WASHINGTON — At a time when the country is already deeply fractured along partisan lines, individual states are starting to pursue vastly different policies on climate change with the potential to cement an economic and social divide for years to come.

A growing number of blue states are adopting sweeping new climate laws — such as New York’s bill, passed this week, to zero out net greenhouse gas emissions by 2050 — that aim to reorient their entire economies around clean energy, transforming the way people get their electricity, heat their homes and commute to work.

But these laws are passing almost exclusively in states controlled by Democrats, while Republican-led states have largely resisted enacting aggressive new climate policies in recent years. At the same time, the Trump administration is rolling back federal climate regulations, which means many red states now face even less pressure to shift away from coal power or gas-guzzling vehicles.
“What we’re seeing is a tale of two climate nations,” said Barry Rabe, a professor of public policy at the University of Michigan. “The split has become much more pronounced in recent years.”

Over the past year, Democratic majorities in California, Colorado, Maine, Nevada, New Mexico, New York and Washington have all passed bills aimed at getting 100 percent of their state’s electricity from carbon-free sources like wind, solar or nuclear power by midcentury, while enacting a raft of measures to install more electric-vehicle charging stations and ratchet up efficiency codes for buildings. In all, these states plan to invest billions of dollars to shift away from fossil fuels, the major driver of global warming.

And in Oregon, Democrats are on the verge of passing a bill that would require companies to pay for the carbon dioxide they emit, mirroring a law California has had in place for a decade. Such carbon-pricing programs, favored by some economists as an efficient tool to curb emissions, once attracted support from Democrats and Republicans alike but have become far more divisive lately.

In one dramatic marker of the divide, the Republican minority in the Oregon Senate on Thursday fled the Capitol to prevent a vote on the carbon-pricing bill, which they say would harm the state’s economy.

Overall, the partisan split on climate policy has become stark. Of the 15 state governors who now support 100 percent clean electricity goals, only one is a Republican: Gov. Larry Hogan of Maryland, who last month allowed an expanded renewable-power mandate adopted by the Democratic legislature to pass into law.

States have always competed with each other for business by offering beneficial tax rates, labor laws or health care policies. However, some of the new climate policies are striving to be much more far-reaching, affecting so many different industries that they could reshape the geography of America’s economy.

“Some of these states are hoping to build an advantage for themselves by establishing rules and expectations that make new clean energy investments possible,” said Dallas Burtraw, an energy policy expert at Resources for the Future, a Washington nonprofit. “But to some extent, there will be winners and losers.”

There are signs this is already happening. California has become a hub for clean-tech companies like Tesla, the electric vehicle maker that has benefited from the state’s clean-car incentives. By contrast, petrochemical and plastic companies are expanding greatly in the Gulf Coast and Appalachia, where states like Texas and Ohio have avoided limits on carbon pollution and instead embraced the fracking boom that has led to a glut of cheap natural gas.
Another possibility is that heavily polluting industries, like steel or cement manufacturers, could start leaving states with strict climate policies and move to areas with looser pollution rules. During the debate over New York’s new climate law, Greg Biryla, state director for the National Federation of Independent Business, warned, “This just makes other states that much more attractive for investment.”

Meredith Fowlie, an economist at the University of California, Berkeley, said that states with stricter environmental policies do need to worry about this dynamic, but they can also take steps to mitigate it. Lawmakers in California and Oregon have tried to structure their carbon-pricing programs so that energy-intensive industries effectively get subsidies to stay in the state, even as they have to lower their emissions.

The lack of a federal commitment to tackle climate change — the Trump administration has pledged to withdraw from the Paris agreement, the 2015 global pact among nations to reduce emissions — makes the job of blue states trying to address the issue more difficult. They can regulate their own utilities and mandate tougher building codes, for instance, but they have little power to control the cars, trucks and airplanes that travel into their states from elsewhere.

And the states that have so far pledged to uphold the Paris agreement on their own make up only about one-third of the nation’s emissions.

Even so, states like California and New York, which would rank as the world’s 5th- and 11th-largest economies if they were stand-alone countries, have the ability to sway large markets. For instance, their purchasing power can increase demand for things like electric buses or efficient heating pumps and potentially drive down prices.

