

DTE Electric CleanVision Plan – Frequently Asked Questions

This document may be updated periodically

DTE Electric (DTE) is proud to unveil our CleanVision Integrated Resource Plan which is the electric company's 20-year proposal for delivering affordable, reliable, and clean energy to our Southeast Michigan customers. Through this FAQ, we want to provide answers to many of the questions we have heard from customers through our year-long planning process, while also providing additional details on our proposed plan.

Integrated Resource Plan Background

1. What is an Integrated Resource Plan (IRP)?

An IRP is a comprehensive plan to meet the electricity needs of our customers for the next 5, 10, and 15 years. While each state may have different statutory or regulatory constructs, a number of states have adopted IRP planning as a transparent way for electric utilities to collaborate with their regulators, stakeholders, and customers to build the best plan that provides affordable, reliable, and clean energy in the future.

DTE's latest IRP is a comprehensive, twenty-year proposal that goes from 2023 to 2042, and details the proposed electric generation resources needed for delivering affordable, reliable, and increasingly clean electricity to our Southeast Michigan customers.

Developing an IRP is also an iterative process. The first IRP DTE filed was in 2019, and our new plan refreshes our outlook of the future with updated information on customer needs, resource economics, technology availability, changing market dynamics, as well as a host of other factors.

2. Why is DTE filing an IRP?

Under Michigan law, power companies like DTE are required to file an IRP with the Michigan Public Service Commission (MPSC) at least every five years. The industry is going through a lot of changes right now, and DTE decided it was important to engage in this process and update our plans ahead of schedule. IRPs are transparent, data and stakeholder engagement driven, integrated plans. They help us make informed decisions about how to meet the needs of our customers reliably and affordably. Our latest proposal provides greater transparency to our long-term planning, allowing us to engage meaningfully with our stakeholders as we proceed through the process.

3. Why is DTE proposing this plan over other alternatives that were studied?

DTE worked closely with stakeholders through a year-long planning process that examined several different scenarios and sensitivities. We wanted to find a path forward that balanced the IRP planning objectives. To do that we analyzed more than 100 model runs to compare and

contrast different ways to achieve this balance. After reviewing the results, we built a Proposed Course of Action (PCA) based on the modeling that best meets the needs of our customers.

This comprehensive analysis allowed us to develop a proposal that meets the planning objectives and reduces carbon emissions as quickly as possible while prioritizing reliability and reducing costs for customers. Other alternatives may have reduced carbon emissions quicker but with lower reliability benefits and/or increased costs.

4. What are the IRP planning objectives?

There are five planning objectives which are applied across DTE's electric distribution and generation planning processes:

- **Safe:** Public and employees are kept free from injury; meet all State and Federal requirements
- **Reliable and resilient:** Minimal equipment outages and disruptions to customers
- **Affordable:** Cost-effective service provided to all customers
- **Customer accessibility and community focus:** Flexible energy options available to all customers; timely two-way communication with customers and stakeholders in all communities
- **Clean:** Operate in an environmentally sustainable manner and achieve low carbon aspirations enabling a decarbonized economy in Michigan

5. Did DTE work with stakeholders in this process, like coal plant communities or environmental organizations?

Yes. DTE conducted outreach with many stakeholders, including communities impacted by coal plant retirements and transitions as well as environmental groups, in advance of filing this plan and received diverse feedback. DTE also engaged customers to gain a deeper understanding of customer viewpoints on decarbonization, energy generation sources and achieving net zero carbon emissions by 2050. In addition to engaging stakeholders and customers, DTE also included a formal environmental justice analysis in this filing.

6. How does DTE plan to engage coal plant employees and communities in this transition?

DTE has been a part of these communities for many decades and is committed to working closely with impacted communities to foster economic development and investment opportunities. A benefit from early planning is that it allows us to proactively understand the scope of the impact and partner with communities on long-term solutions.

DTE is also committed to working with our employees through this transition and ensuring all employees (both represented and non-represented) have the opportunity to contribute to DTE's success. Through collaboration with employees and union leadership, DTE will develop an employee transition strategy that includes reskilling, retraining, and redeployment to other roles or parts of the company.

