2018 CMS ENERGY **CLIMATE ASSESSMENT REPORT**

CMS ENERGY

2018 CMS Energy Climate Assessment Report

About Our Company

At CMS Energy Corporation (CMS Energy), our purpose is world-class performance delivering hometown service. We develop our strategy and measure our performance by our triple bottom line of people, planet and prosperity.

What does that mean?

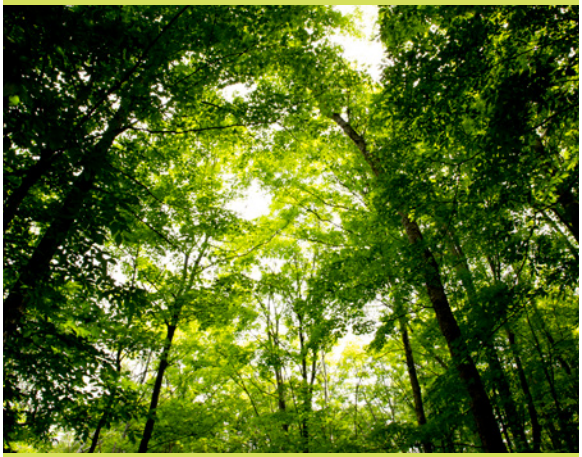
People — Serving our customers, communities and co-workers.

Planet — Going above and beyond environmental regulations to leave our planet better than we found it.

Prosperity — Delivering consistent, industry-leading financial performance.

CMS Energy, an energy company operating primarily in Michigan, is the parent holding company of several subsidiaries, including its principal subsidiary, Consumers Energy Company (Consumers Energy), an electric and gas utility, and CMS Enterprises Company, primarily a domestic independent power producer. Consumers Energy has served Michigan customers since 1886 and owns and operates electric generation, transmission and distribution facilities and gas transmission, storage and distribution facilities.[1]

Consumers Energy has grown from a pioneer in renewable hydroelectric energy bringing electricity to rural Michigan in the early 20th century to a workforce of more than 8,000 employees providing electricity, natural gas or both to 6.7 million of Michigan's 10 million residents in all 68 Lower-Peninsula counties.



1. Throughout this report, the terms "company," "we," "our" and other representations generally refer to both CMS Energy and its subsidiaries, including Consumers Energy. Unless specifically noted, singular references also refer to CMS Energy and its subsidiaries. Our "board of directors" refers to the boards of CMS Energy and Consumers Energy

Executive Summary

CMS Energy is committed to protecting the planet by reducing greenhouse gas emissions. While proud of our progress in the past decade, we understand much work remains — and we're dedicated to the challenge.

In the past five years, Consumers Energy has created a cleaner, more sustainable energy future for Michigan by taking a leadership position in reducing air emissions, water usage and landfill waste. Our work is already making a difference.

But we are not satisfied. In February 2018, Consumers Energy announced a Clean Energy Breakthrough Goal to reduce carbon emissions by 80 percent compared to 2005 levels and produce energy with zero coal by 2040. At the same time, Consumers Energy plans to have renewable energy sources deliver more than 40 percent of its energy.

In addition to the long-term 2040 goal to reduce greenhouse gas emissions, Consumers Energy in 2018 also announced 5-year environmental goals for Michigan's water, waste and land:

- Save 1 billion gallons of water.
- Reduce waste to landfills by 35 percent.
- Enhance, restore or protect 5,000 acres of land in Michigan.

Consumers Energy embraces a cleaner and leaner utility vision, focused on eliminating wasted energy and adding additional renewable energy sources such as wind and solar. As discussed in this Climate Assessment Report, the strategic roadmap for reaching our clean energy goal by 2040 is illustrated in our **Integrated Resource Plan (IRP)** filed with the Michigan Public Service Commission (MPSC) in June 2018. Under the IRP, Consumers Energy has proposed to reduce its carbon emissions by more than 90 percent by 2040 – exceeding its 80 percent reduction goal.

"We are proud and uniquely qualified to provide the strong leadership needed to protect our planet and our home state for generations to come," said Patti Poppe, president and CEO of CMS Energy and Consumers Energy.

"Our actions speak louder than words and we have a track record of doing more than is required.

Our actions to date have reduced our carbon emissions by 38 percent, reduced our water usage by 35 percent and avoided over one million cubic yards of landfill disposal."

The goal of an 80 percent greenhouse gas emissions reduction by 2040 represents our further commitment to leave Michigan better than we found it.

We live here, we invest here, we work here and play here, and we make our state better."

– PATTI POPPE
President and CEO of
CMS Energy and
Consumers Energy

Governance and Risk Management

Given the importance of managing climate-related risks and opportunities, we have a strong governance structure that provides oversight and transparency. We also have a mature enterprise risk-management program and robust strategic and business planning processes.

OVERSIGHT

Our board of directors provides direction and oversight on overall performance, strategic direction and significant corporate policies. The board of directors approves major initiatives, advises on key financial and business objectives, and monitors progress with respect to these matters. We keep directors informed by regularly providing reports and documents, including operating, safety and environmental, and financial reports made at board and committee meetings. The board has full access to all members of management and may hire consultants and advisors.

