Southern Co. Exec on Decarbonization and Customers

Conversation with Southern Co. Gas CEO, Kim Greene. With an introduction by Dan Hahn of Guidehouse



tilities are heavily invested in a decarbonization journey as a pathway to a clean energy future for their customers and the communities they serve. More utilities are setting net-zero targets by 2050 or earlier. They will need to change their strategy, investment and divestiture plans, business and regulatory models, products and services, and operations and people to capitalize on the opportunities of their decarbonization journey.

Recently, we, meaning PUF's Steve Mitnick and Guidehouse's Dan Hahn, talked with an inspiring utility CEO about what she is doing to help customers decarbonize, the impacts, and the most promising paths to decarbonization for the companies and customers.

We heard from Southern Company Gas CEO, Kim Greene, on her perspectives and tangible actions the company is taking to meet decarbonization and customers' decarbonization goals. We hope you find the conversation interesting and meaningful as you think about how you are helping your customers decarbonize for the future.

– Dan Hahn of Guidehouse

PUF's Steve Mitnick: How is the drive to decarbonize a customer centric strategy?

Kim Greene: At Southern Company, customers have always been, and will always be at the center of everything we do. We even have a diagram that we use to describe that, and we call it the circle of life.

At the center of the circle of life are our customers. That is important, and it's something we take seriously. We believe that access to clean, safe, reliable, and affordable energy is critical to helping our customers and our communities thrive.

We know customers are becoming more environmentally conscious. Southern Company Gas, and organizations like us, are tasked with building a future fueled by clean energy. Natural gas is the foundation for a clean energy future.

PUF: You're a great leader to head that up.

Kim Greene: I appreciate that. It's a privilege. It's a great business that I have come to be closer to in the last two and a half years. It's fascinating. The people who work in this business are incredible, and natural gas has enabled, again, the entire country to move forward toward its climate goal.

Dan Hahn: I love the circle of life diagram with customers in the center. What is Southern Company, and Southern Company Gas, doing specifically and also for the group you lead, to help customers decarbonize?

Kim Greene: Caring for the environment is not something new to us. We continue to empower our customers to reduce their personal carbon footprint. We provide numerous energy efficiency programs to our customers to help them manage their energy use.

We have a program in Illinois, where we have our Nicor Gas business, that has been in operation for almost a decade. It's a mature program. Over that period of time, our customers have saved more than eight hundred and forty thousand metric tons of carbon dioxide emissions, which is equivalent to almost a hundred thousand homes' energy use over the course of a year. Greener Life enables Georgia customers to take control of the emissions associated with their natural gas use by purchasing carbon offsets on their behalf. We're proud of our energy efficiency programs, particularly in Illinois. Our other businesses are looking to offer our customers opportunities to save energy and reduce their environmental footprint.

We also have an offering from our retail marketer subsidiary, Georgia Natural Gas, called Greener Life. The program enables Georgia customers to take control of the emissions associated with their natural gas use by pur-

chasing carbon offsets on their behalf. In the first six months of the program, which was launched in 2019, Georgia Natural Gas helped customers offset nearly five million pounds of greenhouse gas emissions.

Those carbon offsets come from projects in the Southeast, either from a station project, or a landfill project. We are seeing many customers sign up for that. It's a small fee and it again allows our customers directly to access a product to help them be carbon neutral. Those are two areas.

For the third, we're helping in the transportation sector, and we're seeing fleets use CNG and RNG at rapidly increasing volumes, such as UPS and Waste Management. In Georgia, we supply CNG to MARTA, the bus transportation system. There are a lot of ways that we're working with our customers to help all of us partner to meet our goals of a clean energy future.

PUF: There's an increasing number of investors that are ESG focused. How does that drive your company to decarbonize and address their aspirations?

Kim Greene: We recognize that is moving more toward the mainstream. ESG is something that many of our investors



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care about. We're proud of our record, and we know that we're continuing to get better.

We're proud of our efforts on the environmental side, and we're proud of our efforts in the social side. Of course, we believe in a terrific culture, a diverse workforce, an inclusive culture, and we have been recognized in many rankings for our terrific workplace.

We also have, particularly in our gas business, one of the strongest supplier diversity programs in the country. We're promoting social justice and we give back to the communities we serve. I'm sure you heard Tom Fanning [CEO. Southern Company] say that, and it is true. Everybody at Southern Company believes that communities we serve should be better off because we are there.

We know investors expect companies like us to have a strategy, to communicate these strategies to address the climate goals, and for utilities like ours, a strategy to support our communities. It's economy-wide decarbonization, not just our own emissions and working with our customers to provide energy efficiency programs along with some of the examples that I gave earlier.

We're committed to this and we recognize that it's important to our customers. Keeping customers at the center of everything we do leads to our ability to have constructive regulation and our ability to be allowed to earn fair returns, which benefit our investors.

