

Ambitious Action Plan Tackling Climate Change or Finding Common Ground? A Perspective on the Climate Action Potentials of the Bipartisan Infrastructure Investment and Jobs Act

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Serena E. Alexander, PhD

Joe Biden's election as the U.S. president was interpreted as a new era in the nation's climate policy. The U.S. rejoined the international fight against climate change, climate experts were appointed to positions throughout the executive branch of the government, and the American Jobs Plan promised the delivery of stringent climate action. Nevertheless, the political landscape for enacting meaningful climate policy is undoubtedly tricky with persistent partisan divide on climate change. As a result, keeping the President's promise to deliver on climate action and finding common ground to get things done has proved challenging.

This memo focuses on the question of whether President Biden's support for federal level climate action will likely help the United States return to credible climate leadership or if the ambitious climate proposals are likely to fade to find common ground. The memo will: 1) analyze how the bipartisan infrastructure framework compares with the American Jobs Plan in terms of climate priorities; 2) explore how new climate targets for the next decade compare across wealthy industrialized nations, and 3) offer a perspective on climate action potentials of the Bipartisan Infrastructure Investment and Jobs Act to help the U.S. return to genuine climate leadership at a global stage.

1) The Bipartisan Infrastructure Investment and Jobs Act vs. the American Jobs Plan

The American Jobs Plan (AJP) aspired to "unify" and "mobilize" the nation to meet one of the greatest challenges of our time: the climate crisis. In fact, the plan builds upon key climate action concepts. The AJP not only includes several areas of investment to reduce greenhouse gas (GHG) emissions, but also establishes a vision to build a sustainable, resilient, and just future for the nation. More specifically, the plan combines clean energy and other climate mitigation strategies with climate adaptation and climate justice concepts by requiring that disadvantaged communities receive a significant part of climate and infrastructure investment benefits.¹ Indeed, the AJP took an important step towards developing a comprehensive and coordinated national strategy for a clean, resilient, and equitable energy system. The atypical approach taken by the AJP also included collaboration among federal agencies as well as state and regional stakeholders. Essentially, the AJP's unifying message presented a government-wide approach to address climate change and build infrastructure fit for the 21st century.

Investment in transportation infrastructure and resilience is at the core of the AJP's objectives to combat climate change. Specifically, the plan proposes \$621 billion in new federal investment in transportation infrastructure and resilience. The AJP promises to transform the crumbling infrastructure by repairing roads and bridges, modernizing public transit, and upgrading ports and airports. It proposes an unprecedented investment in passenger rail development as a key

step in reducing emissions and connecting regions and communities with clean transportation. Additionally, the AJP acknowledges recent weather and climate disasters that devastated communities and destroyed transportation infrastructure, and it stresses the importance of safeguarding critical infrastructure, defending vulnerable communities, and maximizing the resilience of environmental resources and communities.²

In addition to record transit and other infrastructure investments, the AJP includes substantial funding for vehicle electrification, which is considered a key tool for achieving the President's goal of net-zero emissions by 2050. Vehicle electrification funding can support various programs to expedite the domestic production and deployment of zero-emissions vehicles (ZEVs) and increase their accessibility. Examples of recommended programs include rebates for ZEVs, grants or incentives for charging infrastructure and zero-emission trucks, funding for electric buses, and incentives to boost manufacturing of ZEVs.³

The Bipartisan Infrastructure Investment and Jobs Act includes \$550 billion in new federal spending on the nation's infrastructure. The deal emphasizes economic growth and competitiveness and building a sustainable, resilient, and just economy.⁴ Table 1 offers a comparison of infrastructure spending in both plans.

