2022 Sustainability Executive Summary

Southern Company Gas
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About This Report

We are pleased to publish the 2022 Sustainability Executive Summary Report for Southern Company Gas, which builds upon our previous sustainability reporting efforts and highlights key progress and performance from January 1, 2022 to December 31, 2022, unless otherwise noted. We are committed to sharing our sustainability progress with the transparency we value and that our stakeholders expect. As part of this commitment, we reference the Sustainability Accounting Standards Board (SASB) Gas Utilities and Distributors Standard and other leading reporting frameworks. In this report, we mapped our key sustainability priorities to the United Nations’ Sustainable Development Goals, which serve as a blueprint for protecting the planet and reaching global peace and prosperity. UN SDG icons are included at the beginning of each relevant chapter to demonstrate our alignment with these goals.

We strive to provide an inclusive experience to all of our readers in our 2022 Sustainability Executive Summary Report. The improvements we have made are guided by the Web Content Accessibility Guidelines (WCAG) 2 Level AA, established by the W3C Organization. These changes enable the use of assistive technologies to access the content of this report. We have included such features as alternative text for non-text content, accommodations for various screen sizes and sufficient color contrast. These additions serve to increase the accessibility of our report for diverse users, demonstrating our commitment to improving our diversity, equity and inclusion practices.

If you have a suggestion or question about the accessibility of services at Southern Company Gas, please contact corpcomm@southernco.com.

ON THE COVER: At Southern Company Gas, we strive to be a catalyst for bold, modern, sustainable ideas that improve the quality of life and stimulate the economies of our communities. Key to our success are partners like Champions Place, a home where young adults with physical disabilities are empowered and equipped to thrive independently. An outdoor natural gas fire pit is the gathering spot most evenings for residents.
I am proud to present Southern Company Gas’ 2022 Sustainability Executive Summary, which demonstrates the dedicated work of our teams over the past year to protect the environment, deliver clean, safe, reliable and affordable energy to our customers, enrich the communities we serve and invest in low-carbon technology solutions of the future.

Stepping into my position as the Chief Executive Officer, Chairman and President of Southern Company Gas in March 2023, I feel immensely privileged and inspired to continue the valuable sustainability work my predecessor, Kim Greene, accomplished during her tenure. I am energized to further Southern Company Gas’ leadership in the sustainability space and continue embedding these principles into our everyday work.

Through this report, you will learn how natural gas and the infrastructure that transports it are foundational to a sustainable energy future. At Southern Company Gas, we set high expectations for ourselves and are taking concrete steps to achieve our goal of net-zero greenhouse gas emissions in our operations by 2050, in full support of Southern Company’s net-zero goal. Our efforts extend beyond our own operations, as we influence the entire natural gas value chain through our involvement with our suppliers and customers and in industry-wide initiatives to reduce emissions.

In 2022, we expanded our environmental leadership and drove change to reduce our environmental footprint. We also continued to build on decades of efforts to modernize our infrastructure and deploy new technologies that enable us to better detect and repair methane leaks. We pursued renewable gas opportunities and conducted industry-leading research and development projects that empower our consumers to think and act more sustainably. Our commitment to sustainability extends to our communities as we implement initiatives to fuel an equitable future and advance environmental stewardship through our corporate responsibility programs and employee volunteer efforts.

Southern Company Gas is not alone in our endeavors, and I would like to thank all our stakeholders who have helped us remain at the forefront of fueling a sustainable future of energy.

Sincerely,

James (Jim) Y. Kerr II
CEO, Chairman and President
Southern Company Gas
Our Business

At Southern Company Gas, we aim to provide clean, safe, reliable and affordable natural gas solutions to approximately 4.4 million customers through our regulated distribution companies in four states—Illinois, Georgia, Virginia and Tennessee—and proudly serve 622,000 retail customers through our companies that market natural gas. Maintaining a diversified portfolio of natural gas distribution, pipeline investments and gas marketing services optimizes our resiliency and enables us to provide consistent value to our stakeholders.

Our team of over 4,600 employees comprises operators, innovators, engineers, thinkers and doers who are driven by ingenuity and committed to safety. As a diverse and dedicated team, we work to fuel the future of energy.

Our customers are at the heart of our mission to deliver safe, reliable and sustainable energy for years to come. That mission is about more than our bottom line—we are committed to supporting and improving the communities and environment where we live and operate. By holding ourselves accountable and maintaining high service standards, we uphold our commitments to our customers and our communities.
Our Family of Companies

As members of the Southern Company family, we are part of something larger. Southern Company is a leading energy company serving nine million customers through its subsidiaries. Southern Company Gas is the natural gas arm of Southern Company, focused on overseeing natural gas delivery to residential, commercial and industrial customers. Our subsidiaries and joint ventures include:

1 In September 2022, affiliates of Southern Company Gas agreed to sell the natural gas storage facilities in California.

Sustainability at Southern Company Gas

Through our comprehensive sustainability strategy, we align our efforts to operationalize sustainability and work to responsibly manage our environmental and social impacts. Our Corporate Sustainability team spearheads sustainability strategy efforts, greenhouse gas emissions reduction initiatives, policy engagement and renewable gas initiatives. The team is overseen by the Vice President of Corporate Sustainability, who reports to the Executive Vice President of External Affairs and Chief External and Public Affairs Officer. This group collaborates with stakeholders across Southern Company Gas to drive and implement our sustainability initiatives.
Southern Company Gas is fueling a sustainable future by advancing our ambitious goal to reach net-zero direct GHG emissions from operations by 2050 in support of Southern Company’s goal to reach net-zero GHG emissions from enterprise-wide operations by the same year. Our commitment to sustainability supports this goal and goes even beyond to include:

- Working toward net-zero methane and other emissions from operations
- Delivering customer solutions
- Enriching communities
- Investing in innovation

**Our Vision of Sustainable Gas Delivery**

In 2021, Southern Company Gas partnered with EPRI to conduct a Sustainability Priorities Assessment, which helped us understand our stakeholder sustainability interests. Through this assessment, we engaged with internal and external stakeholders, including customers, non-governmental organizations, government representatives, suppliers and labor organizations, to identify 21 key sustainability priorities as well as key ESG opportunities and risks. These valuable insights inform our sustainability strategy, disclosures and stakeholder engagement.
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2022 Sustainability Performance Highlights

In 2022, Southern Company Gas contributed in many ways to the energy sector’s movement toward fueling a sustainable future. Our accomplishments reflect our work that will benefit our customers, communities and business.
Southern Company Gas