Our directors have diverse backgrounds, qualifications and expertise that enable them to provide guidance on a range of issues including strategy, environmental, social and governance matters. The board's committees provide additional levels of review. For example, our governance, sustainability and public responsibility committee oversees public responsibility and sustainability practices and disclosures. Similarly, the audit committee reviews the risks associated with operating and financial activities which could impact financial and other disclosure reporting, as well as reviews policies on risk assessment, controls and accounting risk exposure. The audit committee reviews and approves risk-management policies, while the compensation and human resources committee oversees critical human resources programs. Our finance committee, which oversees our capital projects and financing plan, recently approved a sustainability-linked credit facility, — the first of its kind for a U.S. borrower. You can find our committee charters at **www.cmsenergy.com**.

Climate change risks and opportunities are considered and integrated in all stages of the business cycle. In addition to board oversight, management of CMS Energy and Consumers Energy has implemented an environmental advisory committee (EAC) to create a group of critical internal leaders, including senior leadership, who work together to ensure our environmental intentions match our actions.

The EAC meets quarterly to:

- Ensure proper communication of all environmental compliance risks, Environmental Management System status as appropriate and financial obligations.
- Maintain a tone at the top that promotes environmental stewardship.
- Foster a culture of environmental accountability.
- Support the achievement of environmental metrics and goals.

We are committed to corporate responsibility through our business, culture, environment and in our communities — past, present and future. We are committed to conducting business safely and ethically to protect the environment and sustain our communities while serving our customers across the state of Michigan.

ENTERPRISE RISK MANAGEMENT

CMS Energy has had an enterprise risk management (ERM) program for many years to identify, understand and mitigate risks that may have a significant impact on the business. The scope, objectives and roles and responsibilities related to the ERM program are included in the company's corporate risk policy, which is approved by the audit committee of the board.

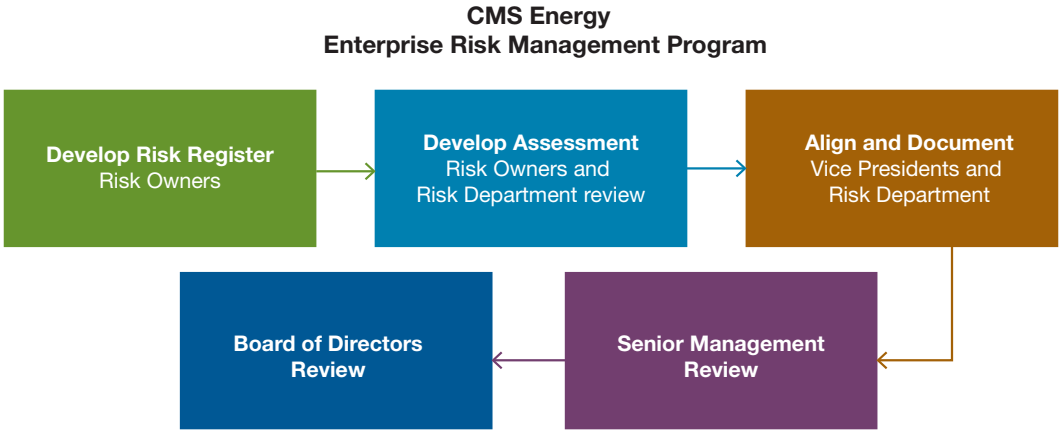
Our ERM program applies to CMS Energy and all of its subsidiaries and covers risks across several areas, including: strategic, operational, regulatory, environmental, financial, IT operations and cyber security. Risk assessments are updated annually and are conducted by risk owners best positioned to evaluate the risks and develop mitigation strategies. Risk owners are responsible for defining the risks and assessing the likelihood of occurrence and potential impacts. These assessments are vetted with the risk department and reviewed annually by senior management and the board. In addition to the annual corporate risk update, CMS Energy has many other venues to assess risks and mitigation measures for specific areas of operation. The figure below shows the ERM process elements.

Climate risks are included in the risk assessment process in regard to regulatory and compliance matters. Risks include the potential for new laws and/or regulations that limit carbon emissions and the potential impact on the company's generation fleet. We also assess physical climate change risks, including the impact of changing weather on our generating plants as well as our electric and gas transmission and distribution systems. These are discussed below in the Climate Risks section of this report.

STRATEGIC AND BUSINESS PLANNING PROCESSES

Consideration of climate change and other environmental risks is also embedded in our strategy, business planning and enterprises risk-management processes. Internal and external data sources are leveraged as inputs into our long-term strategic planning. This data is analyzed, used to update trend metrics and synthesized into an update on trends critical to our current and future business such as:

- Distributed energy resources.
- Wholesale markets.
- Customer energy- usage trends.
- Climate policy.



This information is used to assess our strategic choices and the assumptions underlying our strategy as well as long-term portfolio management. Senior management and the board engage with the insights and conclusions of this work to evaluate strategic choices and test for potential new opportunities or threats.

Stakeholder Engagement

We listen to our customers and key stakeholders. Our environmental and sustainability strategies consider people, the planet and prosperity, including Michigan's prosperity. Stakeholder engagement was a key part of developing both Consumers Energy's 80 percent carbon reduction goal and Integrated Resource Plan.

