JUSTICE40 AND THE FEDERAL BUDGET:
Challenges of Scale and Implementation

REPORT BY **LEW DALY**
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INTRODUCTION

President Biden's Justice40 initiative is authorized in Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," issued on January 27, 2021 (Executive Office of the President 2021b). In the executive order, President Biden states that "it is . . . the policy of my Administration to secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment . . . ." Justice40 is the centerpiece of this policy, but it is not a new idea: It draws on decades of organizing and policy work by environmental justice advocates. More specifically, it draws on state-level policy precedents in California and New York, where advocates have successfully established legal mandates for targeted investment in environmentally vulnerable, low-income communities.[1] Justice40 builds on this movement work by establishing a federal goal of targeting 40 percent of climate-related investments for the benefit of communities facing harmful legacies of environmental racism and the greatest risks from climate change.

Against this historic movement backdrop, and considering the arguably unprecedented extent of President Biden's campaign outreach and transition work with environmental justice leaders,[2] implementation of the Justice40 policy and program since Biden took office has been a major focal point for a broad constellation of advocates. Community-rooted environmental, racial, and economic justice advocates lead in the Justice40 space, with support from some environmental groups and other federal policy allies, as well as technical support for project development and grant writing. With the president's encouragement, advocates generally see the fight against fossil fuels and the clean energy transition as a historic opportunity to bring environmental justice from the margins to the center of federal policy and investment. More than a year into the Biden administration, however, the direction of policy and investment is mixed at best, and in some respects in sharp tension with core values and policy views of environmental justice.

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[1] The relevant legislation in California is S.B. 535 (2012) and in New York it is S. 6599 (The Climate Leadership and Community Protection Act 2019).

[2] See the Biden-Harris environmental justice campaign platform (https://joebiden.com/environmental-justice-plan/); environmental justice influence on the Biden administration is detailed in Mullin 2021.

[Justice40 challenges] racist policies and entrenched disparities of power that are reinforced and reproduced in . . . budgeting, regulation, and administration. Such disparities of power must be reduced in all aspects of governance affecting disadvantaged communities.

Advocacy for Justice40 starts with the idea of ensuring racial equity and economic justice for the most vulnerable communities in the fight against climate change, with equity often framed in terms of the distribution of burdens and benefits of the climate transition (Carley and Konisky 2020). In this understanding, the most vulnerable communities (termed "disadvantaged communities" in Justice40 policy and abbreviated as "DACs") should be relieved of heavy burdens—especially those related to pollution—and of any economic costs associated with addressing climate change, while sharing fully in the benefits of climate action, including economic and health benefits. Justice40 should also be about procedural justice—guaranteeing fairness and equity in processes of decision-making that will affect disadvantaged communities. From this perspective, the historic and still-unfolding harms and challenges facing disadvantaged communities are considered to be, in part, a consequence of histories of racist policies and entrenched disparities of power that are reinforced and reproduced in key areas of governance such as budgeting, regulation, and administration. Such disparities of power must be reduced in all aspects of governance affecting disadvantaged communities.

Within these broad parameters, Justice40 is primarily understood as an *investment* policy, requiring that 40 percent of "overall benefits" of "select investments" in seven major policy areas (including climate, clean energy, clean transportation, and sustainable housing) should flow to disadvantaged communities.[3] Two overarching purposes guide Justice40 as an investment policy centered on disadvantaged communities. One purpose is reparative, aiming to fix historic pollution harms and prevent future harms from fossil fuels, industry, and related infrastructure. The other is transformative, aiming to create high-quality local jobs, drive substantial health improvements, build energy wealth, and foster climate resilience for disadvantaged communities on the front lines of climate change. In both aspects, it is clear that

[3] The Biden administration's terminology of delivering a share of "overall benefits" to disadvantaged communities, and seemingly downplaying measurable, large-scale investment increases as the goal of Justice40, has been controversial; recent policy developments in New York State have turned a spotlight back on the question (Pontecorvo 2020). While the analysis here does not address this controversy directly, the debate about investments and benefits is likely to continue as Justice40 develops.

chronic underinvestment of public resources and regulatory neglect due to stark power disparities have created significant and often extreme racial disparities in health, economic, and social outcomes. The extent of racial disparities and the economic scale of underinvestment and discrimination are, at some level, the measuring sticks for what Justice40 should aim to deliver in resources, benefits, and protections for disadvantaged communities.

In Justice40's investment mandate, advocates see a major opportunity for reparative and transformative change, especially because of the significant scale of investment needed to effectively address the climate crisis; at least one prominent model projects a need for more than $13 trillion in new investments to achieve a 100 percent renewable energy system (Jacobson et al. 2015). At this scale, directing at least 40 percent of public investments to projects and programs addressing the needs of, and creating opportunities for, disadvantaged communities would be unprecedented in the history of climate and energy policy. Consistently applied, such a mandate should result not only in significant benefits for disadvantaged communities but also in a substantial reordering of federal budget priorities and where federal dollars actually go. It would also drive more resources to place-based investments with collective benefit, thus expanding the reach and impact of federal social policy, which has often focused on providing benefits to individuals or households for specific needs such as home heating and nutrition. Justice40 could therefore be the framework and mechanism for driving significant shifts in federal investment.

Many critical questions surround the implementation of Justice40 in its early stages. These questions include:

- How will benefits of investment and overall progress in Justice40's investment mandate be measured?
- How will agencies designated for inclusion in Justice40 be held accountable for achieving its goals?
- How will disadvantaged communities be identified and prioritized for Justice40 investments, both by federal agencies and by states or other jurisdictions receiving federal formula funding?
- How will Justice40 be expanded to ensure that disadvantaged communities receive at least 40 percent of the benefits of new or expanded climate, clean energy, and other related funding authorized by Congress in 2021, 2022, and beyond?
- How will divestment from harm be incorporated into Justice40 implementation and accountability?
- How will community organizations and residents be engaged and empowered in the design and implementation of programs and investments?

These and several other critical questions for Justice40 implementation will be addressed in section 5 of this report.

The main purpose of this report is to examine President Biden's Justice40 policy from a budgetary perspective, with the aim of assessing where the program stands—in terms of public resources—within the wider scope of federal spending in the multiple major policy areas designated for Justice40 consideration in E.O. 14008. More specifically, it looks at where Justice40 stands in relation to the infrastructure spending authorized in the bipartisan Infrastructure Investment and Jobs Act (IIJA) as well as in the Build Back Better proposal (BBB) passed by the United States House of Representatives in the fall of 2021. While the report does not attempt to determine Justice40's current share of overall investment—on the path to achieving 40 percent or more of the total—the analyses presented here can be a starting point for efforts to track the progress of Justice40 from a budgetary perspective.

The analysis I present in this report is fivefold:

- First, I calculate current and proposed budgetary commitments for Justice40's "pilot" scope of "covered programs," as designated by the Biden administration in its Interim Implementation Guidance published in July 2021 (Young, Mallory, and McCarthy 2021). This illuminates the spending trajectory for Justice40's formally identified covered programs, inclusive of new spending for these programs authorized in IIJA and proposed in BBB.
- Second, I compare new and proposed spending for Justice40 covered programs—from IIJA and the BBB proposal—to other IIJA and BBB investments in what many Justice40 advocates consider to be harmful policies or programs. This analysis underscores Justice40's reparative purpose and points to significant misalignment between the anti-racist goals of Justice40 and other federal policies that many organizations and leaders representing disadvantaged communities—including members of the Biden administration's own White House Environmental Justice Advisory Council (WHEJAC)—oppose and deem to be harmful.
- Third, I calculate new spending authorized in IIJA and proposed in BBB that is wholly or partially targeted for disadvantaged communities or populations yet is not codified for inclusion in Justice40. While this new spending is relatively substantial and indicates a broadly positive direction for racial justice in federal budgeting and policy, it is not legally bound to Justice40 and thus raises questions about the scale of investments that will be tied to the systemic goals and principles of Justice40. These principles include prioritizing the most beneficial investments for the most vulnerable communities, cross-agency coordination and accountability for such, and stakeholder engagement and empowerment to ensure equitable implementation and community control of investments. Overall, this analysis points to a budgetary "expansion pool" for Justice40, underscoring the need

for strong and consistent advocacy focused on ensuring that all federal spending potentially implicated in the health, resiliency, and prosperity of disadvantaged communities is consistently aligned around, and accountable to, Justice40 goals and principles.

- Fourth, I identify major streams of funding, especially for climate and energy investments, that fail to prioritize or, in some cases, even acknowledge disadvantaged communities. This analysis calls for further expansion of Justice40 to include all relevant programs implicated in racial equity and achieving justice for DACs. It speaks especially to advocates' longstanding concern that benefits and harms of the climate transition will not be equitably distributed and that the communities most harmed by fossil fuel capitalism will continue to be left behind in the new clean energy economy.
- Fifth, I outline a set of critical questions and policy recommendations to address major challenges for advancing Justice40 both from a budgetary perspective and in other respects.

