President Biden will have to rely on administrative action to do much or all of the heavy lifting in climate policy. It's clear that EPA has a central role to play in climate policy, but EPA does not stand alone. Other agencies also have important roles to play. Fortunately, the Biden transition team <u>seems</u> to have come to this realization.

A multi-agency approach is especially important because bold actions by EPA will face a skeptical audience in the 6-3 Supreme Court. Thus, a diverse portfolio with many different action from many agencies is prudent. Moreover, EPA is much more in the political spotlight, so any bold action on its part is sure to be met with a political firestorm. Other agencies may fly more under the radar.

The final reason for multi-agency action is that climate change itself has such complex roots and multifaceted consequences. Making progress on climate change will require changes in many economic sectors. Mandating reductions in emissions from power plants, for instance, is likely to be ineffective without new transmission lines, which are under the control of FERC. And those lines won't get built without financing from investors, which the government cannot mandate but can influence through regulation of financial markets. In other words, climate policy has to be "whole of government" because climate change itself is "whole of society."

Here are over a dozen other agencies that have important roles to play. Biden will need to activate all of these agencies to turn U.S. carbon emissions downward.

This is an incomplete list. Because the causes and impacts of climate change are so widespread and diverse, the issue should be on the agenda of nearly every federal agency.

- 1. **The CIA.** The CIA views climate change as an important threat to international stability. Its reports have highlighted the significance of climate change as a national security threat. The CIA isn't alone: much of the national security community has sounded the alarm about climate change. That's one voice that some conservatives may be read to hear.
- 2. **The Commerce Department.** If you follow environmental matters, you know that the Commerce Department includes the Weather Service and the National Oceanic and Atmospheric Organization (better known as NOAA). NOAA does climate modeling. We need improved modeling to forecast the results of interventions; we also need improved modeling to plan adaptation measures for the new normal we are heading into. NOAA also regulates fisheries, which are going to be faced with big challenges as climate change impacts the oceans.
- 3. The Department of Energy. The Department of Energy actually has a limited policy

portfolio. The most relevant deals with energy efficiency standards for appliances (which of course Trump has tried to dismantle). DOE plays another important role, which is supporting R&D relating to nuclear power. This is a divisive issue, but improved reactors might still be worth considering as part of the world's future energy mix. DOE also has jurisdiction over the network of national laboratories, which do pioneering research on energy technologies and climate modeling. This is one part of DOE that survived the Trump years intact, thanks to support from Congress and from Trump's top appointees at DOE.

- 4. **The Fed.** There is growing concern that climate change could create systemic risks for the financial system. Central banks in other countries have started taking a hard look at this issue. But the Fed has been slow off the starting line. The Fed's role is crucial, not only because of its direct influence over macroeconomic policy but because it can help steer the finance sector generally toward a greater sensitivity to climate risks.
- 5. **FEMA** runs the flood insurance program and creates maps of flood risk throughout the country. Those activities are crucial tools for shaping climate adaptation.
- 6. **The Federal Energy Regulatory Commission (FERC).** FERC regulates a whole bunch of areas relevant to climate change: licensing hydroelectric dams, promoting grid planning (including new transmission lines), and setting the framework for wholesale electricity prices. Those prices are crucial for renewable energy developers. Under Trump, FERC had a mixed record. Some of its actions have hindered renewables, and those need to be reversed. It has begun to cautiously explore market models for pricing carbon, a promising development that should be fostered. It can also open the door for development of the new transmission lines that are needed to adapt the grid for a renewable future.
- 7. **The General Services Administration (GSA)**. The federal government spends \$6 billion dollars a year on energy for its buildings and other facilities. Most of those are under the jurisdiction of the GSA. The federal government also consumes an enormous amount of gasoline, another area where energy efficiency programs could make a big difference. GSA can also invest in electric vehicles and help move that technology forward with economies of scale. Government procurement can be a huge lever for promoting clean energy technologies.
- 8. **The Interior Department.** Interior's control of public lands puts it squarely in the middle of climate adaptation. Through the Fish and Wildlife Service, it must take into account the impact of climate change on endangered species. Its dams are major sources of energy, especially in the Southeast (through TVA) and the Northwest (through Bonneville). It also controls oil and gas operations on public lands and offshore, and the most important coal fields are now on public land. Finally, at least

some of Interior's lands may be suitable for increased carbon sequestration.

