



Climate Commitment, Goals and Actions

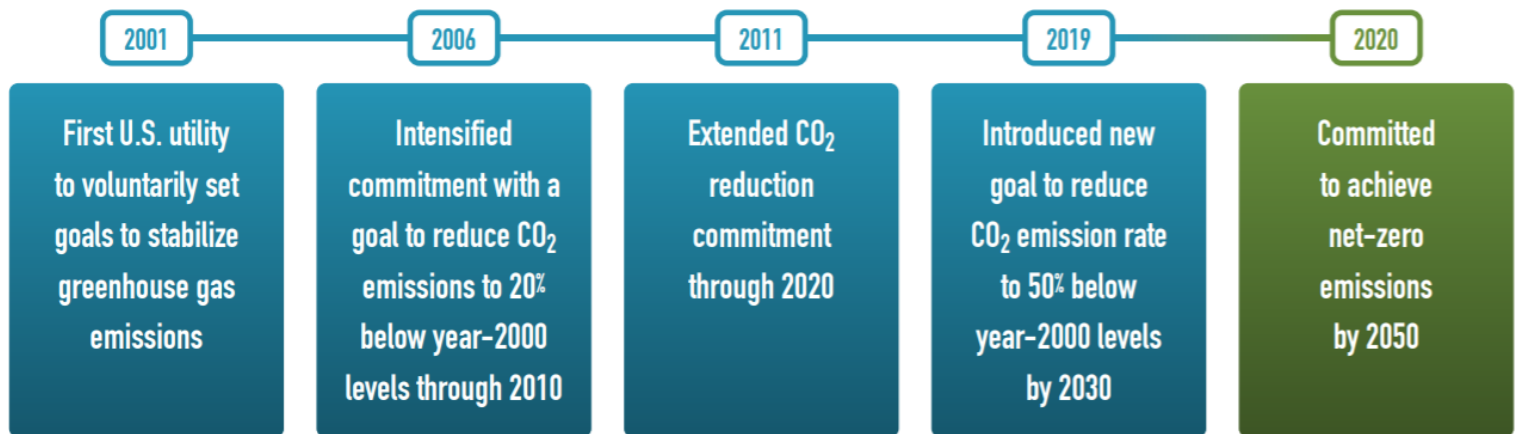


[_ \(https://sustainabledevelopment.un.org/sdg13\)](https://sustainabledevelopment.un.org/sdg13)

Take urgent action to combat climate change and its impacts.

Entergy is taking aggressive action to combat climate change and its impacts. Since 2001, we have operated under voluntary commitments to stabilize and reduce our CO₂ emissions as part of our actions to be environmentally responsible and manage risks related to potential federal legislation of emissions.

Now we are enhancing our climate leadership to span five decades with a commitment to net-zero CO₂ by 2050.



Learn how we expect to achieve this commitment while remaining relentlessly focused on reliability and affordability [here](https://cdn.entergy.com/userfiles/content/environment/docs/net-zero.pdf) ([//cdn.entergy.com/userfiles/content/environment/docs/net-zero.pdf](https://cdn.entergy.com/userfiles/content/environment/docs/net-zero.pdf)).

[_ \(//cdn.entergy.com/userfiles/content/environment/docs/net-zero.pdf\)](https://cdn.entergy.com/userfiles/content/environment/docs/net-zero.pdf)

Entergy's net-zero carbon emissions commitment builds on the company's 2030 goal announced in 2019. Our plan to reduce our emission intensity by half the level it was in 2000 is outlined in our Climate Report and Scenario Analysis available [here](#)

Entergy Commits to Net-Zero Carbon Emissions

Building on our longtime legacy of environmental stewardship, we are enhancing our climate action strategy with a long-term commitment. Entergy will work over the next three decades to reduce carbon emissions from our operations to net-zero by 2050. We intend to accomplish this by working with our regulators and other stakeholders to balance reliability, affordability and sustainability.

