Battle of the Buildings: Keynote

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DTE Energy Overview

• DTE Energy is a Detroit-based diversified energy company involved in the development and management of energy-related businesses and services nationwide

• Our operating units include an electric utility serving 2.2 million customers in Southeastern Michigan and a natural gas utility serving 1.3 million customers in Michigan

• Our portfolio includes non-utility energy businesses focused on power and industrial projects, natural gas pipelines, gathering and storage, and energy marketing and trading

• As one of Michigan's leading corporate citizens, we are a force for growth and prosperity in the 450 Michigan communities we serve as demonstrated through our philanthropy, volunteerism and economic progress
DTE Energy has designed a system of priorities, values, and purpose in order to achieve our dual aspirations.

To be the best operated energy company in North America and a force for growth and prosperity in the communities where we live and serve.

Aspiration
Priorities
Values
Purpose
Achieving our Force for Growth aspiration includes a commitment to environmental stewardship and protecting our natural resources

- The energy industry across the United States is undergoing a major transformation by seeking lower-carbon energy sources while meeting growing demand

- At DTE Energy, we recognize our role in this industry-wide transformation and our responsibility to provide affordable, reliable and cleaner energy for our customers

- We are pursuing a deliberate course of action to meet the challenges of the future

- Today, we will discuss DTE Energy’s sustainability journey with a specific focus on our facilities
Our journey toward greater energy efficiency began a number of years ago, and we continue to enhance our focus.

- Our journey began with the economic crisis of 2009 – 2010 with our employee’s genuine desire to build a better future for Michigan and its communities.

- Our efforts have focused on:
  - Transforming our business to reduce carbon emissions and increase renewable generation.
  - Engaging our customers in energy efficiency programs to help them lower their bills and save energy.
  - Working with its suppliers to advance sustainable business practices.
  - Improving our own utilization of energy, water and waste in our facilities.

- We will continue to prioritize and drive sustainability in the years ahead.

80% carbon reduction by 2050

25% usage reduction in energy, water and waste by 2022

15% renewable generation by 2021

1. DTE Energy’s 2018 Environmental, Social, Governance, & Sustainability Report
We are transforming our operations to reduce carbon emissions and increase renewable generation

We are Michigan’s largest investor in renewable energy sources:

- Our sources include wind, sunlight and biomass
- We plan to double renewable energy capacity by the early 2020s
- Renewable energy is energizing Michigan’s economy
- We are making significant steps toward our goal of cutting carbon emissions by more than 80 percent by 2050
We are engaging our customers in energy efficiency programs to help them lower their bills and save energy.

Our energy optimization program was launched in 2009 to:

- Help customers control their energy use through program offerings
- Save customers money through rebates and energy-saving education
- Improve the environment by controlling consumption

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- Home Energy Consultation
- Home Energy Survey
- EnergyStar®
- Water Heating
- Insulation & Windows
- Limited Income
- Furnace & Boiler
- Air Conditioning
- Appliance Recycling
- Lighting Discount
Our journey toward greater energy efficiency in our own buildings began several years ago, but we’ve increased our focus

• Initial phases of this work in our facilities included transforming our workspaces and renovating buildings

• Recent phases of this work have included assessments as well as energy, water and waste reduction projects in our headquarters

• In the future, energy, water and waste reduction projects will expand to other locations
We are transforming our workplaces to exemplify efficiency and engagement

Our Workplace Transformation Initiative is creating a world-class, energy efficient work environment, including:

• LED lighting and occupancy sensors
• Energy efficient appliances
• Water saving plumbing fixtures
• GREEN materials
• Collaborative work areas
• Waste reducing technologies
• Optimizing our overall footprint
The Navitas House renovation project aligned our commitment to the community and to environmental sustainability

The Navitas House is a 32,000 square-foot building symbolizing our Energize Detroit initiatives:

• Prior to its renovation, this 1938 building was vacant

• This project was not just the transformation of a vacant building, but rather a sign of what's to come throughout our community

• Workplace Transformation Initiative principles were applied, including efficient lighting, HVAC systems and plumbing

• The property includes a rain garden, which filters runoff and provides an urban habitat for birds and butterflies

• In 2015, Navitas House was transformed into a LEED-certified gem
In 2017, we increased our environmental sustainability focus in our own buildings by prioritizing locations and conducting energy, water and waste assessments.

### Energy Assessment Objectives

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<td>• Assess the potential for energy saving opportunities</td>
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<td>• Understand how we perform relative to peers</td>
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<td>• Establish a baseline for improvement</td>
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1. **Prioritize Locations and Assess Performance**
2. **Develop Strategy**
3. **Execute the Plan**
4. **Monitor Progress**
We began energy saving projects at our biggest location, DTE Headquarters, which were selected based on established criteria that align objectives.

**Criteria**

1. Ease of Implementation
2. Highest Impact
3. Decision Making: Asset Longevity

**Schedule**

- Workplace Transformation Plan / Schedule
- Asset Preservation Plan / Funding
We established baselines for energy and water use, and installed metering to enable monitoring.

The ability to track energy and water usage was a key milestone achieved in 2016 - 2017:

• Metering and sub-metering were installed in the necessary locations
• We deployed solutions to capture and trend data
• Interval usage data capture was installed where needed
• We created dashboards to help monitor and trend usage, and to establish baseline data
• Energy Kiosks were created to communicate our energy and water usage and plans with employees and visitors
• We utilized our baseline, along with assessment results, to set savings targets
Projects that were implemented at our headquarters campus touched all buildings

- Replaced 6,000 fluorescent lamps with LED
- Installed energy efficient appliances on three newly renovated floors
- Reconfigured space utilization and rebuilt air handling units to increase efficiency
- Installed high efficiently motors with variable frequency drive
- Installed water saving plumbing fixtures
- Utilized GREEN materials
As a result of these efforts, we significantly reduced energy usage in DTE Headquarters.

**DTE HQ Campus: 1.3 million square feet**

13%

Reduced 17 Million BTU’s of Energy

**DTE Service Building: 210,000 square feet**

33%

Reduced 10 Million BTU’s of Energy
Over the next five years, our facilities projects will significantly reduce energy, water and waste by 2022

- Our five year plan and targets are established and are being executed

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<th>5 Year Cumulative Targets</th>
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<td>Waste</td>
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- Energy efficiency and environmental sustainability are integrated into our work and decisions, including:
  - Standards, engineering and design
  - Asset preservation
  - Operations and maintenance
  - Technology adoption

FUTURE PROJECTS
- HVAC efficiency
- LED lighting installation
- Cooling tower efficiency
- Energy Star appliances
- Water control and conservation
- Total waste reduction
- Window replacement
- Building management systems
- Data center efficiency