

# Burlington, Vermont, Aims for Net Zero





Courtesy of Miro Weinberger.

A native Vermonter who was first elected in 2012, Miro Weinberger is serving his fourth term as the mayor of Burlington, Vermont. He attended Yale and Harvard's Kennedy School of Government, and worked for Habitat for Humanity before founding his own affordable housing development company. He's also a part-time athlete, playing catcher in an amateur over-35 baseball league.

Vermont has long been a progressive kind of place with a population dedicated to environmental measures, whether solar and wind power, electric vehicles, or sustainable farming practices. Burlington, its change-agent capital—the place that gave rise to Bernie Sanders, who served as mayor from 1981 to 1989—became the first city in the country to source 100 percent of its energy from renewables in 2014, a goal set in 2004. Now Weinberger and other leaders are building on that foundation, committing to shifting the city's energy, transportation, and building sectors away from fossil fuels entirely.

Burlington, Vermont, rises from the shore of Lake Champlain.  
Credit: Denis Tangney Jr. via iStock/Getty Images.

This interview, which has been edited for length, is also available as a *Land Matters* podcast: [www.lincolninst.edu/publications/podcasts-videos](http://www.lincolninst.edu/publications/podcasts-videos).

**ANTHONY FLINT:** *Tell us about this ambitious goal of becoming a net-zero energy city by 2030. What is that going to look like, and what are the steps to make that happen?*

**MIRO WEINBERGER:** As a result of decades of commitment to more efficient buildings and weatherization, Burlington uses less electricity as a community in 2022 than we did in 1989, despite the proliferation of new electrical devices and whatnot . . . that sounds exceptional, and it is. If the rest of the country had followed that trajectory, we'd have something like 200 less coal-burning plants today than we do.

When we became a 100 percent renewable electricity city in 2014, there was enormous interest in how Burlington had gotten here. After talking to film crews from South Korea and France and answering question after question about how we did this, I came to think we had achieved it for two big reasons. One, there was political will. Second, we had a city-owned electric department that had a lot of technical expertise and that was able to make this transformation to renewables affordable.

The way we are defining net zero is to essentially not use fossil fuels in—or have a net-zero fossil-fuel use in—three sectors. For the electricity sector, we're already there. That gets [us] about 25 percent toward the total goal. The [others are the] ground transportation sector and the thermal sector—how we heat and cool our buildings.

The big strategies are electrifying everything, electrifying all the cars and trucks that are based here in Burlington. Moving the heating and

cooling of our buildings to various electric technologies, the most common one probably being cold-climate heat pumps.

Then, rounding out the strategies, we are looking to implement a district energy system that would capture waste heat [from the city's biomass facility] and use it to heat some of our major institutional buildings. Then we also are making changes to our transportation network to make active transportation account for more of our vehicle trips and bring down fossil-fuel use that way as well. Those are the major roadmap strategies.

**AF:** *Is there one component of this that you have found particularly tough in terms of trying to go citywide?*

**MW:** In general, I've been really pleased with our progress. We actually found in our first update in 2021, we were on target to meet this incredibly ambitious goal of essentially phasing out fossil fuels by 2030.

Part of that, admittedly, was that, as we all know, 2020 was a pretty exceptional year and we did see transportation-related emissions drop as a result of the pandemic. We just got a new measurement and we did see some rebounding, so that we are not quite on track through two years the way we were [after] one. The rebound that happened here in Burlington was about a quarter of the nationwide rebound in emissions. Basically, we had a 1.5 percent increase in emissions after the pandemic, whereas the rest of the country grew by 6 percent. We've seen a rapid increase in the adoption of heat pumps and electric vehicles over the last couple of years since we came forward with what we call green stimulus incentives very early in the pandemic.

That said, I often have this sensation that we are fighting this battle with one hand tied behind our back, because it is not a level playing field for new electrification and renewable technologies. The costs of burning fossil fuels are not properly reflected in the

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economics right now. We need a price on carbon in some form. The fact that we don't have that holds us back. When we get that—and I do think it's just inevitable that eventually we will get this policy right, like a growing number of jurisdictions around the world—I think we're going to have a wind at the back of all these initiatives. It will help with everything we're trying to do.

**AF:** *Now, I want to make sure I understand. Do you want everyone in the city of Burlington to operate an electric vehicle by 2030? Is it that kind of scaling up and adoption?*

**MW:** Basically, yes. That is what it would really take to fully achieve the goal, that or some offset investments to help us get there, but we are very serious about doing everything we can to bring about as quickly as possible this transformation.