For our Clean Energy and planet goals, we spent six months asking stakeholders such as customers, cities, regulators, universities and environmental groups what was important to them from an environmental perspective. We incorporated that input into our voluntary planet goals.

For the IRP, Consumers Energy implemented a comprehensive stakeholder engagement plan that included a series of widely promoted public forums to give stakeholders an opportunity to provide input to the long-term portfolio plans. These forums were open to the general public and designed as basic informational sessions with the chance to ask wide-ranging questions about topics such as renewable energy, energy efficiency and emerging technology.

Consumers Energy also hosted technical conferences at our corporate headquarters in Jackson tailored to stakeholder groups with deeper knowledge of energy issues. Consumers Energy engaged closely with key stakeholders from government, customer groups, environmental groups and non-utility energy providers with a variety of positions, opinions and energy-related goals. At those meetings, Consumers Energy sought to better understand what stakeholders believed would make the best energy plan for Michigan and communicated the desire to work collaboratively in the best interests of the state and Consumers Energy customers.

We also regularly engage with policymakers on energy issues. We have a responsibility to customers and shareholders to constructively participate in the political process to further their best interests and create long-term shareholder value. We engage with policymakers and other stakeholders to support regulatory policies that effectively balance environmental, economic and customer needs. We regularly report to regulators on our continued progress towards reducing our carbon footprint.

We also have an ongoing outreach program to develop and maintain communication with our investors. We value these discussions and the board considers pertinent feedback when evaluating corporate governance issues. Management regularly participates in investor and industry conferences to discuss performance, environmental, social, governance and sustainability topics. Shareholders may contact the board with any inquiry or issue by the methods described on our **website**.

Climate Assessment

OUR APPROACH TO CLIMATE CHANGE

The science behind the cause and effect of climate change is complex. Trying to model those complexities is even more challenging. We recognize that we cannot predict the future or change the world single-handedly. However, everyone can do something and we need to do our part. We would rather be on the right side of history than wait and see how science develops or the climate changes. We choose to act now.

CLIMATE-RELATED RISKS

Various climate-related effects may impact CMS Energy. These risks generally fall into three categories:

- Physical impacts on utility facilities.
- Regulatory and other legal changes.
- Business model changes.

Climate change, for example, may produce stronger and more frequent severe weather. Changing weather patterns may disrupt operations and increase the costs to prepare for — and respond to — weather events. Climate change may also affect the water resources used for hydroelectric dams and water cooling facilities used at certain types of generating facilities.

Federal and state environmental laws and rules, as well as international accords and treaties, could require us to install additional equipment for emission controls, purchase carbon emissions allowances, curtail operations, invest in generating capacity with fewer carbon dioxide emissions, or take other significant steps to manage or lower the emission of greenhouse gases. These regulations could increase customer costs and reduce electric demand or impact the generation business. In addition, the MPSC may disallow cost recovery for Consumers Energy investments if regulators determine they are not reasonable and prudent. Any additional generation assets must comply with environmental regulations.

Business model changes may occur due to increased public awareness and concern about climate change. For example, distributed generation sources such as rooftop solar may expand as prices for these products and services decrease. An expansion of the distributed generation market may reduce demand for large central station generation. Similarly, challenges to the natural gas business model may occur if customers significantly electrify their home appliances and other uses of natural gas.

CLIMATE-RELATED OPPORTUNITIES

The shift from fossil-fuel generation to carbon-free generation represents a sea change in the utility industry. Numerous fossil-fueled generating facilities are likely to close around the nation over the next several decades. As customers still need reliable and affordable electricity, new carbon-free generation will be needed. New distribution and transmission lines may be needed to facilitate this generation. These projects provide the opportunity for long-term and reliable earnings growth.

Additional investments in smart grid technology and more flexible delivery networks also will be necessary. Grid-based technologies will help us adjust to changes in electric-use patterns, eliminate waste on the system and support more widespread adoption of distributed energy resources, non-wire alternatives, energy storage and microgrids. Additional utility services also will likely develop (like balancing two-way energy flows on local distribution networks, which historically only had one-way energy flow). These investments also provide opportunities for earnings growth.

CURRENT PROGRESS – WHERE ARE WE NOW?

CMS Energy and its subsidiaries are working together and positioned to act on these opportunities. In fact, renewable energy is not new for Consumers Energy. We first harnessed Michigan's rushing rivers in the early 20th century to generate hydroelectricity — and still generates clean energy today. Since 2005, we have made tremendous progress toward a cleaner, leaner energy future for Michigan. In 2016, we retired seven coal-fueled electric generating units, representing 33 percent of Consumers Energy's coal-fueled generating capacity.

Consumers Energy also has increased renewable energy production from 3 percent to 11 percent since 2005 through owned and contracted renewable resources. Consumers Energy owns and operates two wind farms: Lake Winds® Energy Park in Mason County and Cross Winds® Energy Park in Tuscola County. Consumers Energy in January 2018 expanded its wind generation with Cross Winds II, which includes 19 wind turbines producing up to 44 megawatts of carbon free energy for our customers. Cross Winds III plans to add 33 turbines expected to begin commercial operation in January 2020. We also are purchasing more than 700 megawatts of electricity from renewable resources such as wind, landfill gas, anaerobic digestion, hydroelectric and solar.