Entergy has been an industry leader in voluntary climate action for two decades.

In 2001, we were the first U.S. utility to set our carbon dioxide emissions voluntarily. After leading our target by more than 20%, we renewed and strengthened the commitment twice.

Today, we are outperforming by 6% our current commitment to maintain carbon emissions from Entergy-owned power plants and renewable power purchases through 2025 at 20% below our 2002 levels. Last year, we announced a goal to reach half the carbon emissions per megawatt-hour in 2030 that we emitted in 2002.

Entergy operates one of the cleanest large-scale power generating fleets in the United States.

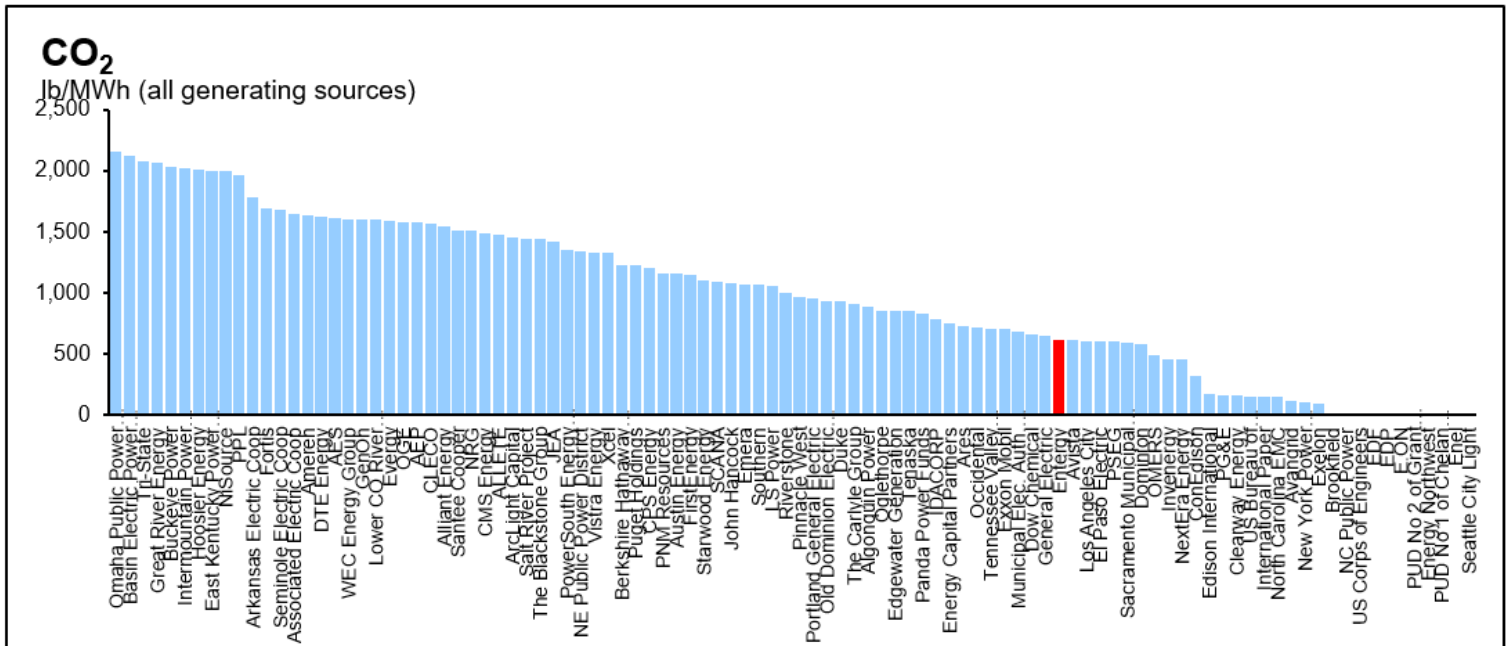
Year	Target	Actual
2002	100%	100%
2012	80%	85%
2022	60%	66%