- 9. **The Treasury Department.** The Federal Reserve bank has already been starting to talk about climate change as a threat to financial stability. Treasury has a role to play, along with the Fed and the SEC, in addressing that challenge. Although I haven't addressed it separately, the Labor Department also has a part to play because of its role in overseeing the management of pension funds. The Trump Administration tried to discourage funds from decarbonizing their portfolios; that effort needs to be reversed.
- 10. **The National Science Foundation.** We need an enormous amount of research relating to climate on everything from better climate modeling to new energy technologies. NSF isn't the only funder, but it's the most important one. We're going to need new technologies to decarbonize industry. We also need improvements in technologies for storage, solar power, and efficient transmission.
- 11. The Office of Management and Budget (OMB). OMB is in charge of the federal budget, which gives it leverage over federal government priorities. A climate-conscious OMB could catalyze climate programs throughout the federal government. The so-called "regulatory czar" the head of an office with the acronym OIRA also sits within OMB. Agencies like EPA need OIRA support to get climate regulations out. OIRA also plays a leading role in determining the "social cost of carbon," a figure that impacts evaluations of climate actions throughout the government. OIRA has a proven ability to get in the way of good regulation. Yet properly deployed, it can ensure consistent pursuit of carbon policies across multiple agencies.
- 12. **The Pentagon.** The Defense Department is one of the biggest actors in the climate arena, though its role is little known. It funds billions of dollars of research into new energy technologies. It also provides a major market for renewable energy, which it favors on logistic grounds over fossil fuels. The Pentagon is also on the forefront of planning for sea level rise, since the Navy obviously has most of its facilities at sea level. The Pentagon's intelligence service has been deeply concerned about the impact of climate change as a threat multiplier, decreasing political stability and fomenting regional conflict. Military funding is relatively uncontroversial, and Republicans have been willing to fund these activities, contrary to Trump's desires. It should be possible to substantially ramp up the funding under Biden.
- 13. **The SEC.** The SEC has two levers for affecting climate action in the corporate sector. First, it supervises disclosures by corporations, and it could do much more to make corporate emissions and climate actions transparent to investors. Second, it can also impact the ability of shareholders to seek climate action from corporate management. On both scores, the SEC has been distinctly unhelpful under Trump.
- 14. The State Department. The State Department is central to climate change

negotiations. That includes not only the big UN negotiations, but bilateral deals with countries like China. Obviously, climate change is a global problem, and State is at the center of that. It had real success under Obama and badly needs refurbishing if it is to achieve such success again.

- 15. **The Transportation Department.** Transportation accounts for more than a quarter of U.S. carbon emissions. DOT sets fuel efficiency standards in conjunction with EPA, funds public transit, finances research into new technologies, and much more. It should spearhead efforts to reduce emissions from this important sector.
- 16. **USDA.** The Agriculture Department has two important functions relating to climate change: it contains the Forestry Service, and of course it addresses the issues of the agriculture sector. These activities will be faced with major challenges due to climate change. But they also offer important opportunities for carbon sequestration in trees and soil. In addition, by enlisting agricultural interests in carbon sequestration, USDA can create a powerful political bulwark against backsliding. Farmers cling fiercely to any government spending that comes their way, regardless of the political valence of that spending.

Because of the importance of these agencies, there's another agency whose activities are crucial: the White House personnel office, which helps vet and select appointees who manage all of these issues. Before Inauguration Day, that personnel role is played by the Transition Team. As they say, "personnel is policy."