- Received an Environmental, Social & Governance (ESG) Award from the Southern Gas Association
- Sponsored GTI Energy’s Veritas effort to develop a standardized, science-based approach to measuring, calculating and reporting methane emissions
- Since 2011, avoided over one million metric tons of CO₂ emissions from the combined efforts of Southern Company Gas’ energy efficiency programs
- Collaborated with PGA TOUR, Georgia Power and PowerSecure to deliver the first ever net-zero energy PGA TOUR Championship
- Volunteered over 8,500 hours for community projects
- Planted more than 500 square feet of monarch butterfly pollinator gardens and distributed 5,000 seeds through our EverGreen volunteer events
- Avoided the release of approximately 21,000 MMBtu of natural gas through cross-compression technology

Nicor Gas

- Named a 2022 Utility Environmental Champion and a Utility Customer Champion by Escalent
- Awarded more than $50,000 in environmental stewardship grants to 11 organizations
- Announced a partnership with the Fox Valley and Northern Fox Valley Habitat for Humanity affiliates to develop Smart Neighborhood™ communities, comprised of 30 single-family, net-zero emissions homes

Atlanta Gas Light

- Supported the Drawdown Georgia Business Compact, launched by the Ray C. Anderson Center for Sustainable Business at the Georgia Tech Scheller College of Business, to leverage the collective influence of some of Georgia’s highest-profile companies to achieve net-zero carbon emissions in the state by 2050
- Continued the Piedmont Enhancement Project to replace natural gas mains and some service lines in the Buckhead area with newer, more advanced pipe
- Opened a compressed natural gas fueling station at the Port of Savannah with the Chesapeake Utilities Corporation

Chattanooga Gas

- In partnership with City Fields, a community development corporation, built 20 homes since 2018 and expected to build 10 more in 2023 as part of the Blythe Oldfield neighborhood revitalization effort
- Offered support—including no reconnection fees, appliance replacement grants and financial assistance—to residential customers affected by devastating tornadoes in Chattanooga
- Volunteered with the Tennessee River Gorge Trust to help clear trails and restore riverside areas at the Pot Point Nature Trail, for the 13th year in a row

Virginia Natural Gas

- Up to one-third of customers’ annual natural gas supply is from producers who voluntarily commit to lowering methane emissions[1]
- Received approval from the Virginia State Corporation Commission to launch a Sustainable Gas Program that includes an RNG Interconnect Pilot

SouthStar Energy Services

- Collected over 16,000 pounds of unwanted electronics for recycling and repurposing for Earth Day
- Partnered with the National Park Service to host the annual Chattahoochee River Cleanup Project, where volunteers helped clean a five-mile stretch of the river
- Offset over 160 million pounds of carbon dioxide equivalent (CO₂e) through the Greener Life® program[2]

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1 As of November 1, 2022.
2 Represents cumulative CO₂e offsets since the program launched in October 2019, as of year-end 2022.
Clean Energy

We are committed to fueling a sustainable future of energy.
Net-Zero Pathways

Southern Company Gas recognizes that climate change is one of the most pressing issues facing society today. We are fueling a sustainable future through our commitment to reducing GHG emissions from our own business and value chain. We believe natural gas and the infrastructure that transports it is foundational to a clean energy future.

Natural gas companies, including Southern Company Gas, have played a critical role in reducing emissions for decades. Since 1971, according to the American Gas Association, continued efficiency improvements in clean, affordable natural gas have reduced residential CO₂ emissions per customer by 47%. Looking forward, studies show that natural gas and natural gas infrastructure are essential for building pathways to achieve a sustainable, affordable energy future. According to the AGA, natural gas efficiency improvements, paired with emission reduction technologies and renewable gas, are critical to meeting an economy-wide 2050 net-zero target.

In 2022, we published a landmark study with a third-party consultant, ICF, which details pathways for our natural gas distribution companies to reach net-zero direct GHG emissions, including methane, while using our existing gas delivery systems. The study concluded that the use of natural gas and existing infrastructure are foundational to reaching a net-zero, clean energy future with the greatest consumer affordability.

Net-Zero Operations

Action paves the road to a sustainable future. For decades, Southern Company Gas has taken concrete steps to reduce our operational GHG emissions. Our efforts align with Southern Company’s goal to reduce direct Scope 1 GHG emissions enterprise-wide by 50% from 2007 levels by 2030 and to reach net-zero GHG emissions by 2050.

One near-term priority is minimizing methane emissions. Our efforts to reach net-zero operational emissions, including methane emissions, include:

Pipeline modernization and replacement: Across our entire service area, we are investing in improving and modernizing our system. These efforts reduce methane emissions, in addition to enhancing service safety, reliability and resiliency for our customers.

Advanced leak detection and repair: We continually monitor and conduct routine inspections and leak surveys of our system. We employ innovative leak detection technology to identify, quantify and ultimately reduce the emissions footprint of the natural gas we deliver while bringing additional operational and safety benefits to our customers and employees. We have significantly increased leak repairs across our footprint and reduced active leaks by over 75% since 2018.

Damage prevention: Third-party excavation damage is the number one risk to our distribution infrastructure. To reduce excavation damage risk, we deploy damage prevention processes with both internal and external partners. We engage in community outreach, education and awareness of 811—the national call-before-you-dig phone number—and utilize predictive analytics to reduce methane emissions and public safety concerns associated with third-party damages.

Reduction in blowdown emissions: We are implementing technologies and operational practices, such as cross-compression, to minimize gas release during blowdown procedures.

Fleet vehicles: We began implementing compressed natural gas vehicles for our fleet in the late 1970s. Today, we continue to expand our usage of CNG in our fleet and build CNG fueling stations to support external partners. We have operated 4,540 alternative vehicles to date, with 410 currently in service. Since 2010, we have more than doubled the number of active alternative vehicles in our fleet. Virginia Natural Gas leads the company with CNG fuel usage—and about 70% of its fleet is run with CNG—which produces up to 95% fewer emissions from common urban pollutants compared to gasoline and diesel-fueled vehicles and reduces GHG emissions by 20% to 30% compared to traditional fuels.

Renewable gas: We are pursuing opportunities and investing in projects to accelerate the adoption of renewable gas, commonly defined as any pipeline-compatible gaseous fuel derived from biogenic or other renewable energy resources. This includes investments in renewable natural gas and hydrogen, which will help to decrease the carbon intensity of our fuel even further.

See the Energy Reliability, Resiliency and Affordability section to learn more about our infrastructure modernization efforts and the Innovation and R&D section to learn more about our low-carbon technology solutions.
Through our proactive system modernization efforts and constructive partnerships with policymakers, over the course of 20 years, we reduced annual methane emissions from our distribution system by approximately 50% while growing that system by over 20%.

Southern Company Gas GHG Emissions Profile

Understanding our emissions is a critical piece in developing reduction plans. In 2022, we took an important step to enhance our measuring and tracking capabilities by sponsoring GTI Energy’s Veritas effort to develop a standardized, science-based, technology-neutral approach to measuring, calculating and reporting methane emissions, including the application of pilot protocols to our distribution emissions. This strategic collaboration will help us establish a measurement-informed refined baseline to more effectively track our progress toward net-zero operations.

