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Bishop John Stowe of Lexington, Kentucky, announces a net-zero initiative, pledging to reach net-zero emissions across its 59 parishes as well as schools and other institutions in the next six years. With him at a press conference April 23 are Adam Edelen (right), founder and CEO of Edelen Renewables, and Joshua Van Cleef (left), director of the diocese's peace and justice office. (Courtesy of Diocese of Lexington)



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The Diocese of Lexington, Kentucky, a mission diocese in the heart of Appalachian coal country, pledges to reach net-zero emissions across its 59 parishes as well as schools and other institutions in the next six years.

The ambitious goal and aggressive timeline, eliminating carbon emissions from its energy use by 2030, were announced at a [press conference](#) April 23. In the courtyard of the Catholic Center, in Lexington, Bishop John Stowe said the effort was in response to increasingly urgent calls from Pope Francis that the church take concrete actions toward the preservation of the planet, including dangerous threats posed by climate change.

"We're grateful to say we're going to do this and reduce our carbon consumption, our carbon footprint, and bring ourselves to net zero in a pretty short amount of time, because we only have a pretty short amount of time to make an impact in a lasting way on this world," Stowe said.

Net-zero emissions refers to the elimination of carbon emissions an organization produces, and counterbalancing hard-to-eliminate emissions through removal of carbon from the atmosphere. Carbon emissions are primarily released from burning fossil fuels, and they trap heat in the atmosphere, which is the main driver of global warming.

Climate scientists have said that limiting average global temperature rise to 1.5 degrees Celsius (2.7 degrees Fahrenheit) — the primary goal under the Paris Agreement — will require nations to slash emissions nearly in half by 2030 and reach net-zero by 2050. Global temperatures have already risen 1.1 to 1.2 C, and under current trajectories are [expected to eclipse 1.5 C in the 2030s](#).

The commitment to net-zero emissions by the Lexington Diocese is one of the boldest responses to climate change to date from the U.S. Catholic Church — and it comes from a region home to one of the largest coal deposits in the country.

'It really communicates to the rest of the world that if we can do this in coal country, you should be able to do it wherever you are.'

—Adam Edelen

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The [diocese](#) of 41,000 Catholics spans 50 counties in eastern and central Kentucky, one of the poorest parts of the U.S. , where in many parts coal mining has been a defining, though declining, industry and central cultural identifier.

That the Lexington Diocese has undertaken a carbon neutrality goal is "audacious" and "extraordinary," said Adam Edelen, CEO and founder of Lexington-based Edelen Renewables and the primary adviser on the diocese's net-zero task force. That group is composed of leaders of major industries in the area, including Toyota and Lexmark.

"It really communicates to the rest of the world that if we can do this in coal country, you should be able to do it wherever you are," Edelen told EarthBeat.

Several other Catholic institutions have made net-zero emissions commitments to varying degrees. The [Diocese of Davenport, Iowa](#), has committed to carbon neutrality within its chancery building and all associated operations, and the [Catholic Community Foundation of Minnesota](#), which collaborates closely with the Archdiocese of Saint Paul and Minneapolis, has begun a parish-focused net-zero program in the Twin Cities.* In addition, numerous [Catholic universities](#), [hospital systems](#) and [congregations of women religious](#) have laid out net-zero plans.

The Holy See [in December 2020](#) pledged it will reach net-zero emissions within the Vatican city-state by 2050, which serves as its national commitment under the Paris Agreement.



A train carries coal near Ravenna, Kentucky, Aug. 21, 2014. (CNS/Tyler Orsburn)

For Stowe, a Conventual Franciscan, the messages of Francis were a major impetus to take the net-zero step in Kentucky.

In October, the pope [issued *Laudate Deum*](#), an apostolic exhortation "on the climate crisis" that served as a briefer and more pointed follow-up to his landmark 2015 encyclical "*Laudato Si'*, on Care for Our Common Home."

In the time since the encyclical's release, Francis [wrote](#) in *Laudate Deum*, "I have realized that our responses have not been adequate, while the world in which we live is collapsing and may be nearing the breaking point. In addition to this possibility, it is indubitable that the impact of climate change will increasingly prejudice the lives and families of many persons."

He [added](#) later that "the necessary transition towards clean energy sources such as wind and solar energy, and the abandonment of fossil fuels, is not progressing at the necessary speed."