Entergy is taking action now toward a carbon-free future. We expect to achieve this net-zero 2050 commitment by:

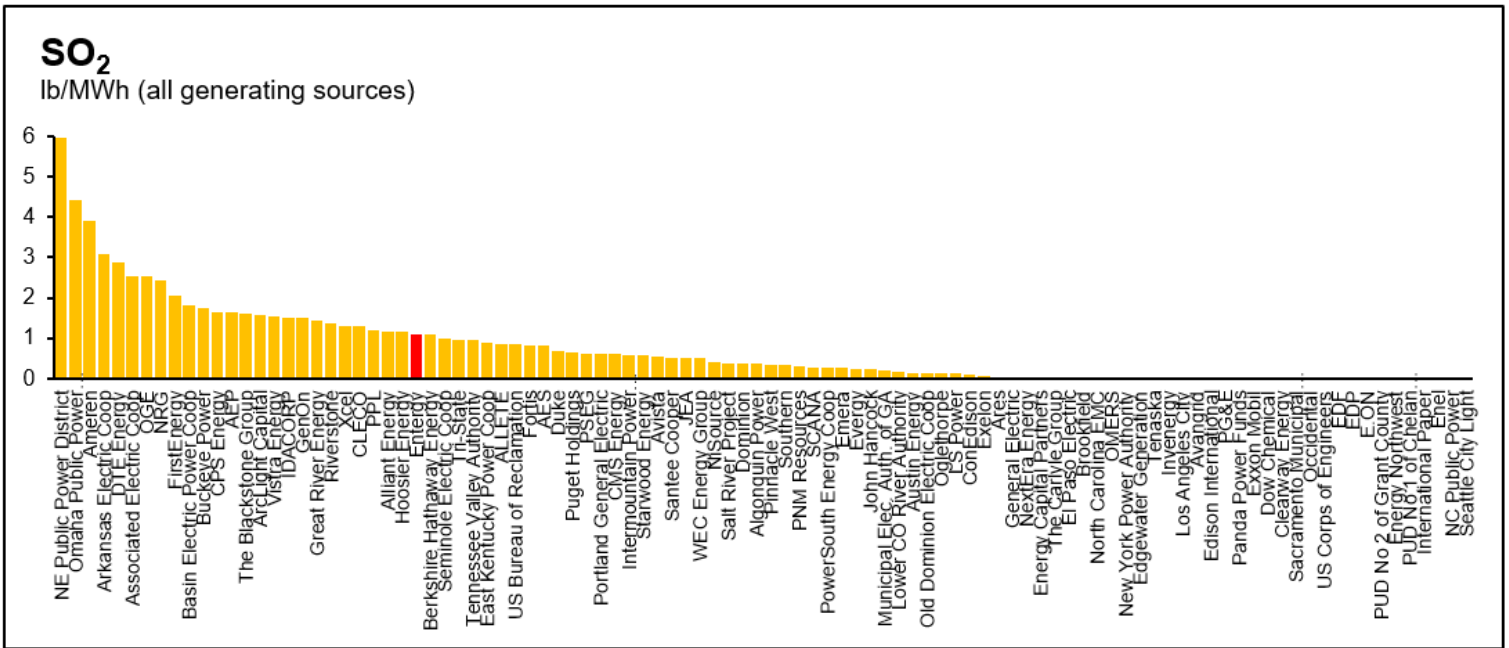
- Expanding our transmission strategy with energy technology options.
- Working with customers, key suppliers and partners to balance new technologies necessary to reduce emissions.
- Continuing to engage with government and gas experience on enhancing natural systems like forests and wetlands that absorb carbon.
- Partnering with customers to identify other sectors like transportation and industry for emissions reductions and decarbonization levels.

(<https://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf>).