Commitment and Advocacy Throughout Our Value Chain

In addition to our own operations, Southern Company Gas is committed to reducing emissions across our value chain—both upstream through the gas production and transmission systems that supply our gas and downstream through our customers. We participate in a range of organizations, initiatives and partnerships that support this commitment.

Our Nation’s Energy Future: We are a founding member of ONE Future, a coalition of natural gas companies working to achieve a rate of methane emissions across the entire natural gas supply chain of less than 1% of total production. Through our methane reduction efforts, our system is now over 99.8% efficient, with a 0.195% methane emissions intensity rate in 2021—well below ONE Future’s 2025 goal of 0.44% for natural gas utilities. Through leadership roles on the ONE Future Board of Directors and the coalition’s technical committee, Southern Company Gas is helping to identify emissions reduction improvement opportunities for the entire industry that impact the upstream production, transmission and storage and distribution sectors.

NextGenGas Coalition: Next Generation Gas, or NextGenGas, is “differentiated” natural gas sourced from environmentally conscious producers. It is produced with lower methane emissions, responsibly sourced and verified by credible environmental performance criteria. Sourcing gas from NextGenGas suppliers builds industry partnerships that lead to a
cleaner future. Southern Company Gas created a collaborative of natural gas utilities and combination utilities in an anti-trust compliant forum to share best practices and knowledge to advance the NextGenGas marketplace. Since 2021, the coalition has convened monthly for member companies to share current experiences, market updates and best practices in the NextGenGas marketplace. Coalition members have developed a shared definition and vision for NextGenGas and have shared progress with industry organizations and other stakeholders.

Open Hydrogen Initiative: To improve transparency and advance the development of a credible and globally-traded hydrogen market, OHI will leverage the knowledge base of its technical experts to develop open-source protocols for measuring the carbon intensity of hydrogen at the asset level.

Downstream Natural Gas Initiative: DSI is a group of leading natural gas utilities collaborating to build a shared vision for the role of utilities and the gas distribution network in the transition to a low-carbon future. DSI is focused on opportunities to leverage existing infrastructure to support near- and long-term environmental and economic goals. Through this collaboration, Southern Company Gas is supporting the advancement of a long-term vision and related strategies for natural gas utilities to reduce GHG emissions.

Natural Gas Supply Collaborative: The NGSC is a voluntary collaborative of natural gas purchasers that are promoting safe and responsible practices for natural gas supply.

The Coalition for Renewable Natural Gas: The RNG Coalition serves as the public policy advocate and education platform for RNG in North America. Through public policy and education, the RNG Coalition advocates for sustainable development, deployment and utilization of RNG so that present and future generations will have access to domestic, renewable and clean fuel and energy.

The American Biogas Council: The American Biogas Council is the voice of the U.S. biogas industry dedicated to maximizing carbon reduction and economic growth using biogas systems. The Council represents more than 350 companies in all parts of the biogas supply chain that are leading the way to a better future by maximizing all the positive environmental and economic impacts biogas systems offer when they recycle organic material into renewable energy and soil products.

The Renewable Thermal Collaborative: The RTC serves as the leading coalition for organizations that are committed to scaling up renewable heating and cooling at their facilities and dramatically cutting carbon emissions. RTC members recognize the growing demand and necessity for renewable heating and cooling and the urgent need to meet this demand in a manner that delivers sustainable, cost-competitive options at scale.

In 2022, we received the Southern Gas Association’s ESG Award for our NextGenGas Coalition.

See the Customer Solutions section to learn more about our efforts to reduce our downstream emissions.
Biodiversity and Environmental Stewardship

We rely on natural resources to successfully operate our business. Because of our interconnected relationship with the environment, natural resource stewardship is critical to our purpose. We have a long history of doing our part to avoid or minimize environmental impact by complying with environmental regulations, implementing conservation projects, reducing our emissions and minimizing our waste.

Environmental Principles and Compliance

Southern Company’s Environmental Principles guide our commitment to environmental responsibility as we provide clean, safe, reliable and affordable energy to our customers. Compliance is the foundation of this commitment to protect the environment. We are dedicated to meeting or exceeding all applicable local, state and federal environmental laws and regulations. This pledge to the environment applies to every employee every day.

Southern Company Gas implements an Environmental Management System to uphold compliance, ensure consistent application of our policies and set forth a methodology to define and achieve policy implementation and performance goals. The EMS applies to all activities and operations that have potential environmental impacts.

Environmental Protection

As part of our commitment to environmental stewardship, we partner with local conservation organizations to implement projects and increase awareness around the importance of protecting the diverse habitats found throughout our service territory. Across our operations, we act to minimize our impacts from the start: first endeavoring to avoid environmental impacts altogether, then minimizing and mitigating unavoidable impacts, and where necessary, restoring the environment to address any lasting effects.

We engage with organizations such as the National Fish and Wildlife Foundation and The Nature Conservancy to develop local solutions for eliminating invasive species, climate-proofing prairies, restoring coastal ecosystems and protecting endangered native plant and animal species. By practicing conservation and promoting biodiversity, we protect our valuable shared natural resources, which enables us to continue providing clean, safe, reliable and affordable energy to our customers.

Environmental Remediation

From the 1830s to the 1950s, before natural gas was widely available, gas was manufactured from coal and other fuels primarily for lighting and heating. Manufactured gas plants were marvels of technology, even by today’s standards, but their operations left byproducts and residues behind.

Our local distribution companies have worked with state and federal environmental agencies and local communities to investigate the MGP sites they once owned and operated and to design and implement cleanup programs.

Today, two-thirds of our MGP sites have been remediated and restored to productive use. Our aggressive MGP cleanup program is a reflection of our commitment to the health and safety of the communities we serve. Remediated MGP sites meet state and federal health and environmental clean-up standards. Our companies will continue to work with the relevant environmental agencies to monitor, test and/or remediate our remaining MGP sites, according to each site’s state-approved clean-up programs.
Air Quality

At Southern Company Gas, our environmental efforts extend beyond GHG emissions to promote healthy air quality. By reducing our operational combustion emissions, replacing older infrastructure and reducing leaks in the process, Southern Company Gas is helping to improve air quality and positively impact the quality of life in local communities.

Since natural gas can be used as a clean alternative vehicle fuel, we are reducing the air quality impacts of petroleum-based fuel consumption in transportation. Compared with diesel and gasoline, natural gas can reduce emissions of common urban pollutants, such as nitrogen oxides (NO$_x$), by up to 95%.