Affordability

7. Will this proposed plan increase my rates/bill?

We know our customers count on us every day for the energy they need, and we recognize our responsibility to serve our customers by working to keep bills as low as possible. Maintaining safe and reliable generation operations – even for existing resources – requires ongoing investment. The proposed plan projects \$1.4 billion in future cost reductions over the 2019 plan, creating long-term customer value. The proposed plan supports further investments to prepare Michigan for the demands of the 21st century, like the transition to transportation electrification, increasingly extreme weather, and the fast-evolving needs of the communities we're proud to serve. With this proposal, we'll not only produce energy that's cleaner, but we're also taking an approach that provides increased value for all our customers.

8. How does accelerating coal plant retirements impact affordability?

The energy industry is changing quickly, and our updated proposal ensures we are both capturing cost savings opportunities for our customers, as well as responding to industry changes (i.e., economics of generation resources, environmental goals, etc.). As mentioned, transitioning our generation fleet to cleaner sources of energy helps to reduce costs. And through our long-term planning with an increased investment in renewables, DTE can deliver long-term value to our customers which helps to deliver affordable energy.

9. Did the Inflation Reduction Act (IRA) impact DTE's proposed plan? Did you incorporate the tax credits into your modeling?

Yes. DTE did incorporate several portions of the IRA, including tax credits on wind, solar, new nuclear, storage, and carbon capture and sequestration. The IRA supports customer affordability by reducing future spend and providing federal tax credit incentives to add renewable and other clean resources to our generation mix.

Reliability

10. How does your plan ensure reliability will not be compromised – especially when you are proposing to accelerate the retirement of 4,100 MW of coal?

Ensuring electric reliability is the highest priority at DTE, and the foundation of the proposed plan. DTE's proposal includes a balanced and diversified mix of energy to meet our customers' needs reliably.

- By balanced, DTE needs to make sure we are transitioning to cleaner sources of energy without sacrificing reliably providing energy that remains affordable.
- By diverse, DTE is proposing a mix of renewables, natural gas, and storage that can provide reliable energy to our customers. It's also important that we time the development of these cleaner energy resources.
- As an example, DTE needs a balanced and diversified mix of clean energy as we start the phased retirement of our Monroe coal power plant starting in 2028. This means we need to start building sufficient Michigan based renewable energy and storage resources while at the same time converting the Belle River Power Plant from a coal plant to a natural gas plant so we can ensure 24/7 energy for our customers.

11. Why is DTE proposing to convert Belle River to natural gas instead of building other generation sources like solar or installing batteries?

Converting our Belle River Power Plant actually enables DTE to power Michigan’s electric grid with vast quantities of renewables and storage. DTE’s proposal calls for an additional 15,400 MW of renewables, or enough energy to power approximately four million homes, with an additional 1,810 MW of storage, more than doubling our current storage capacity.

The conversion also significantly reduces CO₂ emissions from current Belle River operations, achieving an approximate 90-95% carbon emissions reduction from current annual levels. Furthermore, cumulative CO₂ emissions reductions are 40% lower with the plant operating on natural gas through 2039 than operating Belle River on coal through 2030 as proposed in the 2019 PCA.

In addition, converting Belle River to run on natural gas helps balance the growing needs for energy from our customers. It complements the expansion of more Michigan-made solar and wind energy and ensures reliability during periods when customer demand is higher (such as in extreme summer heat or cold winters) or when other sources of energy are not available. Belle River supports this critical transition period as we – and the industry – fundamentally transform the grid. The Belle River conversion also uses existing infrastructure, thereby reducing costs and delivering value to our customers.

12. Did DTE consider extreme events, like extreme weather, when planning for supply reliability in this IRP?

Yes. The modeling used to develop DTE’s proposed plan considered 40 years of historical weather data, including extreme hot and cold events. It also considered constraints like in-state resource availability, because relying on out-of-state resources, which may or may not exist or be available when customers need them, could present a reliability risk for our customers. By leveraging a robust approach to studying reliability, DTE can minimize this risk by ensuring customers have sufficient, local, and diverse energy and capacity resources.