Consumers Energy offers a variety of renewable energy programs to meet the unique needs of our customers. The programs available to customers include:

- **Solar Gardens Pilot Program –** The company operates community Solar Gardens power plants at Grand Valley State and Western Michigan universities, collectively generating up to 4 megawatts of carbon-free energy. The Solar Gardens Program, launched in 2015, lets customers subscribe to solar energy from solar power plants built and managed by Consumers Energy.
- **Green Generation™ Program –** This program produces renewable energy for customers in Michigan — drawing 70 percent from wind and 30 from percent biomass facilities. The program provides about 76.5 megawatts of capacity to about 20,000 participating customers.
- **Large Customer Renewable Energy Pilot Program Tariff –** Customers can participate in this program to match their energy use with renewable energy sources. This three-year pilot program was established in 2017 and is fully subscribed.
- **Experimental Advanced Renewable Energy (EARP) –** Customers can sell the energy produced by their distributed energy resources to Consumers Energy. The EARP Solar and EARP Anaerobic Digestion

programs include 379 customer contracts representing 6.4 megawatts of solar capacity and 1.8 megawatts of anaerobic digestion.

- **Distributed Generation** –Net metering programs allow customers to install renewable generation on their property (such as residential rooftop solar) and receive a credit on their bill for excess energy generated and sent to the grid.

Consumers Energy also offers programs designed to increase our customers' energy efficiency, including both electric and natural gas. Since 2009, Consumers Energy's energy efficiency programs have helped customers save more than 3 million megawatt-hours (MWh) of electricity and more than 16,000 million cubic feet (MMcf) of natural gas. Our energy efficiency programs have helped customers save more than $1.5 billion on their energy bills since 2009 and have helped avoid more than 5 million tons of carbon dioxide greenhouse gas emissions.

Consumers Energy also offers demand response programs (DR) to help reduce peak energy demand on critical days — reducing the need to build new power plants or purchase expensive peak power. Residential and business programs began in late 2016 and ramped up in 2017. Enrollment in DR programs increased from approximately 1,750 residential customers in 2016 nearly 46,000 by the end of 2017. This equates to approximately 27.5 megawatts (MW) of enrolled residential demand response potential. We began enrolling customers in the business DR program in 2017, with roughly 50 MW of business demand response potential. The total demand response potential from the two programs combined is nearly 80 MW.

Natural Gas and Methane Reductions

Consumers Energy also has implemented strategies to reduce greenhouse gas emissions in its natural gas system. We are investing hundreds of millions of dollars to modernize our natural gas infrastructure. This helps reduce fugitive methane emissions and builds efficiency standards for any new construction. Since 1996, Consumers Energy has worked with the U.S. Environmental Protection Agency's Natural Gas STAR Program. We also look for opportunities to reduce methane releases from the storage and delivery of natural gas. Consumers Energy has received two "continuing excellence" awards for voluntary measures to reduce methane emissions under the Natural Gas STAR Program.

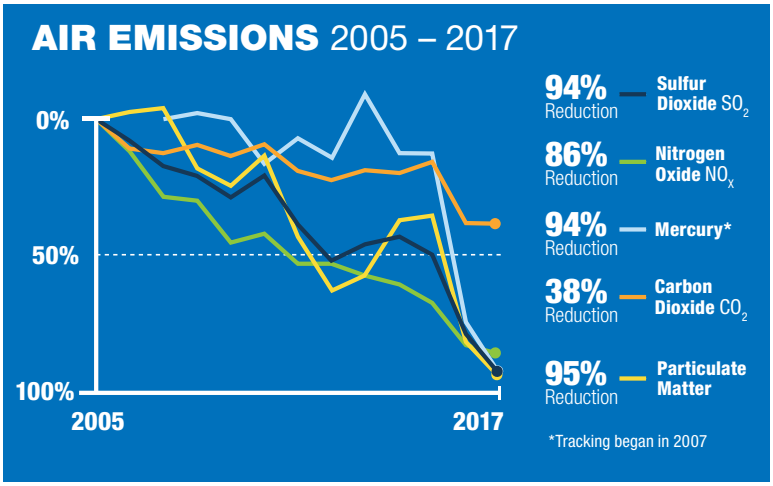
Consumers Energy also joined the Natural Gas STAR Methane Challenge Program as a founding member in 2016. We became a partner under the program's Natural Gas Distribution Segment: Mains – Cast Iron and Unprotected Steel Best Management Plan (BMP) Commitment. The goal is a 3 percent or greater reduction in cast iron and unprotected steel distribution mains, for a five-year period, beginning in 2016. Consumers Energy filed its Methane Challenge Implementation Plan in 2016. Future performance for this commitment will closely parallel existing work projected to be done under our Enhanced Infrastructure Replacement Program. In the last 10 years, these combined programs have resulted in an approximately 15 percent reduction in fugitive methane emissions.