Waste

Southern Company Gas is committed to reducing the waste produced in our operations. In 2022, Nicor Gas partnered with Rheaply, an organization helping companies advance a circular economy, to implement a pilot equipment exchange program. Through the Rheaply platform, Nicor Gas connects an ecosystem of businesses and nonprofit organizations to enable the exchange and reclamation of supplies and equipment, such as PPE or HVAC equipment. Through the pilot, this equipment can be effectively reused instead of discarded in a landfill. The program has diverted nearly 10,000 pounds of waste from landfills as of January 2023. We are expanding the pilot to Georgia in 2023.

We also help our customers reduce their waste through digital billing statements. In 2022, over 1.2 million customers opted to receive paperless billing, improving customer satisfaction and providing environmental benefits.

By switching to paperless billing, our customers used over 145 fewer tons of paper annually, which offsets over 2.6 million pounds of CO$_2$e.\(^1\)

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\(^1\) Environmental impact estimates were made using the Environmental Paper Network Paper Calculator Version 4.0. For more information visit www.papercalculator.org.

Nicor Gas Invests in Conservation

In August 2022, Nicor Gas announced it will provide $52,000 in environmental stewardship grants for organizations and nonprofits committed to providing equitable access to natural green spaces and enhancing sustainability activities that make a meaningful impact. Through these grants, Nicor Gas supported 11 organizations across the company’s service territory in its environmental initiatives, including:

- **Chicago Horticultural Society/Chicago Botanic Garden**: Supports conservation and restoration of natural habitats including tallgrass prairies, deciduous woodlands and wetlands.

- **Nippersink Watershed Association**: Supports the rehabilitation of three islands to enhance native habitats that will attract pollinator species.
Atlanta Gas Light Participates in Trees Atlanta’s Largest Ever Tree Planting

In 2021, the Atlanta Gas Light Foundation contributed $10,000 to Trees Atlanta on the heels of a separate payment to replace the single tree removed during its Piedmont Enhancement project construction. Atlanta Gas Light employee volunteers then joined city officials and community leaders across Atlanta to participate in Plantlanta, an effort led by Trees Atlanta to plant 800 trees citywide in a single weekend, the largest planting in the organization’s history. In 2022, the Atlanta Gas Light Foundation increased its contribution to Trees Atlanta with an additional $50,000 financial commitment and plans to continue collaborating on volunteer projects. Planting a tree canopy is a great way to serve our customers and neighbors and enhance the environment in a number of ways, including lowering neighborhood temperatures in the heat of summer, fostering wildlife habitats, helping reduce CO₂ in the atmosphere and mitigating air pollution.

Virginia Natural Gas Restores the Longleaf Pine

Virginia Natural Gas has a long-standing commitment to preserving the longleaf pine—a key piece of the Southeast’s environmental heritage. Over the years, Virginia Natural Gas volunteers have worked alongside The Nature Conservancy to help restore the once-abundant tree by planting more than 1,000 longleaf pine seedlings across southeast Virginia. We also provided The Nature Conservancy with $30,000 in grants to support its multi-year efforts to restore the tree.
We Deliver

We aim to deliver clean, safe, reliable, affordable natural gas.
Energy Reliability, Resiliency and Affordability

The reliability, resiliency and affordability of energy are core to our company and our mission. Southern Company Gas is committed to delivering reliable and affordable energy to our customers and communities, now and in the future.

Southern Company Gas understands the importance of energy reliability to our customers, even during extreme weather events, such as a polar vortex. With that in mind, we continuously monitor and conduct regular inspections of our systems to help ensure safety, security, reliability and resiliency, even under times of stress. This approach allows us to make any necessary upgrades to our infrastructure in a timely fashion.

Infrastructure Modernization

Our proactive infrastructure modernization and leak detection and repair efforts are a critical step toward Southern Company Gas’ goal of reaching net zero for operations by 2050. While we have already made great strides, we see infrastructure improvement as a continuous process, and we are always looking for opportunities to increase the effectiveness of our efforts and the efficiency of our system.

Legacy cast or wrought iron and unprotected steel pipes account for a disproportionate number of leaks and failures in the gas distribution industry. The degrading nature of iron alloys in iron pipes and the lack of protective coating in steel pipes greatly increase the risk of using such pipelines, many of which were installed over 60 years ago. Pipeline replacement is recognized today as having the single most significant impact on methane emissions reductions in the industry’s distribution segment.

Because of the dedicated efforts of our team to replace legacy infrastructure with state-of-the-art corrosion-resistant pipes, we are proud to report that as of the end of 2022, none of our distribution pipeline consisted of cast or wrought iron steel, and only 0.2% was unprotected steel main.

Case Studies

Upgrading Our Infrastructure Through Virginia Natural Gas’ SAVE Program

Through the Steps to Advance Virginia’s Energy (SAVE) program, Virginia Natural Gas is replacing aging pipes with new more durable materials that help reduce methane emissions and are less expensive to maintain. Since the program’s inception in 2012, Virginia Natural Gas has successfully replaced 100% of low-pressure pipelines from our natural gas system, upgrading over 500 miles of older aging pipes with more modern ones. At the end of 2022, through infrastructure replacement, Virginia Natural Gas decreased CO₂e emissions (distribution mains and services) by more than 31% since 2012.
Advanced Leak Detection and Repair

We continually monitor and perform regular system inspections to ensure safety, security, reliability and resiliency. We conduct leak surveys of our pipelines in accordance with Federal Pipeline Safety Regulations using a combination of aerial, vehicular, dive and foot surveys with cutting-edge electronic leak detection equipment. Our transmission lines and business districts undertake annual surveys, while remaining distribution pipelines undergo surveys on a three- or five-year schedule, according to regulations.

We leverage innovative technology to advance our leak detection and repair efforts. For example, we deploy mobile methane detection using highly precise spectroscopy technology, which can be mounted on vehicles. This equipment detects methane within 600 feet and provides accompanying quantification and measurement. The technology uses advanced analytics-driven leak detection and methane emissions quantification tools to broaden our leak detection capabilities and better inform pipeline integrity initiatives, thereby enhancing our system safety. By deploying this technology and others like it, we will be better able to detect, measure and quantify operational methane emissions and provide data-supported guidance on the impact of our operational activities.

Additionally, we are working with NYSEARCH, a voluntary sub-organization within the Northeast Gas Association comprised primarily of gas distribution companies, on a project to enhance our leak detection capabilities. This project enables Southern Company Gas to better detect fugitive methane leaks within structures by identifying the best locations to place detectors to improve safety while avoiding false positives.

We are expanding our use of other technologies, including drones, satellites, stationary monitors and artificial intelligence-enabled cloud computing platforms, to better detect leaks. In 2023, we are planning to deploy Advanced Leak Detection Technology (Picarro Mobile Technology) as part of the core approach for performing safety and compliance surveys in our business districts. Virginia Natural Gas also achieved full coverage of its distribution system using the Picarro Mobile Technology. The tool allows us to detect leakages and perform the measurement and quantification of methane emissions more accurately. In addition, Virginia Natural Gas became one of the first natural gas utilities in the state to use camera drones to conduct some right-of-way assessments and inspect critical infrastructure. This technology enables faster and safer pipeline inspections.