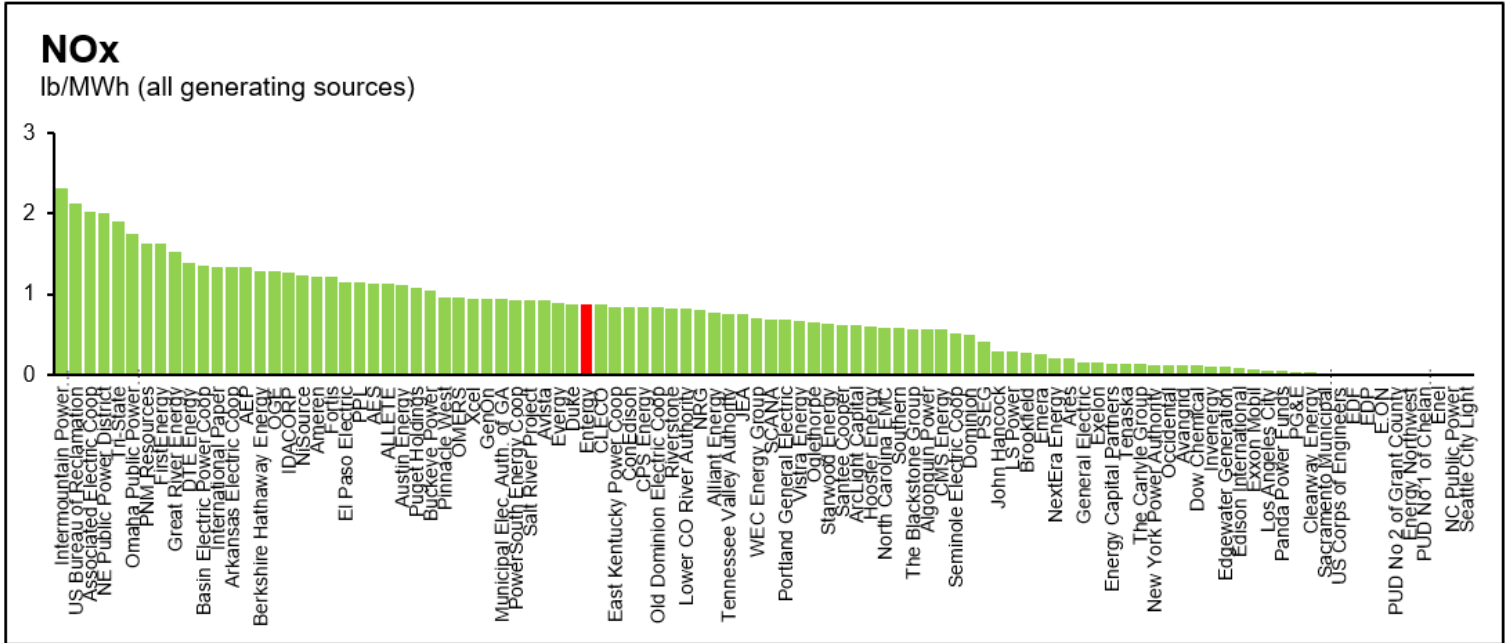
On an emissions-per-megawatt-produced basis, Entergy is one of the cleanest utilities in the U.S. According to the 2020 Benchmarking Air Emissions Report (https://www.mjbradley.com/sites/default/files/Presentation_of_Results_2020.pdf), Entergy is the seventh-largest of the top 100 power producers. At the same time, Entergy ranks sixth in the production of zero-emitting energy. Entergy's CO₂ emission rate is the fifth lowest among the top 20 privately owned and investor-owned power producers. For more details on how Entergy compares, see the charts below:



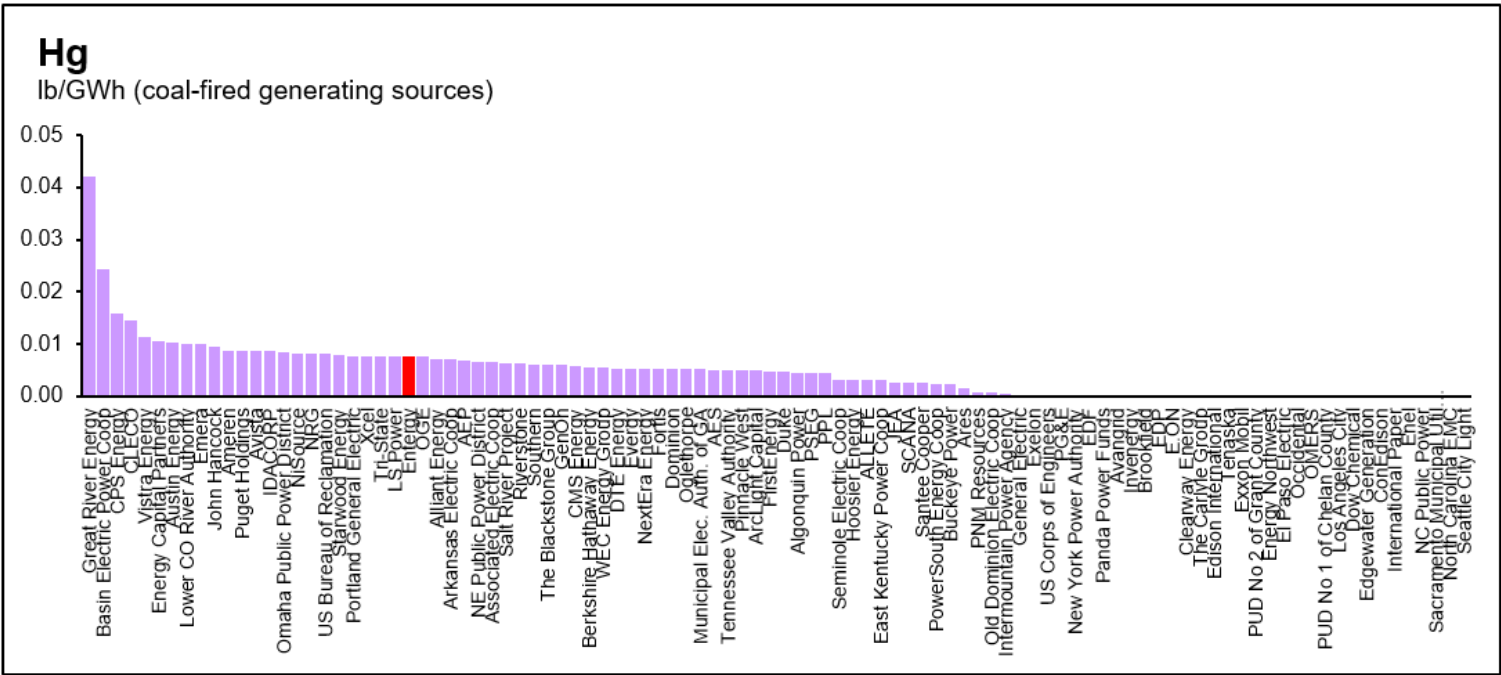
(https://cdn.entergy.com/userfiles/environment/CO2_chart.png)



(//cdn.energy.com/userfiles/environment/SO2_chart.png)



(//cdn.energy.com/userfiles/environment/NOX_chart.png)



(http://cdn.energy.com/userfiles/environment/HG_chart.png)

Our current commitment is to maintain CO₂ emissions from Entergy-owned power plants and controllable power purchases through 2020 at 20 percent below year 2000 levels. Through 2019, our cumulative CO₂ emissions were approximately 8% below our target.