SECTION ONE

THE JUSTICE40 BUDGET: CURRENT PROGRAMS

The White House Interim Implementation Guidance for Justice40 (WHIIG) establishes a "pilot" consisting of 21 existing programs, now designated as Justice40 "covered programs." Since at this point these programs are the only ones formally designated as part of Justice40, the combined funding currently allocated to them can be reasonably described as the administration's current Justice40 budget. As discussed below in sections 3 and 5, however, the question of expanding the reach of Justice40 to include many more programs and investment streams has been of critical concern to advocates and remains so as implementation of IIJA and, potentially, a version of BBB or specific programs from the BBB proposal come into focus in year two of the Biden administration and the Justice40 program.

Several considerations set this Justice40 budget analysis into relief when considering the policy's future trajectory. The WHIIG's basic instruction is for agencies in charge of the 21 programs to propose changes aiming to improve programmatic implementation, including a focus on stakeholder and community engagement as well as project labor standards. While such programmatic improvements are needed and should certainly be a key requirement of Justice40 implementation, it is notable that most of the programs are quite small; some are technical and not sources of investment, and several are legacy programs that have fallen short—largely because of inadequate funding—for decades. For example, the largest Justice40 program, the Low-Income Home Energy Assistance Program (LIHEAP), has only been sufficiently funded to provide bill assistance to roughly 17 percent of eligible households on average in recent years—a problem which the WHIIG on Justice40 does not identify and is not intended to solve (National Energy Assistance Directors' Association 2019).[4] Another legacy program included in Justice40, the Superfund program, also carries significant baggage (Grinapol and McFarland 2020), including a cleanup rate of only 25 percent of sites since 1983, staggering funding shortfalls (Gordner 2021), racial biases (Declet-Baretto and Carter 2020), and failure to incorporate additional climate risks (US Government Accountability Office 2019) into project assessments and prioritization—problems that Justice40, at best, can only partially help to solve.

[4] See also: Bednar and Reames 2020.

While Justice40's focus on programmatic implementation improvements is long overdue for programs like LIHEAP and Superfund and should not be minimized, the small scale and relatively limited reach of Justice40's pilot program raises questions about the intent of the administration's Justice40 mandate and its transformative possibilities. Arguably, if its fundamental promise is about ensuring protection, inclusion, and prosperity for disadvantaged communities in the climate transition, Justice40 should be a vehicle for securing and directing new and substantial programmatic investments in collective goods such as community energy, energy efficiency, and climate resiliency—not simply improving existing programs. Short of that, Justice40 could get mired in a pattern of reworking legacy programs while delivering only a small fraction of new climate investments to the communities most in need and most deserving of such investments.

> ***The scale of what is needed to ensure an equitable distribution of burdens and benefits in the climate transition clearly calls for a major expansion of Justice40.***

To be very clear, these considerations are not meant to suggest that Justice40 should not be a vehicle for operational improvements and new funding for essential legacy programs, many of which address critical environmental justice needs. But the scale of what is needed to ensure an equitable distribution of burdens and benefits in the climate transition clearly calls for a major expansion of Justice40.

Table 1 below shows how Congress's ratified and proposed infrastructure packages increase investment in Justice40 within the narrow scope of its current covered programs. These numbers should be counted as progress. Nevertheless, given the total combined funding of the infrastructure investments—which could range as high as $2 to $3 trillion depending on what happens with the BBB proposal—it should be concerning that Justice40 as currently constructed (and even including additional funding from IIJA for the current programs) comprises only a small fraction of the new or expanded resources available or being considered for urgently needed infrastructure investments. As noted, a critical longer-term question in this analysis is whether and how the White House—presumably through the Office of Management and Budget—acts to formally expand the scope of Justice40 covered programs and require agencies to design and administer additional programs in express implementation of Justice40 goals and investment standards.

Particularly in light of President Biden's commitments to achieving racial equity, as expressed in Executive Orders 14008, 13985, and elsewhere (Executive Office of the President 2021a, 2021b), Justice40's imprint cannot be marginal in the overall scope of climate-related funding. The once-in-a-generation infrastructure investments now on the table, not to mention the multi-trillion-dollar scale of overall resources needed to tackle climate change, clearly put a spotlight on questions of Justice40's comparative scale and scope—in terms of both its policy goal of delivering 40 percent of overall benefits of investment to the most vulnerable communities as well as its broader societal goal of ensuring equitable outcomes in the climate transition.

TABLE 1. JUSTICE40 PILOT: COVERED PROGRAMS SPENDING

Agency	Program	Spending Enacted in FY 2020 (in $ millions, numbers rounded)	IIJA spending (in $ millions, numbers rounded)	BBB proposed spending (in $ millions, numbers rounded)
Appalachian Regional Commission (ARC)	Partnerships for Opportunity and Workforce and Economic Revitalization (POWER)	$45		
US Department of Homeland Security (DHS)	Flood Mitigation Assistance Program	$160 (FY21)	$3,500	
DHS	Building Resilient Infrastructure and Communities Program (BRIC)	$500	$1,000	
US Department of Energy (DOE)	Weatherization Assistance Program	$305	$3,500	
DOE	Solar Energy Technologies Office (National Community Solar Partnership)	$280		
DOE	Vehicles Technologies Office (Clean Cities)	$396		
DOE	Environmental Management, Los Alamos	$220		
DOE	Advanced Manufacturing Office (Industrial Assessment Centers)	$395		
US Department of the Interior (DOI)	Abandoned Mine Land Economic Revitalization (AMLER) Program	$115 (2019)		
US Department of Transportation (DOT)	Bus and Bus Facilities Infrastructure Investment Program	$464	$5,100	
DOT	Low or No Emissions Vehicle Program	$130	$5,600	

Table continued on following page

Agency	Program	**Spending Enacted in FY 2020** (in $ millions, numbers rounded)	**IIJA spending** (in $ millions, numbers rounded)	**BBB proposed spending** (in $ millions, numbers rounded)
Environmental Protection Agency (EPA)	Drinking Water State Revolving Fund	$1,120	$30,700	
EPA	Clean Water State Revolving Fund	$1,600	$12,700	
EPA	Brownfields Program	$24	$1,500	
EPA	Superfund Remedial Program	$795	$3,500	
EPA	Diesel Emissions Reductions Act Program (DERA)	$87		$60
EPA	Reducing Lead in Drinking Water	$20	$500	$9,000
US Department of Health & Human Services (HHS)	National Institute of Environmental Health Science (NIEHS) Environmental Career Worker Training Program	$803		
HHS	HHS Low Income Home Energy Assistance Program (LIHEAP)	$3,740	$500	
US Department of Housing and Urban Development (HUD)	HUD Lead Hazard Reduction and Healthy Homes Grants	$221		$5,000
US Department of Agriculture (USDA)	USDA Rural Energy for America Program	$706		$2,200
	Total	$12.126 billion	$68.100 billion	$16.260 billion
	Justice40 Pilot Additional Funding for Covered Programs: IIJA Authorized Spending + BBB Proposed Spending = $84.360 billion			

Sources: *IIJA investments identified from Brookings Institution Federal Infrastructure Hub at Brookings Federal Infrastructure Hub; Justice40 covered programs 2020 spending identified from agency budget reports; BBB proposed spending identified in legislative text and several unpublished tracking tools.*

The 2020 total for all Justice40 covered spending across nine agencies was about $12 billion—equal to roughly nine-tenths of 1 percent of the federal discretionary (and pre-pandemic) budget in 2019. IIJA increases in Justice40 programs include supplementing Superfund's current spending ($800 million in 2020) with additional funding of $3.5 billion. IIJA also invests more than $23 billion in additional capitalization grants for states' drinking water and clean water revolving loan programs, $15 billion for lead pipe removal, and $4.5 billion for disaster resiliency investments. Overall, IIJA increases Justice40 spending more than fivefold and proposed BBB funding adds $16 billion more, with a focus on lead abatement programs and rural energy. Yet, the relative scale of this funding as compared to the climate-related investments signed into law or passed in the House in 2021 falls short of the targeted investment goals of Justice40. The clear takeaway is that the administration must adopt a more expansive view of what is included in Justice40, which not only means more investment for the hardest hit communities but also significant changes in implementation of investments to ensure that communities with the most need are prioritized and empowered in the process.

SECTION TWO

JUSTICE40 AND DIVESTMENT FROM HARM

Many Justice40 advocates support what WHEJAC terms the principle of 100 percent "no harm." As WHEJAC states in its Final Recommendations report on Justice40 and two related issues, "100% of investments must do no harm to Environmental Justice communities. We want 100% Justice; it would be unreasonable to have any climate investment working against historically harmed communities" (White House Environmental Justice Advisory Council 2021).

The 100 percent no harm principle asserts that, no matter how much is invested in Justice40 and other programs targeted for disadvantaged communities, there should also be no investments that cause further harm in these communities. Thus, Justice40's community investment mandate should be inseparable from a commitment to 100 percent divestment from harms affecting frontline and disadvantaged communities. Essentially, WHEJAC and other grassroots advocates such as the United Frontline Table (United Frontline Table 2021) are saying that the federal government cannot count the benefits it provides through some investments while ignoring the harms it causes through other investments—a contradiction that would threaten the integrity of Justice40.