13. Did you consider grid (transmission and distribution) reliability impacts?

Yes. The impact to the electric reliability of the grid from different levels and types of energy sources, such as solar, wind, natural gas, and emerging technologies and the retirement of coal plants were studied, and learnings from the analysis were integrated into the IRP process. Transmission in DTE Electric’s service territory is owned by ITC Transmission (ITC). We worked closely with ITC to understand the transmission impacts and solutions as part of the IRP. Results of the reliability studies were integrated into DTE’s proposed plan; ITC also provided verification of the preliminary proposal as DTE was synthesizing results. The transmission system reliability studies conducted by ITC indicated that converting the Belle River Power Plant provides near-term customer savings of \$350 million in transmission system costs.

14. Can you explain energy storage, and does DTE have any past experience with storage?

Like batteries found in cell phones or laptops, rechargeable lithium-ion batteries can be used at the utility-scale to store and discharge energy at a later time. Battery energy storage systems

work hand-in-hand with renewable energy, such as wind and solar, to store energy by charging the batteries when those resources are abundant. The stored energy is then used during times when wind and solar are not available. Lithium-ion battery storage is generally considered the benchmark for “short duration storage” in the electrical power industry meaning four hours or less in discharge duration. Batteries can also provide grid reliability services.

DTE has a long track record with energy storage. DTE’s Ludington Pumped Storage Power Plant is considered a long-duration storage facility. Situated on the shores of Lake Michigan, the plant pumps water from Lake Michigan uphill to the 27-billion-gallon reservoir at low-cost times and releases the stored water downhill through the turbines to generate electricity when energy demand is higher. It’s a great complement to our fleet of wind parks and solar farms by harnessing energy when it is plentiful and low-cost, such as when the sun is shining and the wind is blowing, and as power generators when demand is higher and renewable sources less abundant. The plant has a “discharge duration” of 8-12 hours, and it is one of the largest pumped hydro storage plants in the world.

15. How did DTE evaluate nuclear energy in your IRP planning, and what role will the Fermi 2 nuclear power plant play in the company’s resource mix?

While the first half of the 20-year proposal relies on known, commercially available technologies, we acknowledge that costs and emerging technologies will change. Our proposal is flexible and allows us to continue to support the advancement of emerging technologies including small modular nuclear reactors.

The proposed plan assumes the continued operations of the Fermi 2 nuclear power plant located in Frenchtown Township, MI. Fermi provides over 1,200 MW, or around 20%, of DTE’s clean, carbon-free energy capacity. It’s also a 24/7 carbon-free resource that supports both supply and grid reliability.

Decarbonization and Environment

16. Why isn’t DTE Electric accelerating its 2050 net zero goal?

DTE remains committed to going as fast as we can to decarbonize, and we are proud to surpass our previous carbon (CO₂) reduction goals established in 2019. Taking earlier actions and accelerating interim targets is critical to addressing climate change. Our proposed plan targets 85% reduction in 2035 and 90% reduction by 2040 with a clear action plan and aggressive interim targets. We will continue to assess our decarbonization goals, just as we have four times since we set our first goal in 2017. DTE remains committed and is on a strong path to achieving net zero carbon emissions by 2050.

17. In addition to CO₂ reductions, are there other environmental benefits that the proposed plan would bring?

Yes. In addition to CO₂ emissions reductions, the proposed plan drives additional emissions reductions, including a nearly 100% reduction in sulfur dioxide and mercury emissions, 92% reduction in carbon monoxide emissions, 95% reduction in nitrogen oxide emissions, 72% reduction in particulate matter emissions, and 66% reduction in volatile organic compound

emissions by 2042 (from 2023 baseline). DTE's proposed plan also results in reductions in water intake and discharge, as well as waste generation and disposal, including ash.