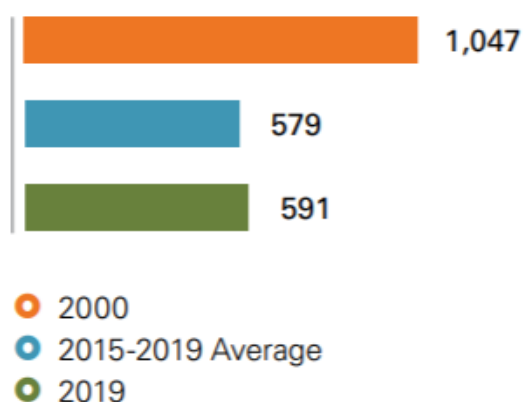
Cumulative CO₂ Emissions From Entergy-Owned Plants and Controllable Purchases (million tons)



- Cumulative Emissions 2001-2019
- Cumulative Goal 2001-2019
- Cumulative Goal 2001-2020

Average CO₂ Emissions Rate From Entergy-Owned Plants

(pounds per MWh)



Average Heat Rate by Fuel 2019 Coal and Gas

Fuel	Regulatory Body	Average Heat Rate (mmbtu/MWh)
COAL	APSC	10.584
COAL	LPSC	11.263
COAL	MPSC	10.518
COAL	PUCT	11.156
GAS	APSC	7.390
GAS	LPSC	8.215
GAS	MPSC	8.215
GAS	CNO	7.274
GAS	PUCT	10.599

As a continuation of Entergy's two decades of analysis, engagement and disclosure on climate change risks and opportunities, we published "[Climate Scenario Analysis and Evaluation of Risks and Opportunities](https://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf)" (<https://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf>) in 2019. Our climate report explains how customer and sector partnerships focused on beneficial electrification efforts can result in economy-wide carbon emission reductions, especially as Entergy's already low carbon emission intensity continues to decrease through portfolio transformation.

In the climate report, we set a new emissions strategy for the next decade by committing to reduce our emission intensity by **50%** from our 2000 level by 2030. Emission intensity is measured by pounds of CO₂ produced per megawatt hour. This means that for every unit of electricity Entergy generates, we will emit half the CO₂ that we emitted in 2000. Learn more in our climate report [here](https://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf) (<https://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf>).

Meeting Our Climate Goal

Planned investments in portfolio transformation, grid modernization and nuclear improvements are increasing our overall efficiency and reducing our environmental impact. Nuclear generation remains a key component of our clean generation resources. Combined-cycle gas turbine plants are highly efficient and reduce the amount of fuel burned per kilowatt hour of energy produced, thus greatly reducing emissions when compared to coal or older gas units. Our strategy has allowed the deactivation of about 7 GW of older, less efficient gas or oil units since 2000. Our new-build natural gas-powered units, in operation or under construction, represent roughly 7.5 GW of highly efficient generation. These units emit approximately 40% less CO₂ per MWh than older legacy gas units. Looking ahead, we currently expect to deactivate approximately 7 GW of legacy gas and coal units while adding 7 to 8 GW of new generation from 2022 through 2030 as we continue our transformation strategy.

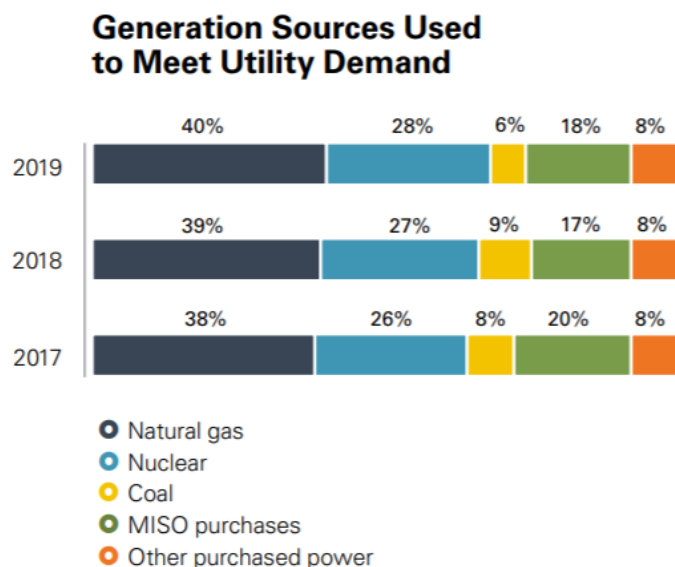
In 2019, renewable resources (solar, wind renewable energy credits, hydro, biomass, landfill gas, and waste heat) supplied approximately 2.8 million MWh, or approximately 2 percent of total electric demand, to our utility customers. While still a small portion of our utility generation, as technology and economics continue to improve, we are pursuing additional utility-scale renewable opportunities as well as potential applications for distributed energy resources. We currently have nearly 2 GW of renewable projects in various stages of development or planning.

