Our industry has a key role to play in the clean energy transition. At WEC Energy Group, we're focused on leading the way with a balanced, sustainable approach — investing in low-emitting and carbon-free generation, promoting research and development, and delivering affordable, reliable and clean energy to our customers.

In this report, we provide details on our climate governance and strategy, grounded in thorough research and analysis. Our outlook spans from our current projects into future decades as we transform our energy system.

Gale Klappa
Executive Chairman

Scott Lauber
President and Chief Executive Officer
We remain committed to aggressive goals for reducing carbon emissions, including an ultimate goal of net-zero carbon from electric generation by 2050. Targeted capital investments already have led us to achieve a 45% reduction compared to 2005, even as our business has grown. To further improve our environmental footprint, we expect to use coal only as a backup fuel by the end of 2030. We’re aiming for a complete exit from coal by the end of 2035.

Across our natural gas delivery business, we are working to achieve net-zero methane emissions from our distribution system by the end of 2030. We took additional important steps in early 2022, signing contracts for renewable natural gas from local dairy farms. We expect these contracts to bring us to 80% of the RNG needed to achieve our goal. Our ongoing efforts to modernize our system also are making natural gas transport cleaner and safer.

We see our customers and other stakeholders as partners in our transition. For example, with input from our customers, we’ve developed new pilot programs to improve the affordability and accessibility of electric vehicle charging. We continue to evaluate all capital investments in light of affordability and reliability for our 4.6 million customers. And as we retire older, fossil-fueled plants, we’re dedicated to assessing and addressing the impacts to our employees and our communities.

With these values in mind, we’re well-equipped to achieve our goals. Regulatory policy, economic conditions, technology, customer preferences and many other factors will impact the path we take to net zero. Yet, our commitment to truly sustainable decision-making gives us a strong foundation to build upon.

Gale E. Klappa  
Executive Chairman

Scott J. Lauber  
President and  
Chief Executive Officer
**Investor engagement**

We regularly engage with numerous investors on sustainability-related matters, including our GHG goals and reduction efforts. The Transition Pathway Initiative (TPI), a global, asset-owner-led initiative has become a well-reputed source for corporate climate action benchmarking. On an annual basis, TPI assesses companies' management qualities and carbon performance against international targets set in the 2015 Paris climate agreement.

After incorporating feedback we submitted in December 2021, TPI published WEC Energy Group’s 2022 Carbon Performance assessment. The graph below, included in TPI’s analysis, illustrates how our pathway to net zero by 2050 aligns with global targets. TPI’s modeling consists of only one pathway per scenario, whereas we use multiple pathways for our assessments.

**Transition pathway**

This report seeks to build on the assessment of our climate and sustainability targets and expand on key areas of focus, including the share of revenues generated from renewables, plans for phasing out coal as an energy source, Paris Agreement-aligned capital expenditure plans, and Scope 3 data collection and analysis.
An energy industry leader

WEC Energy Group is one of the nation's leading energy companies, with the operational expertise and financial resources to serve the Midwest region's electricity and natural gas needs safely, reliably and responsibly.

WEC Energy Group by the numbers

$31.7 billion
market cap

1.6 million
electric customers

3.0 million
natural gas customers

60% ownership
of American Transmission Co.

71,400 miles
of electric distribution

52,100 miles
of natural gas distribution

7,700 megawatts
of power capacity

$39.0 billion
of asset base

97%
regulated

PATHWAY TO A CLEAN ENERGY FUTURE

Our ESG Progress Plan

Investing in efficiency, sustainability and growth.

Our ESG Progress Plan calls for investing $17.7 billion over the next five years for efficiency, sustainability and growth. More than $5 billion of that is designated for renewables.

We have established ambitious greenhouse gas reduction goals for our electric generating fleet and natural gas distribution system, aligned with or surpassing global emissions pathways aimed at limiting warming to 1.5°C.

Our capital investment plan aligns with and fully supports our carbon and methane reduction goals, and those of the Paris Agreement.

Aggressively reducing greenhouse gas emissions

- **Carbon reduction goals from electric generation**: 80% below 2005 levels by 2030.

- **Net-zero methane emissions** by 2030.

- **Use of coal for power generation expected only as back up fuel**.

- **Planned exit from coal generation** by 2035.

- **Net carbon neutral** by 2050.
The energy sector in the United States has been rapidly evolving, and climate change is one of the key factors driving this transition. From 2022 through 2026, across WEC Energy Group, we are planning to invest approximately $5.4 billion in renewable energy projects throughout the Midwest. Our long-term goal is to achieve carbon neutrality from electric generation by 2050, in alignment with the Paris climate agreement. This report details our clean energy strategy and how we work to manage the risks and opportunities associated with climate change.

This marks the third edition of our company’s comprehensive climate report, aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). With each successive report, we have expanded our analysis and disclosures. This report, for example, details a new transition risk analysis for our natural gas distribution companies, as well as a physical risk analysis for both the company’s electric and natural gas businesses.

The report was prepared with the support of Environmental Resources Management (ERM) and the Electric Power Research Institute (EPRI). ERM is the world’s largest pure play sustainability consultancy with extensive experience in climate risk analysis, greenhouse gas accounting and TCFD reporting. EPRI is a nonprofit scientific research organization, with extensive experience modeling the electric power system. EPRI’s research and modeling were key to our initial climate assessment published in 2019.

We will continue to expand and improve our analytical methods and disclosures, and we welcome stakeholder input as we transition to a clean energy future.

Reporting framework

This report addresses the four pillars of the TCFD recommendations: governance, strategy, risk management, and metrics and targets. The report also includes disclosures on the climate scenario analyses used to evaluate the resilience of our business strategy. Based on recent and planned investments in renewable energy projects, power grid upgrades, and natural gas distribution system upgrades, we believe that we are well positioned for the future. The analysis demonstrates that technology innovation will be important in achieving carbon neutrality; it also shows that there is tremendous potential in transitioning to clean energy technologies and reducing greenhouse gas (GHG) emissions economywide through strategic electrification.

**Governance**
Disclose the company’s governance around climate-related risks and opportunities.

**Strategy**
Disclose the actual and potential impacts of climate-related risk and opportunities on the company’s businesses, strategy and financial planning.

**Risk management**
Disclose the processes used by the company to identify, assess and manage climate-related risks.

**Metrics and targets**
Disclose metrics and targets used to assess and manage relevant climate-related risks and opportunities.
Our governance structure drives corporate accountability and is supported by policies and management systems to anticipate, plan for and manage risks, including those related to climate change. We believe that effective corporate governance is an essential driver of stockholder value.
Role and responsibilities of our board

Our board of directors is responsible for providing oversight with respect to our major strategic initiatives — including goal-setting and execution of the company's climate strategy.

As part of this oversight, the board has meaningful dialogue with our senior management team about opportunities and risks across the enterprise, and the processes through which senior management maintains focus on the organization's key financial and business objectives, corporate policies, and overall economic, environmental and social performance. Senior management, in turn, is responsible for effective planning and execution of daily operations. Successful governance oversight requires a cohesive system for timely identification, communication and evaluation of relevant information, coupled with transparent reporting and robust engagement.

Board composition and oversight structure

Our board of directors fulfills its oversight responsibilities through sound principles that align with governance best practices. Each director is elected annually using a one-share, one-vote, majority-vote standard in uncontested elections. Our Corporate Governance Guidelines provide that the board will consist of at least a two-thirds majority of independent directors at all times. Current board members possess a diversity of knowledge, experience and skills including domains particularly relevant to the company's strategic focus on climate change, such as leadership expertise in the regulated utility industry, knowledge of government relations and public policy, and experience overseeing environmental and social sustainability matters.

To carry out its oversight function, the board is organized into five standing committees with specific duties and risk-monitoring responsibilities: Audit and Oversight, Compensation, Corporate Governance, Executive, and Finance. The independent members of the board elect an independent lead director who, among other assigned duties, reviews and approves meeting schedules and agendas for the board and its committees, presides at executive sessions of the independent directors without management present, and provides input to the chairman on the scope, quality and timeliness of information provided to the board.

Board oversight

With the exception of the Executive Committee, the board and each of its committees meet regularly throughout the year, and receive regular briefings prepared by management and outside advisers on specific areas of current and emerging risks and opportunities to the enterprise. The committees routinely report to the full board on issues that fall within designated areas of responsibility as described in their charters.

For example, the Audit and Oversight Committee assists the board in overseeing legal and regulatory risks and compliance, including relative to environmental matters. The company’s vice president — environmental provides the committee with regular reports throughout the year that highlight significant regulatory and compliance activities across the organization’s geographical footprint, as well as updates on initiatives aimed at achieving company priorities, including the reduction of GHG emissions.

While the board delegates specified duties to its committees, the board retains collective responsibility for comprehensive risk oversight, including short- and long-term critical risks that could impact the company’s sustainability. This includes oversight of risks that have the potential to result in significant financial or reputational consequences, such as the possible impact of climate change on the utility sector, and review and approval of significant capital projects and investments, including those that will enable the company to meet its emissions reduction goals. The board evaluates this governance structure regularly and receives input from outside advisers.
## Risk oversight responsibilities

The committees routinely report to the full board on matters that fall within designated areas of responsibility as described in their charters. Examples of risk monitoring activity that have been designated to the full board and its committees are shown in the chart below.

### Board oversight
- Short- and long-term strategy and strategic initiatives
- Risk management processes
- Leadership succession planning
- Code of Business Conduct
- Corporate sustainability matters, including those related to climate change
- Regular reporting from Board committees on specific risk oversight responsibilities

### Audit and Oversight
- Financial reporting
- Legal and regulatory risks and compliance, including:
  - Environmental
  - Data privacy and security, including cyber and physical
  - Government relations, including political spending and lobbying
  - Litigation
  - FERC/NERC compliance
  - Ethics and compliance program
  - Outside auditor independence

### Compensation
- Compensation practices and programs
- Executive succession planning
- Human capital management and development
- CEO performance

### Corporate Governance
- Governance structure and practices
- Director independence
- Board performance
- Board succession planning

### Finance
- Capital allocation
- Capital structure and financings
- Employee retirement and benefit plan assets
- Insurance management

### Management responsibilities
- Design and operate risk management program, including risk identification, assessment and prioritization
- Conduct regular, executive-level committee review of key risk areas with updates to board
- Engage with board and committee chairs on areas of assigned risk oversight

Throughout the year, the board engages with management in substantive discussions about the company's short-, medium- and long-term strategy. Factored into its oversight responsibilities, the board must include, within its evaluation, an understanding of the primary mandates of an investor-owned utility and the many risks and opportunities broadly facing the utility sector, including opportunities and risks related to climate change.
Incentive compensation oversight

An important aspect of the board's oversight responsibilities is to hold the executive management team accountable for achieving the company's goals and objectives. This includes oversight of executive compensation. The board's Compensation Committee has an established track record of providing an executive compensation program that incentivizes the achievement of both the company's long-term strategies and short-term objectives.

Since delivering a cleaner energy future is one of the fundamental goals of our business and a major focus of our capital plan, the Compensation Committee assesses management's performance in achieving the tenets of the company's long-term strategic sustainability goals through the execution of its capital spending plan, which is composed of multiyear projects tied to strategic objectives. Management annually refreshes the capital plan, which includes a preview of anticipated capital spending over five years, and discloses it publicly during the fourth quarter each year.

The company’s ESG Progress Plan — for investing in efficiency, sustainability and growth — details significant investments in low- and no-carbon generation and modernization of its natural gas infrastructure, actions that are specifically aimed at helping to reduce the emission of GHGs while maintaining affordability and reliability.

The company's ability to fund this substantial capital plan has been directly linked with the company's ability to consistently deliver on its financial plan, including meeting the financial metrics used in the compensation program. These financial measures are key performance indicators underlying our executives’ incentive compensation, thus linking management’s pathway to achieving our long-term strategy through its focus on short-term priorities.

Management's role in governance

As part of the board’s approach to risk oversight and management, the CEO provides reports to the board at each board meeting and routinely calls upon members of the management team to provide detailed updates to the board in their respective areas of responsibility, including matters of enterprise risk. For example, senior management:

- Reviews with the board operational and financial aspects of the capital spending plan, including associated progress toward achieving carbon and methane reduction goals, which underpin the company's most significant strategic objectives.
- Provides regulatory updates, including the impact of evolving local, state and federal legislation and policy associated with decarbonization and electrification initiatives aimed at addressing climate change.
- Presents educational opportunities for the board to better understand the external environment within which the company operates. Opportunities include briefings and presentations provided by outside advisers, large institutional investors and other stakeholders, and discussion regarding important partnerships through which the company is advancing research, development and new technology to move forward its commitment to affect and address the impacts of climate change.

Annually, and in advance of publicly announcing the company's updated five-year capital plan, management reviews with the board its planned significant investments in low- and no-carbon generation and modernization of the company's electric and natural gas infrastructure aimed at helping to reduce the emission of GHGs. Management and the board engage in lengthy discussions on the rationale for proposed multibillion-dollar investments over five-year increments, which are designed to help the company achieve its emissions reduction targets. Discussion topics include the underlying business need for the plan, including criteria such as customer needs and preferences, the evolving regulatory environment, the plan's financial implications, and the technological advancements that will be necessary to achieve the company's long-term goals, including net-zero carbon emissions from electric generation by 2050.