Table 1. A comparison of infrastructure spending in the Bipartisan Infrastructure Investment and Jobs Act and the American Jobs Plan

| | The American Jobs Plan | The Bipartisan Infrastructure Investment and Jobs Act |
|---|--|---|
| Roads and Bridges | \$115 billion | \$110 billion |
| Safety | \$20 billion | \$11 billion |
| Public Transit | \$85 billion | \$39 billion |
| Passenger and Freight Rail | \$80 billion | \$66 billion |
| Vehicle Electrification | \$174 billion | \$15 billion |
| Airports, Ports, and Waterways | \$42 billion | \$42 billion |
| Redress Historic Inequities & Reconnecting Communities (Divided by Historic Transportation Investments) | \$20 billion (for reconnecting communities) \$25 billion (to support ambitious transportation projects) | \$1 billion (for reconnecting communities) |
| Resilience | \$50 billion | \$50 billion |

Among core infrastructure funding categories, vehicle electrification funding suffered the biggest hit in terms of absolute value. The AJP included \$174 billion investment in vehicle electrification programs, whereas the Bipartisan Infrastructure Investment and Jobs Act only allocated \$15 billion to vehicle electrification. This is more than 90% decline in dedicated funding for vehicle electrification. Of the total \$15 billion, \$7.5 billion is allocated for EV infrastructure, \$5 billion is dedicated to zero emission and clean buses, and an additional \$2.5 billion is considered for ferries. Since electric vehicles are expensive to acquire and need both charging infrastructure and much greater electric-grid capacity, a \$15 billion investment in vehicle electrification is indeed inadequate.

Additionally, significant cuts were made to new public transit investment in the Bipartisan Infrastructure Investment and Jobs Act. The AJP calls for a \$85 billion new investment to modernize public transit and improve service frequency and accessibility, which would be considered doubling the existing federal funding for public transit. The Bipartisan Infrastructure Investment and Jobs Act, on the other hand, includes a \$39 billion in new investment in public transit. Combined with reauthorization of existing public transit spending, it is estimated that a total of \$89 billion will be guaranteed for federal public transit spending over the next five years. Although this is a significant improvement over the dwindling federal resources dedicated to public transit, it is still considerably lower than the AJP aspirations.

The third category of core infrastructure funding that took a massive hit is related to racial equity and environmental justice. The AJP includes \$45 billion to establish two new programs to reverse historic inequities caused by infrastructure projects or lack thereof. More specifically, the AJP includes \$20 billion to reconnect communities cut off by past transportation infrastructure projects, as well as an additional \$25 billion to realize ambitious transportation projects benefiting communities. In contrast, the Bipartisan Infrastructure Investment and Jobs Act devotes only \$1 billion to reconnect neighborhoods divided by transportation infrastructure.

Also, the Bipartisan Infrastructure Investment and Jobs Act devoted relatively smaller funding for road safety. The legislation dedicated a total of \$11 billion to transportation safety programs, of which \$5 billion is set aside for the Safe Streets for All program that emphasizes cyclist and pedestrian safety. This total amount is 45% smaller than the AJP's \$20 billion investment to improve road safety for all users.

In terms of passenger and freight rail funding, the new legislation allocates \$66 billion to eradicate the Amtrak repair backlog, update the Northeast Corridor, and build modern rail service in areas that lack such services. For comparison, the AJP calls for \$80 billion in new investments for passenger and freight rail service. That said, even at the reduced level of \$66 billion, the new funding marks the largest investment in passenger rail since Amtrak was created.

Other categories of infrastructure funding in the Bipartisan Infrastructure Investment and Jobs Act have seen insignificant decrease or no change compared to the AJP. The AJP proposes \$115 billion additional funding to repair and modernize highways, roads, streets, and bridges. The funding would also help reducing congestion, improving air quality and mitigating GHG emissions. The Bipartisan Infrastructure Investment and Jobs Act devotes \$110 billion additional federal funding to roads and bridges, only a \$5 billion decrease compared to the AJP. The Bipartisan Infrastructure Investment and Jobs Act and the AJP both dedicate \$50 billion to resilience of transportation and natural systems, and \$42 billion to airports, ports, and waterways.