Read about recently announced solar projects here:

- [Arkansas \(https://www.energynewsroom.com/news/arkansas-public-service-commission-approves-searcy-solar-project/\)](https://www.energynewsroom.com/news/arkansas-public-service-commission-approves-searcy-solar-project/)
- [Mississippi \(https://www.energynewsroom.com/news/mississippi-public-service-commission-gives-green-light-1-000-acre-solar-farm/\)](https://www.energynewsroom.com/news/mississippi-public-service-commission-gives-green-light-1-000-acre-solar-farm/)
- [New Orleans \(https://www.energynewsroom.com/news/harnessing-power-sun/\)](https://www.energynewsroom.com/news/harnessing-power-sun/)

In 2018, [Entergy announced \(https://www.energynewsroom.com/news/entergy-strikes-agreement-continue-transforming-arkansas-power-generation/\)](https://www.energynewsroom.com/news/entergy-strikes-agreement-continue-transforming-arkansas-power-generation/) that Entergy Arkansas and its affiliates will begin to use only low-sulfur coal at White Bluff and Independence coal generating plants starting no later than June 30, 2021; will cease to use coal at White Bluff no later than the end of 2028; and will cease to use coal at Independence no later than the end of 2030. These actions will result in Entergy closing 80 percent of its coal fleet. In addition, we will continue to use only natural gas at Lake Catherine Unit 4 until ceasing plant operation by the end of 2027. In 2030, approximately 1.2% of our generation will be from coal as outlined on page 34 of our [climate report \(http://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf\)](http://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf).

Further details of our investments in cleaner resources are available in our 2019 Integrated Report [here \(http://integratedreport.entergy.com/our-utility/generation.php\)](http://integratedreport.entergy.com/our-utility/generation.php).



These investments have greatly reduced both absolute air emissions and emission rates since 2000. In 2018, the most recent benchmarking data available, Entergy's emission rate was 617 pounds per MWh, much lower than the national average (<https://www.eia.gov/electricity/state/unitedstates/index.php>) of 1,009 pounds per MWh.

Since 2000, while our annual electric generation grew by more than 27 percent, our investments in clean energy capacity have resulted in:





72 %
reduction
NO_x
emissions


59 %
reduction
SO₂
emissions


90 %
reduction
Hg
emissions


25 %
reduction
CO₂
emissions


27 %
increase
electric
generation



WE POWER LIFESM

We are also investing in owned and contracted carbon-free renewable generation. In 2019, renewable resources (solar, wind, renewable energy credits, hydro, biomass, landfill gas, and waste heat) supplied approximately 2.8 million MWh, or approximately 2 percent of total electric demand, to our utility customers.



Read more about these initiatives in our [2019 Integrated Report](http://integratedreport.energy.com/pdf/Entergy_2019_Integrated_Report.pdf) (http://integratedreport.energy.com/pdf/Entergy_2019_Integrated_Report.pdf).