Electric Generation

Consumers Energy retired seven coal plants in 2016. They included two generating units at the Cobb Plant in Muskegon, three units at the Whiting Plant near Luna Pier and two units at the Weadock Plant near Bay City. These plants, which we affectionately called the "Classic Seven," provided Michigan with nearly 1,000 megawatts of electricity for many decades. Their retirement reduced Consumers Energy's carbon emissions by 25 percent, as well as 40 percent reductions each in sulfur dioxide, nitrogen oxide, particulate matter and statewide water use.

Because of its efforts, Consumers Energy's carbon emissions have dropped by 38 percent and other significant emissions such as sulfur dioxide, nitrogen oxide, mercury and particulate matter have each dropped by at least 86 percent.

By closing our Classic Seven coal plants, switching to low-sulfur Western coal and making significant investments in control technology, we've reduced many types of emissions at our coal-fired generating plants.



CMS Enterprises, which has long operated a fleet of biomass generation facilities in Michigan and North Carolina, also is doing its part. The company recently signed an agreement to purchase a 105-megawatt wind farm in Ohio and developed the Flambeau Solar project, a 3.4-megawatt array in Wisconsin. The carbon offset is about equivalent to planting more than 90,000 trees. CMS Enterprises also is developing two solar generation projects, totaling 24 megawatts, currently under construction in Delta Township, near Lansing.

THE FUTURE – CLEANER AND LEANER

We've made significant progress toward a cleaner future, but we have more work to do. We are seizing a once-in-a-generation opportunity to redefine our company and to shape a cleaner energy future for Michigan. In June 2018, Consumers Energy filed an Integrated Resource Plan detailing Consumers Energy's proposed strategy to meet customers' long-term electric energy needs between now and 2040. View the executive summary **here**. If approved, Consumers Energy's plan would reduce its carbon emissions by more than 90 percent from 2005 levels and generate electricity without any coal by 2040. And we would do so in an affordable and reliable manner.

Consumers Energy gathered input from a diverse group of stakeholders to build a deep understanding of our shared goals while developing the IRP.

Sustainability Success
Consumers Energy was recently ranked Michigan's No. 1 company in Newsweek's annual Green Rankings, and No. 9 in the United States overall. In 2017, Consumers Energy also scored highest for sustainability performance among U.S. energy providers for the second consecutive year according to an independent ranking by Sustainalytics. Consumers Energy received the 2017 U.S. Environmental Protection Agency's recognition as an ENERGY STAR® Partner of the Year.

After receiving this feedback, Consumers Energy performed intensive, data-driven modeling to develop a robust plan that addresses a wide range of potential uncertainties in the future. This modeling included both new generation resources and demand-side resources such as demand response and energy waste reduction. The plan also considered impacts to the transmission and distribution systems.

The IRP's modeling analyzed six potential future scenarios. In each scenario, the model started with certain assumptions and then selected the lowest-cost resource alternative to meet customer energy needs. For each of the six scenarios, Consumers Energy analyzed numerous sensitivities built into the model. All told, Consumers Energy analyzed 225 different potential future states while developing its IRP. A key realization of the IRP analysis: there are reasonable future states where natural gas prices increase or renewable resource capital costs decrease sufficiently to justify meeting all incremental generation needs with renewable resources and demand-side management resources.

In many ways, the IRP is a response to residential customer, business, and other stakeholder concerns about affordable, competitive energy costs, and those who care deeply about how we handle environmental issues such as greenhouse gas emissions, air quality, and water management.

The result of the IRP process is the proposed course of action (PCA). It represents the most reasonable plan that achieves all planning objectives set forth by the Michigan Public Service Commission and the company. Under the PCA, Consumers Energy would reduce its carbon emissions by more than 90 percent from 2005 levels and produce no electricity with coal-fired generation by 2040.

SCENARIO ANALYSIS

While Consumers Energy has formally proposed the PCA in its IRP, the MPSC has not yet approved it. The proposal is still pending, and we do not expect to receive a final order until June 2019. As a result, this Climate Assessment Report analyzes the impact of three potential future scenarios:

1. Current Policies. Assumes no carbon reduction regulations are in effect.
2. Moderate Carbon Reduction Policies. Requires a 30-percent reduction below 2005 levels in carbon emissions from generation.
3. Clean Energy Breakthrough. Requires an 80-percent reduction below 2005 levels in carbon emissions from generation by 2050.

Each scenario is described below.

Scenario 1: Current Policies

The Current Policies scenario assumes business as usual with no new comprehensive carbon regulations. It also assumes the existing generation fleet is largely unchanged, but some reductions in emissions would occur due to coal generation retirements and renewable additions driven by existing renewable portfolio standards and goals. For example, this scenario assumes Consumers Energy's coal units are retired at the end of their design lives.

Scenario 2: Moderate Carbon Reduction Policies

The Moderate Carbon Reduction Policies scenario assumes enactment of regulations requiring a 30-percent reduction in carbon from 2005 levels by 2030 — targets similar to those established in the IRP and the 2015 Clean Power Plan, now stayed by the United States Supreme Court. These regulations drive some coal retirements and an increase in natural gas reliance. This scenario assumes Consumers Energy's Karn 1 and 2 coal-fired units are retired in 2023 — about eight years before the end of their design lives. Renewable portfolio standards, economics and business practices to meet carbon regulations drive additional investments in renewable generation. A projected generating capacity shortfall in 2030, for example, is filled with a mix of renewables, demand-side management programs and/or energy storage — not natural gas-fired generation.