18. How does DTE's Integrated Resource Plan compliment the MI Healthy Climate Plan?

Our proposed plan retires 2,800 MW of coal by 2028 (approximately 1,300 MW from Belle River¹ and approximately 1,500 MW from two units at Monroe) and significantly accelerates our carbon reduction goals while keeping electricity reliable and affordable. In addition, our proposal's emission reduction timelines are ahead of the timelines in the MI Healthy Climate Plan and will help support Michigan's economy-wide greenhouse gas (GHG) emissions reductions interim goals of 28% by 2025 and 52% by 2030 from 2005 levels. Retiring the last 1,500 MW of coal by 2030 (last two units at Monroe) is a significant task given the impacts on affordability and reliability.

19. What programs does DTE have available for customers wanting to support renewable energy, save money, and reduce carbon emissions?

DTE has a number of customer programs supporting cleaner energy and customer savings. You can find out more about each program on this website under Join Us or by clicking the links below:

- [Energy Efficiency](#)
- [MIGreenPower](#)
- [Electric Vehicles](#)
- [DTE Insight](#)
- [Rooftop Solar and Private Generation | DTE Energy](#)
- [CleanVision Natural Gas Balance](#)
- [Energy Assistance](#)

20. Did DTE consider distributed generation resources, like rooftop solar and community solar, in the IRP? If so, how and what were the results?

Yes. DTE's proposed plan calls for 15,400 MW of renewables. Our modeling considered various levels of adoption of rooftop and other smaller scale solar (both in the supply side and demand side forecast). DTE used publicly available data for IRP modeling. Rooftop solar assumptions are based on cost and operating characteristics, using data from NREL's Annual Technology Baseline. Due to economies of scale, large scale solar is more economic than smaller scale solar.

While DTE does not install rooftop solar systems for its customers, we have a process in place to work with customers to connect to the distribution grid safely and reliably. More information on rooftop solar and the interconnection process is available at [Rooftop Solar and Private Generation | DTE Energy](#).

¹ This is the plant's total capacity, owned by both DTE Electric (81.39%) and Michigan Public Power Agency (18.61%)

21. Did DTE consider emerging technologies? How?

Yes. We found most emerging technologies (hydrogen, small modular nuclear reactors, carbon capture and sequestration) are still in the developmental phase. Before 2035, our proposed plan relies on technologies that are commercialized and economic, like renewables and batteries, while the longer-term strategy incorporates emerging technologies that are needed to support a net zero generation mix that is diverse, reliable and affordable.

22. If I make my home or business more energy efficient, is that considered in generation resource planning?

Yes. Actions to reduce energy use in your home or business impact total customer needs. Actions you take to cut energy waste can reduce the amount of electric generation needed to serve customers and related emissions. DTE offers programs to help customers save on their energy bills and considers the role of energy efficiency in its IRP.

Communities and Employees

23. What is DTE’s approach for securing enough land to develop the renewable energy outlined in your proposal?

DTE is looking forward to partnering with communities to further develop energy infrastructure, as well as support broader economic development efforts in our clean energy transition. DTE has been working with communities throughout the state for more than a decade, adding more than 50 wind and solar projects to its portfolio. Part of DTE’s community engagement is educating localities and landowners — some of which may be new to clean energy — on the significant benefits these projects can bring to communities.

24. What does the agricultural community think about your proposed plan? Do they have concerns with farmland potentially being used for solar development?

DTE has worked cooperatively with landowners and municipalities regarding repurposing land for solar development. We will continue to work with communities around the state that are open to discussing the addition of renewable energy infrastructure to their community. While developing utility scale renewables does require a good amount of land, the total percent of land required across the state remains a small fraction of Michigan’s available agricultural lands.

25. Is DTE continuing its “no layoff” commitment to employees?

DTE’s intent is to maintain our no layoff commitment. To deliver on this intention we will work on several initiatives including collaboration with union leadership and employees (both represented and non-represented), strategic workforce planning, workforce re-skilling, and employee redeployments. Most employees will be able to transition to other Energy Supply locations; however, when necessary, we will work to assist others to successfully transition to other business units.