Management’s commitment to transparent reporting and robust engagement provides the board with regular opportunities to ask questions and seek additional information as needed to have comfort in management’s strategy and vision. With that, the board believes its leadership structure and focus on sound governance practices, in combination with the company’s enterprise risk management program, effectively supports the board’s ability to carry out its responsibilities to the company's stockholders, while also accounting for the interests of its other stakeholders and the well-being of the communities we serve, now and in the future.
Strategy

We are in the midst of an ambitious plan to transition to clean energy sources, while continuing to provide our customers with safe, reliable and affordable electricity and natural gas. The goal for our electric generation is to be carbon neutral by 2050. We have also set a target across our natural gas distribution operations to achieve net-zero methane emissions by the end of 2030.

Our approach is informed by rigorous risk management, evaluating climate-related risks and opportunities over the short, medium and long terms. We are committed to building and sustaining long-term value for our customers, shareholders and other stakeholders.
Current efforts

**Investment in carbon-free generation and a modern energy system**

Out of $17.7 billion of planned investment for 2022-2026, we have allocated $5.4 billion for renewables — $3.5 billion in our utilities and $1.9 billion in our infrastructure segment. To serve our utility customers, we plan to add 2,400 megawatts (MW) of solar, wind and battery storage. In addition, we have dedicated $8.4 billion to grid and fleet modernization and reliability.

---

**2022-2026 plan for our utilities**

- **Solar total**: 1,475MW
- **Battery storage total**: 816MW
- **Wind total**: 82MW
- **Grand total**: 2,373MW

---

**Exiting coal by 2035**

We plan to eliminate coal as an energy source by the end of 2035. As part of this, we expect to retire all four older units at our Oak Creek Power Plant in 2024 and 2025, and the partly owned Columbia Energy Center is scheduled to be retired by June 2026. By the end of 2030, we expect to use coal only as a backup fuel.

---

**Achieved and anticipated CO₂ reductions (net mass)**

*Includes projection of potential carbon offsets by 2050*

We have established ambitious greenhouse gas reduction goals for our electric generating fleet, aligned with or surpassing global emissions pathways aimed at limiting warming to 1.5°C.

- **60%** below 2005 levels by the end of 2025
- **80%** below 2005 levels by the end of 2030

**Net carbon neutral** by 2050
Electric generation

As our generation mix continues to evolve, we will focus on maintaining the fuel diversity needed to produce reliable, safe and affordable power while reducing our carbon footprint.

We supply a significant amount of energy to our utility customers from generation facilities we own, representing approximately 7,700 MW of power capacity in 2021. We supplement our power supply with long-term power purchase agreements. Power purchases represent about one-third of the electricity we deliver, and approximately two-thirds of that purchased power comes from zero-carbon sources (e.g., renewables and nuclear). We expect purchased power from the Point Beach Nuclear Plant to supply approximately 20% of the electricity we provide to our utility customers over the next decade.

We also sell power supply into the Midcontinent Independent System Operator (MISO) energy markets when it is economical, which reduces net fuel costs by offsetting costs of purchased power. All options, including company-owned generation resources and purchased power opportunities, are continually evaluated by MISO on a real-time basis to select and dispatch the lowest-cost resources available to meet system load requirements.

In pursuit of our goal to achieve a carbon-neutral generating fleet by 2050, we are evaluating a range of approaches and investments that will help to reduce and mitigate our GHG emissions. As part of our climate strategy, we have dramatically reduced our reliance on coal-fired generation since 2005. In 2005, coal accounted for 73% of our generation and was reduced to 39% of our generating operations in 2021. By 2030, we expect coal to be less than 5% of our generation with a full exit planned by 2035. We have built cost-effective, state-of-the-art natural gas-fueled generation and zero-carbon generation. Since 2018, we have retired more than 1,800 MW of nameplate coal capacity. These retirements have lowered operating and maintenance costs by approximately $100 million on an annual basis and eliminated more than 10 million tons of CO₂ emissions per year from these sources.

Our generation portfolio is a mix of energy resources with different operating characteristics and fuel sources, allowing us to provide energy that is affordable, reliable and clean. Our facilities include coal-fired plants, natural gas-fueled plants and renewable generation. In November 2021, we added to our electrical generation portfolio when Badger Hollow I, a new utility-scale solar facility with 150 MW of nameplate capacity in Iowa County, Wisconsin, achieved commercial operation. We own 100 MW of Badger Hollow I.

Outside our traditional utility footprint, we own majority stakes in wind farms through our WEC Infrastructure subsidiary. These renewable energy assets have long-term agreements with investment-grade customers.
As part of our five-year capital plan, we expect to retire approximately 1,600 MW of additional nameplate fossil-fueled generating capacity between 2022 and 2026, providing further economic and environmental advantages. Included in these planned retirements are 1,100 MW from Oak Creek Power Plant, approximately 300 MW from our owned portion of Columbia Energy Center, and 200 MW of older natural gas-fueled generation.

As our generation mix continues to evolve, we expect to increase our investments in zero-carbon resources. Between 2022 and 2026, we plan to invest $3.5 billion to increase the amount of renewable generation for our regulated utilities and another $1.9 billion through our WEC Infrastructure subsidiary. These utility investments are expected to add nearly 2,400 MW of solar, wind and battery capacity to our portfolio. We expect that these investments will continue to grow throughout the latter part of the decade to meet both energy demand and our environmental goals.

**Our ESG Progress Plan** includes the continued retirement of older, fossil-fueled generation, to be replaced with zero-carbon-emitting renewables and clean natural gas-fueled generation.

We evaluate all capital decisions through the lens of: Affordable. Reliable. Clean.

We believe that our decisions to retire older fossil-fueled generation, while adding new renewable investments, should enable us to meet our aggressive carbon reduction goals, while ensuring an affordable and reliable energy supply for our customers.
Just Transition

We have set ambitious goals to transition to clean energy sources while continuing to serve our customers affordably and reliably. We will continue to evaluate the impact to our stakeholders as we make decisions on plant retirements and new projects.

The transition to a low-carbon economy poses challenges in areas with workers and resources invested in fossil fuel generation. As we move to reduce GHG emissions, we will continue to look to the “Just Transition” framework, developed by the trade union movement, to ensure a holistic and thoughtful approach to the changes ahead. Recognizing the social impact that plant retirements and new investments will have on our communities helps us develop sustainable energy solutions for their needs.

As we mitigate environmental impacts through a reduction of carbon-intensive energy sources, we are cognizant of both economic and social impacts tied to this transition. We have implemented a variety of measures to support our stakeholders.

Workforce

Many dedicated workers operate our power plants, and we are committed to keeping them informed and prepared as we transform our generation fleet. On at least a quarterly basis, our senior vice president — power generation meets with union leaders to provide updates on our capital plan and the timeline of actions relating to any upcoming facility retirements. Update meetings with employees and site management are frequently held at transitioning plants.

When we close a power plant, we work with local union leadership and follow the processes outlined in applicable policies, plans and collective bargaining agreements. Through this approach, we have provided retraining and placement opportunities at other company locations to all interested employees from our retired coal plants. As an alternative, we have offered voluntary severance, which has included outplacement services, educational assistance and a health insurance subsidy.

For example, when we decided to retire the coal-fueled Pleasant Prairie Power Plant, we offered voluntary severance options to employees across our power generation fleet. This allowed positions to be open for Pleasant Prairie employees who wanted to continue at our company.

Additional benefits vary based on factors specific to each location. In some cases, we have offered incentives to employees for working until the end of plant service. Our transition planning for the upcoming retirements of our older Oak Creek units includes careful monitoring of our employee population and retirement expectations, our ability to transition employees over time to the newer Oak Creek expansion units, and proactive communication with employees and union leaders to ensure all are informed and engaged throughout the process.

Community

Beyond jobs for individual workers, power plants represent significant investments and physical resources in our area. We work closely with local government and organizations on site redevelopment so that the land previously supporting a facility can benefit the surrounding community. For example, we expect some of our former sites to host farmland, biodiverse ecosystems and community infrastructure, providing future growth and prosperity for the region.

We promote economic growth through leadership in economic development organizations and through direct contributions. For example, Gale Klappa, executive chairman — WEC Energy Group, was instrumental in launching Milwaukee 7 (M7), a regional economic development organization for the seven counties of southeastern Wisconsin, in September 2005. He now serves as co-chair of the organization. Since 2015, M7 has assisted companies that created or retained more than 15,000 pledged jobs in the region.

We are also an active member of chambers and economic development organizations across Wisconsin, including the Metropolitan Milwaukee Association of Commerce (MMAC). The MMAC is working to strengthen the business base to attract and retain jobs in the Milwaukee region.

Our charitable giving programs support communities across our service areas, and through our foundations, we have contributed to economic development efforts in counties where we retired plants.

We also work with local governments to plan for continued economic stability and future growth in impacted communities. This work includes planning for the eventual reduction in shared revenue from our plants. As long as these assets remain part of our rate base, communities will continue to receive utility shared revenue payments from the State of Wisconsin. If a plant is sold, it then ceases to be utility property and will be assessed as taxable property.

Wisconsin state law provides a glide path from utility shared revenue after a plant is sold. In conjunction with any property tax paid by the new owners, in the first year that the property is taxable, the community receives 100% of the previous year’s utility shared revenue. It receives 80% of this revenue in the second year, 60% in the third year, 40% in the fourth year and 20% in the fifth year. After that, the property provides only the appropriate property tax revenue.
Energy affordability
As we provide vital energy services, we recognize our responsibility to keep rates affordable for our customers. Over time, we expect customers to see significant savings from the retirement of less efficient plants. Renewable generation resources require no fuel costs and substantively lower operations and maintenance costs, compared to fossil-fueled generation. We take measures to reduce costs in the short term from older plants.

We carefully manage our plants slated for retirement to minimize the need for capital investment — avoiding spending on projects without lasting benefit, whenever we can do so safely and lawfully. In addition, we work with our regulators on the recovery of retired plants balances. We have retired approximately 1,800 MW of coal production since 2018, and we have had no material issues recovering prudent investments in plant assets.

Environment
In addition to reducing emissions, we seek to improve the ecological well-being of our properties — leaving the land in equivalent or better condition after our operations are complete.

We actively manage hundreds of acres of natural areas within our companies’ ash landfill sites, largely originating from coal plants that are now retired. These efforts are helping to promote biodiversity, support pollinator populations, maintain large blocks of intact natural areas, reduce the use of herbicides, and restore native flora and fauna. More details on our restoration activities can be found in our Corporate Responsibility Report.

A flexible and transparent approach to plant retirements
We allow for flexibility in our planning to accommodate changes in the market and other factors. In October 2020, we announced the closing of our older Oak Creek units and held meetings with employees, unions and other key stakeholders.

In June 2022, we announced a decision to postpone the retirements of the four units by approximately one year each, to 2024 and 2025. That decision was based on two critical factors: tight energy supply conditions in the Midwest power market, and supply chain issues that likely will delay the commercial operation of renewable energy projects that are currently moving through the regulatory approval process. Because we plan to operate the older units at Oak Creek predominantly during the days of highest customer demand, we are confident we can remain on track to achieve our industry-leading carbon reduction targets.

Before this decision was made public, we communicated with union representatives, employees, community leaders and other key stakeholders. We put a retention plan in place to address the need for workers through 2024 and 2025. We also have utilized resources across the fleet, dispatching employees from other facilities as needed.
Renewable generation

Our electric utilities meet a portion of their electric generation supply with various renewable energy resources, including wind, solar, hydroelectric and biomass. These renewable energy resources also help us maintain diversity in our generation portfolio, which effectively serves as a price hedge against future fossil fuel costs, and will help mitigate the risk of potential unknown costs associated with any future carbon restrictions for electric generators.

<table>
<thead>
<tr>
<th>Target</th>
<th>Project</th>
<th>Utility</th>
<th>WEC Ownership</th>
<th>Expected WEC Investment ($M)</th>
<th>WEC Capacity (MWs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Service</td>
<td>Two Creeks Solar Project</td>
<td>WPS</td>
<td>66.7%</td>
<td>$130</td>
<td>100</td>
</tr>
<tr>
<td>In Service</td>
<td>Badger Hollow I Solar Park</td>
<td>WPS</td>
<td>66.7%</td>
<td>130</td>
<td>100</td>
</tr>
<tr>
<td>1st Half 2023</td>
<td>Badger Hollow II Solar Park</td>
<td>We Energies</td>
<td></td>
<td>151</td>
<td>100</td>
</tr>
<tr>
<td>2022</td>
<td>Red Barn Wind Park</td>
<td>WPS</td>
<td>90%</td>
<td>160</td>
<td>82</td>
</tr>
<tr>
<td>2023</td>
<td>Paris Solar-Battery Park</td>
<td>We Energies</td>
<td></td>
<td>390</td>
<td>279</td>
</tr>
<tr>
<td>2024</td>
<td>Darien Solar-Battery Park</td>
<td>We Energies</td>
<td></td>
<td>400</td>
<td>293</td>
</tr>
<tr>
<td>2025</td>
<td>Koshkonong Solar-Battery Park</td>
<td>WPS</td>
<td></td>
<td>585</td>
<td>419</td>
</tr>
</tbody>
</table>

1 Madison Gas & Electric owns a minority interest at each site
2 Final costs to be reviewed in rate case
3 Projects seeking PSCW approval
Wind
In January 2022, WPS, along with an unaffiliated utility, received approval from the PSCW to acquire the Red Barn Wind Park, a utility-scale wind-powered electric generating facility. The project will be located in Grant County, Wisconsin, and once constructed, WPS will own 82 MW of this project. Construction of the project is expected to be completed by the end of 2022. In September 2021, We Energies and WPS received approval to accelerate capital investments to repower major components of Blue Sky and Crane Creek wind parks, which are expected to be completed by the end of 2022.