Scenario 3: Clean Energy Breakthrough Policies

The Clean Energy Breakthrough Policies scenario assumes enactment of regulations requiring us to reduce carbon emissions to the levels necessary to limit global temperature increase to 2 degrees Celsius from pre-industrial levels by 2050 and 450 ppm global carbon by 2100 — that is, an 80-percent reduction from 2005 levels by 2050. The assumptions behind this scenario are similar to those in Scenario 2 listed above. This scenario is based on the work of the International Energy Agency and the Intergovernmental Panel on Climate Change (IPCC). The IPCC is comprised of over a thousand international scientists studying aspects of our planet's climate. The IPCC recommendation is for an approximate 80-percent reduction in greenhouse gases by 2050 to limit global warming to less than 2 degrees Celsius. We used this science-based target as a key input in determining our corporate goal.

Scenario Key Assumptions

Each of these three scenarios relies on certain key assumptions, which are fully described in detail in Consumers Energy's IRP. These assumptions include the following:

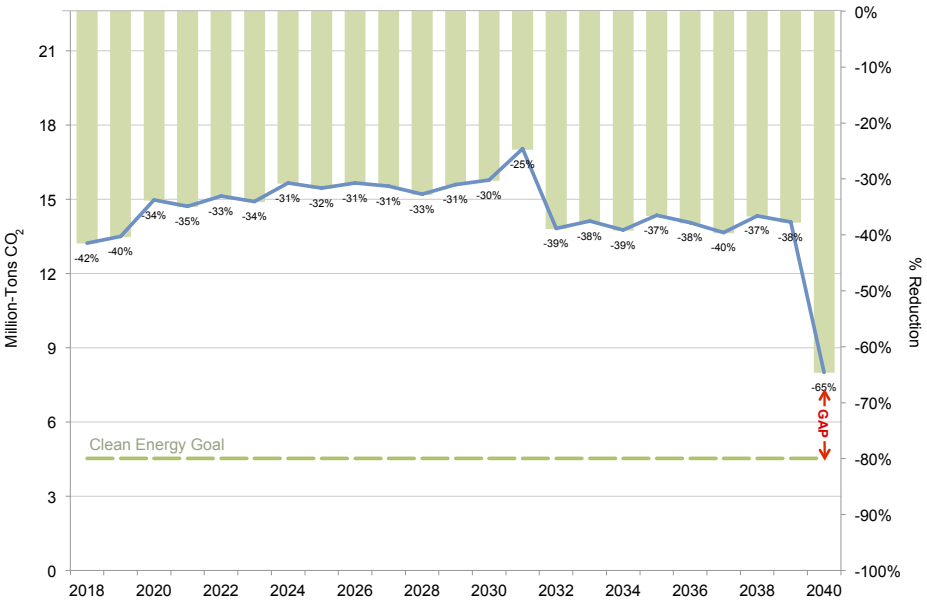
- Natural gas prices remaining low. If natural gas prices trend significantly upward, generation plants using fuel sources such as solar, wind or coal may become more economic.
- Load growth remains low. The IRP assumes modest load growth at 0.5 percent or less per year. We will need additional generating capacity if load growth increases significantly, like a rate of 1.5 percent or more per year.
- Technology prices continue to trend downward. Our scenarios assume the price of solar and other technologies continue to decrease consistent with current trends.

You can find additional information about these and other assumptions in **Consumers Energy's IRP filing**.