The release of *Laudate Deum* further spurred Stowe to move forward on discussions he had had in recent years, including with Edelen and Creighton theologian Dan DiLeo, who has advocated for U.S. dioceses to decarbonize.

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"It's one thing to talk about doing something. It's another thing to put something out there that you can be held accountable to and have measured for you," Stowe said. "So we're grateful to have this opportunity."

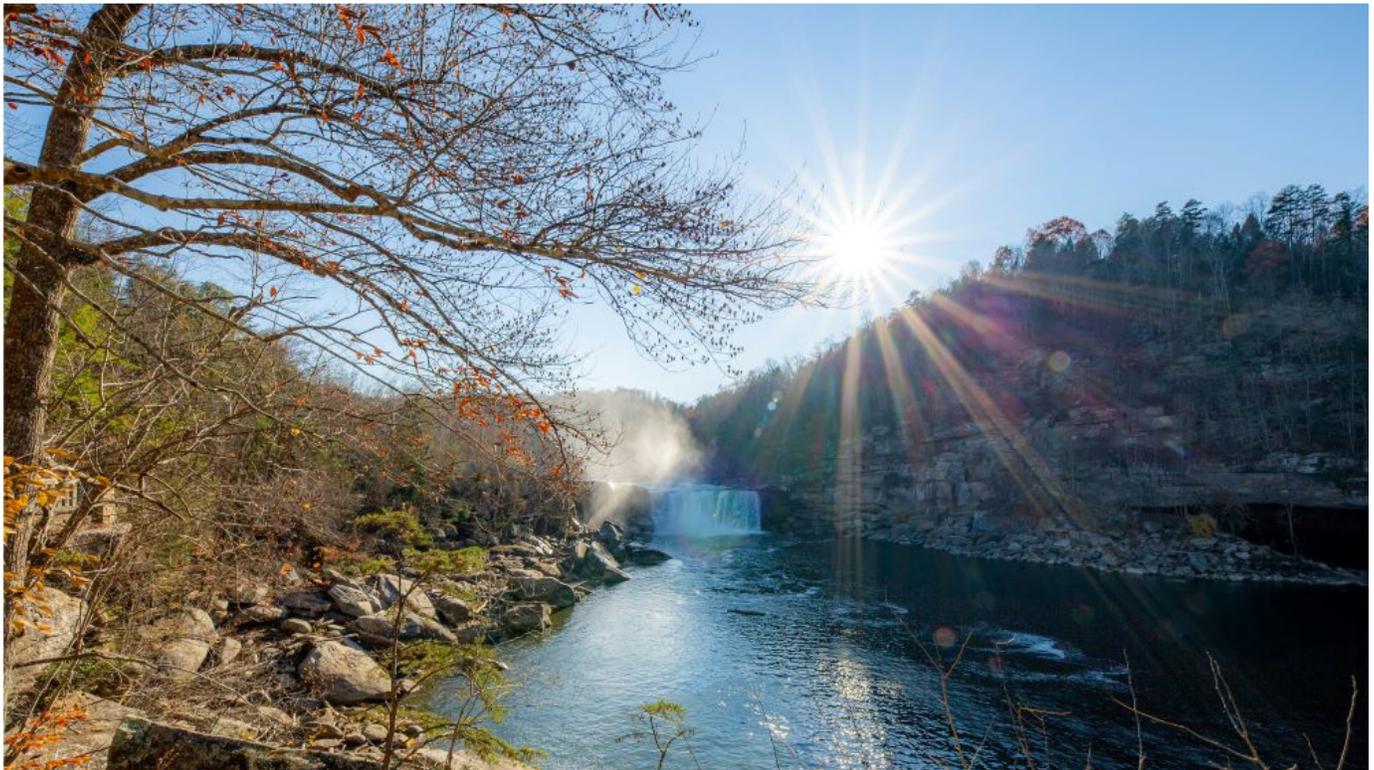
For the Lexington Diocese, the net-zero target is part of its *Laudato Si'* action plan, and the diocese intends to enroll in the Vatican's *Laudato Si'* Action Platform. Other actions are expected to follow.

Announced in [May 2020](#) and launched in [November 2021](#) with the pope's endorsement, the *Laudato Si'* Action Platform is a major initiative encouraging all church institutions worldwide to adopt seven-year sustainability plans in the spirit of Francis' encyclical. At least 20 U.S. dioceses so far have joined the platform, which lists among suggested actions reducing waste, expanding ecological education and spirituality, making ethical investments and achieving carbon neutrality.

