

AIR QUALITY



OG&E serves more than 850,000 customers in a service territory spanning 30,000 square miles in Oklahoma and Western Arkansas. As the largest electric utility provider in Oklahoma, OG&E owns and operates 15 power stations capable of providing 7,100 megawatts of electricity generated by natural gas, low-sulfur western coal, and renewable wind and solar. OG&E also provides nearly 400 additional megawatts of wind power through purchased power agreements. OG&E natural gas-fueled stations include highly efficient combined cycle units and quick-start combustion turbines.

OUR ENVIRONMENTAL COMMITMENT

OG&E's commitment to being a responsible corporate steward of the environment is due to a blend of smart choices. These prudent choices include fuel diversity, technology improvement, educational and community outreach and, going beyond compliance with regulatory requirements when beneficial to all stakeholders.

REDUCING EMISSIONS

To date, OG&E's strategic plan has reduced emissions and carbon intensity through our investment of more than \$700 million in emissions control improvements at our power plants and a conversion of 40 percent of our coal fueled fleet to natural gas. In addition to emissions controls, OG&E utilizes low-sulfur coal in its coal units, which minimizes the potential emission of sulfur dioxide (SO₂) from its fleet.

These strategic changes have made remarkable improvements in reducing key pollutants. Beginning in 2019, sulfur dioxide (SO₂) emissions are expected to be lower by nearly 90 percent, nitrogen oxide (NO_x) to be lower by nearly 75 percent, carbon dioxide (CO₂) to be lower by approximately 40 percent and mercury emissions by 80 percent over 2005 levels.

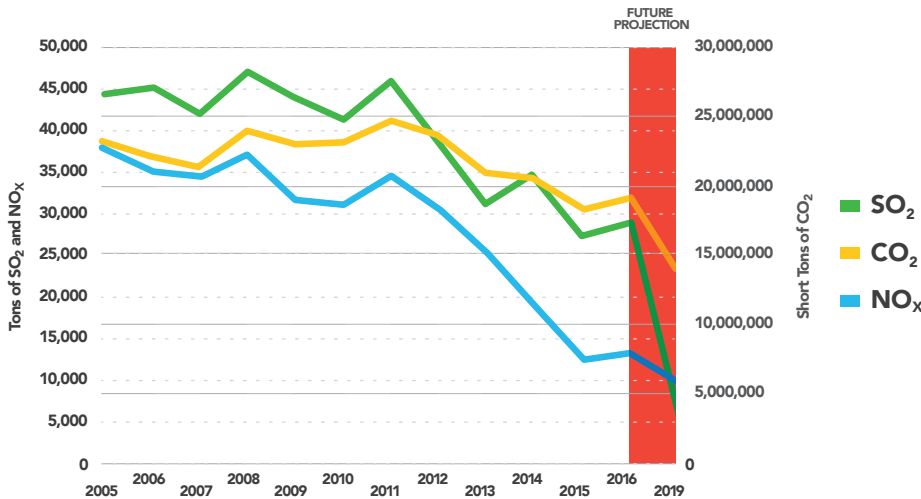
OG&E has developed the Mustang Energy Center, a multi-year effort to revitalize and repurpose the former Mustang Power Plant site. This effort included the installation of Oklahoma's first universal solar farm in 2015 and the installation of seven efficient, natural gas-powered combustion turbines in 2017. The quick-start combustion turbine technology supports integration of Oklahoma wind energy and grid reliability and has reduced the site's nitrogen oxide emission rate by over 75 percent.

- + As the company begins 2019, it expects sulfur dioxide (SO₂) emissions to be lower by nearly 90 percent, nitrogen oxide (NO_x) to be lower by nearly 75 percent, carbon dioxide (CO₂) to be lower by approximately 40 percent and mercury emissions by 80 percent.
- + OG&E's generation profile balances the long term price volatility of natural gas with the stability of coal prices to provide for a more stable cost to all of OG&E's customers and to maintain the economic well-being of our growing state. This, along with our renewable energy generation and customer energy efficiency programs, supports our commitment to environmental stewardship, while upholding the company's commitment to delivering reliable, affordable, safe, and clean energy.
- + An estimated 1 million MWh of energy has been saved and nearly 1500 tons of NO_x and SO₂ emissions were avoided since 2008, due to customer energy efficiency programs.

MINIMIZING EMISSIONS

Over 1,800 megawatts, or nearly one-quarter of the generating fleet under OG&E's operational control consists of high efficiency natural gas-fueled combined cycle turbines.

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AVOIDING EMISSIONS

Since 2008, OG&E customer energy efficiency programs, including home energy audits and weatherization have saved more than 1 million megawatt-hours of electricity consumption. Energy efficiency programs have led to the avoidance of approximately 500 tons of NO_x and nearly 1,000 tons of SO₂ emissions. We're helping build sustainable value for our customers by maintaining a diverse generating portfolio, helping customers use less energy, save money and reducing our emissions profile.

OG&E is a pioneer in providing Oklahoma-based zero-emission renewable energy to its customers. Oklahoma is typically ranked among the top three states in the nation for wind generation¹. OG&E is a significant contributor to Oklahoma's wind energy leadership efforts; during 2019, OG&E wind energy accounted for approximately 10 percent of the state's total wind capacity. Since 2003, OG&E has added more than 840 megawatts of wind power to its portfolio.

In 2015, OG&E built the 2.5 MW Mustang Solar Project as a pilot to research the integration of solar energy into its system. We began offering customers power from the Project in 2016, and subscriptions quickly sold out for the year. OG&E has now sited a 10 MW solar farm in Covington, Oklahoma, which became operational in early 2018. Subscriptions were sold out before the project was ever built. OG&E will evaluate the need to build additional solar plants based on customer demand, cost and reliability.

OG&E has successfully installed more than 800,000 smart meters for nearly all customers in its service territory. With this technology, OG&E has developed customer use programs such as SmartHours®, part of OG&E's Positive Energy Smart Grid Program, which was recently named the world's highest ranked smart grid project by VassaETT. SmartHours offers a Real Time Pricing option, which communicates hourly prices to consumers, allowing them to shift their energy use to non-peak periods. Although the program does not register a direct and measurable reduction in emissions, it is intended to educate customers about how energy usage compares with pricing and is expected to have a behavioral impact resulting in reduced emissions and energy use. The smart meter technology also eliminates emissions associated with vehicle travel for meter reading activities and reduced truck dispatches for service connects and disconnects.



OG&E continuously develops plans to meet the increasing demands of its customers with newer, more efficient and lower-emitting technology.



References

¹ American Wind Energy Association

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