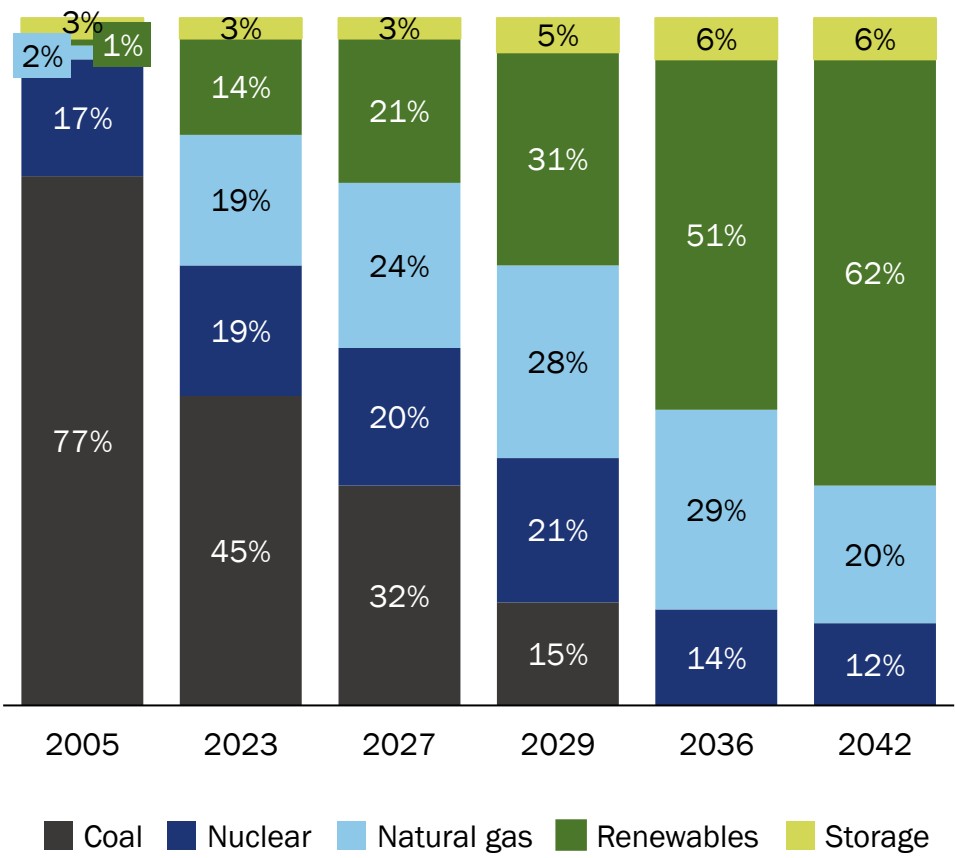
Second 5 years (2028 - 2032)

- Retire two units at Monroe in 2028
- Add 4,600 MW of renewables
- Add 520 MW of battery storage

Next 10 years (2033 - 2042)

- Retire two units at Monroe in 2035
 - Identifying dispatchable resources to replace Monroe units, including as a placeholder, a 950 MW natural gas plant with carbon capture and sequestration in 2035
- Add 10,000 MW of renewables
- Add 1,050 MW of battery storage

Generation mix¹
(MWh %)



2021 and 2022 reconciliation of reported to operating earnings (non-GAAP) and operating EPS (non-GAAP)

	Twelve Months Ended December 31,							
	2022				2021			
	Reported Earnings	Pre-tax Adjustments	Income Taxes ⁽¹⁾	Operating Earnings	Reported Earnings	Pre-tax Adjustments	Income Taxes ⁽¹⁾	Operating Earnings
	(In millions)							
DTE Electric	\$ 956	\$ 8 A	\$ (3)	\$ 961	\$ 864	\$ —	\$ —	\$ 864
DTE Gas	272	—	—	272	214	—	—	214
Non-utility operations								
DTE Vantage	92	1 B	—	93	168	27 E	(7)	176
						(17) F	5	
Energy Trading	(92)	140 C	(35)	14	(83)	180 C	(45)	52
		2 B	(1)					
Non-utility operations	—	143	(36)	107	85	190	(47)	228
Corporate and Other	(145)	(10) B	3	(144)	(367)	—	8 G	(145)
		11 D	(3)			7 H	6	
						376 I	(90)	
						—	(85) J	
Continuing Operations	1,083	152	(39)	1,196	796	573	(208)	1,161
Discontinued Operations	—	—	—	—	111	(111) K	—	—
Net Income Attributable to DTE Energy Company	\$ 1,083	\$ 152	\$ (39)	\$ 1,196	\$ 907	\$ 462	\$ (208)	\$ 1,161