Solar and battery storage
As part of our commitment to expand our zero-carbon generation, we have filed applications with the PSCW for approval to invest in the following projects:

- In April 2021, We Energies and WPS, along with an unaffiliated utility, filed for approval to acquire the Koshkonong Solar-Battery Park, a utility-scale solar-powered electric generating facility with a battery energy storage system. The project will be located in Dane County, Wisconsin, and We Energies and WPS plan to collectively own 270 MW of solar generation and 149 MW of battery storage from this project. If approved, project construction is expected to be completed by the end of 2025.

- In March 2021, We Energies and WPS, along with an unaffiliated utility, filed for approval to acquire and construct the Darien Solar-Battery Park, a utility-scale solar-powered electric generating facility with a battery energy storage system. The project will be located in Rock and Walworth counties, Wisconsin. After construction, We Energies and WPS will collectively own 225 MW of solar generation and 68 MW of battery storage from this project. If approved, project construction is expected to be completed by the end of 2024.

We have received approval from the PSCW to invest in the following projects:

- In August 2019, We Energies partnered with an unaffiliated utility to construct a solar project, Badger Hollow II, located in Iowa County, Wisconsin. We expect the project to enter commercial operation in the first quarter of 2023. We Energies will own 100 MW of this project.

- In March 2022, We Energies and WPS, along with an unaffiliated utility, received approval to acquire and construct the Paris Solar-Battery Park, a utility-scale solar-powered electric generating facility with a battery energy storage system. The project will be located in Kenosha County, Wisconsin. We Energies and WPS will collectively own 180 MW of solar generation and 99 MW of battery storage of this project. We expect construction of the solar generation to be completed by the end of 2023.
**Long-term outlook**

We will continue to replace fossil-fueled generating facilities with carbon-free or lower-carbon natural gas resources, including additional wind, solar and other renewable energy technologies.

The pace of our fossil plant retirements and new plant construction will be guided by reliability and cost considerations. Public policy decisions could also influence our decision-making. Additional transmission system investments and energy storage projects may also be required to support these developments. Potential transmission system expansion will be a key factor in our capital planning.

Our newer, more efficient coal units continue to play an important role in ensuring the reliable service our utilities must provide. They are strategically located on the Midwest transmission grid and able to be dispatched during extreme weather conditions, when natural gas supply lines or renewable technology may be compromised. Located at our Oak Creek site, Elm Road units 1 and 2 are among the newest and most efficient coal-fueled generating units in the United States, having begun commercial operation in 2010 and 2011, respectively. We have an approximately 85% ownership interest in the two units.

We are planning for the future of the Elm Road units with fuel flexibility and emissions reduction in mind. We have tested co-firing on natural gas at the site. Subject to the receipt of an environmental permit, we plan to make operating refinements over the next two years that will allow a fuel blend of up to 30% natural gas — without significant compromise to heat rate or reliability. By the end of 2035, we expect to transition completely away from coal by making a relatively modest investment in plant facilities, including new burners and additional pipeline capacity to the site.

We are exploring the role of low-carbon technologies in affordable pathways to economywide decarbonization. In 2020, we joined the Low-Carbon Resources Initiative (LCRI), a joint partnership between EPRI and Gas Technology Institute (GTI), focused on large-scale deployment of low-carbon technologies. The five-year initiative is working to:

1. Identify and accelerate development of promising technologies, including hydrogen; bioenergy; carbon capture, utilization and storage; utility scale battery storage technology; and renewable natural gas.

2. Demonstrate and assess the performance of key technologies and processes and identify possible improvements.

3. Inform key stakeholders and the public about technology options and potential pathways to a low-carbon future.

This initiative will help to inform our longer-term strategy to address the emissions from our natural gas-fueled power plants.

In 2022, we are launching one of the first hydrogen power pilot programs in the United States, helping to lead our industry in this space. We have partnered with EPRI to develop a program to test hydrogen as a fuel source for power generation, blending hydrogen with natural gas at one of our reciprocating internal combustion engine (RICE) units in Michigan's Upper Peninsula.

Researching the feasibility of hydrogen as a clean generating fuel to our fleet of dispatchable plants is an important step on our path to a sustainable future. EPRI will lead the technical implementation of the project and share results across the energy industry.
Electric innovation driving a clean energy system

To create a grid that can withstand 21st-century demands and support the transition to a clean energy system, we will use multiple strategies to improve and preserve the reliability and resiliency of the electric power system and provide our customers with opportunities to meet their own sustainability goals.

As we continue to evaluate and leverage innovative technology developments as part of our evolving climate strategy, we must keep affordability and reliability at our core, while improving our customers’ experience and access to new technologies.

System modernization

We remain focused on the reliability and resiliency of our generation fleet and distribution networks. In late 2021, WPS completed work on an eight-year project to modernize parts of its electric distribution system by burying or upgrading lines. The project focused on electric lines that had the lowest reliability in the WPS system, primarily in heavily forested, rural areas. With a total investment of approximately $430 million, WPS installed more than 2,000 miles of underground circuits in place of overhead lines and added distribution automation equipment on 400 miles of lines.

Our 2022-2026 capital plan includes grid-hardening projects to continue to bury power lines and strengthen our utility systems against severe weather.

In 2022, we became one of the founding members of EPRI's Climate Resilience and Adaptation Initiative (READi). This three-year initiative is focused on developing a common platform for climate data to inform the planning, design and operation of resilient energy systems.

Renewable energy pilot programs

Innovative renewable energy pilot programs continue to provide opportunities for We Energies' commercial and industrial customers to support renewable energy generation.

Participants in the Solar Now program receive monthly payments based on the capacity value of their hosted solar photovoltaic systems. The program allows nonprofit and government entities, as well as commercial and industrial customers, to site utility-owned solar arrays on their property. In 2021, Solar Now systems:

- Avoided an estimated 13,339 metric tons of CO₂ equivalent (CO₂e) emissions
- Supported our green pricing programs, with 26% of Solar Now generation going to Energy for Tomorrow customers

In addition, through the Dedicated Renewable Energy Resource program, large commercial and industrial customers can access renewable resources that We Energies would operate, adding up to 150 MW of renewables to We Energies' portfolio, and helping these larger customers meet their sustainability and renewable energy goals.

Partnering with local companies for a more sustainable future

As of June 1, 2022, We Energies has energized 24 Solar Now projects, together totaling more than 27 MW and reaching a wide range of customers — from local school districts to Harley-Davidson. We continue to evaluate the impact of this program and other potential local generation across our electric energy companies’ service areas.

As part of the Solar Now program, more than 7,000 solar panels in Sheboygan County, Wisconsin, are now providing affordable, reliable and clean energy to We Energies customers. The 2.25 MW solar project was built through a partnership between We Energies and MillporeSigma, the life science business of Merck KGaA. The facility went into service in 2022, becoming the largest renewable energy facility in Sheboygan County history.
Green pricing programs
For decades, we have offered options to electric customers who want to help strengthen the market for renewable energy, having established We Energies’ Energy for Tomorrow® program in 1996 and WPS’ NatureWise® in 2002.

When our We Energies customers enroll in the Energy for Tomorrow program at the 25%, 50% or 100% level, We Energies produces or purchases renewable energy to match the level of participation of their electricity use. Energy for Tomorrow is Green-e certified and meets the environmental and consumer protection standards set by the nonprofit Center for Resource Solutions. The NatureWise program similarly offers WPS customers the opportunity to purchase specified amounts of electricity from renewable sources. Customers of our Upper Michigan Energy Resources utility may also participate in these programs.

Advanced metering technologies
By increasing access to more granular customer data, advanced metering infrastructure will allow us to improve load management functions and increase customizable customer savings opportunities as we continue renewable energy and distributed energy resource integration. We are currently implementing advanced metering infrastructure across our local utility companies and making steady progress on our program to replace meter-reading equipment on both our network and customer property.

Smart meters served 49% of our electric and natural gas customers at the end of 2021. In the future, smart meters may provide customers with more usage- and demand-based billing and energy management options.

Demand-side management and energy efficiency
Our customers are taking control of their energy use through a variety of programs. In Wisconsin and Michigan, the Focus on Energy and Efficiency United programs, respectively, provide customers with energy-saving rebates and incentives. The options vary by company and include discounts for Energy Star-certified appliances, smart thermostats, LED lighting, smart lighting and custom projects.

Additionally, we support research on emerging technologies and opportunities for our customers through Focus on Energy. These research projects have the goal of allowing Wisconsin to further its efforts toward reducing energy waste, costs and environmental impacts. In 2021, the Focus on Energy Environmental & Economic Research and Development program completed research projects on topics including energy efficiency and load shaping, and energy management information systems.

Residential customers also can participate in virtual energy audits to determine how they can make their homes more energy-efficient through no- or low-cost upgrades. Customers who participate in a full-home energy assessment can see heating and cooling energy-saving opportunities of 20% to more than 50% in some cases, reducing emissions and delivering cost savings. In addition, we provide our customers with efficiency tips through phone consultations, our company websites and other communications to help them save money on their energy bills.

Our companies provide some electric business customers with energy management services, including site assessments, carbon footprint analyses, technical monitoring and consultations. Account managers work with our largest customers to facilitate technological, systems and behavioral solutions, and, where available, offer incentives related to energy efficiency, optimization and sustainability.

In 2021, our electric customers saved over 411 million kilowatt-hours in their first year of energy efficiency improvements.
**Electric vehicles**

Increasing customer access to electric vehicles (EVs) is a priority for us. To that end, We Energies and WPS launched pilot programs in March 2022 designed to remove barriers associated with this technology. Our residential pilot makes it easier and less costly for customers to install charging equipment and broadens the availability of “Time-of-Use” rates for EV owners. In addition, a commercial pilot helps pay for up-front customer infrastructure upgrades and electrical work necessary to install Level 2 and DC fast charging.

The pilot programs will help us better understand and address the impact EV charging will have on the electric grid, as millions of EVs are expected to be sold in the United States in the coming years.

As we expand our customer offerings, we are also working to electrify our own motor vehicle fleet. In August 2020, under the auspices of EEI, we joined our utility peers across the nation in setting sustainability goals for our vehicle fleet across WEC Energy Group. Our targets for 2025 are for 35% of car and SUV purchases and 25% of Class 3 truck purchases to be plug-in electric vehicles, and for 40% of our storeroom equipment, such as forklifts, to be electrified. We aim to increase the storeroom equipment percentage to 75% by 2030.

---

**GHG emissions and our transportation plan**

**Planning for:**

- **35%** car & SUV purchases to be electric by 2025
- **25%** Class 3 truck purchases to be electric by 2025

**Aiming to electrify our storeroom equipment:**

- **40%** by 2025
- **75%** by 2030

**We currently offer:**

- **61** charging stations
- **120** charging ports
- **50** are for public use
Natural gas distribution

We are focused on delivering reliable, affordable and safe natural gas service to our customers while minimizing our environmental impact.

We continue to reduce methane emissions by improving our natural gas distribution system. We set a target across our natural gas distribution operations to achieve net-zero methane emissions by the end of 2030. We plan to achieve our net-zero goal through an effort that includes both continuous operational improvements and equipment upgrades, as well as the use of RNG throughout our natural gas utility systems.

Renewable natural gas

We received regulatory approval for our RNG pilot program and signed our first contracts for RNG for our natural gas distribution business. Local dairy farms will supply methane gas, which would otherwise go to waste, to our gas distribution system. The RNG supplied will directly replace conventional fossil-based natural gas that would have entered our pipes. In addition, these investments are expected to reduce the environmental impact of agricultural activity, such as wastewater runoff. We expect to have RNG flowing to our distribution network by the end of 2022. Our first three contracts should bring us to 80% of the RNG needed to achieve our 2030 goal.

Safety Modernization Program

Peoples Gas, our subsidiary in Chicago, began its Safety Modernization Program (SMP) in 2011. Peoples Gas expects to continue investing between $280 million and $300 million annually to modernize approximately 2,000 miles of Chicago's aging natural gas pipeline. Dated cast and ductile iron pipes and facilities in the natural gas delivery system are being replaced with polyethylene pipes for long-term system safety, reliability and reduced methane emissions. The SMP also involves upgrading the system from low-pressure to medium-pressure operation to minimize pipeline safety risks.

Underscoring our commitment to preserve the environment, Peoples Gas has committed to replace cast or ductile iron natural gas mains at an annual rate of at least 2% per year through 2023 — a rate that is in line with the U.S. Environmental Protection Agency's (EPA's) Methane Challenge, for which we are a founding partner.

