

2022 DTE Electric Integrated Resource Plan

DTE Electric proposes transformational investment in Michigan-made renewable energy and accelerates emissions reductions

In November 2022, we filed a comprehensive plan to meet the electricity needs of our customers for the next 20 years (2023-2042) with the Michigan Public Service Commission

Our proposed plan:

- **Generates reliable electricity through a balanced and diverse mix of cleaner energy sources.**
- **Accelerates previous CO₂ interim reduction goals, targeting a 65% emissions reduction in 2028, 85% in 2035, 90% by 2040.**
- **Ends use of coal in 2035 with a responsible, phased retirement schedule of the Belle River and Monroe coal power plants.**
- **Proposes enough Michigan-made solar and wind energy to power approximately 4 million homes.**
- **Invests \$9 billion over the next 10 years into Michigan's economy supporting more than 25,000 jobs.**
- **Reduces the cost of the clean energy transition by a projected \$1.4 billion from our 2019 plan.**

Results of a year-long comprehensive process that included insights from customers to build this plan

60%
renewables
by 2042

Reduces
future costs
\$1.4 billion
compared to our
2019 plan

Our CleanVision Plan is a proposal subject to regulatory approval. To read the plan's Executive Summary, or learn more about DTE Electric's clean energy programs, please visit dtecleanenergy.com.



15,400 MW of renewables and

2023-2032: 4,400 MW solar; 1,000 MW wind
2033-2042: 2,100 MW solar; 7,900 MW wind



1,810 MW of storage by 2042

2023-2032: 760 MW;
2033-2042: 1,050 MW

Transforms DTE Electric's generation fleet, resulting in a total of 18,400 MW of renewables and a total of 2,900 MW of storage by 2042 (when added to existing and approved resources)



Accelerates renewables, maintains reliability and affordability



1.5% energy waste reduction

Continues to focus on customer programs by targeting an average of 1.5% energy waste reduction savings per year over the study period (maximum amount of achievable potential)



- 4,100 MW coal plant retirements

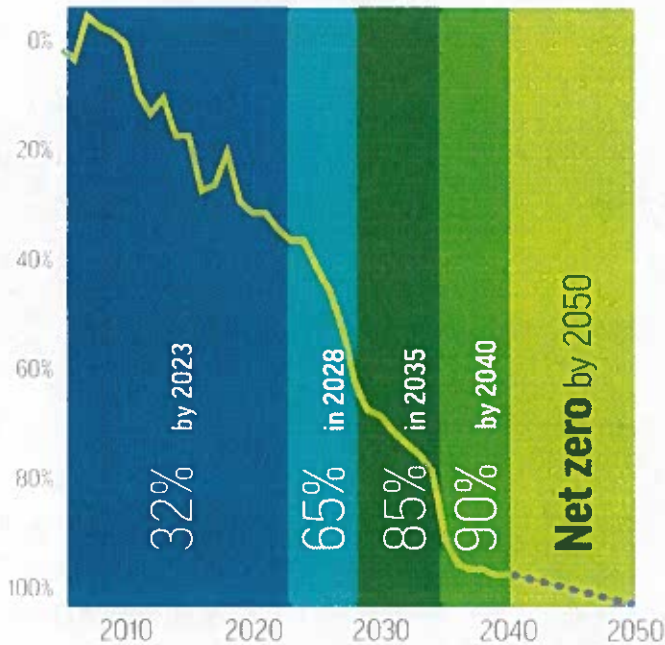
Moves the retirement of coal as a fuel source at Belle River Power Plant from 2028 to 2026. Starts the phased retirement approach of the Monroe Power Plant with two units retiring in 2028, nearly 12 years ahead of plan. The last two units will retire in 2035, nearly five years earlier than planned