For most frontline advocates, harmful investments include support for any of the following:

- Fossil fuels, including subsidies, procurement, infrastructure investments, and research and development;
- Carbon capture and other technologies that enable continuing fossil fuel extraction;
- Non-fossil combustible energy sources, such as biofuels, biomass, and hydrogen produced and burned for power or heat;
- Nuclear development or subsidies;
- Highway expansion and polluting transportation infrastructure; and
- Carbon pricing, offsets, and other market mechanisms in climate policy.

While there are long-standing conflicts over nuclear power, highway expansion, and continuing fossil fuel use, solutions deemed to be "clean" or "carbon neutral" alternatives to fossil fuels are increasingly concerning to advocates. These primarily include bioenergy, hydrogen, and carbon capture technologies, all of which (as seen in

Table 2 below) are promoted in IIJA and the BBB proposal, with support from the Biden administration (Iaconangelo, Clark, and Anchondo 2021).

The problems surrounding these "cleaner" fossil fuel alternatives are manifold and well-documented. There are two main criticisms of bioenergy (energy produced from crops, wood, and solid waste)—purported "carbon neutrality" and co-pollutants from combustion. While some forms of bioenergy, such as liquid biofuels produced from corn and soybeans, burn somewhat "cleaner" (lower carbon) than fossil fuels at the point of combustion, on a life-cycle basis accounting for land-use changes, carbon-sinking cycles, production processes, and other factors, bioenergy is considered by leading experts to be a net additive contributor to carbon emissions (Lark et al. 2022; Gewin 2022; Searchinger et al. 2008). In addition, biofuels contribute to agricultural pollution: 40 percent of US corn production is for ethanol, the main transportation biofuel. Further, some forms of bioenergy production, such as burning woody biomass or municipal waste for electricity (which are eligible energy sources in the BBB tax credit program discussed below) are worse than fossil fuels in terms of local pollution from power plants (Booth 2014). In the southeastern United States, moreover, increasing production of wood energy feedstocks, mainly for export to biomass power plants in the United Kingdom and parts of Europe, is creating major environmental and environmental justice problems (Speare-Cole 2021; Southern Environmental Law Center 2021).

Hydrogen fuel—an alternative increasingly hyped by the fossil fuel industry itself—is fraught with economic and environmental tradeoffs despite being greenhouse gas-free when combusted (Saadat and Gersen 2021). For starters, more than 95 percent of hydrogen in use today—primarily for industrial heat processes—is so-called "gray" hydrogen, meaning it is produced from methane, with the perverse emissions effects of producing clean energy using fossil energy. An alternative-termed "blue" hydrogen aims to capture gray hydrogen emissions using carbon capture technologies, but in most cases the net impact is more emissions due to the energy used to power the carbon capture systems (Howarth and Jacobson 2021). Finally, the prospect of "green" hydrogen—produced by electrolysis of water using renewable electricity—raises a host of other concerns. For one, producing "green" hydrogen on the scale necessary to provide cleaner power and heat (gas utilities in particular are pushing for widespread use of hydrogen) would divert a lot of renewable electricity from the grid to produce yet another form of energy instead of directly powering cars and buildings. This is not only extremely inefficient but could also be highly destabilizing for the grid and could dramatically slow economy-wide decarbonization. Further, hydrogen combustion may be cleaner in terms of carbon emissions, but it is likely much dirtier compared to natural gas in terms of local pollution, with ozone-causing nitrogen dioxide emissions as much as six times greater (Milford, Mullendore, and Ramanan 2020).

Other alternatives considered harmful are technology-based, such as carbon capture and storage technologies (CCS). Stanford University's Mark Z. Jacobson analyzes several CCS projects and finds clearly negative results in comparing CCS performance to a base case of directly reducing greenhouse gas combustion and related local pollution by replacing fossil fuels with renewable energy (Jacobson 2019). Further, it is widely understood that CCS, even if improved environmentally, will not be commercially viable for many years, if not decades—a point recently underscored in a Government Accountability Office report finding dismal results from federal investments in CCS reaching back to the American Recovery and Reinvestment Act (US Government Accountability Office 2021). At a minimum, the opportunity costs of diverting significant resources to these risky solutions should give pause to policymakers who are concerned about the need for public investment in proven climate solutions such as solar and wind power, battery storage, and energy efficiency.

WHEJAC's and other advocates' concerns about harmful investments are not incidental in the budget picture of Justice40. As Table 2 illustrates, IIJA allocates nearly $100 billion to several of the likely harmful investments outlined above, while BBB proposes an additional $60 billion to many of the same types of investments, primarily in the form of tax credits. Between IIJA and BBB, approximately twice as much funding is allocated to what advocates consider to be "false solutions," as compared to new Justice40 program spending (at $84 billion for the pilot scope of covered programs). This does not even include continuing fossil fuel tax subsidies, which are not eliminated by IIJA or BBB—the two largest of which are worth approximately $26 billion over a decade (Environmental and Energy Study Institute 2019).

TABLE 2. COUNTERPRODUCTIVE INVESTMENTS					
Infrastructure Investment and Jobs Act			**Build Back Better Proposal**		
Agency	Program	Authorized Spending (in $ billions, numbers rounded)	Agency	Program	Proposed Spending (in $ billions, numbers rounded)
DOT	Highway Expansion	$66.0*	**Treasury**	Nuclear Production Tax Credits†	$35.0
DOE	Clean Hydrogen Development	$9.5	**Treasury**	Hydrogen Tax Credits	$9.0
DOE	Civil Nuclear Credit Program	$6.0	**Treasury**	Biofuels Tax Credits	$15.0
DOE	Advanced Reactor Demonstration Program	$2.5	**Treasury**	Carbon Capture and Storage Tax Credits††	$2.0
DOE	Carbon Dioxide Transportation Infrastructure Finance and Innovation	$2.1	**USDA**	Biofuels Infrastructure Program	$1.0
DOE	Carbon Capture Demonstration Projects Program	$2.5	**US Forest Service (USFS)**	Wood Innovation Grants	$1.0
DOE	Carbon Storage Validation and Testing	$2.5			
DOE	Carbon Removal: Regional Direct Air Capture Hubs	$3.5			
DOE	Direct Air Capture Technology Prizes	$0.115			
DOE	Carbon Utilization Program	$0.310			
Total		**$95.0 billion**			**$63.0 billion**
Grand Total: $158.0 billion					

Sources: *IIJA investments are identified from the Brookings Institution Federal Infrastructure Hub at Brookings Federal Infrastructure Hub. Tax Credit Estimates are from the Congressional Budget Office and the Joint Committee on Taxation: Congressional Budget Office, "Summary of Cost Estimates for H.R. 5376," November 18, 2021, https://www.cbo.gov/publication/57627; Joint Committee on Taxation, "Estimated Budget Effects Of The Revenue Provisions Of Title XIII – Committee On Ways And Means, Of H.R. 5376, The "Build Back Better Act," As Passed By The House Of Representatives, JCX-46-21, November 19, 2021, https://www.jct.gov/CMSPages/GetFile.aspx?guid=c18fa669-9b7f-479b-931e-a735e77bce95.*

*IIJA would provide a $110 billion boost for highways, virtually without restriction. In 2018, 44 percent of state and local highway and road spending went toward operational costs, such as maintenance, repair, snow and ice removal, highway and traffic design and operation, and highway safety. The other 56 percent went toward capital spending, such as the construction of both highways and roads. This operational-capital divide stands in stark contrast to other major state and local spending categories, where capital spending typically accounts for 10 percent or less of total direct spending. Since 1977, capital spending has consistently been between 50 percent and 60 percent of state and local highway and road spending. We calculate highway expansion at 60 percent of the $110 billion authorized for additional highway spending in IIJA, or approximately $66 billion. See: Highway and Road Expenditures | Urban Institute.

†Some estimates of the cost of BBB's proposed extension of the nuclear production tax credit vary significantly from the standard Congressional Budget Office (CBO) estimate. This table follows the estimate of the Nuclear Information and Resource Service, as explained in a memorandum to the Senate Finance Committee, November 3, 2021, available at Memo5_National-Bailout-Cost_2021-11-03 (nirs.org).

††The CBO may be vastly underestimating the cost of BBB's carbon capture tax credit, according to an analysis by *Inside Climate News*. See Kusnetz 2021.

The promise of Justice40 is undermined if divestment from harm is not considered integral to the policy and program as implemented. By a standard of 100 percent no harm, concurrently allocating $160 billion to harmful investments cannot be separated from assessing compliance with Justice40. In fact, one could argue that harmful investments should be "netted out" of calculations tracking the 40 percent investment goal, potentially putting Justice40 "in the red" despite new positive investments. At a minimum, advocates can justifiably argue that such contradictions fundamentally challenge the integrity of Justice40 and thus must be addressed by policymakers who support Justice40.

SECTION THREE

EXPANDING THE REACH OF JUSTICE40

JUSTICE40 AND THE SCALE OF CLIMATE JUSTICE

According to E.O. 14008, ensuring that disadvantaged communities receive 40 percent of overall benefits of climate; clean energy; and related transportation, housing, and other spending is a "goal" of Justice40. Of course, most policies set topline goals or benchmarks, the achievement of which indicates success. But Justice40 is not a single policy with only one specific policy goal. According to President Biden's own stated commitments, Justice40 is predicated on a systemic understanding of racism in all aspects of government, a central feature of which is chronic underinvestment in communities of color. Putting a Justice40 lens on racially biased underinvestment necessarily raises questions of scale. The scale of investment should be proportionate to the actual harm created by the underinvestment that came before.