Using Cross-Compression Technology to Reduce Methane Releases

All Southern Company Gas distribution operations utilize cross-compression technology to recover methane that would otherwise be released to the environment during a growing number of pipeline maintenance and inspection projects. When this technology is used for a project, up to 99% of the gas is recycled back into the pipeline system for continued use. As a result, in 2022, we avoided the release of approximately 21,000 MMBtu of natural gas, which represents an estimated 9,061 metric tons of CO₂e.
Customer Solutions

Energy Assistance
At Southern Company Gas, we believe in providing access to reliable and affordable fuel to everyone in the areas we serve. When paying bills, our customers should not have to worry about the affordability of an everyday resource such as energy. To help our customers who need it, we offer Energy Assistance Programs to keep energy flowing to their homes. Southern Company Gas’ distribution operations offer customers a wide range of support options, including connections to federal and state programs such as the Low-Income Home Energy Assistance Program (LIHEAP). Southern Company Gas and its subsidiaries have worked with the Salvation Army through its EnergyShare program, which provides financial aid to families who have a difficult time paying for energy costs. In addition, our subsidiaries offer rebate programs to encourage customers to install energy-efficient technology in their homes to reduce their energy usage and associated costs, as well as their environmental footprint.

Energy Efficiency
Providing solutions that help our customers save energy is an important objective for Southern Company Gas and its subsidiaries. By reducing energy usage, these solutions also can reduce the GHG emissions associated with our customers’ use of natural gas. Below are some of the programs that deliver energy-efficiency options to our customers:

Virginia Natural Gas
In 2019, Virginia Natural Gas launched a new phase of our Conservation and Ratemaking Efficiency Plan, which has helped customers save over 18,000 MMBtu since the program’s inception—equivalent to avoiding almost 1,000 metric tons of CO_2 emissions. The CARE Plan includes the following four programs:

Residential Home Incentive Program: Virginia Natural Gas provides rebates and incentives to encourage residential customers to install energy-efficient natural gas equipment, such as furnaces, water heaters and programmable smart thermostats.

Low-Income Home Weatherization Program: Virginia Natural Gas provides funding for community partners who provide weatherization and equipment replacement services to eligible low-income customers.

Home Energy Audit Program: We walk residential customers through the steps to perform a self-audit and provide targeted actions to improve home efficiency based on the results. Customers who complete the audit can receive a free kit to implement energy-saving measures at home.

Customer Education and Outreach Program: Virginia Natural Gas provides customers with tips and tools for reducing energy usage to save on energy bills.

In 2022, Nicor Gas introduced the Community Connection Center to provide support beyond energy efficiency and payment assistance for our customers. The C3 team focuses on connecting customers to organizations that help people gain access to energy efficiency, bill payment programs, housing, food, federal funding and other essentials.
In October, Nicor Gas and Southern Company announced a partnership with Habitat for Humanity affiliates in Illinois to develop Smart Neighborhood™ communities dedicated to providing affordable, net-zero emissions housing options in the Chicagoland area. For this project, Habitat for Humanity affiliates will serve as developers of the Smart Neighborhood™ Initiative.

Current planned Smart Neighborhood™ communities are in Aurora and Northern Fox Valley. In these communities, we will develop 30 single-family net-zero energy and carbon-neutral homes equipped with a combination of renewable, electric and natural gas technologies. These homes are not only environmentally sustainable, using energy-efficient appliances that help reduce a household’s carbon footprint, but they are also affordable to own and operate.

Smart Neighborhood™ homes come equipped with high-efficiency building envelopes, solar panels and battery solutions, along with natural gas and electric service that are designed to increase reliability during severe storms and other weather events. Construction will begin in Aurora in Spring 2023 and in Northern Fox Valley in 2024. The Aurora Smart Neighborhood™ will undergo a three-year study to examine how natural gas will be part of the solution toward net-zero energy goals.

The Smart Neighborhood™ program advances energy technologies that work together to create an affordable, reliable, clean energy economy. Smart Neighborhood™ communities can lead to job creation, diverse business partnerships, economic development and green transportation. See www.NGSmartNeighborhoods.com to learn more about this initiative.
Nicor Gas

In 2022, Nicor Gas implemented the 10th year of its energy efficiency program, providing $40 million in energy efficiency incentives and services to customers, including $12.5 million in income-eligible programs this year. The program includes the following:

Residential: Nicor Gas’ residential energy efficiency program provides rebates for heating equipment, insulation, in-person and virtual home assessments and energy- and water-saving kits. Over 150,000 Nicor Gas residential customers are enrolled in the home energy program.

Commercial: Nicor Gas’ commercial energy efficiency program offers rebates for energy-efficient equipment and system improvements as well as energy efficiency assessments tailored for small, medium and large businesses. The program also offers Strategic Energy Management, a year-long plan for large businesses.

Low Income: Nicor Gas works with government agencies and non-governmental organizations to provide energy-efficient products, weatherization improvements at zero cost and emergency furnace replacements for those in need.

Emerging Technology: The Nicor Gas Energy Efficiency Program’s Emerging Technology Initiative selects and assesses promising new technologies that have the potential to generate natural gas savings for Nicor Gas customers. This service seeks to introduce new energy-efficient technologies and practices to the market.

In 2022, we expanded our residential energy efficiency programs to all our distribution companies by launching pilots for both Atlanta Gas Light and Chattanooga Gas.

Gas Heat Pumps

In addition to the individual programs offered through our subsidiaries, Southern Company Gas is a member of the North American Gas Heat Pump Collaborative, which includes 16 gas and dual fuel companies and energy efficiency program administrators. Gas heat pumps are a highly energy-efficient technology used for space heating and cooling, as well as water heating in both commercial and residential sectors. The Collaborative works with various stakeholders to implement market transformational activities, like accelerating the adoption of gas heat pumps and other technologies that support decarbonization in North America.

Gas Heat Pumps
1. Move heat instead of creating it and are capable of effective efficiencies between 120–150%
2. Reduce energy consumption by up to 50% compared to the older furnaces they replace and use refrigerants with no or low global warming potential
Southern Company Gas is pursuing opportunities to drive the market for residential gas heat pumps. Energy Impact Partners (EIP), a utility-backed venture capital fund in which Southern Company is a founding member, is financing Stone Mountain Technologies, Inc. to commercialize a new generation of highly energy-efficient heating products. SMTI’s initial product offering will feature a gas furnace and water heater replacement for single-family homes and a gas water heater replacement for commercial applications. This replacement technology is designed to save 30-50% of the energy, cost and GHG emissions compared to current gas appliances.