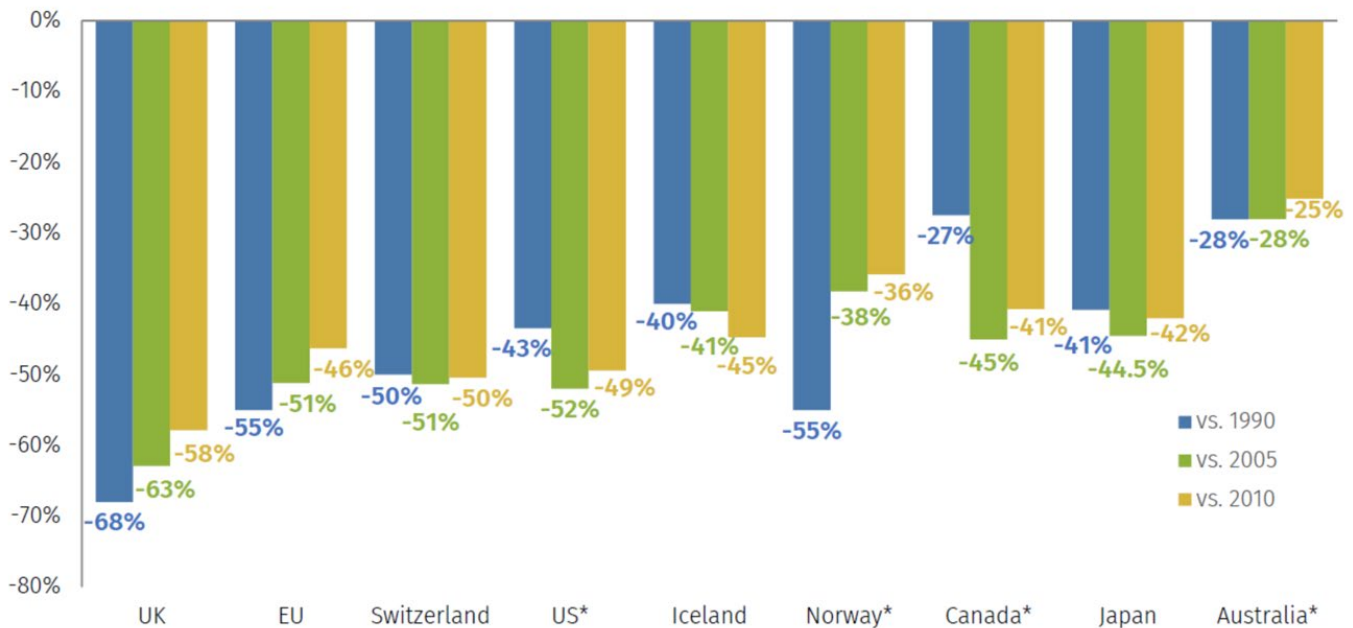
The fact that investment in roads and bridges remained the most intact in the Bipartisan Infrastructure Investment and Jobs Act bears the question of how much of a significant policy shift the administration has achieved. The AJP was a comprehensive plan to combat climate change and provide better jobs and mobility options for the underserved communities with targeted investment in infrastructure as a key tool. On the other hand, the Bipartisan Infrastructure Investment and Jobs Act is a significant and much-needed investment plan in infrastructure, without the overlying goals.

2) How new climate targets for the next decade compare across wealthy industrialized nations

At the global stage, reestablishing U.S. leadership on climate action entails mobilizing untapped opportunities and tackling major challenges. Four years of U.S. absence from the global climate negotiations and international GHG emissions reduction efforts along with inconsistent and conflicting messages received from previous administrations puts the Biden Administration in a weakened position to return to credible climate leadership. Nevertheless, U.S. subnational actors including states, regions, cities, and communities have not stopped taking climate action amid a climate leadership void in the federal government. The Biden administration can strategically mobilize and empower these actors and share best practices undertaken by the U.S. subnational actors with the global climate community. Also, the U.S. has an opportunity to lead in critical technologies, climate science, innovation, and R&D. Moreover, the U.S. is also in a strong position to lead global green investing efforts due to its key role in the global financial sector.⁵

Reestablishing U.S. leadership on climate entails setting new GHG emissions reduction targets and rejoining the Paris agreement. In April 2021, President Biden took an important step toward rallying the world in addressing climate change by convening world leaders in a virtual Leaders Summit on Climate.⁶ Consequently, we have seen a flurry of GHG emissions reduction targets set by world leaders for the next decade. Although targets are simply statements of intent, and the outcome relies on implementation of strategies to achieve these targets, pledging to meet a GHG emissions reduction goal is often seen as the first step or a tool to raise climate ambition.