If Justice40 is intended to be an effective investment mechanism for advancing racial equity, questions about its possible scale far outnumber answers at this stage. Forty percent of overall benefits of select agency investments is, as noted, the stated goal for frontline communities in E.O. 14008. But, whatever the benefits frame might mean for actual investment, one thing seems clear: 40 percent cannot be the upper limit of what is expected or possibly delivered. There is a strong case to be made that frontline communities should command significantly more than 4 out of 10 dollars (or 40 percent of benefits) from federal investments in the seven prescribed policy areas. The Biden administration has not explained its reasoning for choosing 40 percent as its investment goal, but it seems to have borrowed the measure from New York State. New York's measure is largely based on demographic analysis calculating that approximately 40 percent of the population is disadvantaged, particularly by economic measures and racial identity (NY Renews n.d.). This is roughly comparable to national demographics, where about 37 percent of all households and 53 percent of Black households earn under $50K annually, while approximately 40 percent of the population in the 2020 Census is non-white.[5]

[5] The most common federal definition of a "low-income household" is one earning less than 80 percent of the area median household income. In 2019, median household income among all households was nearly $65,000, which means that households earning less than approximately $53,000 are considered low-income. In 2019, 37 percent of all households and 53 percent of Black households earned under $50,000 annually. See The US Income Distribution: Trends and Issues (congress.gov).

While a 40 percent threshold plausibly captures the size of the affected population, it does not account for the actual investment deficits facing disadvantaged communities, which are experienced cumulatively over multiple decades. Justice40 should not simply equate the share of the population that can be counted as disadvantaged with the share of federal investment needed to support and achieve equity for disadvantaged communities. These are two different measures qualitatively—one measures the sheer number of people in question and the other measures the share (and ultimately the amount) of resources needed to close historic and enduring racial equity gaps that harm disadvantaged communities. It is quite arbitrary to equate the two measures, whatever one's view of the budget questions surrounding Justice40.

Our proud legacy of environmental laws, which have generally succeeded in reducing overall pollution, are shadowed by continuing racial disparities in local pollution exposure, telling a story of unequal protection under the law like no other in US history.

The racial disparities in question are staggering. Our proud legacy of environmental laws, which have generally succeeded in reducing overall pollution, are shadowed by continuing racial disparities in local pollution exposure, telling a story of unequal protection under the law like no other in US history. (Bullard 1990; Konisky 2015). These pollution disparities stand out against a historic backdrop of cumulative socioeconomic inequities that can be described as both vast and largely the result of policy. Today's racial wealth gap between Black and white households stands at roughly $11 trillion (Darity 2021; Rothstein 2017), which is more than seven times the federal discretionary budget and roughly half of GDP. Racial wage gaps and student debt compound the cumulative impacts of wealth-stripping (Leonhardt 2020; Demos 2013). Through a budget lens that accounts for how federal policies, particularly housing policies, created the racial wealth gap, a whole-of-government strategy for advancing racial equity—President Biden's stated approach—is starting very deeply in the red. Meanwhile, a 27 percent decline in funding for low-income block grant programs between 2000 and 2017 chipped away at what was already a small fraction of federal funding addressing such problems as energy burdens, poverty, and substance abuse (Reich, Shapiro, Cho, and Kogan 2017). Furthermore, outside of Medicaid, federal spending on the entire scope of low-income assistance (other health services, food, education, cash benefits, tax credits, workforce programs, etc.) is equal to about 2 percent of GDP, even as more than 50 percent of Black households are considered low-income by federal standards (Falk, Lynch, and Tollestrup 2018).

Such shortfalls are set into relief by, among other things, massive federal tax expenditures mainly benefiting affluent households. In 2019, $1.3 trillion in tax expenditures dwarfed the entire non-defense discretionary budget ($660 billion), and nearly 60 percent of the benefits went to the top quintile of households (Center on Budget and Policy Priorities 2020). It should also be stressed that these gaps and imbalances—both in economic resources and government spending—are only snapshots. Year after year, economic disparities, public underinvestment, and other harms such as pollution exposure build upon one another with cumulative impacts that far outweigh particular effects in one area in any given year. Layered throughout are life-altering setbacks from periodic disasters such as hurricanes, fires and floods, and pandemics—all of which are becoming more frequent as climate change progresses.

Calculated against this backdrop, 40 percent of overall investment should be considered a starting point rather than a goal for Justice40 implementation. Advocates ranging from NY Renews to the Green New Deal Network to WHEJAC to the congressional authors of multiple Green New Deal-related bills introduced in 2020 have all sought to raise the bar by reframing 40 percent as a "floor" and not a "ceiling" for federal investments in disadvantaged communities. This view represents a policy position that is fundamentally about fairness and proportionality—equity—in public commitments to advance racial justice on a meaningful scale. At the same time, the phrasing itself tells a more accurate story about what is due. Changes otherwise said to demonstrate progress are counted differently, as steps toward the minimum that is required rather than steps toward the finish line.

JUSTICE40 EXPANSION: ALIGNING AND EXPANDING FEDERAL INVESTMENT WITH FRONTLINE NEEDS

In unpacking IIJA and BBB investments, it is clear that the grassroots policy work and organizing behind the whole framework of Justice40—including key state-level precedents developed in California and New York, as noted—have exerted a significant influence in terms of bringing racial justice nearer to the foreground of the federal budget. IIJA includes significant environmental justice, clean transportation, and community resiliency investments, including new or expanded programs that bear the imprint of Justice40 either in their specific programmatic focus—such as water safety, pollution remediation, and weatherization—or in establishing specific spending carve-outs for disadvantaged communities in broader policy areas. BBB proposes DAC carve-outs in climate workforce programs and green banking block grants for states.

Many other programs generally name disadvantaged or low-income communities as a priority for directing programmatic investments but do not codify specific spending levels for them.

All of this can help advance the goals of Justice40. However, none of these programs—even those clearly targeted for DACs or including specific DAC carve-outs—are specifically codified for inclusion in Justice40 or its investment mandate. More broadly, it is not at all clear in the legislation that their implementation is required to align with Justice40 investment principles, for example on stakeholder engagement or a commitment specifically to place-based investments targeted for the most vulnerable communities, something advocates are calling for.[6] Taken together, this range of at least several dozen programs is termed the Justice40 "expansion pool," because these programs essentially bear the imprint of Justice40 without being codified as part of Justice40 or otherwise directed to adhere to Justice40's investment mandate or its principles and goals of investment. This could change as agencies seek to, in some cases, develop rules or guidelines for implementation, but there is no guarantee. To include these new investments as part of Justice40 would require either the relevant agency or OMB to designate the relevant programs as covered programs, which, given the newness of the initiative, could require additional pressure from advocates.

Table 3 below identifies select IIJA and BBB investments in the Justice40 expansion pool and calculates combined spending in each of Justice40's major policy categories (climate and energy are combined into one larger category). Thus, the table provides a kind of structural outline of the potential scale and programmatic directions of the expansion pool. Standout examples include:

IIJA Investments

- Water investments including more than $23 billion to capitalize grants or forgivable loans for drinking water and clean water projects in DACs, plus a combined $21 billion investment in lead pipe replacement and PFAS remediation.
- $7 billion for state carbon reduction programs, focusing on transportation and equipment emissions.
- $5.6 billion for zero- or low-emissions buses.

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6 Tiered rankings of vulnerability as a lens for prioritizing place-based investments is a key state-level precedent from California. The Equitable and Just National Climate Forum recommends that Justice40 should "[e]stablish thresholds and tiering to prioritize the delivery of investment benefits to the most disadvantaged communities. For example, communities that receive a screening tool score in the top 1 percent should be the highest priority, followed by those with scores in the top 5 percent, 10 percent, and 25 percent. If the worst-off communities are not prioritized, investment benefits are likely to go to those with more capacity and resources, since they can more readily work with agencies" (Equitable and Just National Climate Platform, Center for American Progress, Tishman Environment and Design Center 2021).

- $2.5 billion for electric vehicle charging infrastructure in underserved communities.
- $2.5 billion for infrastructure for clean ports, which are major sources of pollution often located in close proximity to disadvantaged communities.
- $1 billion for "reconnecting communities," by remediating highways and other discriminatory infrastructures that historically segregated and continue to pollute communities of color.

BBB Proposed Investments

- The Greenhouse Gas Reduction Fund provides $27.5 billion in financing to leverage clean energy investments by states and non-profit "green banks." More than 50 percent of this funding ($15 billion) is designated for investment in disadvantaged communities.
- An expanded solar investment tax credit program includes a 20 percent added credit for projects benefiting residents of disadvantaged communities.
- New investments of $11 billion in civilian climate workforce programs, including $6.9 billion for programs serving low-income, tribal, and Alaska and Hawaiian Native communities, and communities experiencing adverse health and environmental conditions.
- $3.8 billion for electrifying low-income and tribal households with heat pumps and electric appliances.
- $9.7 billion in clean energy loans for rural electric cooperatives.