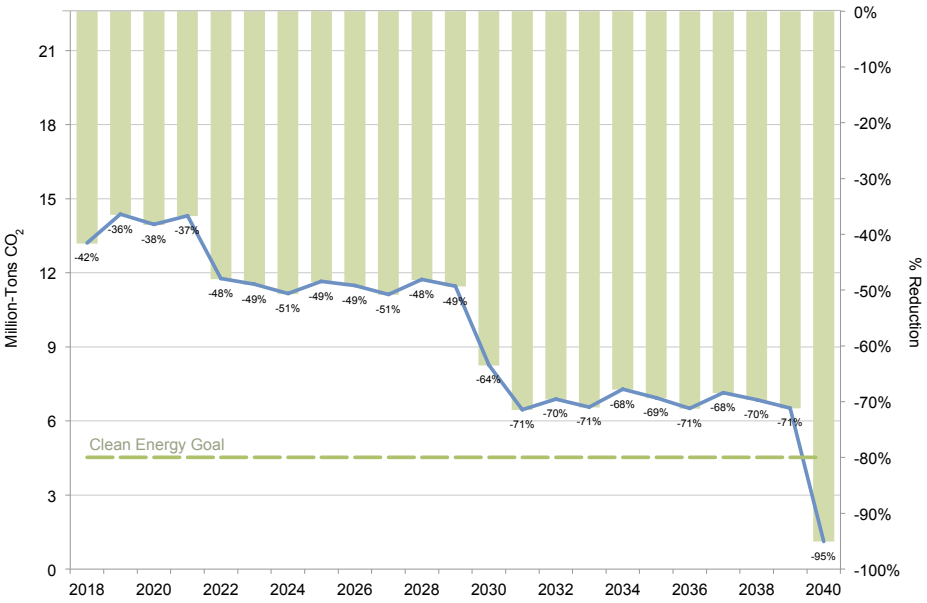
Results

Consumers Energy modeled scenarios similar to the Current Policies, Moderate Carbon Reduction Policies and Clean Energy Breakthrough Policies scenarios in its IRP. Based on this modeling, Consumers Energy projects emissions reductions of no less than 65 percent (under the Current Policies scenario) and more than 90 percent (under the Moderate Carbon Reduction Policies and Clean Energy Breakthrough Policies scenarios) by 2040. The following three figures show the projected carbon emission reductions for each scenario:

CURRENT POLICIES:

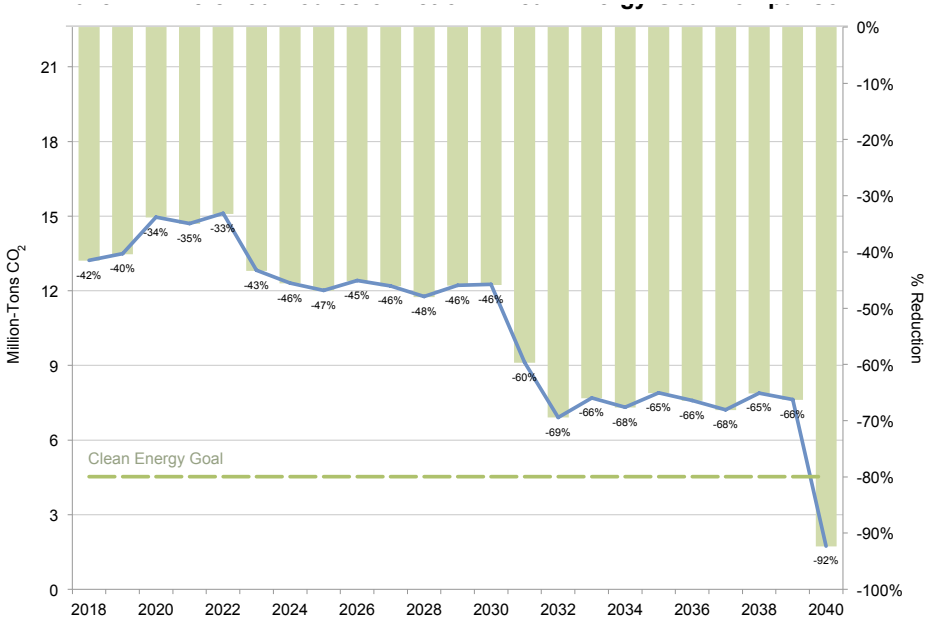


MODERATE CARBON REDUCTION POLICIES[2]:



2. This scenario shows a slightly larger long-term reduction of carbon emissions because of minor differences in the assumed generating resources between the Moderate Carbon Reduction Policies scenario and the Clean Energy Breakthrough Policies scenario.

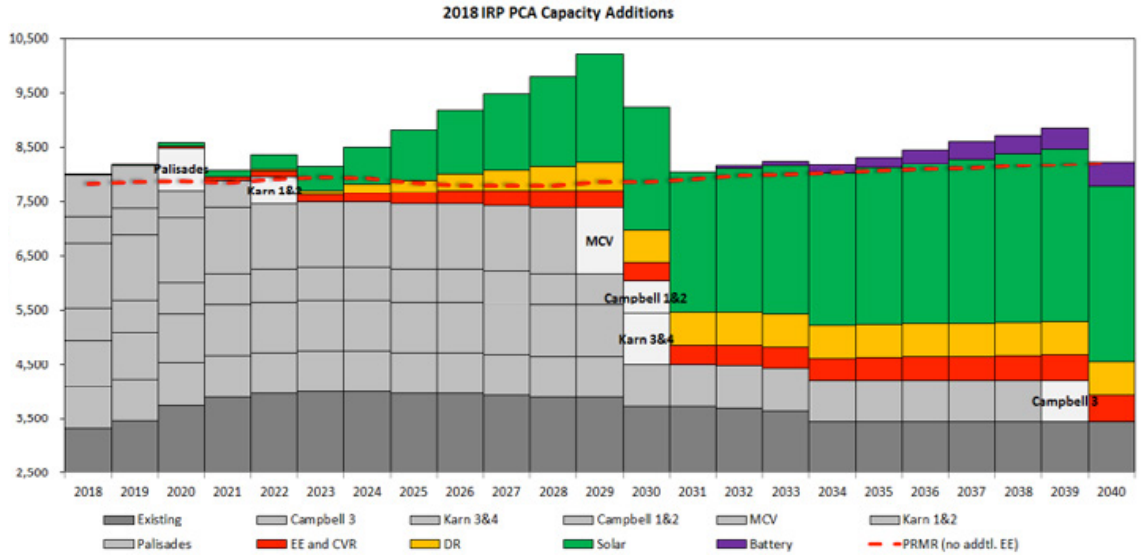
CLEAN ENERGY BREAKTHROUGH POLICIES:



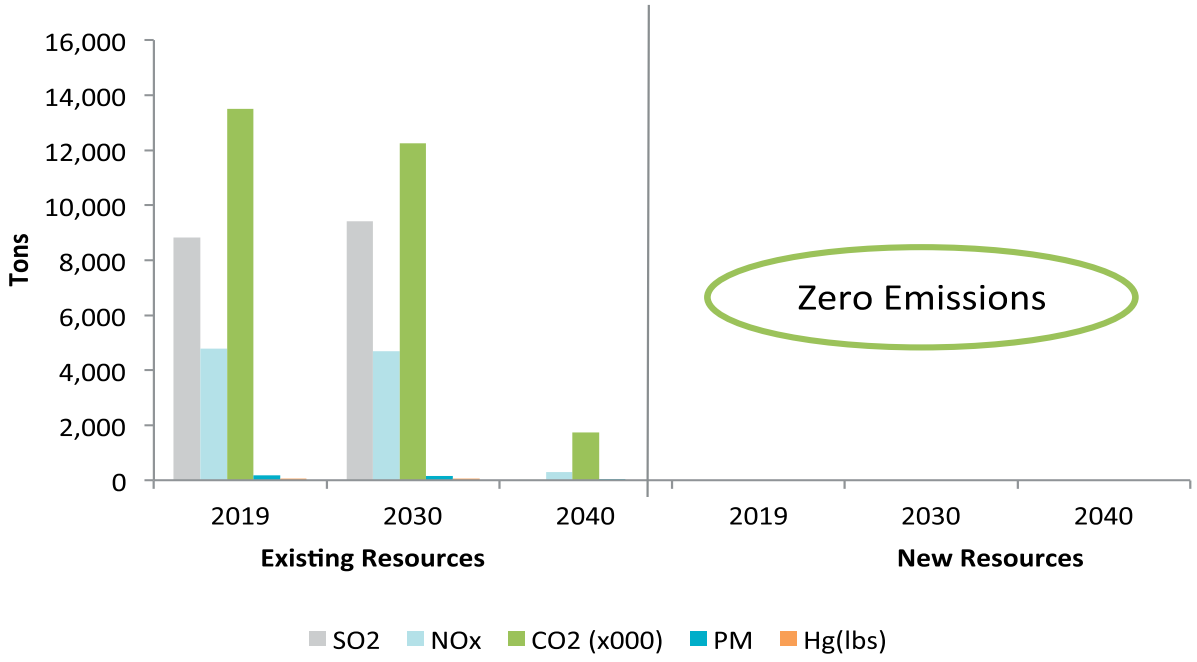
Consumers Energy's PCA goes beyond the IPCC recommendations and supports the company's Clean Energy Breakthrough goal. Under the PCA, Consumers Energy would retire all coal-fired generation by 2040, including the following generation units: Karn 1 and 2 (in 2023 prior to the end of their design lives in 2031); Campbell 1 and 2 (in 2031); Karn 3 and 4 (in 2031); and Campbell 3 (in 2039). Consumers Energy would replace this retired generation incrementally over time with carbon-free sources of electricity between 2019 and 2040. These planned additions include:

- 6,350 MW of solar.
- 550 MW of wind.
- 450 MW of battery.
- 1,250 MW of demand response.
- 1,263 MW of energy waste reduction (like energy efficiency).
- 111 MW of conservation voltage reduction
  (which involves operating the electric distribution system more efficiently).

These retirements and additions are shown over time:



These additions will result in no new sources of carbon:



Based on this analysis, Consumers Energy plans to significantly reduce its emissions by at least 65 percent, even without any further carbon regulation or approval of the PCA, by 2040. If the PCA is approved and implemented, then Consumers Energy could reduce its carbon emissions by more than 90 percent by 2040. In doing so, it aligns with our clean energy goal, which goes far beyond current regulatory requirements and the IPCC recommendations to limit temperature increases to less than 2 degrees Celsius. In addition, our IRP PCA has greater and faster carbon reductions than the International Energy Agency estimates suggesting that the global average carbon intensity of electricity production will need to drop by 90 percent by 2050.These efforts show our deep commitment to protecting our environment and place us in a favorable position by reducing future financial risk to customers and shareholders associated with potential future environmental regulations and operating a generating fleet dominated by one fuel source. And it does so while maintaining affordable rates for our customers.

Conclusion

Significant challenges remain to achieving our carbon-reduction goals. Renewable energy and energy storage prices and technology must continue to improve. Expansion of electric vehicle infrastructure, demand response programs and energy waste reduction must continue. If the MPSC approves our PCA, we must implement it.

In the past five years, Consumers Energy has created a cleaner, more sustainable energy future for Michigan by leading the way to cut air emissions, reduce water usage, save landfill space and boost the amount of renewable energy supplied to customers. Consumers Energy plans to meet Michigan's energy needs by reducing carbon emissions by more than 90 percent from 2005 levels and eliminating coal to generate electricity by the year 2040. The continued transformation to cleaner fuel sources is part of a long-term, strategic commitment to protect the planet.