Exploring how new U.S. targets stack up against commitments made by other advanced economies will help us gauge where the U.S. is likely headed in terms of tackling the climate crisis. Nonetheless, comparing GHG emissions reduction targets of the various Paris agreement signatories is not a straightforward endeavor, mainly because the Paris agreement provided flexibility in selecting both target and base years. For example, the updated U.S. nationally determined contribution (NDC) under the Paris Agreement uses 2005 (the year emissions peaked in the U.S.) as the base year, but most European countries use 1990 as their base year. Figure 1 aims at offering an apples-to-apples comparison between the U.S. NDC and targets set by other advanced economies.⁷

Figure 1. New US Target Compared to Updated NDCs from Other Advanced Economies

Source: Rhodium Group, UNFCCC. <https://rhg.com/research/climate-ambition-us-ndc/>

As depicted in Figure 1, a 50-52% U.S. NDC places the nation among the top four most ambitious targets for 2030, when a universal base year of 2005 is employed for all NDCs. Indeed, the UK's target of 63% below 2005 levels is far more ambitious than that of the United States. Yet, the U.S. NDC is comparable with the EU's target of minimum 51% below 2005 levels, and it easily surpasses NDCs set by Canada, Japan, Australia, Iceland, and Norway.

Figure 1 also compares NDCs using 2010 as the baseline. This allows a comparison of targets with a threshold set by a 2018 Intergovernmental Panel on Climate Change (IPCC) report⁸ to limit global warming to 1.5° Celsius. A 52% U.S. NDC equals to approximately 49% emissions reduction from 2010 levels, which exceeds the criterion of 45% reduction set by the IPCC.

In sum, the updated U.S. NDC puts the nation back on the global climate leadership stage, but an ambitious target alone cannot stop the climate crisis. In fact, setting an ambitious target without a clear plan to deliver on the pledge risks bad reputation and decreased public trust in the feasibility of curbing emissions enough to meet scientific requirements. So far, the Bipartisan Infrastructure Investment and Jobs Act—as the first major action under the Biden Administration—does not clearly signal the need to significantly reduce GHG emissions from transportation to meet our climate pledges.

3) A perspective on climate action opportunities that can help the United States return to genuine climate leadership at a global stage

This section is based on the author's evaluation of the Bipartisan Infrastructure Investment and Jobs Act, comparison of updated U.S. GHG emissions reduction targets with other advanced economies, and expertise in the field of climate action planning. The author has five main messages

as described below.

1) Targets can raise climate ambition, but effective and persistent action guided by a comprehensive plan and supported by sufficient resources can help deliver the desired outcome

The updated U.S. nationally determined contribution (NDC) under the Paris Agreement establishes an ambitious goal to reduce GHG emissions by 50-52% from 2005 levels and determine the course to reach economy-wide net-zero emissions by 2050. This commitment is on par with the EU's emissions reduction target, exceeds the target set by some other advanced countries, and meets the IPCC threshold to limit global warming to 1.5° Celsius. However, any GHG emissions reduction target that is not linked with effective strategies with a robust implementation plan is insufficient in addressing the climate crisis. An ambitious climate goal can easily fade away into the background of other priorities. The Bipartisan Infrastructure Investment and Jobs Act allocated significantly smaller funding (as compared to the AJP) to some major strategies, such as building an infrastructure for EVs, modernizing public transit, and redressing historic inequities associated with the transportation infrastructure. It is evident that the AJP's strong climate focus shifted in the Bipartisan Infrastructure Investment and Jobs Act to meet the demands of bipartisanship. Also, the shift from the AJP to the bipartisan plan represented a shift away from a focus on climate and equity outcomes to a focus on funding particular infrastructure programs. This diminishes the potentials of the Bipartisan Infrastructure Investment and Jobs Act to serve as a comprehensive plan that connects goals, actions, and resources to meet our ambitious climate targets.