TABLE 3. JUSTICE40 EXPANSION POOL				
Justice40 Policy Area	IIJA Authorized Funding ($ in billions, numbers rounded)	IIJA Programs	BBB Proposed Funding ($ in billions, numbers rounded)	BBB Proposed Programs
Climate Change, Clean Energy, Energy Efficiency	$25.0	**Competitive Funding** • Clean energy demonstration (former mine lands) ($0.5) • Grid resiliency and reliability investments ($10.0) • Advanced energy manufacturing grants (coal communities) ($0.750) • Flood mitigation assistance grant program ($3.5) • Building Resilient Infrastructure and Communities (1.0) • Public school energy efficiency ($0.5) **Formula Funding** • Wildfire defense and ecosystem restoration ($7.1) • Energy Efficiency and Conservation Block Grant Program ($0.6) • Energy efficiency state revolving loan fund capitalization ($0.250) • State Energy Program ($0.5) • Coastal and inland flood mapping ($0.49)	$75.0	• Advanced energy project credits with set asides for automotive and energy communities ($18.0) • Solar tax credit adder for projects serving DACs (N/A) • State and local green bank financing for low-income communities ($15.0) • Public facility energy upgrades ($0.5) • Flood hazard mapping and insurance discounts for LMI policyholders ($1.2) • Urban and community forestry ($2.5) • Coastal Communities and Climate Resilience ($6.0) • Forest management to reduce fire risks ($10.0) • Rural cooperative clean energy loans and grants ($9.7) • Rural Energy for America ($2.2) • Additional loans for rural renewable energy ($2.9) • Rural Energy Savings Program ($0.2) • Tribal climate resilience and electrification ($0.635) • Methane emissions reduction program ($0.775) • Climate pollution reduction grants ($5.0)

Table continued on following page

Justice40 Policy Area	IIJA Authorized Funding ($ in billions, numbers rounded)	IIJA Programs	BBB Proposed Funding ($ in billions, numbers rounded)	BBB Proposed Programs
Clean Transportation	$93.0	**Competitive Funding** • Reconnecting communities ($1.0) • Local and Regional Project Assistance (RAISE) grants ($7.5) • Healthy streets ($0.5) • Clean School Bus Program ($5.0) • Low and no emissions buses ($5.6) • Clean ferries ($0.250) **Formula Funding** • Clean ports (Trucking) ($0.4) • Accessible charging and fueling infrastructure, underserved communities ($2.5) • PROTECT program (transportation climate resiliency) ($7.3) • Clean ports infrastructure ($2.3) • Congestion mitigation and air quality improvement ($13.2) • Carbon reduction program ($6.4) • Energy improvement in rural and remote areas ($1.0) • Urbanized areas formula and State of Good Repair grants (public transit) ($33.5) • Seniors and disability access ($1.75) • Rural transit programs ($4.6)	$23.0	• Clean heavy-duty vehicles for NAAQS nonattainment areas ($2.0) • Clean ports for NAAQS nonattainment areas ($0.875) • Diesel emissions reductions in DACs ($0.060) • Zero-emissions vehicle infrastructure in DACs and rural communities ($1.0) • Electric vehicle charging equity program ($1.0) • Affordable housing access ($10.0) • Neighborhood access and equity ($4.0) • Community emissions reduction program ($4.0)
Sustainable Housing			$90.0	• State home energy performance rebates ($5.9) • Federal home electrification rebates for DACs ($6.1) • Public housing investments including efficiency and resiliency ($65.0) • Affordable housing upgrades and resilience ($2.0) • Community development block grants for affordable housing ($3.0) • Lead hazard remediation and healthy homes ($5.0) • Community revitalization and land trusts ($3.0) • Tribal electrification ($0.3)

Table continued on following page

Justice40 Policy Area	IIJA Authorized Funding ($ in billions, numbers rounded)	IIJA Programs	BBB Proposed Funding ($ in billions, numbers rounded)	BBB Proposed Programs
Pollution Remediation and Environmental Justice	$24.0	**Competitive Funding** • Clean energy demonstration former mine lands ($0.5) • Lead reduction projects ($0.5) • State grants for under-served communities ($0.25) **Formula Funding** • Abandoned mine reclamation ($14.3) • Orphan well program ($4.7) • Superfund ($3.5)	$13.5	• Air pollution monitoring ($0.118) • School air pollution reductions ($0.375) • Environmental and climate justice block grants ($3.0) • Historically Black Colleges and Universities (HBCU) credits for environmental justice ($10.0)
Clean Water	$50.0	**Competitive Funding** • Small community water systems: operational sustainability ($0.25) • Small public water systems ($0.25) • Midsize and large water system resiliency and security ($0.25) • Stormwater control ($0.05) • Clean water infrastructure resiliency and sustainability ($0.125) • Connecting to public water systems ($0.10) • Wastewater efficiency grant pilot program ($0.10) **Formula Funding** • Drinking Water Revolving Loan Program ($11.7) + lead pipes and PFAS ($19.0) • Clean Water Revolving Loan Program ($11.7) + PFAS ($1.0) • Small and disadvantaged communities: emerging contaminants ($5.0) • Sewer and stormwater grants ($1.4)	$14.0	• Lead service line replacement ($9.0) • Water system upgrades ($2.5) • Wastewater and stormwater reuse ($1.85) • Rural water grants (lead remediation) ($0.97)

Table continued on following page

Justice40 Policy Area	IIJA Authorized Funding ($ in billions, numbers rounded)	IIJA Programs	BBB Proposed Funding ($ in billions, numbers rounded)	BBB Proposed Programs
Workforce development and training	$0.64	• Energy auditor training program ($0.040) • Wildland firefighters ($0.600 set aside in wildfire defense funding)	$18.0	• Civilian Climate Corps (Corporation for National Service; Department of Labor) ($11.1) • Energy community reinvestment financing ($5.0) • Dislocated workers support ($2.0)
Additional rural investments			$0.875	• Rural Partnership Program ($0.875)
IIJA Authorized Funding: $192.6 billion ($38.5 billion Competitive—20 percent of IIJA total)			BBB Proposed Funding: $234.4 billion	
Justice40 Expansion Pool Total Authorized and Proposed Funding: $427.0 billion				

Sources: *IIJA funding identified from Brookings Institution Federal Infrastructure Hub, at Brookings Federal Infrastructure Hub; BBB proposed funding identified from legislative text and several unpublished tracking tools.*

The vast majority of IIJA spending, $590 billion, is focused on transportation, and predictably the majority of IIJA transportation funding is focused on highways, roads, and bridges, including $110 billion in new funding. Nevertheless, about $93 billion in IIJA transportation investment is for programs that should be counted in the Justice40 expansion pool, including funding for clean ports, equitable EV infrastructure, electric school buses, and carbon reduction programs. Of IIJA spending totaling an estimated $1.2 trillion across five years,[7] over $190 billion, or about 22 percent, is either targeted for DACs (lead pipe removal, weatherization assistance, EV infrastructure for underserved communities) or potentially beneficial for DACs (public transit, disaster resiliency, energy grid resiliency).

One notable investment announced in January 2022 suggests that the Biden administration is taking initiative to insert Justice40 in specific areas of clear need for disadvantaged communities. In this case, the White House is providing $14 billion—combining funds from IIJA with other appropriations—to the Army Corps of Engineers for port and waterway projects as well as coastal resiliency.

[7] The Brookings Institution estimates a substantially lower total of $864 billion. See https://www.brookings.edu/blog/the-avenue/2022/02/10/introducing-the-brookings-federal-infrastructure-hub-a-comprehensive-guide-to-the-infrastructure-law/.

The program announcement specifies a focus on disadvantaged communities in alignment with the Justice40 initiative, yet without pointing to any specific guidance on budget commitments, project priorities, or even identification of DACs in a Justice40 rubric (White House 2022a). Going forward, advocates should be aware of and address other examples in which Justice40 is invoked in programmatic statements but not reflected in budgetary commitments or targeting of investments.

In this respect, a critical factor is the balance between formula funding and competitive grants. As shown in Table 3, the ratio of formula funding and competitive grants in IIJA's expansion pool is roughly 5-to-1. Formula grants are arguably more "democratic" because they devolve implementation to the states, but ceding implementation to the states can, in some cases, invite misallocation of funds or even serious injustices, for example when states' use of federal highway funds benefits white communities while increasing pollution in poor communities (Ramirez 2021). Competitive grants, in contrast, are directly administered by federal agencies, with the advantage of cutting out potentially hostile state intermediaries and giving stakeholders more control, at least in principle, of federal funding. From the standpoint of community control, IIJA's heavy reliance on formula funding will clearly present challenges for advancing Justice40.

