Insight

Understanding Joe Biden's Climate Proposal

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Presidential candidate and former Vice President Joe Biden recently released his plan to address climate change. The proposal is extraordinarily broad in its scope, co-opting numerous policy ideas. While it includes several good ideas, a number of superfluous proposals would add cost while delivering no additional benefit.

The good: Biden's overall approach centers on a congressionally approved emissions target that would likely be similar to a cap-and-trade scheme. Such a carbon-pricing policy could be an efficient means of reducing domestic emissions. Further, the proposal recognizes the global nature of the problem by including efforts to boost innovation while leveraging international agreements to secure commitments from other countries.

The bad: Despite seeking an enforceable target that would ultimately reduce emissions to net-zero, Biden *also* wants to expand regulations and other uses of executive authority. Since emissions presumably can't get much lower than zero, any expansion of regulation will simply add costs without adding benefit. Further, coupling these regulations with higher taxes on corporations, as Biden envisions, will make the United States less friendly to businesses.

The glaring omission: Despite proposing an "enforceable" target, Biden's plan does not include language on how exactly this target would be enforced. Presumably the simplest way would be a cap-and-trade policy with a set target (essentially the same as a carbon tax), and Biden's campaign acknowledged to Axios that the proposal includes a price on carbon. The plan does not say how the resulting revenues would be used—a critical element of any plan.

The bottom line: Biden's plan is a closer approximation to a real climate strategy than other recent proposals, such as the Green New Deal (GND). It recognizes the global nature of the problem, as well as the importance of innovation. As it is, however, the plan includes too many redundant ideas that drive up the cost unnecessarily.

Key Details

Domestic

- Propose legislation for an enforceable net-zero greenhouse gas (GHG) emissions target of 2050, with carbon pricing.
- Use executive orders and regulation to reduce emissions with climate-focused requirements for federal programs and industries under federal regulation.
- Invest $1.7 trillion of federal money, paid for by increasing the corporation income tax rate from 21

percent to 35 percent, to leverage a hoped-for $5 trillion of total public and private funding for public transportation and other infrastructure projects.
- Use public funding to spark a “second great railroad revolution” and reduce urban sprawl.
- Expand subsidies for electric vehicles.

Innovation

- Increase federal funding for innovation and establish new climate-focused innovation programs including an “ARPA-C” (C for climate).
- Create programs for exporting innovation that is developed domestically.
- Promote Small Modular Reactors for nuclear power (SMRs), carbon capture and sequestration, and other innovation opportunities.

International Climate Policy

- Re-enter the Paris Agreement, while pushing for further commitments from other nations.
- Use trade agreements as a tool to force other nations to commit to climate policies.
- Ratify the Kigali Amendment to the Montreal Protocol (would force other nations to replace powerful GHG refrigerants in air conditioners and appliances).
- Create a “Clean Energy Export and Climate Investment Initiative” to export U.S. low-carbon technologies.
- Call on other nations to end fossil fuel subsidies, particularly to end China’s subsidizing of fossil fuel projects in Asia.
- Leverage international financing institutions such as the International Monetary Fund to create climate requirements for nations that receive investments from such institutions.
- Create a “green debt relief” program for developing nations that make climate commitments.
- Implement other proposals to create international norms that benefit nations pursuing climate policy, and “shame” actors that expand fossil fuel production.

Domestic Climate Policy: Good Policy Hamstrung by Superfluous Politicking

“Enforceable Net-Zero,” Also Known as Cap and Trade

Economists by and large agree that the ideal way to reduce domestic emissions is by putting a price on carbon. Domestic activities that drive emissions may have non-polluting alternatives, but because there is no cost associated with the pollution, there is no incentive to change behavior. A price on carbon dioxide or other pollutants creates an immediate incentive for all polluters to change their behavior, and this policy therefore favors any opportunity in the market that has a cost lower than the carbon price. This policy approach leads to very efficient emissions reductions, as market participants seeking to maximize profits find the least-cost alternatives, rather than politicians or regulators attempting to identify those opportunities despite having no exposure to the risk of a poor decision.

Biden's plan presumably embraces such an idea, by promising a net-zero emissions target and (reportedly) using a carbon-pricing mechanism to get there. Broadly, this approach can be thought of as a cap-and-trade policy—something that has received a measure of bipartisan support for many years. Unfortunately, Biden's plan would also undo much of cap and trade's efficiency and benefits. Biden additionally promises to expand regulations, subsidies, and executive orders—highly *inefficient* and high-cost climate policies. Past American Action Forum (AAF) research has shown that regulations cost roughly twice as much per ton of GHG emissions reduced as putting a price on carbon, as well as that these regulations may be reducing emissions by constraining economic growth rather than by improving efficiency. Furthermore, because these regulations target the same opportunities for abating GHG emissions as carbon pricing or an "enforceable" net-zero GHG emissions target, they simply add cost without producing any increased climate benefits. If the net-zero target is "enforceable" and will be achieved without the regulation, why add those costs?

Another unanswered question in Biden's plan is how the revenues from pricing GHGs would be used. Would these revenues be used to reduce other taxes, or would they go toward subsidizing politically favored technologies? The former could be efficient, while the latter would ensure that the full costs of what is effectively a carbon tax would be borne by Americans.