2) Climate leadership is a balancing act involving the demands of scientific requirements and global climate community and those of national priorities

The approach taken by the Biden Administration to establish climate leadership has involved reengaging in the global climate community by setting an ambitious GHG emissions reduction target and aiming at delivering federal climate policy through the Bipartisan Infrastructure Investment and Jobs Act. Yet, balancing the importance of climate targets with national priorities has already proved difficult. In other words, some of the AJP's ambitious climate proposals and funding allocations were diminished to find common ground. The Bipartisan Infrastructure Investment and Jobs Act—although a positive change in the right direction—does not fundamentally change transportation priorities that could better lead us to meet our climate goals. One could argue that the federal leadership has emphasized bipartisanship at the expense of progressive climate action. In other words, our leaders have focused on consensus on specific programs as opposed to a comprehensive vision. An alternative approach would be to prioritize the goal, and develop multiple scenarios designed to meet the established GHG emissions reduction target. Each scenario can entail a different set of strategies or funding allocations, but all scenarios would lead the nation to a net-zero economy by 2050. In this case, instead of finding common ground for what strategies to prioritize or leave out, policymakers will focus on scenarios. The demands of the climate crisis backed up by scientific evidence can be considered nonnegotiable (both at national and global levels), but the paths to reach GHG emissions reduction targets can be debated.

3) Investing in vehicle electrification should not be treated as a “silver bullet” to curb transportation emissions

It is the view of the author that the American Jobs Plan deemed vehicle electrification as the “silver bullet” to drastically reduce transportation emissions. Although the AJP did include substantial investments in public transit and active transportation infrastructure, the largest funding category of transportation infrastructure was devoted to EVs. Unsurprisingly, the single largest category of transportation infrastructure investment to curb emissions was cut by more than 90% in the Bipartisan Infrastructure Investment and Jobs Act. Another risk associated with relying heavily on vehicle electrification to meet climate targets is diminished public support for investing in other modes of transportation. Reducing transportation emissions while concurrently enhancing mobility and accessibility for all requires a holistic approach that captures emissions reduction potentials of all modes of transportation.

4) Infrastructure planning without research can exacerbate the climate crisis and mobility inequity

Although research is not traditionally considered part of core infrastructure planning, it is the view of the author that combating the contemporary infrastructure problems necessitates new investments in research. Using our old methods of infrastructure planning that contributed to the anthropogenic climate change and resulted in inequities in mobility and adaptation capacity would not help us solve these problems. In fact, it can result in counterproductive outcomes. We need technology breakthroughs, policy entrepreneurship, and new and innovative ways of engaging communities in infrastructure planning. The AJP proposed a \$35 billion investment in climate science, innovation, and R&D to elevate the U.S. as a global leader in energy and other technologies to address climate change. Unfortunately, this new investment category was entirely left out of the Bipartisan Infrastructure Investment and Jobs Act. Nevertheless, technology, policy, and community action research should serve as the foundation of contemporary infrastructure planning.

5) Climate equity is at the core of establishing credible climate leadership

Even though the American Jobs Plan and the Bipartisan Infrastructure Investment and Jobs Act both include similar investments in resilience, the first plan offers a stronger focus on climate equity and larger funding to redress historic injustices associated with the transportation infrastructure. For example, the AJP proposed \$20 billion to reconnect neighborhoods cut off by transportation infrastructure, and consequently left with diminished access to mobility and opportunity. The bipartisan legislation, on the other hand, only committed \$1 billion to reconnecting communities, and eliminated the additional \$25 billion for ambitious and innovative transportation projects to alleviate historic disinvestment in low-income communities of color. Nonetheless, credible climate leadership involves acknowledging and acting on climate inequity—manifested in a variety of forms, such as lack of access to mobility, higher exposure to climate impacts, and limited adaptive capacity. Global climate leaders have a similar responsibility towards communities set to be hard hit by climate impacts and with meager resources to adapt.

Endnotes

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About the Author

Serena Alexander is an Associate Professor of Urban and Regional Planning and Director of Urban Online at San José State University. Her research predominantly focuses on developing and implementing cutting-edge strategies to address climate change and climate justice.

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