A year ago, we passed a zoning ordinance that [says] new construction in Burlington cannot burn fossil fuels as the primary heating source. We didn't prohibit fossil fuels—we thought that was too onerous, and the technology's just not there to go that far. Regulating the primary heating source can bring down the impact of a new building by as much as 85 percent. In recent weeks, the state signed off on a change to our charter that gives us the ability to go beyond that and put new regulations in place for all buildings in Burlington.

By next town meeting day, next March, we plan to have in front of the voters a new ordinance that would start to put requirements in place for the transformation of mechanical



In Burlington, investments on the road to net zero have included introducing electric buses and installing solar panels on the roof of the Burlington International Airport. Credits (left to right): Morgan True/VTDigger.org, Encore Renewable Energy.

systems for major new and existing buildings when they get to the end of their useful life. When water heaters break, for example, we are both going to have this strategy through our utility, offering very generous incentives, and have actual regulatory standards in place that require transformation.

**AF:** *I want to ask about the utilities. You mentioned Burlington Electric and then, of course, you have Green Mountain Power. How important is that piece, given that utility companies elsewhere seem to be wary of renewables and may even end up hindering that transition?*

**MW:** I've got to say, a decade in office grappling with these issues has made me a big believer in publicly owned power. All of the work that I described over the last 30-plus years, the city-owned electric department has been a big part of that. Municipalities, towns, mayors that don't have their own electric utility, I think it's harder. I do think there are things that any local community can do to collaborate with and, when necessary, bring public pressure to bear on utilities, which tend to have to answer to

some public regulatory authority. I think that there are ways to push other utilities to do what Burlington Electric is doing. I think it's an exciting story in Vermont that the other utility that has really been quite innovative, Green Mountain Power, is an investor-owned utility.

If we get anywhere near this net-zero goal, it's going to mean we're selling a whole lot more electricity than we are now. We estimate at least 60 percent more electricity than today. Every time someone buys an electric vehicle and charges it up in Burlington now, and they do it at night, we're able to sell them off-peak power in a way that just brings more dollars into the utility. It's very good, the economics. That's why we're able to offer these very generous incentives—every time we bring another electric vehicle or heat pump online, that's a new revenue stream to the city. These incentives in many ways largely pay for themselves with that new revenue. To me, it seems like good business sense as well to move in this direction.

**AF:** *Vermont has become a very popular destination for mostly affluent climate refugees [who are] buying up land and building houses. What are the pros and cons of this?*

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**MW:** You're right, we are seeing climate refugees here. We also had pandemic refugees. We've seen big new pressures on our housing markets, and that's the downside. We've long had an acute housing crisis, [but] it's worse than it's ever been now. The silver lining of that may be it may finally force Vermont to get serious about putting in place land use rules at the local and state level that make it possible to build more housing.

We desperately need more housing. We've got to get better about that, and I think there'll be environmental benefits if we do. To me, more people living in a green city like Burlington is a good trade-off for the environment.

**AF:** *Are there other strategies that you have in mind for keeping or making green Burlington affordable? Burlington has a successful community land trust, you encourage accessory dwelling units, you have inclusionary zoning . . . what's next?*

**MW:** We have a lot of work to do on our zoning ordinance and our statewide land use reform. Many projects in Vermont now—good projects, good green, energy-efficient projects in settled areas—have to go through both local and statewide land use permitting processes, an almost entirely redundant process that slows things down, adds a lot of costs, and creates all sorts of opportunity for obstruction. We have a lot of work to do and we're focused on it. There are three major upzoning efforts that we're pursuing right now and there's a big conversation about Act 250 [Vermont's land use and development law] reform happening in the state as well.

**AF:** *Finally, what advice do you have for other city leaders to take similar climate action, especially in places that aren't primed for it quite as well as Burlington is?*

**MW:** Whenever I talk to other mayors about this, I try to make the point that this is an area where political leadership [and community will] can have a huge impact. When I came into office, we had almost no deployed solar here in Burlington. We made it a priority. We changed some rules about permitting. We made it easier for consumers to have solar installed on their homes.

The utility played a role, and over a very small number of years, we became one of the cities in the country that had the most solar per capita. We're number five in the country. The only city in the top 20 on the East Coast at one point, and it's not an accident. This is making a decision to lead in this area and to make change. You can have a big impact.

At a time when clearly the climate emergency is an existential threat, at a time when clearly the federal government is paralyzed in its ability to drive change, and when many state governments are similarly gridlocked, mayors and cities can really demonstrate on the ground progress. I think when we do that, we show everybody else what's possible. □

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**Anthony Flint** is a senior fellow at the Lincoln Institute, host of the *Land Matters* podcast, and a contributing editor to *Land Lines*.

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