Notably, IIJA's Justice40 expansion potential is further underscored in President Biden's Executive Order 14052 on implementation of the IIJA, in which he directs all agencies to prioritize "investing public dollars equitably, including through the Justice40 Initiative, which is a Government-wide effort toward a goal that 40 percent of the overall benefits from Federal investments in climate and clean energy flow to disadvantaged communities" (Executive Office of the President 2021c). Further, President Biden's official administrative guidance on IIJA for state, local, and tribal governments (January 2022) underscores agency accountability to Justice40, emphasizing equitable access for underserved communities:

> *To ensure that the Bipartisan Infrastructure Law advances equity, racial justice, gender equality, and environmental justice, agencies will take steps to ensure that every program is accessible for underserved communities by providing technical assistance and simplifying the federal funding process. As stated in Executive Order 14052, Bipartisan Infrastructure Law programs are subject to the President's Justice40 Initiative . . . . (White House 2022b)*

BBB proposed spending on programs that should be counted in the Justice40 expansion pool totals more than $230 billion dollars—approximately 42 percent of overall climate-related spending in the BBB proposal (estimated at $550 billion)—including several programs highlighted above. Of particular note from an impact perspective, BBB's proposed tax credit program contains a 20 percent bonus credit for solar projects built in disadvantaged communities and benefiting their residents. The dollar value of the DAC solar credit is currently unknown because this policy cannot be scored in advance. But the provision sets a 10-year cap of 18 gigawatts of new solar deployment under the enhanced credit program, which means that over the next decade, DACs could potentially enjoy a more than fivefold increase in distributed solar power capacity as compared to total capacity today. This would be a very positive example of equitable clean energy development, as deployment in DACs to this point has lagged far behind the general trend.

As we look to the future,[8] assessing the progress of Justice40 and how it measures up to the Biden administration's 40 percent investment mandate for disadvantaged communities requires careful consideration of exactly what programs and investments should count and why. On a spending basis, without considering significant challenges of implementation, the direction appears positive even without BBB. But the influence of BBB, whatever is finally enacted, is important in three ways: first, it was passed by the House of Representatives, and likely would have been significantly larger were it not for a divided and broken Senate; second, it introduced compelling and impactful ideas like the civilian climate corps and federal capitalization of state and local green banking; and third, it gave unprecedented attention to environmental justice issues and addressed them on a significant scale, effectively doubling down on IIJA environmental justice investments—which are fewer in number but generously funded in the most critical areas (primarily water safety).

Stepping back from these hopeful considerations to take stock of Justice40, however, is more ambiguous. As I pointed out earlier, much of Justice40's initial covered spending is devoted to legacy programs that have been running "deficits" for years, which could mean that the administration is effectively double counting resources that should have been invested all along, and thus arguably short-changing the new and transformative investments that are needed to fulfill Justice40's vision of an equitable climate transition. The 100 percent no harm question is also a serious concern in this budget analysis given the likely harmful investments documented in section 2 as well as continuing fossil fuel subsidies in both IIJA and BBB.

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8 It should not be overlooked that combined Justice40-related investments of the two packages clearly amount to significant progress historically. The American Recovery and Reinvestment Act of 2009, to take the most relevant comparison, invested only about $80 billion in climate-related programs, which was roughly 10 percent of the total package of $787 billion. Little of this spending had anything like a Justice40 focus, perhaps with the exception of weatherization investments, and much of it went to energy tax credits, which, as noted further below, proved to be highly inequitable.

The scale of Justice40 should be considerable, not marginal, in the federal budget. It should grow over time, requiring shifts in investment that will repair and transform in proportion to historic harms, enduring disparities, and current needs in the face of climate change.

The main points developed in this section focused on implementation of Justice40 and achieving a scale and scope of principled investment that is adequate to address the reparative and transformative needs of our most vulnerable communities. The scale of Justice40 should be considerable, not marginal, in the federal budget. It should grow over time, requiring shifts in investment that will repair and transform in proportion to historic harms, enduring disparities, and current needs in the face of climate change. Adequate scale, however, must be tethered to effective implementation. This is a question of how the "expansion pool" spending identified here will be bound by Justice40 investment principles, which include prioritizing the most vulnerable communities and populations, maximizing investment benefits and minimizing harms, and ensuring community control of invested resources. Each of these principles is essential to fulfilling the promise of Justice40. The frontline communities trying to hold their ground in the climate crisis and the tireless work of environmental justice advocates in getting us to this point deserve nothing less.

SECTION FOUR

LARGE "INVESTMENT BLANKS" FOR CLIMATE JUSTICE

Justice40 does not require that each and every climate-related investment meet a standard of 40 percent investment in DACs or for their benefit, only that 40 percent of total investment must be targeted for DACs. Yet, in a number of cases, large investment programs that clearly have significant equity implications appear to be largely or entirely untethered from frontline investment needs or, more broadly, from considerations of equity (the distribution of burdens and benefits) in the climate transition. Such programs are effectively "investment blanks" in the fight for an equitable climate transition.

One example is heavy reliance on expanding clean energy tax credits, a 10-year program that is the single largest BBB climate proposal. Although it is unclear if and how the BBB tax credit program may pass into law, it seems likely that some version of the program will be included in a reconciliation bill that will reach President Biden's desk. Among other things, vocal support from utilities could be a factor in such a scenario (Natter, Epstein, and Sink 2022).

Research shows that, historically, the value of residential and individual clean energy tax credits has mostly accrued to affluent households: Between 2006 and 2012, about 60 percent of total credits worth about $18 billion went to the top 20 percent of households, while only about 10 percent went to the bottom 60 percent of households (Borenstein and Davis 2015). This pattern is even more skewed toward affluent households than is generally the case with income-based tax expenditures (e.g., the home mortgage interest deduction and the pre-tax treatment of employee retirement contributions). Other national research, published in 2019 and focusing on deployment of rooftop solar—generally considered a modest success story of clean energy tax credits—found sharp demographic disparities in deployment. Race, more than income, was the strongest predictive factor (Sunter, Castellanos, and Kammen 2019). Even controlling for income and homeownership, the research found that majority-Black census tracts installed between 60 to 70 percent less rooftop solar compared to no-majority census tracts, and nearly half of all majority-Black census tracts did not have any rooftop solar installed.

BBB's proposed extension of the residential/individual credits, which is projected by the Joint Committee on Taxation to cost approximately $42 billion over 10 years, includes significant equity reforms. The most important is introducing refundability of credits for purchases of rooftop solar, energy efficiency and electrification upgrades, and electric vehicles. Previously, households with little or no federal income tax liability (approximately 30 percent of households, predominantly low-income and BIPOC) were simply excluded from the program; now, at least in principle, households can obtain credits regardless of taxable income. Time will tell, however, if refundability closes the income gap in clean energy access, especially for the lowest-income households.

Other fundamental problems of relying on tax credits for clean energy investment are not addressed in the revised program. Most importantly, renters are categorically excluded from residential credits because they cannot (or would have little incentive to) make capital improvements (solar, electrification, efficiency) on properties they do not own, and landlords have no apparent incentive to make clean energy improvements either because improvements would primarily benefit residents by reducing their utility bills. More broadly, the tax credits top out at 30 percent of purchases for all households regardless of income, which means that affordability for low-income households with little discretionary income will continue to be a significant barrier even if the credits are refundable. Credit values should be variable by income (more credit for poorer households) to increase racial and economic equity in clean energy purchases.

There are also concerns with the commercial tax credit program for larger solar and wind projects. The revised program includes a promising policy of enhanced credits for clean energy projects located in and benefiting DACs, but it offers no rules or guidance on qualifying criteria for such projects. Moreover, most of the tax resources in the commercial program will flow to viable enterprises that need less incentive. Benefiting DACs by reducing local pollution and creating local jobs and energy wealth for their residents is not a hallmark of commercial clean energy development, and the revised tax credit program does not seem poised to fundamentally change that general trend.

Under a Justice40 lens, distributional barriers entrenched in such a high-cost program should raise questions about continued reliance on tax credits as “investment” at the expense of actual investments and benefits that can be specifically directed to disadvantaged communities and households. Nevertheless, tax credits seem likely to continue to be a centerpiece of US climate policy and should invite scrutiny and reform in terms of compliance with Justice40. At a minimum, the Department of Treasury should establish an oversight program to track distributional impacts of the program, and if historic trends of inequity—and most acutely racial inequity—continue, Congress should seek to revise the program while extending it further to make up for lost time in pursuing an equitable clean energy transition.

Another concerning investment blank is electric grid investments. In particular, IIJA handed the Department of Energy over $5 billion for a competitive grant program to promote "grid resiliency and reliability." Yet the authorizing provision for this program does not prioritize or even mention the unique and often acute grid resilience needs of disadvantaged communities. In this respect, it must be clear that "reliability" and "resilience" are two different things, with different policy goals. Reliability refers to meeting average customer demand and managing demand fluctuations—ensuring that the light switch turns on the lights almost without fail. Utilities essentially get paid for electricity reliability. Resilience, on the other hand, refers to protecting communities from systemic disruptions such as storms or fires knocking out power and causing blackouts. Minimizing the harm and quickening recovery from disastrous power disruptions can be life-changing—as many as 8 million people lost power when Superstorm Sandy hit in 2012, some for many weeks. But utilities generally do not get paid to protect communities with vital resilience investments in advance of disasters.