**TotalGreen**

Nicor Gas is committed to delivering safe, reliable, affordable and increasingly renewable energy to the communities it serves. In July 2022, Nicor Gas introduced a new voluntary pilot program, TotalGreen. The TotalGreen program bundles RNG with carbon offsets to reduce or offset 100% of the CO₂ emissions associated with a customer’s use of natural gas purchased from Nicor Gas. Carbon offsets represent the removal or capture of one metric ton of GHGs measured as CO₂e. TotalGreen allows customers to voluntarily opt-in to offset the GHG emissions associated with their natural gas usage to heat their homes, cook meals and enjoy hot water. Customers have two options for participation:

1. **TotalGreen Basic**: Consists primarily of carbon offsets with a low blend of RNG environmental attributes

2. **TotalGreen Premium**: Delivers higher blends of RNG environmental attributes and supplements or offsets the remaining CO₂ emissions with carbon offsets

For either option, participating customers can offset 100% of the CO₂ emissions associated with the use of natural gas purchased from Nicor Gas.

**Greener Life® Program**

Other customer initiatives include our subsidiary SouthStar Energy Services’ Greener Life and Greener Life for Business programs, which focus on offsetting GHG emissions from their residential, commercial and industrial customers by purchasing and retiring carbon offsets related to their natural gas usage. The Greener Life programs received the Green-e® Climate certification from The Center for Resource Solutions, the leading certification organization for carbon offset programs. To date, Greener Life has enrolled over 23,000 customers and helped offset over 160 million pounds of CO₂e.¹

See the Innovation and R&D section to learn more about our low-carbon technology solutions.

¹ Represents cumulative CO₂e offsets since the program launched in October 2019, as of year-end 2022.
We Enrich

The lives of our employees, customers and communities.
Fueling Equity

At Southern Company Gas, we believe diversity cultivates new perspectives and innovation that enhances our ability to deliver superior results for our customers, employees and shareholders. We work to foster diversity, equity and inclusion in our workforce and beyond to drive our long-term success.

Equity is about fairness, access and opportunity for all. Southern Company Gas advances many DEI initiatives, such as Fueling Equity, a program that embodies our understanding that when you know better, you do better. The program includes a webcast series featuring interviews with social justice trailblazers aimed at highlighting, educating and communicating Southern Company Gas’ important work toward fostering an equitable environment for its employees, customers and communities. We have been fortunate to host many different knowledge experts on the webcast who share their experiences and provide us with advice for moving the needle in terms of social and racial justice.

In 2022, Nicor Gas released its first Supplier Diversity Economic Impact Report, which showed that the company’s investments in women-, minority- and veteran-owned businesses contributed $854 million to the gross domestic product in Illinois, supported job growth throughout the supply chain, paid a total of $165 million in employee wages and supported more than 2,804 jobs in 2020.

We recognize that advancing equity is an ongoing process, and we continue to identify opportunities to transparently disclose our progress and support social and racial justice measures. See the annual Moving to Equity report, available on Southern Company’s website, to learn more about our progress.

“We are committed to: listening to our colleagues, learning about their experiences and the issues that may hinder them from contributing to their full potential and leading by helping and supporting them; by being an ally and advocate. These three tenets are not just words; they are qualities that define our commitment—the way we live and work each day. Although we’re all different, Fueling Equity unites us in our support for each other, our common goals as a company and in our belief that we need to continue meeting one another with love, grace and positivity.”

Kim Greene, former Chairman, President and CEO of Southern Company Gas
Community and Employee Engagement

We have been proud members of the communities we serve for more than 160 years, and we will continue to give back to those communities with our time, talent and resources. We want to be judged not only by the service we provide but also for what we do to enrich the lives of people in the communities where we operate.

Environment: We support organizations that demonstrate environmental stewardship and work in conservation.

Social Justice: We are committed to advancing racial equity and social justice in our communities with a focus on criminal justice, economic empowerment, the advancement of educational equality and energy justice.

Arts & Education: We believe the enrichment and education of our communities are the cornerstones of a thriving society.

Economic Development: We seek bold, modern ideas that improve the quality of life and stimulate the economies of our communities.

Employee Engagement

We encourage our employees to strengthen the communities we serve through volunteering, donating and participating in community service events. Through EverGreen, our corporate-sponsored, employee-led grassroots organization within Southern Company Gas, we:

- Create opportunities to build awareness and promote conservation and biodiversity
- Build relationships with community allies
- Educate and inspire stakeholders to participate in events
- Invest in local and national environmental stewardship opportunities in the communities where we live and work

Corporate Responsibility

We strive to be a catalyst for positive change in our communities and our environment. To be successful, we have made sustainability a key pillar of corporate responsibility at Southern Company Gas.

Every year, we provide millions of dollars in grants to support our communities through our subsidiaries, Nicor Gas, Atlanta Gas Light, Virginia Natural Gas and Chattanooga Gas. We are proud to provide support for projects that focus on:

Energy Assistance: We believe energy is critical to everyday life—and no one should go without it.
Engaging With Local Stakeholders in Pembroke Township

Pembroke Township is comprised of two historic farming communities, Pembroke and Hopkins Park, with approximately 1,700 residents and a median income of $18,900. Its rich history is often overshadowed by its present-day realities—meager resources, population decline and economic stagnation. Moreover, residents lack access to an affordable and reliable energy choice and other utilities and services most of us take for granted.

Over the years, the Pembroke region has drawn the attention of elected officials, influencers and even celebrities without any measurable progress. After decades of efforts, Nicor Gas joined a steering committee in December 2019 that included Reverend Jesse Jackson and members of the Rainbow PUSH Coalition, local elected officials, economic development alliances, chambers of commerce and Pembroke Township residents and business owners to address funding and the infrastructure necessary to extend a natural gas line to the community. In 2021, with bipartisan support, the Pembroke Township Natural Gas Investment Pilot Program Act was signed into law.

Construction began in December 2022 to install approximately 30 miles of infrastructure that will bring the option of natural gas service to Hopkins Park and Pembroke Township residents who choose to have this energy option. Local officials hosted a Promise to Pembroke event earlier this year to celebrate the groundbreaking of the Hopkins Park/Pembroke Township Expansion Project.

Center for Disease Control’s Lawrenceville Campus Solar Panel Pollinator Efforts

Our dedicated energy services team uses a fuel-neutral approach to implement the right solutions for federal clients across our services territories. Atlanta Gas Light partnered with the CDC to analyze the environmental footprint and develop solutions to the agency’s energy needs at its Lawrenceville campus. A significant part of the solution for the CDC was to install solar photovoltaics. The solar panel array provides over 300 megawatt hours of energy per year—covering a substantial portion of the total energy needs of the Lawrenceville campus.