They can also force even some global industries to embrace technological advances. America’s
automakers, for instance, are now grappling with the prospect that 14 states, led by California, could soon enforce stricter pollution standards for cars than federal law will mandate, potentially splitting the American auto market in two.

A fierce battle is shaping up between California and the federal government over the authority to set pollution regulations that have a direct effect on global warming. Depending on the outcome, it could create a scenario where automakers sell different vehicles in different states or face fines if, for instance, people buy gas-guzzling S.U.V.s in one state, then cross a border to use them in a different state that has tougher emissions standards.

In the future, of course, Congress could step in and enact a federal climate policy that covers all states throughout the country. But in the meantime, few if any of the GOP-led states so far are envisioning aggressive policies to transition away from fossil fuels altogether. That growing divide among states is likely to have a powerful influence over future national policy debates.

As some states race ahead to curb their emissions and others lag behind, that could make it more complicated to design national climate policies, such as a carbon tax or national clean-electricity standard that would put a heavier burden on the most carbon-intensive states.

“It potentially makes the question of how you weave together a future federal climate policy very challenging,” said Dr. Rabe.

How heavily a state relies on fossil fuels is increasingly becoming a good predictor of how it leans in national politics. In the 2016 election, the 14 states with the least carbon-intensive economies voted for Hillary Clinton, while 26 of the 27 most carbon-intensive states voted for Donald Trump, who vowed to promote oil, gas and coal production.

This week, the Trump administration replaced the Obama-era Clean Power Plan, which would have pushed states to shift away from coal-fired power, with a rule that lets states set their own power plant standards, further accentuating the divide.

Climate policy didn’t always divide quite so neatly along partisan lines. A decade ago, conservative states like Kansas and Ohio were passing new renewable electricity mandates. Republican governors in Minnesota and Indiana were signing on to an agreement among Midwestern states to explore reducing emissions through a regional carbon-pricing program.

But since then, as global warming became more politically divisive during the Obama era and conservative and libertarian groups stepped up their attacks on state renewable energy laws, the era of climate bipartisanship has faded.

“We’ve seen this huge partisan polarization around climate change over the last decade, and that’s definitely reflected in state policies,” said Leah Stokes, an assistant professor of political science at the University of California, Santa Barbara.

The divide deepened in 2017 after President Trump announced that he would withdraw the country from the Paris climate agreement. To date, a growing number of governors — including 21 Democrats as well as three Republicans in Maryland, Massachusetts and Puerto Rico — have vowed to counter that decision by pursuing their own climate policies at the state level and upholding the Paris accord on their own.
Just because a blue state adopts an ambitious new climate policy is no guarantee that it will actually follow through. New York, for instance, is already falling a few percentage points short of an earlier requirement to get 30 percent of its electricity from renewables by 2015. The state’s newest bill would ramp that target up to 70 percent by 2030.

On the flip side, a number of Republican states have been making major strides in adding renewable energy even without stringent mandates to do so. Places like Texas, Iowa and North Dakota have added extensive wind power in recent years, largely thanks to falling turbine prices and favorable geography.

And many red states have managed to cut their own emissions over the past decade largely through market forces, as cheaper and cleaner natural gas, wind and solar power have pushed dirtier coal plants in places like Ohio, Alabama and Georgia into retirement. In states like Indiana and Idaho, local utilities are announcing plans to shut down their coal plants and shift to renewable energy purely because it’s cheaper and makes economic sense to do so. In one notable case, Republicans in South Carolina moved last month to open the state’s grid to more solar power—not explicitly for climate reasons, but because they said it would save consumers money.

Still, most experts agree that completely decarbonizing the nation’s energy system, which scientists say is a necessary step for averting the worst effects of climate change, will require major new policies such as carbon pricing or new regulations that go well beyond what market forces can deliver. “Ultimately, if you want to tackle climate change,” said Dr. Stokes, “you can’t just win in the liberal states.”

For more news on climate and the environment, follow @NYTClimate on Twitter.

Brad Plumer is a reporter covering climate change, energy policy and other environmental issues for The Times’s climate team. @bradplumer