Energy efficiency

We extend energy efficiency assistance to our natural gas customers, as well. The Focus on Energy and Efficiency United programs in Wisconsin and Michigan support both electric and natural gas customers. For our Peoples Gas and North Shore Gas customers in Illinois, we offer energy efficiency programs that provide customers with free products, rebates, incentives, staffing grants and more comprehensive sustainability planning resources. In Minnesota, the Minnesota Energy Resources Conservation Improvement Program offers commercial/industrial and residential customers energy audits and comprehensive analyses, new construction design assistance, and energy-saving rebates.

Our research and development efforts also contribute to improved energy efficiency. In collaboration with GTI, we help support the Utilization Technology Development program, which is a nonprofit, member-led organization composed of 20 natural gas distribution companies. Its mission is to identify, select, fund and oversee research projects to maximize the environmental performance, affordability, efficiency and safety of equipment and processes that use natural gas and renewable energy resources. Our company invests $250,000 annually, a portion of this through energy efficiency dollars, to support projects that span all end-use sectors and cover a variety of topics, including technology to reduce emissions and improve efficiency.

In 2021, our natural gas customers saved over 34 million therms in their first year of energy efficiency improvements.
Energy security
We aim to minimize our system’s and customers’ impact on the environment. At the same time, extreme weather conditions have demonstrated to us that Wisconsin needs more natural gas peaking capacity on the coldest days of the year, when demand is high.

To address this demand, We Energies has received approval from the Public Service Commission of Wisconsin to build two liquefied natural gas facilities. Each facility will provide 1 billion cubic feet of natural gas supply to meet peak demand without requiring the construction of additional interstate pipeline capacity. The total cost of both projects is expected to be approximately $370 million, with commercial operation for these facilities targeted for the end of 2023 and early 2024.

These new facilities will help ensure energy security while reducing the footprint of our natural gas portfolio, minimizing supply cost impacts in the long term.

Our path forward
As we evaluate paths to modernize our system and the role of natural gas in a low-carbon future, we have turned to industry collaboratives and national initiatives for sharing information and best practices. As part of our Peoples Gas initiative, we have made voluntary commitments as a founding partner in the EPA’s Methane Challenge. Additionally, Peoples Gas has partnered with GTI since 1985 and invested more than $9 million in research, innovation and development. The research has brought technologies to the natural gas industry that have benefited customers and employees through improved safety, operational efficiencies, reduced environmental impacts and increased energy efficiency.

In addition to the use of RNG, hydrogen is getting increased attention as a potential longer-term strategy to reduce the carbon intensity of gas supplies. There is potential for hydrogen to be produced with zero-emission energy resources and blended with conventional natural gas. If this technology becomes a viable option for our natural gas business, we expect our modernized distribution system could be modified slightly to carry hydrogen fuel.

Our ongoing engagement with industry peers and research initiatives will help us apply new technologies as they become suited to our utility needs.
How our efforts help address global climate change

Our climate strategy continues to support the international effort to limit global temperature increases. In the 2015 Paris Agreement, the international policy community set a goal of limiting global average temperature to “well below 2°C,” with additional direction to consider limiting global warming to 1.5°C. The recent climate negotiations in Glasgow at the end of 2021 reiterated this goal.

Consistent with this goal, the Intergovernmental Panel on Climate Change (IPCC) published a report on limiting global warming to 1.5°C. The report found that reducing global emissions 30% to 70% in 2030 and 70% to 130% in 2050 (relative to 2005) is consistent with "no or limited overshoot" of 1.5°C.

As outlined earlier, WEC Energy Group has set aggressive targets for our electric generating fleet: to reduce CO₂ emissions by 60% and 80% below 2005 levels by the ends of 2025 and 2030, respectively, and to be net carbon neutral by 2050.

By 2030, the International Energy Agency (IEA) projects a decline in the average global carbon intensity of electricity (CO₂ emissions per megawatt-hour of electricity production) to roughly 0.23 metric tons of CO₂ per megawatt-hour (metric tons/MWh) in the Beyond 2°C Scenario (B2DS) and the 2°C Scenario (2DS). By comparison, we estimate a carbon intensity of 0.17 metric tons/MWh for our operations by the end of 2030, as we work toward our 80% reduction goal. While we recognize limitations in comparisons to global emissions pathways and their results, we believe our aggressive efforts are important contributions to our shared objectives.

International climate goals, global emissions pathways and company strategy

Companies are trying to understand what international climate goals mean, the transition risks they pose, and how goals should be set and evaluated. Over the last few years, EPRI has been assessing the science behind these goals and addressing these questions (e.g., EPRI, 2022; Rose and Scott, 2018, 2020). This research has focused on developing a technical foundation for scientifically grounded company analysis and decision-making on climate goals and climate risks.

In defining the relationship between a company and global average temperatures, EPRI’s research has evaluated approximately 1,500 recent global emissions pathways, including those from the IPCC and International Energy Agency (IEA) (Rose and Scott, 2018, 2020). This research has found broad ranges of global emissions pathways, as well as annual emissions reduction levels and cumulative emissions budgets, to be consistent with any global average temperature outcome (e.g., the pathway ranges on Page 28 are consistent with limiting warming to 1.5°C and 2°C). These ranges represent important information, as they are the result of uncertainties relevant to company planning and risk management — uncertainties in economic growth, energy supply and end use technology availability, input and output markets, CO₂ and other GHG emissions and climate forcings (e.g., land albedo, aerosols), and physical climate system responses.

References:
Technical insights for company analyses and strategy

Company-specific uncertainties, not accounted for in global pathways, are also critical to company planning and important to evaluate. This includes uncertainties about policy design details, such as federal, state and local decarbonization incentives within and outside the power sector and eligible compliance options, and uncertainties regarding local markets, policies, public acceptance and power systems.

With many global and sub-global emissions pathways, and broad emissions ranges, consistent with any future global average temperature, EPRI's research has found that there are many ways for a company to be consistent with international climate goals and that there are many uncertainties that companies need to consider and manage. Furthermore, planning for a single future or outcome will be risky for a company, subjecting it to the possibility of a different future being realized.

EPRI notes that companies will want to assess and manage their individual uncertainties and opportunities. Because companies are unique (in their assets, systems, markets and local policy environments), each will have different risks, opportunities and constraints. Companies must arrive at different cost-effective emissions reduction strategies in terms of their goals, how they meet them, how they support electric system and economywide decarbonization, and how they can manage and balance other social objectives, such as service reliability and affordability, local economic development, and safety.

Overall, for companies to identify practical emissions reduction goals, they will need to consider uncertainty, company uniqueness, multiple objectives, flexibility and strategy robustness. EPRI (2022) discusses that a GHG goal does not, in and of itself, manage low-carbon transition risk, just as having emissions does not imply risk. Companies are exposed to the risk of different plausible futures, and goals have risks due to this uncertainty.

Low-carbon transition risk assessment, however, can usefully inform GHG goal setting. Risk assessment that evaluates climate policy and non-policy uncertainties and their transition risk implications can help identify a risk management strategy and a GHG goal consistent with that strategy.

Limitations of global emissions pathways as benchmarks and guides for companies

EPRI's research has also found that global emissions pathways have significant limitations as benchmarks for guiding or evaluating company emissions strategies (Rose and Scott, 2020). For instance, as shown in the REGEN analysis graph on Page 28, there are many global emissions pathways consistent with a specific temperature level and, therefore, many potential, but very different, benchmarks. Furthermore, the global models producing these pathways model aggregate sectors and markets (e.g., U.S. electricity), not actual systems and markets, or individual companies and their unique contexts, obligations, uncertainties and opportunities; and global scenarios have strong assumptions (e.g., climate policy and technology) that are uncertainties and risks for companies that need evaluation.
Sub-global results from global modeling (e.g., sector or country emissions and output, technology retirement and deployment) are found to be even more problematic as benchmarks. In addition to the global pathway issues noted, sub-global results are dependent on the global and economywide assumptions modeled. For instance, global scenarios typically exhibit strong electric sector decarbonization and electrification growth. These results, however, are contingent on assumed global economywide policies that incentivize the use of low-carbon electricity, assumed global trading of emissions allowances that facilitate the deployment of the lowest-cost decarbonization globally, and typically optimistic assumptions regarding the future availability of advanced low-carbon energy. These assumptions (policy design and technology availability) are instead important uncertainties and risks that companies need to evaluate and manage.

IEA’s Net Zero by 2050 Pathway scenario is frequently discussed as a potential benchmark for companies. However, its results have the same limitations as other global emissions pathways, including assumptions of idealized global cooperation and optimistic technology availability and integration, global emissions that have already peaked (in 2019 in this scenario), and the pathway representing just one of many possible emissions pathways. IEA characterizes their Net Zero scenario as consistent with 1.5°C, but the IEA modeling only explicitly incorporates the energy system and energy CO₂ emissions. The pathway takes as given other factors and uncertainties important to future climate change, such as non-CO₂ and net land CO₂ emissions.

Comparing the IEA Net Zero global energy CO₂ pathway to IPCC 1.5°C-consistent pathways, EPRI finds that the IEA pathway is on the high end of the range through 2030 with rapid electrification, hydrogen growth and carbon dioxide removal deployment, and with fossil energy still in use in 2050. Note that, for our report and strategy, we reference global total net CO₂ pathways because sub-global results, such as energy CO₂, are contingent upon strong global, regional and sectoral policy and non-policy assumptions, which are uncertainties companies need to evaluate.

In the following report sections, we outline our assessments of potential emissions trajectories, as well as climate-related risks and opportunities specific to our region and our business. We continue to evaluate reduction pathways for the U.S. electric power sector in a wide range of climate scenarios.

**REGEN analysis**

Wisconsin CO₂ pathways and WEC Energy Group’s goals (2025, 2030 and 2050) relative to global net CO₂ pathway ranges consistent with limiting global average warming to 1.5°C (gray) and 2°C (blue), percent changes relative to 2005.

Source: Figure developed from this project’s quantitative analysis and Rose and Scott (2018 and 2020) analyses of IPCC and IEA global emissions pathways. Note that our global pathway analysis also considers the IEA Net Zero by 2050 Pathway. See Rose and Scott (2018 and 2020) for detailed assessment of global emissions pathway modeling and results, including discussion of important comparison considerations and limitations.

All of the 1.5°C global emissions pathways, and most 2°C pathways, rely on the global deployment of technologies that remove carbon dioxide from the atmosphere, such as bioenergy combined with CO₂ capture and underground storage (CCS), afforestation, or direct air CO₂ capture and underground storage (Rose and Scott, 2020). The carbon removal technologies help achieve the global average temperature outcome by deploying early (some as early as 2020) and ramping up quickly, which results in global emissions pathways that achieve greater than 100% emissions reduction over time.
We evaluate market, policy and technology factors through scenario analysis as we navigate pathways to a clean energy future.
Modeling and analysis efforts

Over the past four years, we have conducted scenario modeling for our electric utilities, which has largely focused on the impacts of decarbonization on the regional electric sector. We continue to conduct these scenario analyses to help us to best understand the potential impacts of key factors such as policy, technology and the market. This recurring analysis helps to inform our business strategy surrounding modernization of the grid, investment in alternative electric energy sources, and electric utility resource planning. Gaining insight into these potential impacts allows us to remain resilient in an ever-changing market, through direction, planning and action.

As we have recognized the benefits of scenario modeling, this year we expanded our scenario analysis modeling to include our natural gas utility businesses. Modeling the future of our gas services has allowed us to evaluate the potential risks and opportunities associated with market uncertainties, in turn helping us to make informed business decisions. This analytical work has provided valuable insights into the potential future transformation of our gas business, including the critical role it may play in the transition toward a low-carbon economy.

**Resilience of gas utility business**

We engaged ERM, an independent third-party consultant, to conduct a climate scenario analysis across all segments of our natural gas utilities business. The TCFD guidance directs companies to: "[d]escribe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.” For the purposes of this analysis, we used a future energy market scenario, the Sustainable Development Scenario (SDS), developed by the International Energy Agency (IEA). This scenario was used to test the resilience of our gas utility assets and operations against potential future climate-related transitional risks.

This scenario assumes a set of policy changes, as well as market trends (demand), energy efficiencies and technology advancements. Subject matter experts from WEC Energy Group worked with ERM to evaluate the implications of decarbonization pathways consistent with the carbon-constrained SDS from the World Energy Outlook 2021.

The SDS is a low-carbon scenario, consistent with limiting the average global temperature increase to well below 2°C from pre-industrial levels. Many companies rely on the SDS scenario for climate risk assessment because it charts an ambitious transition to a low-carbon energy system, consistent with the goals of the Paris climate agreement. In the IEA SDS demand-constrained scenario, steep declines in oil and natural gas demand, combined with a large increase in renewable energy production, put downward pressure on oil and natural gas prices. The trajectory for emissions in the SDS scenario is consistent with reaching global net zero CO₂ emissions in 2070 (with many countries and regions reaching net zero much earlier). Under the SDS scenario, carbon emissions in the United States decline 87% by 2050. As a part of this decline, the scenario includes a reduction in power sector emissions of 97% by 2035 with negative emissions from the sector by 2050. For the U.S. natural gas sector, the scenario has GHG emissions from fossil natural gas decline 92% by 2050.

As with any modeled scenario of the future, the SDS envisions one possible path to achieve global emissions reduction but does not preclude other paths by which those same goals could be reached. In addition, even in a scenario where U.S., emissions reduction follows that of the SDS, there could be significant regional variation with respect to these goals.

