The economy crashed during the lockdown. Although a recovery has begun, government action will probably be needed to sustain it. We should seize this opportunity to make progress on sustainability.

It's hard to know the long-term economic impact of the pandemic. As Nobel-prize winning economist Robert Schiller has said, "Big events like a pandemic have the potential to leave behind a trail of disruption. They can create social discord, reduce people's willingness to spend and take risks, destroy business momentum and shake confidence in the value of investments." These events are rare, which makes predictions difficult. The Congressional Budget Office projects, however, that the economy won't fully recover until around 2028.

We know from Barack Obama's Recovery Act that stimulus programs can dramatically further progress on sustainability. Obama's Recovery Act set aside \$90 billion for clean energy generation, electric vehicles, transit, and training for green jobs. The federal government offered developers cash for up to 30% of project costs. The U.S. reached the Energy Information Agency's forecast of U.S. renewable capacity for 2030 nearly twenty years ahead of time.

This may be an especially propitious time to expand renewables and electric vehicles, because fossil fuels are faltering. BP and Shell recently wrote down their assets by around \$20 billion apiece due to the coronavirus and anticipated climate actions. Oil prices are still a third below 2019. Many new projects have been cancelled, including an important natural gas pipeline. Coal plants have closed.

At the global level, the International Energy Agency has proposed cutting energy-sector carbon emissions by \$4.3 billion tons by 2023. With global annual investment of around \$1 trillion over the next three years, nine million jobs could be saved or created. The agency's plan calls for devoting one-third of spending to efficiency improvements that can be implemented quickly. Those improvements will ultimately save money for businesses and consumers.

The EU is also putting its money on a green recovery. Germany provides one model for what can be done. A third of its \$145 billion COVID stimulus plan devotes will go to public transportation, electric vehicles and renewable energy, with no money provided for combustion engine vehicles. Addressing transportation will be especially important in the U.S. because the pandemic has hit public transit systems so hard.

House Democrats have proposed a green infrastructure plan focusing on green initiatives, resiliency, and reducing transportation emissions. There's no chance of passing anything

like that in the current Senate. We'll see if the next election changes the political calculation. After November 3, we should have a much clearer idea about the prospects for a green stimulus.