There is also a serious question whether net-zero GHG emissions is entirely feasible. Reducing GHG emissions falls on an abatement curve, and the market will pursue the cheapest reductions first (largely in the electric power sector) and pursue the highest-cost abatement opportunities last (carbon capture and sequestration refits of fossil fuel power plants). Reducing emissions linearly will not have linear costs, and even the ambitious GND resolution constrained its net-zero targets to the electric power sector rather than the entire economy.

Public Transit in America is Not Just a Funding Issue

Biden's plan echoes other climate proposals that are focused on expanding public transit, especially rail transportation. Embedded in these proposals is a conceit that the barrier to more infrastructure is simply expense, such that if the federal government subsidizes it more, then the market will produce more. The ironic reality is that federal regulations tied to subsidies are driving up the cost, with the result that public transit is just simply far more expensive to build and operate in the United States than its more successful Asian and European counterparts.

Ever since the Urban Mass Transportation Act of 1964, public transit projects that receive federal subsidies—which are most of them—must comply with a series of labor protections and other protectionist policies that raise costs. As an example, authorities that receive federal funding cannot reduce employment if ownership changes, meaning that even if a private investor has ideas to automate a public-transit system, they cannot reduce total employment. AAF research has found that most public transit systems with rail spend roughly 80 percent of their budget on personnel. Further, federal funding comes with "Buy America" requirements, which AAF has found increase the capital costs of rolling stock by roughly 34 percent compared to foreign systems. An ambitious expansion of public transit in the United States is probably not achievable without serious reform to the regulations that have raised costs in the industry.

Funding This Ambition by Raising Taxes on Corporations Is a Bad Idea

Biden, like many other candidates seeking to oppose Trump in a general election, is promising to roll back his signature tax reform and then use those revenues for other projects. Presumably, this means raising the corporate income tax (CIT) to 35 percent from its current 21 percent. Embedded in this idea is the assumption that only the wealthy pay the price of the CIT, and indeed Biden's proposal claims that the tax reform "enriched" corporations and led to "stock buybacks." The reality is that employees pay the costs of the CIT in the form of lower wages, as the tax increases their employers' operating costs. The others who pay for the tax are workers who cannot find employment because the higher tax rate incentivizes employers to relocate to a lower tax jurisdiction (i.e. another country), a phenomenon known as "base erosion and profit shifting" and a major problem during the Obama Administration (and a reason why Biden's own administration was hoping to reduce the CIT).

Further, the critique that stock buybacks increase the wealth of the rich is simply false. A stock buyback represents a corporation exchanging cash to its shareholders in exchange for outstanding stock, which represents a holding of the total value of the company. The transaction does not create any increased value on net, because any increase in value of the stock is offset by a reduction in the cash assets of the corporation. Even if stock value was increased by this, which it is not, the benefits would mostly go to the middle class, as retirement funds hold most stock.

Innovation: A Welcome Focus

Most climate proposals to date have largely focused exclusively on domestic paradigms, and any nod to innovation is typically a footnote. Biden's plan is different, however, and he is absolutely right to make innovation a core part of his climate proposal, as it represents the most promising avenue to solutions that can be adopted in developing nations (which will contribute the most to future emissions). Coupled with his hope to create an international program for exporting this technology, as well as potentially a domestic carbon price, the innovation front is the most promising opportunity for meaningful emissions reductions on a global scale.

What is perhaps missing from Biden's plan is a sufficiently broad focus on eliminating roadblocks to innovation. Regulations and non-competitive markets are major barriers to the uptake of innovation, but these areas receive no mention in Biden's proposal. Reforms to existing programs, such as the Loan Programs Office, are also absent. The proposal to create a new program, "Advanced Research Projects Agency – Climate" would presumably be based on ARPA-E (E meaning energy), which has been a hotly debated program that is still perhaps too young to assess. It is also unclear what benefit "ARPA-C" would have over reforming or expanding ARPA-E.

Broadly, the focus is correct, but even in such a long proposal, the policy details to make the goals a reality are still absent.

International: A Global Approach to a Global Problem

Biden has, thankfully, brought a major focus to the global nature of climate change as a problem. Other recent climate proposals have often focused exclusively on domestic policies, which, given that the United States is only a little over 14 percent of global emissions, is simply not enough to mitigate the future costs from climate change. Biden's plan puts forward a comprehensive vision to leverage U.S. leadership to earn concessions from other nations, particularly through trade agreements.

Climate change is a classic "prisoner's dilemma" type of game theory problem, and internationally that dilemma means that other nations are unwilling to undertake burdens when the commitments of other nations are not assured. This is not the first prisoner's dilemma problem the United States has faced, and other problems—such as nuclear nonproliferation—are most successfully addressed by requiring compliance on the issue as a precursor to participation in other international agreements. The idea of establishing a set of international norms, and then making it preferable to be "in" rather than "out" is a classic strategy.

What perhaps makes less sense is the promise to subsidize developing nations' climate investments. While many believe that it is cheaper to build new clean energy sources in developing nations than to replace dirty ones in developed nations, a commitment to subsidize growth abroad at the expense of U.S. taxpayers is a strategy that has limited opportunity for success. Resources are scarce, and any strategy predicated on the U.S. funding clean energy abroad *ad infinitum* would reduce incentives for efficient deployment while draining resources from alternative strategies.