**IEA Estimates Global Median Surface Temperature Rise** (World Energy Outlook 2021)

![Graph showing median surface temperature rise from 2000 to 2100 with estimated values of 1.57°C in 2040 and 1.67°C in 2050.](image-url)
Gas utility scenario analysis

We conducted an analysis on the financial implications of the SDS scenario on our natural gas utility operations and customers in our operating region (Wisconsin, Illinois, Michigan and Minnesota). As is true with most scenario analyses, ours is not intended to be a forecast of the future, but rather an exercise to explore potential implications for the business and our customers under a range of possible trajectories within a sub-2°C path. The possible trajectories contained in the gas utility scenarios described below look to different potential paths the business could follow, and help to increase our understanding of the risks and the opportunities so that we may better plan for the future.

Since the IEA scenarios do not provide detailed regional breakdowns of key outputs, including natural gas demand, our analysis focused on aligning 2050 emissions in each operating company with the U.S. emissions reduction (i.e., approximately 92% below current levels by 2050). We focused on three decarbonization pathways that would achieve these emission reduction goals. Both the risks and opportunities of these decarbonization paths centered around reducing end-use customer emissions. Each of the three scenarios relied on a different mix of technologies and fuels to achieve the prescribed emissions outcomes: high electrification, mix of electrification and alternative fuels, and high alternative fuels.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Electrification</td>
<td>All residential and commercial customers convert heating and other natural gas usage to electric appliances by 2050.</td>
</tr>
<tr>
<td>Fuels and Electrification</td>
<td>Electrification of natural gas usage for residential and commercial customers takes a hybrid (dual-fuel) path in which gas-fired heating serves the coldest temperatures and electric heating serves the balance of the heating season. Lower rates of full customer migration, with higher levels of zero-carbon fuels and greater gas demand.</td>
</tr>
<tr>
<td>High Fuels</td>
<td>No electrification but very high levels of fuels, including hydrogen or methanated hydrogen.</td>
</tr>
</tbody>
</table>

More than 2.9 million customers across the Midwest depend on our natural gas system. Our region is subject to temperature extremes, including very cold winter days. In February 2021, a week-long cold snap sent temperatures plummeting, down to -42°F in the northern portion of our service area, and raised energy demand across the region. A reliable energy system, both gas and electric, is essential for our customers.

Maintaining our natural gas infrastructure, while increasing reliance on low-carbon fuels (such as RNG and hydrogen), adds an important layer of resilience to the energy delivery system. This is key in terms of achieving emissions reductions as we keep homes and businesses warm and safe in the winter.
Gas utility scenario analysis: key conclusions

As the IEA World Energy Outlook highlights, there is a “robust long-term case for gases in the energy system.” There are services that would be both difficult and costly to provide using other sources of energy, including high-temperature heat for industry, winter heat for buildings (critical for our service territory) and flexibility for power systems. Existing gas infrastructure is also a valuable asset that could be repurposed over time to deliver renewable natural gas or green hydrogen. Maintaining gas infrastructure alongside an electric system also adds an important layer of resilience to the energy delivery system, and likely avoids the buildout of significant electric infrastructure, the costs of which are expected to be borne by customers. The actual path taken will depend significantly on the decisions of policymakers and utility regulators, as well as future technology advances.

The scenarios chart a range of customer and throughput outcomes, while still achieving a path currently understood as well-below 2°C. Fossil gas-related emissions decline in each scenario by approximately 92% by 2050 from 2020 levels. Throughput also declines in each of the scenarios, with the High Electrification scenario experiencing the most significant decrease, as demand migrates to electrified uses.

The High Electrification scenario experiences the largest decline in customers and, subsequently, throughput. Conversely, the High Fuels scenario experiences the lowest decline in customers and throughput. No customers convert to electricity in the High Fuels scenario, so all throughput reduction in this scenario is driven by natural gas system efficiency assumptions in the analysis. The Midwest represents one of the most intense areas of diverse agricultural production in the world and consistently affects the global economy. Using the agricultural byproducts, the region has a strong potential for the production of RNG. The RNG is expected to play a significant role in our gas distribution system. The “High Fuels” scenario assumes the feasibility of including a very high share of RNG in the energy delivery system and thereby moves towards low-carbon opportunities.

Between those two more extreme paths is the hybrid Fuels and Electrification scenario. This hybrid approach moderates the most significant of the potential cost and feasibility impacts associated with the more extreme scenarios, while importantly preserving the energy resiliency provided by the natural gas delivery system. This scenario also takes advantage of the region’s significant RNG potential.

Both the High Fuels and Fuels and Electrification scenarios chart a path that substantially retains customers — and even allows the customer base to increase at current rates of growth — while still achieving emissions reduction consistent with the IEA SDS Scenario.

In the Fuels and Electrification scenario, despite the retention of residential and many commercial customers, annual demand per customer is reduced relative to the case; however, that demand serves a critical role in the coldest of heating season temperatures. In the High Electrification scenario, the decline in gas customers is significant, as only hard-to-electrify (i.e., industrial) customers would be retained by 2050.

---

1. See IEA World Energy Outlook 2021; see also IEA World Energy Outlook 2021 (“buffer for households relying on gas for heating is not easily replicated by the electricity system”).
The mix of gases in each scenario also ranges widely across the scenarios. In the High Fuels scenario, approximately 90% of the delivered fuels by 2050 are low- and zero-carbon fuels (renewable natural gas and hydrogen). By comparison, the High Electrification scenario with its much-reduced gas throughput has a smaller share of that throughput as low- and zero-carbon fuels at about 60% by 2050. In the Fuels and Electrification scenario, the share of low- and zero-carbon fuels lies roughly between the other two scenarios.

While the various SDS scenarios result in a range of customer and throughput outcomes, any path from the present to 2050 will require a safe and reliable distribution system for the customers it serves, even as customers and their demand may be changing. For this reason, and consistent with current regulatory policy, each scenario assumed an ongoing ability to recover, and earn a reasonable return on, existing and future capital investments in the utility system and operating expenses necessary to continue to provide safe and reliable service to customers within our operating jurisdictions. Depending on how the future unfolds, the mechanisms for recovering those costs and the structure of rates may change, particularly in a path that might proceed in a manner similar to that of the High Electrification scenario. For example, due to regulatory or policy-driven pressure, gas utilities may consider increasing their depreciation rates to recover investments in assets over a shorter period, leading to customer bill increases and an accelerated reduction in rate base.

The analysis highlights the challenges of the High Electrification scenario. A transition to full electrification could leave progressively fewer customers to bear the costs of running a safe and reliable gas system. The significant impact of such a path would likely fall to customers who are least able to afford the range of costs associated with electrification.

A distinct set of cost and feasibility issues are associated with the High Fuels scenario, which could require significant investment in new infrastructure to support the production and transport of substantial volumes of low- and zero-carbon fuels. Moreover, the High Fuels scenario assumes the feasibility of including a very high share of RNG and hydrogen in the energy delivery system. Such high percentages of alternative fuels may present technical or resource availability concerns, as well as presenting regulatory challenges, as policymakers may prohibit the use of low-carbon gases.

Between those two more extreme paths is the hybrid Fuels and Electrification scenario. This hybrid approach moderates the most significant of the potential cost and feasibility impacts associated with the more extreme scenarios, while importantly preserving the energy resiliency provided by the natural gas delivery system.

Overall, analysis of these three SDS-aligned decarbonization paths affirms the company’s strategy, which focuses on the development of an “all-of-the-above” GHG reduction approach that seeks to preserve essential energy delivery reliability and resilience for consumers. This includes a continuing focus on energy efficiency, embracing a broad range of energy technologies and solutions, and the inclusion of low-carbon options such as RNG, hydrogen and hybrid-heating systems. Moreover, the analysis demonstrates the importance of adopting an emissions reduction pathway that provides both environmental and economic sustainability, while providing delivery system resiliency, integrity and reliability, and offering options for more affordable carbon reduction measures.
Electric business scenario analysis

Working with EPRI, WEC Energy Group conducted a risk analysis using the Regional Economy GHG and Energy (REGEN) model to understand potential decarbonization pathways to achieve net-zero electric sector emissions by 2050. The study includes key energy supply and demand transformation metrics associated with these pathways. The REGEN framework models electric sector capacity expansion and dispatch, and key outputs include generation, capacity, end-use technology mixes, emissions, electricity prices and investment costs. The analysis accounted for market, technology, and policy uncertainties and risks to evaluate potential alternative electric sector net-zero transitions for Wisconsin.

The study consisted of a risk matrix, coined the “Four Corner Scenarios,” which defines scenarios in terms of two categories of uncertainty regarding the low-carbon transition — uncertainty regarding policy conditions (scope and options) and non-policy conditions (technology and markets). The Four Corner Scenarios paired broad versus narrow policy conditions with higher versus lower risk decarbonization impact non-policy conditions to outline the four corners of a plausible risk space. Analysis of the corner scenarios was supported by sensitivity scenarios designed to examine the impact of individual uncertainties. These conditions are further described below:

**Broad Policy Conditions** — Considers a federal, multi-state, net-zero electric sector climate policy with broad compliance flexibility and supported by an economywide carbon price. This scenario includes emissions allowance trading, as well as neutral biomass CO\(_2\) crediting and negative emissions technologies fully credited, including biomass with carbon capture and storage (CCS), direct air capture, and forestry offsets. End-use sector policies include electric technology sales mandates for new buildings and electric vehicles.

**Narrow Policy Conditions** — Considers a Wisconsin electric sector CO\(_2\) policy with narrow compliance flexibility and without complementary policy in other regions and sectors. This scenario includes an electric sector net-zero target without allowance trading, negative emissions options, a pessimistic view of biomass emissions crediting, and no end-use mandates incentivizing electrification.

**Lower Impact Non-Policy Conditions** — Considers low technology costs, low natural gas prices, and accelerated end-use technology efficiency improvements. In this scenario, consumer attitudes toward end-use electric technologies such as electric vehicles and heat pumps are favorable, and not-in-my-backyard (NIMBY) attitudes are low with local communities unopposed to renewables and transmission deployments.

**Higher Impact Non-Policy Conditions** — Considers high technology costs, higher gas prices, and low realized potential for improvements in cost and performance of end-use electric technologies. This scenario includes less favorable consumer attitudes toward electric technology adoption, and NIMBY attitudes that are represented as no additional investments in interregional transmission and high local barriers to the installation of additional renewable capacity, particularly for wind and solar.

The study found that both policy and non-policy conditions are major factors for transitions, with significant impact on, among other things, capacity investments, generation mix, electricity load, and costs. Under all four scenarios of the EPRI study, Wisconsin’s electric sector reaches net zero by 2050; however, given the variety of market, policy and technology uncertainties, there are a wide range of pathways that Wisconsin’s energy system might take. Efficient strategies for decarbonization must navigate these uncertainties, and the ultimate resolution of these uncertainties could lead to variation in capacity and generation mix, electrification rates, load requirements, and emissions.

The study finds that the REGEN emission pathways for Wisconsin’s electric sector, as well as WEC Energy Group’s emissions goals, are aligned with or surpassing global emissions pathways consistent with limiting warming to 1.5°C and 2.0°C.

See REGEN analysis graph on Page 28. These global pathway ranges represent some of the important uncertainties relevant to company planning and risk management, including economic growth and technology availability and cost.
Key insights from the study:

• While there is significant uncertainty about cost-effective decarbonization pathways to net-zero electricity in Wisconsin, we find robust transition elements that are a part of all the analyzed transitions. These low- and no-regrets strategies form the basis for immediate action. These strategies include:
  - Rapid expansion of wind and solar.
  - Deployment of battery storage.
  - Retirement of coal-fueled equipment.
  - Allowing for efficient natural gas use.
  - Recognizing the variability in transition risks and scenarios involved in meeting net zero, our robust business strategy aligns with EPRI’s findings, making WEC well-positioned for the management of climate-related risks throughout this transition. Through our current and planned investments in renewable energy sources, battery storage, and natural gas distribution system improvements among others, WEC has both immediate and long-term strategies in place to mitigate business risk.
  - Installed electric generation capacity in Wisconsin could increase between two to three times by 2050.
  - Natural gas capacity will still be substantial by 2035, between 10 and 15 gigawatts (GW), but will become less relevant in 2050 as renewables, such as wind and solar, are incorporated and natural gas-fueled generation assets are retired, with total gas capacity ranging from 0.1 to 10 GW, with remaining gas emissions covered by a combination of on-site capture and negative emissions technologies.
  - Under all scenarios, the generation component of electricity prices increases over time, from 45% higher to more than twice current levels in 2050. Prices respond to a range of factors including fuel switching to achieve emissions goals, assumptions about technology costs and performance both in the electric sector and for electric end uses, policy eligibility of lower cost resources, and consumer attitudes about the purchase and siting of technologies. Note that this does not consider any changes to rate structure and does not imply the same increase to retail prices paid by consumers.
  - Wisconsin’s electric sector CO\(_2\) emissions range from zero to negative 20 million tons in 2050, depending on the eligibility and level of deployment of negative emissions technologies such as biomass energy with carbon capture and storage, as assumed in the Broad policy context.
  - Where negative emissions technologies are not available, hydrogen technologies are adopted, resulting in a more costly decarbonization transition.
  - Peak loads range from 12.5 to 17.7 GW (winter peaking season) in 2035 and from 11.9 to 23.0 GW in 2050, depending on uncertain decarbonization conditions, which drive the level of electrical end-use technology adoption.
  - Renewables such as wind and solar play a substantial role in electricity generation in all scenarios ranging from one-third to over 80% of generation in 2050, particularly in the scenarios in which wind adoption is not restricted by consumer opposition to local installation.