1,300 MW coal to natural gas

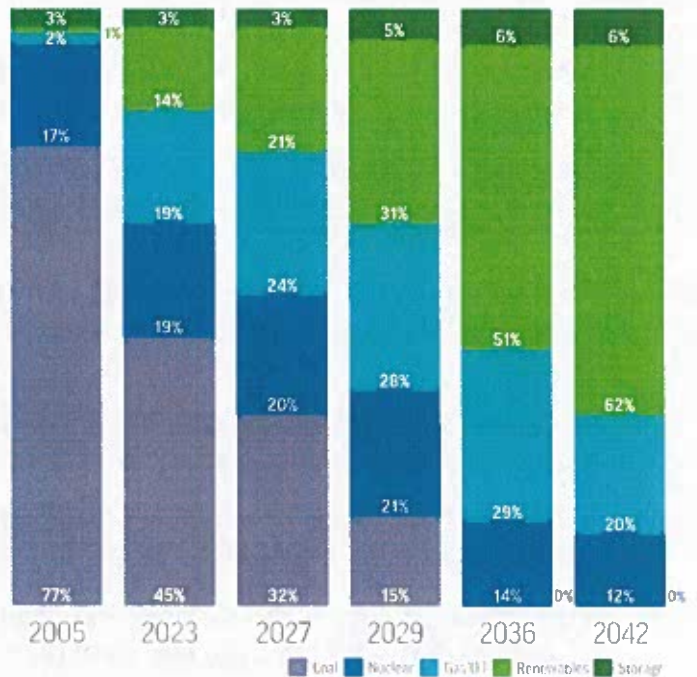
Repurposes existing infrastructure at the Belle River Power Plant by converting its fuel source from coal to natural gas

CO₂ Reductions



DTE Electric's carbon related goals are for CO₂ emissions from its electric generating units

Proposed generation mix (2005-2042, MWh%)



DTE

**Michigan House Energy,
Communications and Technology
Committee Hearing**

June 21st, 2023

its own operations by 65% by 2030 and 80% by 2040 ... and is reducing emissions from another greenhouse gas – methane – by more than 80% by 2040.

These goals are backed up by robust investment plans that will maintain DTE's leadership role as the single largest investor in and producer of renewable energy in Michigan and provider of the state's largest energy efficiency programs. Since 2009, DTE has invested over \$3 billion in renewables projects, accounting for more than half of the renewable capacity in the state today. And our EWR programs have eliminated 81 million metric tons of emissions from our environment since 2009; that's the equivalent of more than 10 million homes' worth of annual emissions.

Our innovative voluntary offerings help our customers go even farther in reducing their own carbon footprints.

DTE's MIGreenPower program is one of the largest voluntary renewable energy programs in the country, providing incremental wind and solar energy for 90,000+ residential customers, 1,000 small businesses and 65 large businesses. On an annual basis, MIGreenPower subscribers have enrolled 3.8 million MWh of clean energy (over 9% of the load DTE serves) into the program — which, from an environmental impact perspective, is equal to taking 277,400 passenger cars off the road each year. And just last year, DTE, through MIGreenPower, closed the largest and second largest renewable energy transactions through a utility in U.S. history, which will add more than 650 MW and 400 MW of solar to DTE's generation fleet for Ford and Stellantis, respectively.

DTE's Natural Gas Balance program, launched in 2021, was the first in the nation to include both carbon offsets and renewable natural gas into one single offering. Today, the program consists of nearly 11,000 enrolled customers who have successfully offset approximately 12,000 metric tons of natural gas related CO2 emissions by leveraging the program's locally sourced renewable natural gas and forest-based solutions.

Now let me turn to our Integrated Resource Plan (IRP).

Last fall DTE filed its proposed CleanVision Integrated Resource Plan, which is a 20-year proposal for generating reliable and affordable electricity for our customers through a balanced and diverse mix of cleaner energy sources. The CleanVision IRP achieves five primary objectives and has a host of other benefits for our customers and the state of Michigan. These include:

- Ending the use of coal in 2035 with a responsible, phased retirement schedule of the Belle River and Monroe coal power plants.
- Building over 15,000 megawatts of Michigan-made solar and wind energy, which is enough to power approximately 4 million homes and adding over 1,800 megawatts of energy storage.
- Accelerating our previous carbon dioxide interim reduction goals, targeting a 65% emissions reduction in 2028, 85% in 2035, and 90% by 2040.

- Investing \$9 billion over the next 10 years into Michigan’s economy supporting more than 25,000 jobs.
- And doing all this while reducing the cost of the clean energy transition by a projected \$1.4 billion from our 2019 plan.