	Twelve Months Ended December 31,							
	2022				2021			
	Reported Earnings	Pre-tax Adjustments	Income Taxes ⁽¹⁾	Operating Earnings	Reported Earnings	Pre-tax Adjustments	Income Taxes ⁽¹⁾	Operating Earnings
	(Earnings per share ²)							
DTE Electric	\$ 4.88	\$ 0.04 A	\$ (0.02)	\$ 4.90	\$ 4.46	\$ —	\$ —	\$ 4.46
DTE Gas	1.39	—	—	1.39	1.10	—	—	1.10
Non-utility operations								
DTE Vantage	0.47	0.01 B	—	0.48	0.87	0.14 E	(0.04)	0.91
		—	—			(0.09) F	0.03	
Energy Trading	(0.47)	0.72 C	(0.18)	0.07	(0.43)	0.93 C	(0.23)	0.27
		0.01 B	(0.01)					
Non-utility operations	—	0.74	(0.19)	0.55	0.44	0.98	(0.24)	1.18
Corporate and Other	(0.75)	(0.05) B	0.02	(0.74)	(1.90)	—	0.04 G	(0.75)
		0.06 D	(0.02)			0.04 H	0.03	
						1.94 I	(0.46)	
						—	(0.44) J	
Continuing Operations	5.52	0.79	(0.21)	6.10	4.10	2.96	(1.07)	5.99
Discontinued Operations	—	—	—	—	0.57	(0.57) K	—	—
Net Income Attributable to DTE Energy Company	\$ 5.52	\$ 0.79	\$ (0.21)	\$ 6.10	\$ 4.67	\$ 2.39	\$ (1.07)	\$ 5.99

Adjustments key on following slide

2021 and 2022 reconciliation of reported to operating earnings (non-GAAP) and operating EPS (non-GAAP)

Adjustments key

- A. MPSC disallowance of certain capital project costs previously recorded — recorded in Operating Expenses — Asset (gains) losses and impairments, net
- B. (Gain) loss on sale of assets — recorded in Operating Expenses — Asset (gains) losses and impairments, net
- C. Certain adjustments resulting from derivatives being marked-to-market without revaluing the underlying non-derivative contracts and assets — recorded in Operating Expenses — Fuel, purchased power, gas, and other — non-utility
- D. One-time benefit expenses — recorded in Other (Income) and Deductions — Non-operating retirement benefits, net
- E. Impairment of long-lived assets for the anticipated closure of a pulverized coal facility — recorded in Operating Expenses — Assets (gains) losses and impairments, net
- F. Reversal of deferred revenue upon terminating a supply contract with a steel industry customer and settling all outstanding claims — recorded in Operating Revenues — Non-utility operations
- G. Adjustment to Income Tax Expense due to a tax law change in West Virginia
- H. One-time expenses resulting from the separation of DT Midstream other than direct transaction costs — recorded in Other (Income) and Deductions — Interest Expense and Income Tax Expense
- I. Premiums and other costs incurred to early retire long-term debt, using proceeds from DT Midstream's repayment of short-term borrowings and one-time special dividend — recorded in Other (Income) and Deductions — Loss on extinguishment of debt
- J. State tax benefit resulting from the remeasurement of deferred taxes following the separation of DT Midstream — recorded in Income Tax Expense
- K. Discontinued operations of DT Midstream, including transactions costs related to the separation and tax-related adjustments

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.

MPSC Case No: U-21534

Requester: AA

Question No.: AADE-1.1

Respondent: R. Steudle

Page: 1 of 1

Question: Please indicate whether the Company's tree trimming crews are trained to identify signs of vegetation damage due to gas leaks.

Answer: No, the tree trimmers are not trained to identify signs of vegetation damage due to gas leaks.

Attachment: *None*

MPSC Case No: U-21534

Requester: AA

Question No.: AADE-1.2

Respondent: R. Steudle

Page: 1 of 1

Question: Please indicate whether the Company's tree trimming crews are instructed to report signs of vegetation damage due to gas leaks that they observe while performing work related to tree trimming and vegetation clearing.

Answer: See answer to AADE-1.1.