• Electricity demand varies substantially across scenarios and implies different challenges and risks for the electric grid. Total electricity demand varies from 57 terawatt-hours (TWh) in the Narrow/High scenario up to 96 TWh in the Broad/Low scenario, compared to about 70 TWh in 2020. Decreases in demand are driven by efficiency improvements to electric end-use technologies, which is anticipated to offset demand growth. At the same time, widespread electrification increases demand:

  **Broad/Low Scenario**
  Strong growth of electricity demand through 2050, led by electric vehicle adoption (100% of sales and 98% of stock) and heat pump adoption (two-thirds of building floor space), driven by favorable policy, market, and technology conditions.

  **Broad/High Scenario**
  High anticipated costs and less consumer preference for electric vehicles and air source heat pumps (about one-third of floor space) results in lower demand; however, a sales mandate for electric vehicles starting in 2040 props up electric vehicle sales despite less favorable economics (100% of sales and 76% of stock). The Broad policy results in a lower, but overall, increase in electricity demand through 2050.

  **Narrow/Low Scenario**
  Strong growth of electricity demand through 2050, led by favorable market conditions, led by the transportation sector (81% of sales and 78% of stock), and supported by heat pumps (more than one-third of floor space) and industry sectors. The benefits of competitive end-use electric technologies are realized early, and adoption slows toward mid-century due in large part to rising electricity prices.

  **Narrow/High Scenario**
  High technology costs and lower consumer preference result in slow adoption of electric end-use technologies, which is not enough to offset the decrease to total demand from improved efficiency. Electricity demand decreases through 2050 without favorable policy and market factors, with limited electric vehicle (20% of sales and 16% of stock) and heat pump adoption (less than one-seventh of floor space).

This study, conducted in partnership with EPRI, allows us to better evaluate risks associated with our regional energy future, such that we can continue to use a forward-thinking business strategy to ensure we remain adaptable to market changes.
Informed by analysis and ongoing work, we continue to manage a range of risks and opportunities, including transition risks and physical risks to our electric and natural gas infrastructure.
Risks and opportunities

Our 2021 climate report included significant consideration and analysis of the risks and opportunities associated with climate change and the implications for our different business segments.

Working with EPRI, we conducted extensive analyses of long-term GHG reduction pathways for the U.S. electric sector and other parts of the economy (e.g., transportation and buildings). Similarly, working with ERM, we conducted analysis of GHG reduction scenarios for our natural gas utilities, which highlights transition risks associated with our gas utility business model.

Our approach to these risks and opportunities has the potential for impacts across our business. In addition to possible changes in revenue, positive or negative, from evolving customer demand and preferences, our capital investments will affect our balance sheet. We take a strategic approach to risk management to ensure that our choices are sustainable from both environmental and financial perspectives.

Transition risks

TCFD transition risks are those associated with transitioning to a low-carbon economy due to climate change, and have the potential to pose both financial and reputational risks to the organization. Transition risks may include those associated with policy and litigation, technology, reputation, or the market, all of which are described further below:

- **Policy and legal risk** — Includes the policy surrounding the curtailing of, or adaption to, climate change and litigation tied to the failure to comply with such policy.
- **Technology risk** — Includes the changes in technologies that will support the transition to a low-carbon economy.
- **Market risk** — Includes the variability in the energy market as the world adjusts to climate change.
- **Reputation risk** — Includes the perception of the company’s actions to mitigate climate change by the greater population.

Identifying markers that indicate what potential futures may be unfolding are important to understanding how to adapt our plans to reach net-zero emissions. The following table summarizes the key climate-change risks that we continue to factor into our long-term business planning and regulatory discussions. The table also includes both potential impacts of these risks and highlights of actions we are taking as part of our strategy to manage these risks. We will continue to track market, technology and policy developments to help inform our future business plans.
<table>
<thead>
<tr>
<th>Climate-related transition risks</th>
<th>Risk</th>
<th>Potential impact</th>
<th>Strategic outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and Legal</td>
<td>End-use electrification mandates</td>
<td>Reduction in natural gas demand and revenue</td>
<td>Our goal of net-zero emissions from electric generation by 2050 addresses stakeholder interest in reducing GHG emissions through decarbonization initiatives, particularly in the energy and power sectors. Decarbonization initiatives will include retiring more carbon-intensive fuel source technologies and expanding renewable energy technologies, while remaining a reliable source of energy for the communities we serve.</td>
</tr>
<tr>
<td></td>
<td>Economy-wide carbon policy</td>
<td>Increase in electrical demand and increased investment costs for existing electrical system</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More stringent GHG emission regulations</td>
<td>Increased costs associated with emissions (e.g., carbon tax, cap-and-trade programs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adoption of regulations that would limit natural gas production</td>
<td>Increased costs associated with permitting and siting of new technologies, delayed installation and start-up timelines</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>Deployment of less carbon-intensive technologies (e.g., hydrogen, biomass energy with carbon capture and storage)</td>
<td>Decreased demand and revenue for natural gas due to adoption of electrical end-use technologies</td>
<td>We plan to invest $3.5 billion in regulated renewables from 2022-2026 to aid in our decarbonization efforts. This generation mix will include 2,400 MW of solar, wind, and battery storage. To serve our natural gas customers, we expect to have RNG flowing into our distribution network by the end of 2022. We plan to eliminate coal as an energy source by the end of 2035. By the end of 2030, we expect to use coal only as a backup fuel source. Removing carbon-intensive technologies from our portfolio will assist us in meeting our net-zero goal. We also participate in research initiatives, including a current hydrogen power pilot, to ensure we are prepared for evolving technology developments.</td>
</tr>
<tr>
<td></td>
<td>Retirement of existing equipment</td>
<td>Increased costs associated with the deployment of new technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greater reliance on electric end-use technologies and renewable energy sources</td>
<td>Financial investments in older, carbon intensive technologies not fully realized New demands on the existing electrical system, leading to reliability issues and additional monetary investments</td>
<td></td>
</tr>
<tr>
<td>Markets</td>
<td>Customer adoption of electric vehicles and/or heat pumps</td>
<td>Consumer adoption of heat pumps and electric vehicles reduces demand for natural gas and places more demand on electric system Increase in investment costs to expand the existing electric system to meet new peaks Reduced availability of critical resources and workforce leading to reduced production</td>
<td>We plan to invest $8.4 billion dollars to go towards both electric grid and fleet modernization and reliability initiatives. Building upon the existing electric grid, we will be able to withstand the increase in electric demand caused by consumer adoption of electric vehicles, heat pumps, and other electrical end-use technologies.</td>
</tr>
<tr>
<td></td>
<td>Variability of demand for both natural gas and electric capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uncertain supply chain and labor market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reputation</td>
<td>Shifts in consumer preferences</td>
<td>Consumer shift from fossil fuels to renewable energy sources reduces demand for natural gas services More opposition to expansion of natural gas services leads to stalled growth and reduced revenue Less investor support could lead to reduced financial backing and stock price</td>
<td>Planned retirement of coal plants and investment in renewable technologies will allow existing customers to continue to support us through our decarbonization initiatives, while also attracting new customers and investors who value ESG performance. Investments in the existing electric grid will allow us to be responsive and resilient through consumer adoption of electric vehicles and heat pumps.</td>
</tr>
<tr>
<td></td>
<td>Negative stakeholder and community feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of investor focus on ESG improvement metrics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Risk management

Our long-term vision and strategy require disciplined processes for gathering and assessing timely and relevant information on a macro level, which in turn provides crucial perspectives used to carry out daily decision-making. This approach keeps us focused on a solid path to achieving long-term sustainability.

Senior management has primary responsibility for managing risk, including the assessment of risks and opportunities associated with climate change. They address this responsibility using a multifaceted approach that seeks out and captures input from internal resources as well as from leading industry experts and stakeholders.

The company’s vice president — environmental, in collaboration with members of her team, takes the lead in analyzing the climate-related impacts of our strategies and related tactics. The Environmental team, in primary partnership with the WEC Infrastructure and Fuels team, engages with other functional areas of the company to identify cost-effective options for reducing GHG emissions. Our Climate Risk Committee, which is facilitated by the vice president — environmental and brings together senior-level officers responsible for overall corporate strategy, meets at least quarterly to discuss goals and initiatives that involve climate-related risks and opportunities.

Working with external organizations and our internal staff, our management team anticipates and prepares for policy developments at various levels. Leadership further engages with policymakers and other stakeholders to improve transparency and results. These efforts help us identify opportunities for research, development, demonstration, investment and piloting, whether alone or in collaboration with others in our industry.

We actively participate in industry organizations, including EEI and AGA, that are engaged in the legislative and regulatory processes involving climate change and other environmental matters. To inform company planning, risk management and operations, we partner on scientific and technical work with organizations including EPRI and GTI. Collaborations between groups, such as EEI and AGA’s voluntary reporting initiative and the LGRI effort described in our strategy section, provide further opportunities to advance energy technology and business practices.

Additionally, we are involved with state organizations for the areas we serve, including Michigan Manufacturers Association, Illinois Environmental Regulatory Group, Wisconsin Manufacturers & Commerce, and Wisconsin Utilities Association. Our companies conduct direct lobbying in support of our corporate initiatives and targets, consistent with the goals of the Paris climate agreement.

In October 2019, we were invited to join the State of Wisconsin Governor’s Task Force on Climate Change, which brought together representatives from a range of local industries and communities to address GHG emissions.

These various activities serve as critical inputs to our enterprise-wide approach to identifying and managing risk. As a standing corporate practice, each year, the company’s risk areas are systematically evaluated. Our Audit Services department conducts an annual enterprise risk assessment, whereby business leaders identify existing, new or emerging issues or changes within their business areas that could have enterprise implications. Risk areas are then mapped to create a cumulative assessment of their significance and likelihood, taking into consideration industry benchmarking information, as appropriate. The mapping also identifies lines of responsibility for managing the risks to ensure accountability and focus. Climate change and its implications are included in this assessment.

Our Enterprise Risk Steering Committee (ERSC), which is chaired by the CEO and consists of senior-level management employees, regularly reviews the company’s key risk areas and provides input into the development and implementation of effective compliance and risk management practices. On a bimonthly basis, the ERSC discusses findings of Audit Services’ annual enterprise risk assessment, holds in-depth discussions with members of management on identified subjects, and tracks progress and status thereafter. Updates from these meetings are shared with the board, as described in the governance section of this report.

Transition risk management

Policy and legal

Decarbonization policies are an evolving topic in today’s economy. Our Regulatory, Environmental and Government Affairs teams are diligent in monitoring current and developing policies associated with GHG emissions and energy operations, both regionally and federally.

Our goal will always be to provide affordable, reliable and clean energy to our customers, and we will continue to make that our priority as we decide how best to expand our services going forward to include low-emissions technologies. We will continue to remain vigilant to our risk environment to ensure our business decisions are both informed and best practice.

We have processes in place across the organization to identify and respond to developments in key areas.
Technology
We are actively monitoring the renewable energy technology market and are taking action to install less emission-producing technologies as they become commercially available and more cost-effective for our business. We have committed to upgrading our existing infrastructure, implementing renewable technologies, and retiring older, less efficient fossil fuel-powered technologies, while continuing to look for further opportunities to reduce our GHG emissions as technology efficiency increases. We will continue to monitor the feasibility of incorporating best-in-class emissions-capturing technologies, such as biomass energy carbon capture and storage, in addition to incorporating hydrogen fuels into the fuel mix that can use existing infrastructure.

In planning for future customer demand, we consider social aspects such as consumer shifts in energy source preference and increasing investor focus on sustainability topics. We also take into account available technology, increased efficiency, estimated fuel costs, planned asset retirements, renewable energy deployment, and estimated capacity mix.

Market
We continue to adapt to the changing market and seek opportunities to expand our services to include more low-emissions technologies such as wind, solar and battery storage. We plan to install $3.5 billion in regulated renewable technologies from 2022-2026 in addition to separate funds dedicated to strengthening the electric grid to support these energy sources.

Our strategic business planning includes customer retention and growth forecasting year-over-year based on past performance and in anticipation of increasing customer interest in ESG initiatives. End-use energy sources are dictated largely by potential regulatory developments, such as low-carbon policies and GHG emissions caps, and consumer preferences, such as adoption of electric vehicles. We are targeting net-zero emissions from our electric generation by 2050 to remain a leader in our sector and to uphold environmental responsibility.

We will continue to evaluate supply and demand of commercially available energy sources and incorporate them into our evolving GHG emissions reduction strategy to remain agile and resilient in the market during the transition to a low-carbon economy.

Reputation
To address the risk of changing public perception, we engage with stakeholders on sustainability-related topics in a number of ways. In 2020, in partnership with EPRI, we completed an in-depth assessment to identify the sustainability issues that are most important to our company and our stakeholders, both internal and external. We are using the results of this project to develop strategies and drive changes to meet and exceed stakeholder expectations.