Entergy GHG Inventory Documentation and Data

[American Carbon Registry – Entergy GHG Registry Account](https://americancarbonregistry.org/how-it-works/accounts/entergy-corporation-corporate-ghg-inventory-reporting) (<https://americancarbonregistry.org/how-it-works/accounts/entergy-corporation-corporate-ghg-inventory-reporting>)

2019 GHG Documentation

- [2019 GHG Inventory](http://cdn.energy.com/userfiles/content/environment/docs/GHG_Inventory_2019.pdf) (http://cdn.energy.com/userfiles/content/environment/docs/GHG_Inventory_2019.pdf)
- [2019 Inventory Management Plan and Reporting Document](http://cdn.energy.com/userfiles/content/environment/docs/GHG_Inventory_Mgmt_Plan_Reporting_Document_2019.pdf) (http://cdn.energy.com/userfiles/content/environment/docs/GHG_Inventory_Mgmt_Plan_Reporting_Document_2019.pdf)
- [2019 GHG Inventory Third-Party Verification Statement and Report](http://cdn.energy.com/userfiles/content/environment/docs/Cventure_2019_GHG_Inventory_2019.pdf) (http://cdn.energy.com/userfiles/content/environment/docs/Cventure_2019_GHG_Inventory_2019.pdf)

[Previous GHG Documentation](#) ([environment/ghg-archive/](#))

Greenhouse Gas

- [Carbon Disclosure Project - 2015](http://cdn.energy.com/userfiles/content/environment/docs/Entergy_2015_CDP_Final.pdf) (http://cdn.energy.com/userfiles/content/environment/docs/Entergy_2015_CDP_Final.pdf)
- [Carbon Disclosure Project - 2014](http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_2014_CDP_Final.pdf) (http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_2014_CDP_Final.pdf)
- [Carbon Disclosure Project - 2013](http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_CDP_2013_Response_053012.pdf) (http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_CDP_2013_Response_053012.pdf)
- [Carbon Disclosure Project - 2012](http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_CDP_2012_Response_053112.pdf) (http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_CDP_2012_Response_053112.pdf)
- [Carbon Disclosure Project - 2011](https://www.energy.com/userfiles/content/our_community/pdfs/carbon_disclosure_project_11.pdf) (https://www.energy.com/userfiles/content/our_community/pdfs/carbon_disclosure_project_11.pdf)
- [Greenhouse Gas Commitment](http://integratedreport.energy.com/esg/environmental.php) (<http://integratedreport.energy.com/esg/environmental.php>)

Water Performance

- [CDP Water - 2015](http://cdn.energy.com/userfiles/content/environment/docs/2015_CDP_Water_Final.pdf) (http://cdn.energy.com/userfiles/content/environment/docs/2015_CDP_Water_Final.pdf)
- [CDP Water - 2014](http://cdn.energy.com/userfiles/content/our_community/pdfs/2014_CDP_Water_Final.pdf) (http://cdn.energy.com/userfiles/content/our_community/pdfs/2014_CDP_Water_Final.pdf)
- [CDP Water - 2013](http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_CDP_water_053012.pdf) (http://cdn.energy.com/userfiles/content/our_community/pdfs/Entergy_CDP_water_053012.pdf)

Environmental News

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Entergy Commits to Achieving Net-Zero Carbon Emissions by 2050

09/24/2020

Building on our longtime legacy of environmental stewardship, Entergy announced a commitment to achieve net-zero carbon emissions by 2050. We intend to accomplish this while continuing to ensure grid reliability and affordability for our customers.

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Mitsubishi Power and Entergy to Collaborate and Help Decarbonize Utilities in Four States

09/23/2020

Mitsubishi Power and Entergy will collaborate to bring decarbonization projects to Entergy's utility businesses in Arkansas, Louisiana, including the separate jurisdiction of New Orleans, Mississippi and Texas.

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Entergy's Tree Giveaway Helps Customers Plant Trees, Make Memories

08/14/2020

For many customers spending more time at home during the quarantine, Entergy's spring tree giveaway produced a harvest of fun outdoor activities for the whole family to enjoy.

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