Attachment: *None*

MPSC Case No: U-21534

Requester: AA

Question No.: AADE-3.2

Respondent: B. Hill

Page: 1 of 1

Question: Please indicate whether there are situations in which a developer must pay a CIAC to increase the electric load capacity for a development project that is planned for a site served by a 4.8kV system when the same development project would not require a CIAC if planned for a site served by a 13.2kV system.

Answer: The Company objects because the request is overbroad, unduly burdensome and vague as it poses a hypothetical which lacks sufficient detail to provide a complete response. Notwithstanding these objections, but subject to them, the Company responds as follows:

The Company has not performed the analysis as requested.

New development projects have a wide range of variables from site-to-site and project type. The rates applied for this work are based on the DTE Electric rate book section C6 – Distribution Systems, Line Extensions and Service Connections which can be found at:

<https://www.michigan.gov/mpsc/consumer/electricity/data-price/electric-rate-books/mpsc-approved-dte-electric-rate-books-and-cancelled-sheets>

Attachment: N/A

MPSC Case No: U-21534

Requester: AA

Question No.: AADE-3.1

Respondent: B. Hill

Page: 1 of 1

Question: Please indicate how the CIAC for a development project that involves increasing electric load capacity for a site may be impacted by whether the site of the project is currently served by a 4.8kV system or by a 13.2kV system. Provide examples with cost comparisons.

Answer: The Company has not performed an analysis on hypothetical examples of development projects that involve increasing the load capacity for a site.

Please see discovery response U-21534 AADE-1.5 which states that there are no differences in non-refundable charges between 4.8kV and 13.2kV line extension projects and that there is an additional \$6.45 per linear foot refundable charge for a 13.2kV line extension project (when compared to a 4.8kV line extension project) because it requires an additional neutral conductor.

Attachment: N/A

MPSC Case No: U-21534

Requester: MNSC

Question No.: MNSCDE-13.10b

Respondent: S. Deol

Page: 1 of 2

- Question:** 10. Refer to direct testimony of Satvir S. Deol (Deol) p. SSD-7. Witness Deol states “In analyzing the long-term grid needs and to address the current challenges of the 4.8 kV and 8.3 kV circuits, the Company plans to convert all 4.8 kV and 8.3 kV grid infrastructure to a higher voltage over time.” Witness Deol also refers to 4.8kv voltage conversions multiple times throughout his testimony.
- b. Please also describe how this voltage class was selected, specifically how it will balance cost with long-term capacity and performance.

- Answer:** The company considered many factors when the decision to convert to 13.2kV was made including:
- Ease of implementation
 - 13.2kV is already being used on the company's system. The Company has utilized 13.2kV as a distribution voltage since the late 1950's.
 - Industry benchmarking
 - 13.2kV falls into the 15kV voltage class which is the most common distribution voltage class in the country. The commonality of this voltage class allows for shared learnings with industry peers.
 - Equipment availability
 - 13.2kV is a common standard distribution voltage making new equipment more accessible than 4.8kV
 - Cost
 - When compared to 4.8kV, 13.2kV equipment has more than 2.5 times the power capacity. This results in less equipment in the field and an overall less complex system to operate. The lower equipment and operating costs make 13.2kV a more cost effective alternative to the 4.8kV system.

MPSC Case No: U-21534

Requester: MNSC

Question No.: MNSCDE-13.10b

Respondent: S. Deol

Page: 2 of 2

- Safety
 - the 13.2kV system is a grounded wye system which makes fault locating and isolation easier than the 4.8kV system. As a result, it is very unlikely a down power line on the 13.2kV system will remain energized while on the ground making this a much safer system for the public.

Attachment: *None*

MPSC Case No: U-21534

Requester: MNSC

Question No.: MNSCDE-13.10a

Respondent: S. Deol

Page: 1 of 1

Question: 10. Refer to direct testimony of Satvir S. Deol (Deol) p. SSD-7. Witness Deol states “In analyzing the long-term grid needs and to address the current challenges of the 4.8 kV and 8.3 kV circuits, the Company plans to convert all 4.8 kV and 8.3 kV grid infrastructure to a higher voltage over time.” Witness Deol also refers to 4.8kv voltage conversions multiple times throughout his testimony.

a. Please describe what standard voltage the company will convert this infrastructure to.

Answer: Currently the distribution voltage the company plans to convert to is 13.2kV, a wye grounded system.