We routinely publicize our climate strategy and progress through corporate reports, and respond to data verification and survey requests from third-party organizations.

In addition, we have a comprehensive outreach and engagement program in place to ensure management and the board hear, understand and consider issues that matter most to our stockholders. During 2021, we proactively communicated with stockholders representing more than 30% of the company’s outstanding common stock about our environmental, social and governance practices.

Physical and climatic risks
Acute and chronic physical risks
We conducted numerous interviews with internal subject matter experts (engineers, operations experts, directors and managers, among others) from business units across all 11 of our businesses to identify and understand the most relevant current and future physical climate-related risks to WEC Energy Group.

In terms of the physical risks of climate change, our company benefits from its location within the interior of the country. The U.S. Climate Resilience Toolkit provides state-by-state information on climate risks. The regional assessment for Wisconsin identified extreme heat, drought and some level of inland flooding as its main climate hazards. The region is not subject to the threat of coastal flooding or hurricanes.

We recognize that certain types of weather events have had impacts on our business and may have become more frequent in recent years. These hazards include acute event-driven physical risks (e.g., severe weather events) and chronic, longer-term physical risks (e.g., shifts in climate patterns and sustained higher temperatures). Both have the potential to lead to disruptions to daily operations and supply chains, cause direct damages to assets, and adversely affect employee safety, in turn causing substantial financial losses due to maintenance costs, unanticipated capital expenditures, or a reduction of revenue. The hazards identified through internal interviews are described on the following page and summarized in the table on the following page.
# Physical Climate Risks and Impacts

<table>
<thead>
<tr>
<th>Climate parameters</th>
<th>Assets/areas impacted</th>
<th>Physical impact</th>
<th>Operational impact</th>
<th>Potential risk mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thunderstorm and derecho events</td>
<td>Electric distribution lines</td>
<td>Damage to distribution lines, particularly when storms occur on multiple consecutive days</td>
<td>Outages, storm-related damage costs, decrease in customer experience</td>
<td>Burying distribution lines — 40% of lines are currently buried, with more planned for the future</td>
</tr>
<tr>
<td>Extreme rainfall flooding</td>
<td>Municipal stormwater backup</td>
<td>Damages to electric generation operations</td>
<td>Customer interruptions, maintenance costs, reduction in revenue</td>
<td>Continue system hardening efforts and purchase of flood response equipment</td>
</tr>
<tr>
<td></td>
<td>Hydropower facilities</td>
<td>Flooding can threaten integrity of dams</td>
<td>Loss of generation capacity and damage to turbine</td>
<td>Improve facility design to handle higher overflow of water</td>
</tr>
<tr>
<td>Increasing winter temperatures</td>
<td>Electric and natural gas operation</td>
<td>Decrease in customer demand with warmer winter temperatures</td>
<td>Lower revenues and net income</td>
<td>Anticipate changes in future demand and ensure the system has adequate margin to handle the changes</td>
</tr>
<tr>
<td>Extreme heat</td>
<td>Hydropower facilities</td>
<td>Increase in temperature of water used for cooling purposes</td>
<td>Decreases in operating efficiency, reduced energy generation output</td>
<td>Monitor water temperature and adjust pumping uptake rate</td>
</tr>
<tr>
<td></td>
<td>Fossil-fueled generation</td>
<td>Increase in temperature of air and water used for cooling purposes</td>
<td>Lower revenues and net income</td>
<td>Evaluate additional heat exchanger capacity and additional generating capacity</td>
</tr>
<tr>
<td></td>
<td>Electric transmission equipment</td>
<td>Increased load beyond rating assumptions for electrical equipment</td>
<td>Load shedding and temporary interruption of electricity to customers</td>
<td>Use scenario analysis to project future range of extreme temperatures; determine any needed changes in rating assumptions; add distribution system capacity transformers and wires to carry peak load</td>
</tr>
<tr>
<td>Extreme cold (polar vortex)</td>
<td>Supply chain</td>
<td>Disruption in natural gas supply chain</td>
<td>Increased costs for procurement of natural gas</td>
<td>Draw upon a diverse portfolio of fuel procurement contracts with multiple suppliers, sufficient natural gas storage capacity</td>
</tr>
<tr>
<td></td>
<td>Natural gas supply</td>
<td>Peak customer demand</td>
<td>Service interruption, increased costs for procurement of natural gas</td>
<td>Establish LNG and propane facilities within the distribution system to ensure a reliable supply of natural gas, sufficient natural gas storage capacity</td>
</tr>
<tr>
<td>Ice events</td>
<td>Gas pipes</td>
<td>Risk of damage to exposed pipes (e.g., under a bridge crossing)</td>
<td>Service shutoff due to exposed gas pipes leading to health and safety risk to residents, reputational risk, and increased capital expenditures to fix damaged pipes</td>
<td>Annual safety inspections and monitoring systems during ice events</td>
</tr>
<tr>
<td></td>
<td>Electric distribution lines</td>
<td>Ice accumulation (from increased winter rain/ decreased snow) can place an extra weighted burden on nearby vegetation and trees, leading them to collapse onto distribution lines</td>
<td>Outages, storm-related costs, health and safety risk to residents</td>
<td>Burying distribution lines — 40% of lines are currently buried, with more planned for the future</td>
</tr>
<tr>
<td>Water stress</td>
<td>Hydropower facilities</td>
<td>Reduced lake levels during drought periods</td>
<td>Disruption of electric generation</td>
<td>Monitor water levels and adjust pumping uptake rate</td>
</tr>
</tbody>
</table>
Thunderstorms, derechos and tornadoes

Thunderstorms and derecho events were described by subject matter experts as having the biggest impact on assets and operations for electric distribution. While these storms have always existed in our service territories, in recent years (2020 and 2021), the impact of these events appears to have increased. Thunderstorms that pass within a few hours tend to be easier to recover from. However, subsequent high-wind events on consecutive days can result in widespread damage to distribution lines. Repairs following these types of events cannot commence until weather and safe working conditions permit. In light of these issues, we have recently completed a storm preparedness assessment to review mitigation plans for electric distribution.

Electric generation wind turbines turn off when wind speeds reach levels that can result in damage, but turbines are not designed to withstand tornadoes. Increased frequency of high-wind events and/or increased intensity of those events may pose additional risk to our operating and capital expenditures due to more frequent temporary turbine inactivity or direct damages to the turbines. Solar farms are susceptible to damage from high winds and significant hail events.

Flooding

Large storm events can cause flooding from storm sewers or nearby waterways. Flooding events in the past have caused material damage to our electric distribution substation and line components, resulting in temporary interruptions to customers. In addition, sewer system backups can also cause accessibility issues and health and safety risk to personnel working in those floodwaters, resulting in delayed repairs.

Extreme heat

Long durations of extreme heat may represent the biggest future impacts for the electric distribution system. While extreme heat events have not caused major interruptions in the past, they could present problems if the WEC Energy Group service areas experience prolonged periods of extreme heat in the future. Prolonged periods of extreme heat and peak electric demand may cause electric distribution equipment to overload and fail, which could lead to potential widespread outages, public appeals for reduced electricity consumption, or possible load-shedding actions.

Extreme cold

The polar vortex event in 2021 caused disruptions in the natural gas supply chain, leading to an increase in gas cost for some of our companies. Events such as these can also lead to load-shed activities for electric distribution, since power plants rely on natural gas. Extreme cold events raise demand for energy and cause peak events, especially when events persist for days. Our natural gas peaking facilities have successfully met demand in the past, even when temperatures have dropped as low as minus 42 degrees Fahrenheit.

Ice

While it does not often occur, heavy icing could affect our electric distribution infrastructure, and restoration can be slow since icing is a prolonged event. Ice can also be a hazard for natural gas distribution where pipelines are exposed (e.g., under a bridge crossing), resulting in service shutoff to affected areas.

Our review reflects the changing environmental conditions that impact our operations today and for which we regularly plan. Business units across WEC Energy Group are currently managing these environmental risks and opportunities, while also planning to manage future changes. Our efforts to harden and build resilience into the system are essential, with asset replacement and renewal plans underway.

Plans exist for rebuilding existing overhead facilities and underground equipment to meet current design standards for better physical resilience. Several multimillion-dollar projects to upgrade the electric distribution system are underway across our companies. These projects will replace thousands of poles and transformers and bury distribution lines to maintain reliable service during severe weather events. Plans incorporate historical performance, susceptibility to weather and outages, and include a total-owning cost analysis that considers future maintenance costs. Our involvement in EPRI’s READi will continue to further inform our company and the power industry about the planning, design and operation of resilient energy systems.
Gap analysis

In preparation for conducting a TCFD-aligned climate physical risk scenario analysis, we performed a physical risk readiness and gap assessment to identify information availability and preparedness for conducting such an analysis. As part of this assessment, we consulted with internal experts across WEC Energy Group subsidiaries. Our analysis showed that overall, we are well prepared to undertake a TCFD-aligned physical climate risk assessment. In particular, our company benefits from:

1. Existing governance structures. These include an Enterprise Risk Steering Committee to monitor and address climate-related issues that may impact our business and a Climate Risk Committee that includes senior leaders responsible for aspects of overall corporate strategy.

2. Clearly defined processes for identifying inherent climate-related risks with the potential to have a significant financial or strategic impact.

3. Expert knowledge of key infrastructure components that may be susceptible to a hazard that could be included in a physical risk assessment.

4. Understanding of engineering controls and thresholds from past events.

We are determined to address any existing process gaps in preparation for a more in-depth, quantitative risk assessment and scenario analysis. While company knowledge exists regarding the impact of historical weather events, a system of record keeping that directly links past weather events to business impacts (e.g., asset damages or service interruptions) would aid in assessing future financial impacts of climate hazards on infrastructure and operations. This record-keeping system would also benefit from designating specific individuals within each business to report material risks from weather events to company leadership.

We are setting the groundwork to conduct a full TCFD-aligned physical risk assessment, which will include scenario analysis using future climate projections under a range of plausible future states for short-, medium- and long-term time frames. We are prepared to build into that assessment a review of known vulnerabilities to climate-related risks in our business and across our supply chains. In addition, with eight different utilities as part of the company, creating systems for more efficient communication would enable us to more effectively review climate risks and opportunities, respond to those risks holistically, and plan for adaptation and mitigation measures.

Summary

As an energy company that provides critical services to an expansive customer base, WEC Energy Group faces a variety of physical risks from a changing climate. We recognize that action and planning are essential today so that we can sufficiently build resilience and mitigate future risks.

Our approach identifies and helps us better understand our key physical risks using scientific data, as well as the expertise of our own in-house team and risk assessment specialists. Thus far, we have reviewed our preparedness to perform a scenario analysis and are working to compile the necessary information to conduct a full quantitative assessment. Our initiative is to take inventory and prioritize assets across the business that are vulnerable to different climate threats. The information gained from our physical risk assessment will position us to adapt our company’s response plan and guide long-term decision making.
Transition and physical opportunities

TCFD climate-related opportunities are those business opportunities that arise from adapting or mitigating the effects of climate change. Examples include building business resilience in an uncertain market by implementing forward-thinking climate initiatives such as less carbon-intensive technologies. Climate-related opportunities may generally arise in one of five areas: resource efficiency, energy source, products and services, markets, and resilience, all of which are described further below:

Resource efficiency — By increasing efficiency surrounding the use of resources throughout production, distribution and general operation, businesses have an opportunity to reduce emissions and curtail excess costs associated with both energy and raw material usage and waste management.

Energy source — By adopting low-emission power sources such as renewable energy technologies, with costs quickly decreasing and technology constantly improving and expanding, businesses have the opportunity to save on annual energy costs.

Products and services — By emphasizing the carbon footprint and emissions reduction initiatives in marketing a product or service, businesses are able to capture buyer attention and grow their customer base due to the shift in consumer priorities.

Markets — By diversifying assets and expanding services to additional markets via existing funding for low-carbon initiatives, businesses are able to build resilience in the transition to a low-carbon economy.

Resilience — By preparing to respond to both transition and physical risks associated with the low carbon economy transition, including improving efficiency or developing new production processes, businesses may find themselves in a better position to adapt to the changing market.

The following table summarizes the key climate-related opportunities that we will continue to harness to ensure the success of the business, both long-term and through the low-carbon economy transition. We will continue to seek out further climate-related opportunities to assist in maintaining the prevalence of our business in the market.