A plan for how the Lexington Diocese will reach its net-zero goal is still in its infancy.

Joshua Van Cleef, director of the diocese's peace and justice office, and Edelen lead the 11-member task force that formed six weeks ago and includes diocesan officials and area business leaders.

The task force will focus on Scope 2 emissions, or those primarily from the use of power. It will also review Scope 1 emissions, which are related to transportation.



The sun shines brightly over Cumberland Falls, in the southern part of the Diocese of Lexington, Kentucky, Nov. 24, 2021. (Unsplash/Rafik Wahba)

Over the next year, the task force will work to calculate the diocese's carbon footprint. From there, it will evaluate technological solutions to reduce the diocesan carbon footprint, as well as funding sources, which could include those available under the [Inflation Reduction Act](#), the largest federal legislative package — upwards of \$300 billion — on climate and clean energy. The task force will also assist in communicating about the goal, from its progress to how it reflects church teaching.

What technologies the diocese will use to cut emissions — whether solar arrays, existing green energy programs through utility companies, or other options — have yet to be decided.

"This is both an immense challenge, probably an age-defining challenge in the form of climate change. But it's also an epic, defining opportunity and how we create unity in meeting this challenge head on," Edelen said.

"Getting to carbon neutrality is important," he added, "but I think the real soul-building stuff here is that we can provide a roadmap for others who want to do the same thing and certainly in less difficult terrain."

That the Catholic Church, a minority religion in the region with an outsized presence through its social safety net programs, is taking on this climate project in coal country is not lost on the task force and the bishop.

At the press conference, Stowe noted that 40 of the 50 counties the diocese covers across 16,423 square miles are in Appalachia, and the livelihoods of many people relied on coal mining.

"[They are people] who have found their work and their dignity and provided for families because of coal ... contributing to the common good by helping things work," he said.

"But now knowing what we know, we have to be committed to an economic conversion, to make sure that the jobs that are helping people get to work are ones that will protect and preserve our environment," Stowe said. "But no blame to those who have gone before with what they didn't know, but with a real immense respect for the human dignity and the value of work, which gives meaning to lives, which allows people a path forward and allows them to provide for their families."

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He added that Francis "has also been very clear from the beginning that we can't put the burdens of transformation of energy on those who have already suffered the consequences of our prior abuse of the earth."

Van Cleef told EarthBeat that coal country means more than "a place where coal was under our feet at one point." More people identify that moniker with values and traits like work ethic, resiliency, sacrifice, "love of land and getting your hands into the land and knowing God's resources as gifts," he said. "So I think we're the perfect place for this."

Edelen has seen a change in the region as well. Edelen Renewables has helped advance \$3 billion coal-to-solar projects in Appalachia, including the first large-scale solar project now under construction in eastern Kentucky. He said the challenge of doing a renewable energy project in the region stems less from people's hostility, and more "because our leadership never contemplated a renewable energy future."

He said the conversation now is dramatically different from seven years ago. "And that is to say, there is broad recognition now that coal as an industry, its shoulders

will never be so broad as to support the entire region again, and that there is broad recognition that green energy is a precondition for modern economic development."

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Raging floodwaters are seen in Hazard, Kentucky, July 28, 2022. Rain in southeastern Kentucky caused massive flooding that destroyed hundreds of homes and wiped out entire communities. (CNS/Diocese of Lexington/Edward Bauer)

The net-zero commitment builds on the Lexington Diocese's efforts since *Laudato Si'* was released in June 2015. It has a *Laudato Si'* commission, and care for creation is identified as a priority in its pastoral plan. The diocese has encouraged pastors and lay ministers to talk about creation care and climate change in ways that connect to faith and in plain ways that relate to people's experiences, including historic [flooding](#) in summer 2022.

Van Cleef said the net-zero goal "sets a vision for where we're going that people can get behind," one with a bold statement alongside measurable commitments.

"I think it became clear, especially after *Laudate Deum*, and we're almost at 10 years since *Laudato Si'*, that we were going to have to do something a bit bigger to start moving the needle."

Near the end of the net-zero announcement, Edelen said that "today, the work begins of galvanizing people of faith to leave the world better than we found it."

**This sentence has been updated on April 28, 2024 to accurately attribute the parish-focused net-zero program to the Catholic Community Foundation of Minnesota, rather than the archdiocese.*

This story appears in the **Laudato Si' Action Platform** feature series. [View the full series.](#)

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