

# 200 US cities will fall short of sustainable energy goals despite pledging to transition by 2050, says study

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Two-hundred U.S. communities will fail to transition to 100% renewable energy by 2050 despite their pledges to do so, according to a [new study](#)

published in IOP Publishing's journal *Environmental Research: Infrastructure and Sustainability*.

The study shows that by 2050 gas will firmly remain the primary source of energy in the U.S. given that the current infrastructure plans for implementing renewable energy cannot provide sufficient energy output. Recent projections suggest that renewable energy generation will need to triple to meet even a 45% share of energy production. The results indicate that in many instances renewable energy is used as an additional source to meet growing energy needs, instead of a transitional tool away from fossil fuels.

The study provides a unique insight into the [energy consumption](#) on a city level based on an energyshed framework. An energyshed is a holistic framework covering a [geographic area](#) that contains the land, infrastructure, people, profits, and environmental impacts and how these elements impact energy consumption.

Based on this method the researchers at Baylor University examined a cross section of U.S. cities including Boston, Washington D.C., Salt Lake City, Columbia, and San Diego that have committed to adopting fully renewable energy sources by 2050, finding that these cities are predicted to meet just 10% of their targets in the next 30 years.

Dr. Kayla Garrett, author of the study and Postdoctoral Fellow in Environmental Science at Baylor University, says, "The energyshed method shows that while the need for this transition is clear, the best pathways to achieve it are greatly debated. Many areas are faced with conflicting sustainability goals such as changes to infrastructure, energy storage, land and resource use, biodiversity, economic development, and more. This can lead to 'analysis paralysis' which is one of the major blockers for decisive action to reduce greenhouse gas emissions."

Garrett continues, "The energysheds approach shows much overlap between the needs and goals of neighboring communities and how they can work together. This knowledge can foster cooperation for funding, land acquisition, infrastructure, distribution, and storage for [renewable energy](#). Conversations are needed between those who apply the market approach to supply and demand versus those with sociopolitical approaches."

**More information:** *Environmental Research* (2024).  
[iopscience.iop.org/article/10.1088/2634-4505/ad0fef](https://iopscience.iop.org/article/10.1088/2634-4505/ad0fef)

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