<table>
<thead>
<tr>
<th>TCFD Category</th>
<th>Climate-related opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Efficiency</td>
<td>We are modernizing the existing electric grid and associated equipment to minimize emissions and continue to provide reliable energy to our customers.</td>
</tr>
<tr>
<td>Energy Source</td>
<td>We plan to continue installing low-emission renewable energy technologies and retiring carbon intensive technologies, such as our coal powered assets. To accommodate hydrogen in gas systems, essential upgrades to the gas pipelines and other infrastructure would become necessary. Businesses may have the opportunity to leverage their existing infrastructure and equipment to support a new hydrogen-based energy system.</td>
</tr>
<tr>
<td>Products and Services</td>
<td>We will continue to explore additional low emission technologies such as biomass energy, carbon capture and storage, and hydrogen fuel sources.</td>
</tr>
<tr>
<td>Markets</td>
<td>By expanding our existing assets to include more low-emission energy technologies, we will continue to attract sustainability-focused investors and customers.</td>
</tr>
<tr>
<td>Resilience</td>
<td>We will monitor the market to ensure that our energy assets and technology efficiency are indicative of the best in class so that we can remain agile in the changing market.</td>
</tr>
</tbody>
</table>
Metrics and Targets

We annually disclose climate-related matters via our Corporate Responsibility Report, responses to surveys including CDP Climate and Water, and our Securities and Exchange Commission (SEC) filings and investor updates. Along with disclosures, we effectively track and manage our emissions.
Climate-related disclosures

Our disclosure is guided by industry standards, such as recommendations from TCFD, as well as internal risk and priority sustainability issue assessments. We also are participating in initiatives led by EEI and AGA to promote consistency and transparency in sustainability reporting across the energy utility sector.

A list of climate-related disclosures can be found on the Corporate Responsibility section of our website: [www.wecenergygroup.com/csr](http://www.wecenergygroup.com/csr).

We also publish updates on our capital investments in monthly investor presentations: [https://investor.wecenergygroup.com/investors/presentations](https://investor.wecenergygroup.com/investors/presentations).

In March 2022, the SEC proposed rules that would require publicly traded companies in the United States to undertake additional climate-related disclosures. The rule would require businesses to disclose their climate-related risks and their material impacts on their business and strategy, the registrant’s governance of climate-related risks and risk management processes, the registrant's GHG emissions, and certain climate-related financial statement metrics and related disclosures. Information related to climate-related targets and transition planning would also be requested. The TCFD and the Greenhouse Gas Protocol, however, are the current recommended frameworks for disclosure. We continue actively to monitor progress on and plan for implications of the SEC’s rule-making process.

Metrics

To provide thorough information on our environmental performance and progress, we disclose multiple sources of GHG emissions.

Our Scope 1 GHG emissions represents the following direct emissions from owned or controlled sources:

- Stationary combustion (boilers and turbines used in the production of electricity, heat or steam).
- Methane from natural gas distribution pipes, and emissions from combustion at gas storage facilities.
- Vehicle fleet emissions.

Our Scope 2 GHG emissions represent indirect emissions from the consumption of purchased energy, specifically estimated emissions associated with our distribution lines' consumption of electricity purchased but not delivered.

Per the Greenhouse Gas Protocol, Scope 3 emissions are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. They are indirect emissions not included in Scope 2, including upstream and downstream emissions. Currently quantified categories of emissions are:

- Estimated emissions from delivered purchased power.
- Downstream emissions from our customers' use of natural gas.
- Upstream emissions from coal transportation.
- Business travel.

We are working with ERM as they are supporting the development of a comprehensive scope 3 emission reduction strategy for us by inventorying our Scope 3 emissions, developing a decarbonization opportunity plan, assessing business model and customer impacts of potential targets, and providing a decarbonization plan. Currently, ERM is establishing our Scope 3 inventory using data provided by key internal stakeholders. In the next phases of the project, ERM will be engaging our leadership for input on target-setting activities, leveraging analytics produced in preceding tasks. ERM expects to provide the company the final decarbonization reports prior to the end of the year.

GHG emissions (metric tons CO₂e)

<table>
<thead>
<tr>
<th>Scope 1</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity generation</td>
<td>21,262,000</td>
<td>19,470,000</td>
<td>21,245,000</td>
</tr>
<tr>
<td>Methane: gas distribution/storage</td>
<td>425,000</td>
<td>402,000</td>
<td>397,000</td>
</tr>
<tr>
<td>Vehicle fleet</td>
<td>Not reported</td>
<td></td>
<td>34,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 2</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Line losses: purchased power</td>
<td>110,000</td>
<td>74,000</td>
<td>82,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 3 (estimated)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased power delivered</td>
<td>3,886,000</td>
<td>2,766,000</td>
<td>3,260,000</td>
</tr>
<tr>
<td>Customer use of natural gas</td>
<td>29,051,000</td>
<td>26,632,000</td>
<td>25,562,000</td>
</tr>
<tr>
<td>Upstream emissions for coal transportation</td>
<td>232,000</td>
<td>201,000</td>
<td>214,000</td>
</tr>
<tr>
<td>Business travel</td>
<td>2,900</td>
<td>1,300</td>
<td>1,200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Biogenic emissions</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity generation: biogenic CO₂</td>
<td>380,000</td>
<td>295,000</td>
<td>387,000</td>
</tr>
</tbody>
</table>
Apart from tracking emissions performance and trends, we also track other key metrics that are directly aligned with risks and opportunities. We consistently monitor the amount and extent of assets or business activities vulnerable to transition and physical risks as described above. Our ESG Progress Plan continues to guide our decarbonization strategy as we move towards a clean energy future by planning to spend $17.7 billion to efficiency, sustainability and growth projects. We use a shadow price of $20 per metric ton of CO₂ in internal analyses of power generation projects in sensitivity scenarios.

**Independent verification**

In 2021, we engaged Trinity Consultants to provide an independent, third-party limited assurance verification of WEC Energy Group’s GHG emissions inventory for years 2005, 2011, 2015 and 2020. Trinity determined that the data were “fairly presented, in all material respects, in a manner consistent with the designated reporting criteria,” and that we had “implemented sufficient processes, systems and controls for the accurate collection and analysis of activity data used to determine the reported data.” The full assurance statement, including the specific data evaluated, is available on our website at [www.wecenergygroup.com/csr](http://www.wecenergygroup.com/csr). Our verification includes information from utilities that do not exceed the reporting threshold. In our above inventory, only our regulatory reporting utilities are included.

**Targets**

As outlined earlier in this report, WEC Energy Group is on the pathway to achieve net-zero carbon emissions from generation by 2050. In May 2021, we announced goals to achieve reductions in carbon emissions from our electric generation fleet attributed to our utility load by 60% by the end of 2025 and by 80% by the end of 2030, both from a 2005 baseline. We expect to achieve these goals by making operating refinements, retiring less efficient generating units, and executing our capital plan.

To meet the net-zero carbon emissions goal, we plan to eliminate coal as an energy source by 2035. By the end of 2030, we expect to use coal only as a backup fuel.

We are also leading a pilot program along with the Electric Power Research Institute (EPRI) to test hydrogen as a fuel source for power generation. It is one of the first hydrogen power pilot programs of its kind in the United States. This program will involve co-firing hydrogen with natural gas at one of our reciprocating internal combustion engines (RICE). This industry-leading effort could help create another viable option for decarbonizing the economy.

Additionally, we intend to support our electricity supply by more than doubling our renewable energy generation. This includes owned electric generation and announced WEC Infrastructure projects. We plan to invest $3.5 billion in regulated renewables from 2022 to 2026.

On the natural gas side, we announced a methane reduction goal of net-zero methane emissions from natural gas distribution by the end of 2030. This goal applies to emissions from WEC Energy Group natural gas distribution companies calculated in accordance with EPA’s 40 Code of Federal Regulations Part 98, Subpart W reporting rule. We achieved 16% of the reductions toward our goal by the end of 2021. In 2022, we received regulatory approval for an innovative RNG pilot program and signed our first three contracts for RNG for our natural gas distribution business, which will transport the output of local dairy farms into our gas distribution system. The RNG supplied will directly replace higher-emission methane from natural gas that would have entered our pipes. We expect these three contracts to bring us to 80% of the RNG needed to achieve our 2030 goal. We plan to have RNG flowing to our distribution network by the end of 2022.

As we work toward the above goals, we will continue to assess potential long-term GHG reduction pathways and uncertainties, considering the objectives set forth by the Paris climate agreement.
# Correlation to TCFD recommendations

The table below connects the TCFD climate disclosure recommendations to the sections where appropriate information can be located within this report.

<table>
<thead>
<tr>
<th>TCFD recommendation</th>
<th>Disclosure</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclose the organization’s governance around potential climate-related risks and opportunities.</td>
<td>(a) Describe the organization’s governance around potential climate-related risks and opportunities.</td>
<td>Page 8</td>
</tr>
<tr>
<td></td>
<td>(b) Describe management’s role in assessing and managing potential climate-related risks and opportunities.</td>
<td>Page 11</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s business, strategy and financial planning where such information is material.</td>
<td>(a) Describe the potential climate-related risks and opportunities the organization has identified over the short, medium and long terms.</td>
<td>Page 36</td>
</tr>
<tr>
<td></td>
<td>(b) Describe the impact of potential climate-related risks and opportunities on the organization’s businesses, strategy and financial planning.</td>
<td>Page 12</td>
</tr>
<tr>
<td></td>
<td>(c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</td>
<td>Page 29</td>
</tr>
<tr>
<td><strong>Risk management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclose how the organization identifies, assesses and manages potential climate-related risks.</td>
<td>(a) Describe the organization’s processes for identifying and assessing potential climate-related risks.</td>
<td>Pages 39-40</td>
</tr>
<tr>
<td></td>
<td>(b) Describe the organization’s processes for managing potential climate-related risks.</td>
<td>Pages 38, 41</td>
</tr>
<tr>
<td></td>
<td>(c) Describe how processes for identifying, assessing, and managing potential climate-related risks are integrated into the organization’s overall risk management.</td>
<td>Page 39</td>
</tr>
<tr>
<td><strong>Metrics and targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclose the metrics and targets used to assess and manage potential climate-related risks and opportunities where such information is material.</td>
<td>(a) Disclose the metrics used by the organization to assess potential climate-related risks and opportunities in line with its strategy and risk management process.</td>
<td>Page 45</td>
</tr>
<tr>
<td></td>
<td>(b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions estimates and the potential related risks.</td>
<td>Page 46</td>
</tr>
<tr>
<td></td>
<td>(c) Describe the targets used by the organization to manage potential climate-related risks and opportunities and performance against targets.</td>
<td>Page 47</td>
</tr>
</tbody>
</table>
Cautionary statement regarding forward-looking information

Certain statements contained in this report are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements are based upon management's current expectations and are subject to risks and uncertainties that could cause our actual results to differ materially from those contemplated in the statements. Readers are cautioned not to place undue reliance on these statements. Forward-looking statements include, among other things, statements concerning future GHG emissions, environmental regulations, capital plans and expenditures, investment opportunities, corporate initiatives, purchases of renewable energy and battery storage, renewable energy programs, electric generating unit retirements, demand-side management and energy efficiency programs, and sources and costs of fuel. In some cases, forward-looking statements may be identified by reference to a future period or periods or by the use of forward-looking terminology such as "anticipates," "believes," "estimates," "expects," "forecasts," "guidance," "intends," "may," "objectives," "plans," "possible," "potential," "projects," "should," "targets," "will," or similar terms or variations of these terms.

Factors that could cause actual results to differ materially from those contemplated in any forward-looking statements include, but are not limited to: general economic conditions, including business and competitive conditions in the company’s service territories; timing, resolution and impact of rate cases and other regulatory decisions; the company's ability to continue to successfully integrate the operations of its subsidiaries; availability of the company's generating facilities and/or distribution systems; unanticipated changes in fuel and purchased power costs; key personnel changes; varying, adverse or unusually severe weather conditions; continued industry restructuring and consolidation; continued advances in, and adoption of, new technologies that produce power or reduce power consumption, and related legislation and regulation supporting the use of that technology; energy and environmental conservation efforts; the company's ability to successfully acquire and/or dispose of assets and projects and to execute on its capital plan; cybersecurity threats and data security breaches; construction risks; equity and bond market fluctuations; changes in the company’s and its subsidiaries’ ability to access the capital markets; changes in tax legislation or our ability to use certain tax benefits and carryforwards; the impact of legislative and regulatory changes relating to the environment, including climate change, and other environmental regulations impacting generation facilities and renewable energy standards, the enforcement of these laws and regulations, changes in the interpretation of regulations or permit conditions by regulatory agencies, and the recovery of associated remediation and compliance costs; supply chain disruptions; inflation; political or geopolitical developments, including impacts on the global economy, supply chain and fuel prices, generally, from the current conflict between Russia and Ukraine; the impact from new developments relating to the COVID-19 pandemic or any future health pandemics; current and future litigation and regulatory investigations, proceedings or inquiries; changes in accounting standards; the financial performance of the American Transmission Co. as well as projects in which the company's energy infrastructure business invests; the ability of the company to obtain additional generating capacity at competitive prices; goodwill and its possible impairment; and other factors described under the heading "Factors Affecting Results, Liquidity and Capital Resources" in Management’s Discussion and Analysis of Financial Condition and Results of Operations and under the headings "Cautionary Statement Regarding Forward-Looking Information" and "Risk Factors" contained in the company's Form 10-K for the year ended Dec. 31, 2021, and in subsequent reports filed with the Securities and Exchange Commission. Except as may be required by law, the company expressly disclaims any obligation to publicly update or revise any forward-looking information.

Third-party information

Third-party scenarios discussed in this report reflect the modeling assumptions of their respective authors, not WEC Energy Group, and their use or inclusion in this report is not an endorsement by the company of their likelihood or probability.
WEC Energy Group is committed to sustainable business practices. For more information about corporate responsibility, visit [www.wecenergygroup/csr](http://www.wecenergygroup/csr).