Atlanta Gas Light also teamed up with the University of Georgia Agriculture and Horticulture Department to incorporate a pollinator field under and around the solar panels to support declining bee and other pollinator populations. This pollinator garden is one example of clean energy projects happening all over the state. Atlanta Gas Light looks forward to its continued partnership with the CDC and others committed to providing clean, safe, resilient and sustainable energy for the future.
Volunteering to Serve Throughout the Year

Our commitment to our customers, neighbors and communities extends beyond the delivery of clean, safe, reliable and affordable natural gas. Hundreds of employees, their families and friends come together for Energy to Serve, our annual volunteer month starting on Earth Day and concluding on Memorial Day. This effort enables us to live up to our commitment to our communities by lending our time and talents to volunteer for projects across our multi-state footprint.

In 2022, our myIMPACT site made volunteer opportunities easy to join. Employees took advantage of our state-specific, virtual volunteer hubs for company-sponsored events, or input personally recommended opportunities. We also established the Luminary Award in 2022 to honor dedicated employees for their volunteer efforts and commitment to community service off the clock.

Our community commitment continues throughout the year. In June and July, we host a United Way campaign where experts help connect us to the most urgent community needs. Our Energy to Give campaign occurs in November and December and focuses on food, toy and clothing drives, and includes donations and volunteer opportunities.

Our employees are inextricably woven into the communities we are privileged to serve. As a company, we want to be judged not only by the service we provide but also for what we do to improve the quality of life in the community.

8,585
Hours Southern Company Gas employees volunteered in 2022
Safety and Health

At Southern Company Gas, our number one value is ensuring the safety of our employees and our communities. Our Safety and Compliance and Technical Services departments deploy two overarching management systems that govern our safety processes—the Safety and Health Management System, which integrates occupational safety and health objectives into our organizational structure and the Pipeline Safety Management System, a comprehensive and systematic system to increase pipeline safety performance and operational excellence.

Safety First

Safety First is not only the number one value across the Southern Company family but a pledge to our employees, customers, contractors and communities that our actions help ensure a safe environment for everyone. Safety is truly in our DNA—it is innate to how we conduct business, it’s recognizable by those within our industry and it’s why our safety performance remains well above the industry standard. We are never satisfied when it comes to safety, constantly seeking new and innovative ways to reduce safety incidents through event learnings and communications.

We motivate all our employees to be leaders in safety by providing them with the proper training, tools and resources they need to effectively respond to any given situation. We encourage every employee and contractor to exercise Stop Work Authority if a co-worker, the public or the local environment is at risk. Additionally, our safety training, operating standards and monitoring processes meet or exceed all state and federal regulations. In 2022, we are proud to have been named as a semi-finalist in the National Safety Council’s Green Cross for Safety Excellence Award. AGA recognized Southern Company Gas with its Industry Leader Accident Prevention Award for the fourth straight year.

Public Safety

One of the main ways we work to protect our employees and communities is through proper pipeline maintenance and management. Our pipeline safety culture promotes non-punitive reporting and consistent self-evaluation techniques to identify, prevent and mitigate risks related to pipelines.

Each of our distribution companies implements Distribution and Transmission Integrity Management Programs in compliance with the Pipeline Safety Improvement Act to help reduce both the likelihood and consequence of incidents. Through this systematic process, we identify high-impact areas, assess and mitigate pipeline risks, determine potential hazards from facility operations and estimate the likelihood and effect of potential adverse events.

While we have made progress in maintaining the reliability and resiliency of our systems, we must also prepare for the unexpected. Each of our distribution companies provides resources and tips on its website to help protect our customers in case of severe weather, a gas leak or other emergency.

See the Energy Reliability, Resiliency and Affordability section to learn more about our efforts to enhance pipeline safety.
Promoting Awareness of 811

811 is the national call-before-you-dig phone number for individuals to request a professional locator to mark the approximate location of underground utility lines so they do not strike an underground line during digging. To promote the use of 811 prior to any projects that require breaking ground, we partnered with Chauncey Black of Blackstreet to create a remix of the song “No Diggity” to promote safe digging practices. We released the song and music video on August 11, 2021, which is National 811 day, to remind homeowners and professional contractors across the country to call 811 to request a free inspection of their requested dig site by a professional locator.

In 2022, we partnered with the National Excavator Initiative to promote awareness of 811 along with executive producer, host, bestselling author, podcaster and skilled-trade advocate Mike Rowe. Through education videos and podcasts, Mike educates the public on the importance of underground pipes, wires and cables and how to stay safe when digging. Our education campaigns help minimize third-party damage to our infrastructure and improve public safety. Through this campaign, we were able to garner over 422 million impressions across different media platforms. In the first month following the campaign, we saw a 30% increase in 811 calls and a 20% reduction in damages.
We Invest

In innovative solutions, offering choice, convenience and more.
Innovation and R&D

As we look to the future, Southern Company Gas believes natural gas will play a vital role in meeting climate goals for both electric generation and gas customers. Southern Company Gas supports initiatives to deliver technologies that are expected to decrease the carbon intensity of natural gas while increasing customer value and providing safe, reliable and affordable energy. Our cross-functional Innovation Council fosters creative solutions to drive sustainability results throughout our operations and engages employees in training, ideation and other improvement challenges to solve business problems and drive a culture of innovation throughout the company.

Low-Carbon Technology Solutions

As we fuel a sustainable future, we leverage our existing infrastructure for new, lower-carbon sources of gas in support of economy-wide emission reduction efforts. We believe Southern Company’s ability to reach net zero will include investment in research and develop to accelerate the adoption of renewable gas.

Southern Company Gas participates in Southern Company’s broader engagements as an anchor sponsor for the Low-Carbon Resources Initiative, a worldwide R&D collaborative between EPRI and GTI looking at hydrogen technologies and applications, along with other low-carbon energy carriers.

Economy-Wide GHG Emissions

Natural gas utilities have led the nation in reducing emissions for decades:

- Methane emissions reduction through infrastructure modernization and pipeline replacement.
- Development and deployment of energy-efficient appliances and other end-use applications.
- Expanding the use of natural gas vehicles.

Enhance efficient use of natural gas as an energy carrier to both new and existing markets:

- Further reduce fugitive methane emissions.
- Expand end-use applications and energy efficiency.
- Increase natural gas use in carbon-intensive industries.
- Opportunistic implementation of RNG.
- Evaluate existing infrastructure to support hydrogen as a carbon future fuel.

Continue existing initiatives and enable efficient transition of our natural gas transmission and distribution infrastructure to lower-carbon gas options:

- Pipeline infrastructure upgrades, repurposing and transformation.
- Incorporate RNG and hydrogen.
- Further develop a low-carbon gas supply through carbon capture and sequestration technologies.