Dan Hahn: How can your company be successful while decarbonizing?

Kim Greene: Natural gas is the foundation for a clean energy future. As more clean power sources are developed, natural gas will be the bedrock on which they stand. When I talk about clean power sources, that includes renewables.

For renewables to be reliable, we must have some backup generation, and that is best served by natural gas. Continuing to make these investments can allow us to be successful. Again, our customers are interested in this, and that will allow us to continue to be successful. All of our companies have made great strides toward a sustainable future.

We've done some of the infrastructure replacement. On the electric side of our business we've made significant progress in retiring coal, adding renewables, and adding natural gas. On the gas distribution side of our business, we are looking now at ways to utilize renewable natural gas, and to purchase natural gas that is supplied by companies that have pledged to reduce greenhouse gas emissions in their operations.

Along the value chain, we're downstream, as compared to our suppliers who are upstream. Then in the midstream with transport companies, Southern Company Gas is working with the entire value chain to

bring these producers, transporters, and deliverers of natural gas together, to commit to lower our carbon and methane emissions.

Southern Company Gas is one of the founders of a group called ONE Future, meaning Our Nation's Energy Future. We've all voluntarily made commitments to collectively lower our methane emissions to one percent or less across the natural gas value chain.

Already, at Southern Company Gas, our system operates at almost 99.9% efficiency in its delivery of natural gas. We recognize we need to be as clean and responsible as possible though, and we can play a role to influence our industry partners, which is why we continue to engage with the coalition.

That is something that our regulators expect, and our investors expect. While energy is so fundamental to our economy, to our way of life, we need to provide that energy in the most sustainable way forward, as we believe that will allow us to continue to be successful.

PUF: What are the most promising paths to meeting your

Lower Emissions: The Future of Natural Gas

Beginning November first, in 2019, Virginia Natural Gas began purchasing one-fifth of its customers' annual natural gas supply from select wells operated by Southwestern Energy. Both VNG and SWN are founding members of Our Nation's Energy Future, or ONE Future.

That's a big deal because VNG aims to be the first natural gas utility in America to provide its customers with natural gas that is one hundred percent sourced, transported, and distributed by companies that have pledged to reduce greenhouse gas emissions to less than one percent across the natural gas value chain. As a down payment on that pledge, VNG announced a deal to source a large percentage of its annual gas consumption from such companies beginning in 2019. A natural gas industry-led organization, ONE Future is dedicated to voluntarily achieving reductions in methane emissions across the natural gas supply chain. Members are focused on achieving a science-based average rate of methane emissions that is equal to one percent or less of total natural gas production by 2025.

VNG's distribution system and all the interstate transportation pipelines that serve it participate in the ONE Future program. The purchase of next generation gas reflects VNG's desire to help move the market in this direction, a first of its kind from well head to burner tip, and the method by which VNG aspires to source all its gas by 2025.

Virginia Natural Gas is one of four natural gas distribution companies of Southern Company Gas, a wholly owned subsidiary of Southern Company. 〇

decarbonization goals, which are big, and within the timeframe you've set forth?

Kim Greene: There are many pathways to reach net zero by 2050, and for Southern Company to achieve a future where energy's clean, safe, reliable, and affordable, we believe the best option is an all-of-the-above strategy that capitalizes on the unique benefits of gas, but also nuclear power. Southern Company's subsidiary Georgia Power is completing two units, Vogtle units three and four in Georgia, and I'm proud of that.

Additionally, there should be some negative carbon initiatives. Southern operates the nation's carbon capture research center in Wilsonville, Alabama. We're doing more to progress the science of carbon capture technology than just about anybody.

We're investing in ways to utilize direct air capture of carbon dioxide. We're also working to find opportunities to utilize renewable natural gas or natural gas created from biomass or



landfill, some other way of harnessing what otherwise might be methane emissions that would go straight into the atmosphere, but yet harnessing them and using them in a more efficient way, which can be carbon negative.

I could spend a lot of time talking about the importance of research and development, because all these options are going to be necessary for us to meet our goals. I don't think there's going to be one technology, or one certain path that's going to get us there. We're going to have to be open to all of these options.

I should add hydrogen, which is important. There's poten-

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The most important thing for us is to be open, using an all-of-the-above strategy, to continuing to invest in research and development and to recognize that all of these options and probably then some, are going to be necessary for us to meet our

goals. But we're confident that we will get there.

PUF: The last time we saw you, was participating with the launch of the EPRI's Low-Carbon Resources Initiative or LCRI.

Kim Greene: The wonderful thing about the Low-Carbon Resources Initiative is we can pool our financial and intellectual resources together and move the development of those technologies along much faster than we would otherwise.

These collaborative research and development opportunities are valuable. It's unique that we do them this way in the United States. That creates lots of benefits for us and I'm excited to be a part of it.