Attachment: None

Root Cause Analyses

2017-18 Wildfires

Root Cause Analyses of the 2017-18 Wildfires found to have been ignited by PG&E & Corrective Action Report

Conducted under CPUC OII #7 for:

**California Public Utilities Commission Safety Policy Division
& PG&E**

Prepared by: Envista Forensics, Inc. & Subcontractor Witt O'Brien's

July 6, 2022

www.envistaforensics.com



Finding #10: Pre-Inspection Contract Strategy



Pre-Inspection Contract Strategy

PG&E uses a lump sum pre-inspection contract strategy. A time and materials (T&M) contract will allow the pre-inspector the time to thoroughly inspect and identify hazard trees.

Background

If the contractors got behind schedule, additional resources would have to be brought in or overtime paid to get back on schedule. These actions also reduce the profit margins for the contractors. The QA program was only looking at clearance requirements and missing trees that should be listed, or over-listing trees which did not violate regulations.

Analysis

PG&E was incentivizing the contractors to meet schedules, adhere to clearance requirements for regulations, and use the pre-inspector's best judgment not to list at-risk trees or trees that may hold compliance until the following year. This should not be necessary as PG&E's VM Team, and the Pre-Inspection Contractors have been managing the distribution systems for decades. The data compiled over this time should provide adequate data to plan budgets and manage costs on inspection for a given circuit.

☒ Physical ☒ Procedural ☒ Operational ☒ Management ☒ Organizational

Finding: PG&E uses a lump sum pre-inspection contract strategy. A time and materials (T&M) contract will allow the pre-inspector the time to thoroughly inspect and identify hazard trees.

Background: Lump Sum Work refers to the following: "Contractor shall, at its own risk and expense, perform Pre-Inspection Lump Sum Work requested by PG&E. Contractor shall furnish all labor, supervision, material, equipment, transportation, and administrative services required to perform the work in compliance with this specification."

Lump Sum Work to be performed includes forecasting of the number of units by circuit and participating in creating the annual plan in cooperation with the tree contractor and PG&E; monitoring, revising, and updating the annual plan in the Project Management Database (PMD) as required; generating and distributing PMD reports; analyzing PMD reports and taking necessary action as indicated in the PMD reports; and attending area status meetings to monitor progress.

If the contractors got behind schedule, additional resources would have to be brought in or overtime paid to get back on schedule. These actions also reduce the profit margins for the contractors. The QA program was only looking at clearance requirements and missing trees that should be listed, or over-listing trees which did not violate regulations.

DTE's CleanVision 2022 Sustainability Report





Chairman and CEO Letter

Our economy is riding a technology and electrification revolution unmatched since the early 1900s.

Today, we are more connected to smart phones, smart homes, their workplaces, fully electric automobiles, and other electronic devices. While we continue to make progress, too many of these connections are still supported by an electric grid built to sustain the industrial revolution of the last century.

At the same time, climate change continues to be one of the defining issues of our time. Severe weather in our state and around the country has become more extreme and unpredictable. From high winds to ice storms, what was once considered historic seems to regularly occur.

To meet these dual challenges, we're investing more than ever to upgrade infrastructure and build the energy grid of the future. In the last five years, we invested \$5 billion and we plan to invest an additional \$9 billion in the next five years to modernize the grid and provide customers the resiliency and reliability they deserve. We're also continuing to invest in cleaner sources of power generation, like our Blue Water Energy Center natural gas plant that went online in 2022. We're also significantly expanding our renewable portfolio, and strive to achieve net zero carbon emissions by 2050.

We're doing this all while continuing to build and invest in our greatest asset – our team. Continuing to attract and develop diverse, skilled and caring individuals who put our customers first is paramount to meeting our goals of providing reliable, cleaner and affordable energy.

In this report I invite you to learn more about how we're protecting our planet, planning for the future, supporting our people and communities – all in the name of serving our customers and our state.

Thank you for joining us on our journey.

A handwritten signature in blue ink that reads "Jerry Norcia". The signature is fluid and cursive, with a small dot at the end.

Jerry Norcia
Chairman and Chief Executive Officer
DTE Energy

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 **Exhibits of the City of Ann Arbor** was served on the following:

Name/Party	E-mail Address
Michigan Office of Administrative Hearings and Rules Sally L. Wallace, ALJ	wallaces2@michigan.gov
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The statements above are true to the best of my knowledge, information and belief.

Dated July 26, 2024

CITY OF ANN ARBOR



By: _____

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