This proposed plan reduces carbon emissions from DTE’s power generation faster than the Michigan economy-wide goals outlined in the MI Healthy Climate Plan and begins the retirement of the Monroe Power Plant nearly twelve years earlier than its previously planned retirement date of 2039. The phased retirement has two units coming offline in 2028 and the last two units retiring in 2035, nearly five years earlier.

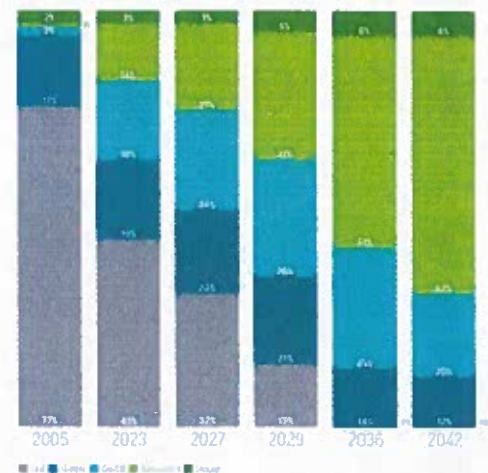
The plan also repurposes existing infrastructure at the Belle River Power Plant by converting it from a coal unit to a natural gas peaking unit in 2025 and 2026, ensuring it’s available when customers need it the most – like on the hottest days of the summer or during a winter cold snap. The plan also adds 1,800 megawatts of new energy storage by 2042 to augment the build-out of our renewable investments in the state.

After engaging with customers and stakeholders throughout the IRP process, including eight public open houses and six technical workshops, and completing more than 100 modeling runs to compare resource portfolios under a wide range of assumptions and potential futures, our analysis allowed us to develop a proposal that prioritizes reliability and cost savings for customers while reducing carbon emissions as quickly as possible. Other alternatives may have reduced carbon emissions quicker but with lower reliability and at increased costs for our customers.

The plan that DTE proposed is the one that best meets the needs of our customers, accelerating our carbon reduction goals and accelerating the deployment of clean energy — all while maintaining reliability and affordability.

Finally, Madam Chairwoman and committee members, I would like to briefly touch on policy principles we feel are critical to successful climate and energy policy.

Proposed Generation Mix (2005-2042, MWh%)



\$1.4 Billion

Customer Savings Compared to the Approved 2019 IRP

\$2.4 Billion

Dollars Redirected from Coal to Cleaner Technologies

\$9 Billion

Invested in Michigan's Economy Over the Next 10 Years

+25,000

MI Jobs Supported Over the next 10 Years

First, we should be results-oriented and laser focused on reducing and ultimately eliminating carbon emissions as soon as practicable. As with our own net-zero goals and proposed IRP, we feel that climate and energy policy should be first and foremost driven by data that supports carbon emission reductions across all sectors of the Michigan economy, and specifically the ability of the power sector to ensure 24/7 supply of energy and adequate support for grid reliability.

Second, energy policy should be technology and fuel agnostic. Tackling climate change with the urgency required means having every tool in the toolbox — which will increase flexibility and adaptability. This helps ensure affordability for residential customers and small businesses as well as competitive electric rates for large commercial and industrial customers in tandem with reducing carbon emissions. Bringing all technologies and fuel sources to bear to eliminate carbon emissions also gives us, and the state, the greatest chance at success in meeting our shared goal of eliminating carbon emissions from the state's economy by mid-century.

Lastly, climate and energy policy should be consensus-driven and durable, setting a long-term direction for the state's future. The 2016 Energy Policy Act achieved this through its IRP provisions. The size and scale of this transformation and the investments it requires necessitates long term certainty from policy frameworks to support these new clean energy assets which will last for decades to come.

In closing, today's energy landscape is changing rapidly and fundamentally, and DTE is leading the way forward. By listening to our customers, we're developing the best solutions that make the most sense for Michigan, ensuring the right balance of energy sources and smart infrastructure investments to generate energy that's cleaner, more affordable, and more reliable.

Thank you, Madam Chairwoman and committee members. I welcome any questions.