Through a Justice40 lens centered on equity and community needs, grid resilience grant programs should sharply prioritize funding for the most vulnerable (and less materially resilient) communities, which is measurable based on variables of income and savings, employment, transportation, health, public facilities, social networks, and many other factors. Further, grid resilience is not only a matter of community protection. It also has implications for community development, as illustrated in recent research on California finding that grid capacity to interconnect with local energy resources such as community solar is highly unequal. Majority-Black communities possess far less access to the baseload grid if they want to develop distributed energy resources and enjoy the greater resilience, job creation, and potential local income streams that would follow (Brockway, Conde, and Callaway 2021).

If major programs such as the clean energy tax credits and grid investments are not accountable to Justice40, how will the clean energy transition succeed in ensuring better outcomes for disadvantaged communities? Without good answers on achieving equity in its major climate investments, federal policy risks leaving disadvantaged communities behind while the economic strongmen—energy companies, utilities, developers, investors, and affluent households—draw down the lion's share of public largesse in the climate transition.

IIJA contains several other large programs that appear to be investment blanks, including two significant formula programs related to transportation:

- The Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program provides $7.4 billion in formula funding and $1.4 billion in competitive grant funding mainly to states for transportation resiliency projects addressing coastal, fire, and other climate risks.
- The Carbon Reduction Program provides formula grants to states to develop urban-area strategies to reduce transportation and equipment emissions.

Both programs could potentially be highly targeted for DACS but neither provision mentions disadvantaged or low-income communities.

Other investment blanks, from the BBB proposal, include:

- The program for Coastal and Great Lakes Restoration, budgeted at $9.5 billion, does not target investment for disadvantaged communities or populations, despite significant equity implications for BIPOC communities with ties to coastal and Great Lakes ecosystems and economies.
- A provision for funding the Economic Assistance for Regional Growth Clusters program, at $4 billion, actually exempts the new assistance from being subject to a provision in the authorizing statute requiring investment in low-income or high-unemployment communities.
- BBB appropriates $2.1 billion for the Rural Energy for America Program, which provides support for agricultural producers to invest in clean energy and energy efficiency but does not prioritize low-income communities or disadvantaged farmers. However, the program is included in the Justice40 pilot of covered programs, which potentially makes it a good example of how Justice40 could affect previously inequitable large investment programs.
- BBB provides $40 billion for the Department of Energy's Loan Program Office, but the legislation is silent on loan program benefits for disadvantaged communities.

SECTION FIVE

POLICY QUESTIONS AND RECOMMENDATIONS

The preceding analysis raises specific critical questions for Justice40 implementation, but it also raises a broader question about the need for more targeted, directive engagement by advocates. In pushing for robust and expansive implementation of Justice40, it is important for like-minded advocates to have a clear and consistent platform of critical questions and recommendations to impress upon relevant decision-makers—for example, those with budget and grantmaking authority in agencies and the Executive Office of the President. Such a platform is also needed to provoke and gain support from influential external policy advisors, including leaders of mainstream environmental groups. Otherwise, the sprawling nature of Justice40 across multiple agencies and other offices can lead to weak accountability and minimal consequences for officials who fall short on major aspects such as budget commitments and targeting of funding, or in other specific areas such as stakeholder engagement. The following are several key questions or areas of consideration to inform a consistent policy analysis and advocacy platform:

- How much of the new spending from IIJA and potential additional investments in a reconciliation bill derived from the Build Back Better Act will be counted toward the 40 percent mandate and what will be the criteria for that determination?
- Will there be an effort by OMB, in cooperation with Justice40-assigned agencies, to designate additional programs—new or expanded—for formal inclusion in the scope of Justice40? What will be the criteria for including or excluding additional programs as part of the scope of Justice40? For agencies and program administrators, what requirements—legal, policy, or otherwise—are entailed by formal designation of inclusion in Justice40? If there is no central effort to formally expand Justice40's scope of programs, what would be the reasoning for not undertaking such an effort at all and giving agencies and programs full discretion for complying with Justice40 as they see fit?
- If the administration does not revise its methodology to focus on dollar measures of beneficial investment, as New York State has done (Pontecorvo 2022), how will the frontline share of "overall benefits of investment" be calculated? Will Justice40's progress be tracked in credible, regular auditing of the federal budget?
- How will inclusion of new or expanded programs in Justice40 affect their implementation by agencies in cases where the legislation does not codify specific percentage carve-outs for DACs or is otherwise unclear or silent about how the

40 percent mandate should apply? Will Justice40 deeply shape how the new spending is implemented? For example, will investments be prioritized for the most vulnerable communities as measured by cumulative environmental and social harms, as environmental justice leaders have long advocated?

- How will federal equity mapping tools, most importantly the Climate and Economic Justice Screening Tool recently released by the Council on Environmental Quality, be used by federal agencies and will there be a formal, consistent administrative policy binding all relevant agencies to prescribed uses of the tool? For example, will there be a requirement to use the tool in scoring of competitive grant proposals, with the potential effect of giving a higher score to proposals focused on the most vulnerable communities according to the tool?
- How will stakeholders be engaged and empowered in Justice40 budgeting decisions and programmatic implementation, and by what standards of procedural justice will agencies be held to account? With regard to tribal communities and respecting nation-to-nation sovereignty concerning investments and other federal actions affecting tribal lands, cultures, and ways of life, how will federal decision-making be adapted to meet international standards of Free, Prior, and Informed Consent (Indigenous Environmental Network n.d.)?
- What resources, structures, and requirements will be put in place to conduct regular oversight of Justice40 implementation and progress, including new covered spending? More broadly, what resources, structures, and requirements will be put in place to assess the distributional, racial equity, and environmental justice impacts of all new spending authorized by Congress through IIJA; new legislated investment programs such as those included in the Build Back Better Act; or related provisions and future investments? What steps will be taken to coordinate oversight with the House Committee on Oversight and Reform, which has proposed specific measures relating to GAO and OMB oversight activities through the BBB legislation?

Next, this report outlines a set of administrative actions and policy recommendations that touch on these critical questions and which would together strengthen the implementation of Justice40 to achieve its stated goals.

FORMALLY EXPANDING THE PROGRAMMATIC SCOPE, AUTHORITY, AND ACCOUNTABILITY OF JUSTICE40

a) The White House should elevate its commitment to Justice40 by centralizing major aspects of implementation in a new appointed position, sufficiently staffed, within the Executive Office of the President.[9] The broad policy mandate of this new position should be to manage and oversee advancement of the interconnected justice commitments of Executive Orders 14008 ("Tackling the Climate Crisis at Home and Abroad") and 13985 ("Advancing Racial Equity and Support for Underserved Communities Through the Federal Government"). This should have a primary focus of expanding Justice40's reach and impact in federal policy, especially as implemented through both formula and competitive funding, as well as related federal loan programs. Additional responsibilities for this position should be seriously considered in several critical areas, including establishing strong, consistent oversight of controversial industry solutions such as carbon capture, hydrogen, bioenergy, and nuclear power; advising the president on the executive budget; conducting equity and social benefit analyses of regulatory proposals, particularly climate, energy, and environmental proposals; and engagement of frontline stakeholders as public intervenors in rulemakings, fossil fuel policies, energy policies, and other federal aspects of a just climate transition.

b) A first step toward strengthening Justice40 implementation would be to require OMB to work with agencies to oversee assessment of existing and new programmatic investments authorized through IIJA, BBB provisions, or otherwise, with the goal of **formally expanding the scope of Justice40 "covered programs"** to the greatest extent possible under existing law. Justice40 expansion should be publicly announced, clearly identified, and given a new interagency web portal. This Justice40 web portal should provide user-friendly interfaces for stakeholders to have access, by agency, to all relevant information on the full scope of covered programs—including appropriated or proposed funding levels, relevant statutory provisions, programmatic policy goals and rules, investment guidelines, public comment opportunities and related stakeholder proceedings, and application timelines in the case of competitive grant programs.

[9] Where such a position would best fit within the structure of the Executive Office of the President is debatable and is not specified in this report. What is critical is sufficient authority and independence to advance Justice40 and related racial equity goals in at least three dimensions of executive policy: constructing the president's budget, oversight of agency performance on and alignment with frontline investment goals (including 100 percent no harm), and empowerment of frontline stakeholders in winning equitable investments, rules, policies, and other federal actions implicated in a just climate transition.

c) OMB or another designated office should establish, through executive order or other policy guidance, a consistent rubric for implementing new or expanded competitive grant programs within the Justice40 policy scope. Since these programs involve direct federal engagement with stakeholders, the rubric should include specific, required steps for ensuring meaningful and sufficient stakeholder input from frontline organizations and their federal allies. It should also establish a consistent new formula for grantmaking decisions, including weighted criteria for ranking proposals on principles of climate justice. Among others, these criteria should include:

- Prioritization of the most vulnerable communities and the most beneficial types of investment;
- Advancing environmental justice, 100 percent no harm, and climate mitigation goals;
- Stakeholder empowerment to shape program policies, win federal grants, and draw down resources directly to communities; and
- Domestic content benchmarks and strong workforce standards.