Execute a robust transition to a low-carbon gas supply:

- Explore low-carbon gas production intersecting with gas supply.
- Utilize power-to-gas technology and gas infrastructure for carbon-free storage of excess renewable energy.
- Potential neutral gas supply including synthetic natural gas, hydrogen, hydrogen blending and renewable natural gas.
Renewable Natural Gas

RNG is created by capturing naturally occurring methane from existing waste streams, such as those at landfills, farms, water resource recovery facilities and food waste sites. RNG is considered a carbon-neutral energy source at the point of use, not a fossil fuel, although it functions just like natural gas and can be used without updating or replacing existing natural gas appliances, equipment and infrastructure.

Our Renewable Gas team develops and executes our strategy for growing RNG capabilities, which will further reduce our environmental impact while creating new revenue streams. In 2021, we took ownership of the Methane Recovery Facility at the Meadow Branch Landfill, operated by our new subsidiary, Southern Company Gas Renewables. The RNG facility captures gas produced by the landfill and upgrades it to pipeline–quality gas that can be used by any natural gas appliance or other end-user. Assuming control of the RNG plant will enable us to offer RNG to our local distribution companies, including their automotive fleet. In 2022, the facility produced over 465,000 MMBtu of RNG—enough to serve about 7,300 Tennessee homes and avoid over 24,000 metric tons of CO₂.

Next Generation Natural Gas

Southern Company Gas aspires to provide customers with natural gas that is sourced, transported and distributed by companies that have pledged to reduce methane emissions to less than 1% across the natural gas value chain. Virginia Natural Gas has entered into new agreements with several natural gas suppliers, and as of November 2022, up to one-third of its customers’ annual demand was supplied with NextGenGas. In 2022, Nicor Gas announced the purchase of responsibly sourced natural gas from ENGIÉ Energy Marketing. This natural gas supply was certified by Project Canary’s TrustWell® responsibly sourced gas certification standard and was estimated to meet the annual demand requirements of 48,000 customers.
Southern Company Gas has been proactive when it comes to implementing RNG. For example, Atlanta Gas Light has two interconnection tariffs for third parties to connect and transport RNG on our system. Nicor Gas is also implementing a pilot program to enable the interconnection of new RNG facilities, and in 2022, Virginia Natural Gas received approval for an RNG interconnection program. In 2022, both Virginia Natural Gas and Chattanooga Gas benefited from the passage of legislation supporting the integration of RNG and other renewable fuels into gas supply efforts.

In September 2022, the U.S. Department of Energy (DOE) announced an $8 billion funding opportunity to develop regional clean hydrogen hubs under the Infrastructure Investment and Jobs Act. Southern Company Gas is involved in two separate bids to secure funding for investment in clean hydrogen infrastructure within our footprint. Nicor Gas is a member of the Midwest Alliance for Clean Hydrogen (MachH2), a multi-state coalition of public and private entities representing every phase in the hydrogen value chain. Additionally, the Southeast Hydrogen Hub is a coalition of six major utilities, including Southern Company, working to bring a hydrogen nexus to the Southeast region of the U.S.

Southern Company Gas sees the potential to introduce hydrogen into new or existing gas infrastructure and has partnered with industry peers, research consortia, academia and national laboratories to help sponsor several hydrogen R&D initiatives. Nicor Gas is a technical sponsor of the Open Hydrogen Initiative, an international cohort of energy sector professionals working to build consistent, transparent and technical emissions measurement protocols for hydrogen to enhance our understanding of the fuel’s carbon intensity.

In 2022, we continued our leadership role in the second year of the HyBlend collaboration, an R&D initiative to address the technical barriers to blending hydrogen in natural gas infrastructure and study the lifecycle emissions of hydrogen blends. The HyBlend team comprises six DOE national laboratories and more than 20 participants from industry and academia. Since the start of the collaboration, we have accomplished several milestones, including an evaluation of emissions of natural gas and hydrogen combustion at various end-use applications, a lifecycle analysis of synthetic natural gas production and a draft journal article on the economic assessment of alternative pathways for natural gas decarbonization.

**Hydrogen**

Hydrogen, which does not generate GHGs when burned, can be blended into natural gas or provided directly to customers through dedicated infrastructure to lower the overall carbon intensity of the fuel we provide.
Advancing the Clean Tech Ecosystem

We are supporting the innovation ecosystem to advance clean and climate technology. In 2015, Southern Company was a founding member of EIP, a utility-backed venture capital fund dedicated to accelerating the transition to a clean energy future. Through EIP, Southern Company Gas collaborates with partners to pilot projects with portfolio companies accelerating the future low-carbon economy.

Nicor Gas partners with Evergreen Climate Innovations to support minority entrepreneurs making a positive environmental impact throughout Illinois through the Nicor Gas Multicultural Innovator Award. Award recipients receive a grant of $25,000, 12 months of business mentorship from Nicor Gas and Evergreen Climate Innovations and heightened exposure to both investors and potential customers. In 2022, Kazadi Enterprises was the second recipient of the award. Kazadi’s patented technology leverages thermal energy in the air, converting environmental heat into work, helping customers reduce their refrigeration energy usage by 80% while also minimizing negative environmental attributes often associated with traditional refrigerants.

In 2022, Nicor Energy Ventures announced a $100,000 investment in support of two Climate and Energy Tech Accelerator startups through a program launched by mHUB, one of the nation’s leading independent hard tech and manufacturing innovation centers. The accelerator program focuses on identifying early-stage startups working on hard tech and infrastructure solutions in renewable energy, hydrogen, carbon capture and sequestration, energy storage, vehicle-to-grid, heat sink technologies, distributed energy resources, sustainable buildings and the internet of energy.

Policy Engagement

Meeting our net-zero goal requires continued active and constructive engagement with government officials, investors and other stakeholders. Through our engagement activities, we work collaboratively with our governmental agencies to deploy cutting-edge technology to both enhance the safety of our pipelines and drive sustainability through emissions reductions. This is in line with our belief that sustainability is an extension of our safety and reliability values. In 2022, this collaboration resulted in advanced leak detection technology being adopted in all four of our operating jurisdictions.

We also support policies to accelerate the adoption of RNG and hydrogen. We engage with valued stakeholders outside of traditional legal and regulatory venues, such as through a series of collaborative workshops with nonprofit organizations and gas utilities hosted by RMI and National Grid. Throughout 2021 and 2022, this roundtable group, the first of its kind on a national scale, produced a set of guiding principles and strategies to inform the decarbonization of natural gas and its corresponding end uses. In our engagements, we adhere to all federal, state and local lobbying and political contribution laws and requirements.

Southern Company’s Policy Engagement and Advocacy webpage outlines the practices our family of companies follows when engaging with trade associations and advocating for a net-zero future.