These criteria should weigh heavily in grant decisions, as compared to standard criteria such as cost-benefit analysis and cost-sharing. Projects involving state or local intermediaries and/or corporations aligned with development models, Opportunity Zones, or other commercial stratagems that drive displacement of poor and working-class people of color should be rejected on their face.

d) Formula funding implicated in Justice40's seven prescribed policy areas should be subject to Justice40 investment principles, including the 40 percent mandate. This should be established by each relevant agency as a matter of policy bearing on how states allocate federal funds through formula programs connected with climate mitigation, clean energy, transportation, sustainable housing, and environmental protection, among other areas. At a minimum, agencies should require and provide assistance to ensure that states utilize equity mapping tools for identifying disadvantaged communities. State formula spending that fails to achieve a minimum of 40 percent investment in the state's most vulnerable communities should be subject to review and corrective action prescribed by the granting agency.

JUSTICE40 TRACKING AND OVERSIGHT

a) OMB or another designated office should conduct an audit of the federal budget to determine the current share of total investment dedicated to programs or projects with direct beneficial impacts in disadvantaged communities. Following New York State, the federal 40 percent standard should be revised to measure investments, not benefits, as referenced above. In addition, the 40 percent benchmark should be consistently identified as a minimum baseline of investment and not a final goal—as a "floor" and not a "ceiling" for Justice40. Co-benefits of investment should also be measured for purposes of evaluating programmatic impacts and setting programmatic priorities, but, for reasons of transparency, consistency, and public trust, investment/spending metrics, not benefit metrics, should be the primary referent for measuring progress in Justice40 implementation.

b) OMB or another designated office should produce an official audit of IIJA-enacted funding and any enacted BBB-derived investments or other relevant provisions to determine the dollar total of new or expanded spending these legislations have dedicated to frontline investment. This should account for specific DAC-targeted spending and less specific "DAC-inclusive" spending (i.e., where DACs are earmarked on some level in broader spending areas such as electric vehicle infrastructure). This frontline dollar total should then be calculated as a share of the totality of funding across Justice40's seven major policy areas. In addition, large programs that ignore or minimize equity concerns, such as grid investments, energy tax credits, and energy loan guarantees, should be subject to policy directives seeking to balance broad climate goals with specific frontline needs.

c) Federal agencies should carefully assess implementation of Justice40 programs or goals that are routed through formula funding, such as weatherization and public transportation. Beyond typical guidance that accompanies formula funding, agencies should request information about and carefully assess how states identify disadvantaged communities and how programs are administered to ensure that a minimum of 40 percent of federal dollars flowing through state programs or implementation plans are reaching the state's most vulnerable communities. Agencies should be prepared to escalate and demand changes in certain cases where states are falling short on Justice40 obligations.

d) Federal investments in what WHEJAC and many advocates consider to be harmful climate solutions should be carefully tracked and monitored for environmental justice and climate impacts, including measurable harms like additional pollution and public health risks in communities. Especially given the potential opportunity costs involved, the administration should establish rigorous oversight of federal programs supporting potentially harmful climate solutions, including carbon capture and storage, hydrogen for energy, bioenergy, and nuclear power.

e) The White House should also cooperate with the House Oversight and Reform Committee to establish a strong congressional oversight process for evaluating Justice40 implementation and, more broadly, the environmental, socioeconomic, and workforce impacts of infrastructure investments and other federal actions such as green procurement.

MAPPING FOR IMPACT AND TECHNICAL SUPPORT

a) The administration should issue cross-agency guidance on the use of the Climate and Economic Justice Screening Tool. While EJScreen and other federal tools are categorized as "pre-decisional"—that is, providing information merely for consideration by agencies[10] —mapping of disadvantaged communities for purposes of compliance with Justice40 should be an integral factor in agency decision-making. Equity mapping should be used in decision-making in at least three aspects of federal policy: the scoring/rating of competitive grant proposals; oversight and correction of how states are using formula funding; and equity impact assessments for rulemakings, permitting, and other federal actions bearing on frontline communities.

b) Through BBB provisions or by other means, such as declaring a National Climate Emergency, **a federal Office of Local Climate Justice Advancement should be established,** with initial funding sufficient to provide 200 to 300 pre-project planning grants of up to $500,000 to community organization consortia in small and mid-sized cities. The goal of this program should be to foster partnership between government agencies and community-based organizations and to equip disadvantaged communities with technical support to access federal funding, whether through competitive grant programs, formula programs, or other avenues of federal funding.

[10] US Environmental Protection Agency, *EJScreen Technical Documentation*, September 2019, EJSCREEN Technical Documentation 2014 - environmental justice screening and mapping tool (epa.gov), see p. 9 on "Caveats and Limits."

CONCLUSION

The budget analyses presented in this report must be considered in light of advocates' expectations of what Justice40 should mean in this moment. The fact that Justice40's targeted investment mandate has arrived at a crucial turning point in federal policy and spending commitments—arguably like nothing seen since the War on Poverty—puts a new spotlight on the longstanding questions of distributive and procedural justice for disadvantaged communities. In response, advocates have called for an approach that centers climate action on racial justice and have demanded that policymakers do everything they can to maximize investments serving both goals equally (Inglis 2021). Among other things, this requires a commitment to "meet and exceed the goals of [Justice40] set forth in Executive Order No. 14008," according to the United Frontline Table, a national coalition representing grassroots frontline organizations and allies (ibid.).

As it becomes increasingly clear that public investment and intervention are essential for protecting us from climate catastrophe, the old adage that budgets are moral documents will meet its sternest test. If we pass the test on climate, whether the communities most harmed by the fossil fuel economy are included and uplifted in our newly invested zero-emissions future is the transformative question Justice40 asks of policymakers and advocates alike. The budget and program analyses outlined here clearly indicate that Justice40 will require more developed implementation guidance, greater accountability across agencies, and a significant expansion of programmatic scope and covered investments to meet its redistributive objectives—even as many advocates contend that the 40 percent investment mandate in fact sets the bar too low for justice, human rights, and community needs. The threshold question of proportionate reinvestment deserves more attention, but setting any such bar has to start with a clear budgetary assessment of where Justice40 stands in the overall scheme of federal investment and its forward trajectory as the climate crisis unfolds. It also hinges on critical aspects of implementation that are essential for the success of Justice40 at the community level and in the experiences of our most vulnerable communities. Together, Justice40's challenges of scale and implementation will test not only the racial equity commitments of the current administration and its successors but also the broader promises of equity, justice, and democracy awaiting fulfillment in an age of climate reckoning.

REFERENCES

Bednar, Dominic J., and Tony G. Reames. 2020. "Recognition of and Response to Energy Poverty in the United States." *Nature Energy* 5, (March): 432—39. https://www.nature.com/articles/s41560-020-0582-0.

Booth, Mary S. 2014. *Trees, Trash, and Toxics: How Biomass Energy Has Become the New Coal*. Partnership for Policy Integrity. https://www.pfpi.net/wp-content/uploads/2014/04/PFPI-Biomass-is-the-New-Coal-April-2-2014.pdf.

Borenstein, Severin, and Lucas Davis. 2015. "The Distributional Effects of U.S. Clean Energy Tax Credits." Energy Institute at Haas Working Paper 262R. https://haas.berkeley.edu/wp-content/uploads/WP262.pdf.

Brockway, Anna M., Jennifer Conde, and Duncan Callaway. 2021. "Inequitable Access to Distributed Energy Resources Due to Grid Infrastructure Limits in California. *Nature Energy* 6, (September): 892—903). https://www.nature.com/articles/s41560-021-00887-6.

Bullard, Robert D. 1990. *Dumping in Dixie: Race, Class, and Environmental Quality*. Boulder, CO: Westview Press.

Carley, Sanya, and David M. Konisky. 2020. "The Justice and Equity Implications of the Clean Energy Transition," *Nature Energy* 5, (August): 569-577. https://www.nature.com/articles/s41560-020-0641-6.

Center on Budget and Policy Priorities. 2020. "Policy Basics: Federal Tax Expenditures." Updated December 8, 2020. https://www.cbpp.org/research/federal-tax/federal-tax-expenditures.

Darity Jr., William. 2021. "The True Cost of Closing the Racial Wealth Gap." *New York Times*, April 30, 2021, sec. Economic View. https://www.nytimes.com/2021/04/30/business/racial-wealth-gap.html.

Declet-Barreto, Juan, and Dr. Jacob Carter. 2020. "Superfund Site Cleanups Ignore Communities of Color." *The Equation* (blog). Union of Concerned Scientists. September 18, 2020. https://blog.ucsusa.org/juan-declet-barreto/superfund-site-cleanups-ignore-communities-of-color/.

Environmental and Energy Study Institute. 2019. "Fossil Fuel Subsidies: A Closer Look at Tax Breaks and Societal Costs." Environmental and Energy Study Institute, July 2019. https://www.eesi.org/files/FactSheet_Fossil_Fuel_Subsidies_0719.pdf.

Equitable and Just National Climate Platform, Center for American Progress, and Tishman Environment and Design Center. n.d. *Justice40 Recommendations*. https://cdn.americanprogress.org/content/uploads/2021/03/16083513/Justice40-Recommendations.pdf.

Executive Office of the President. 2021a. "Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government." Federal Register: The Daily Journal of the United States Government, January 20, 2021. https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government.

Executive Office of the President. 2021b. "Executive Order 14008: Tackling the Climate Crisis at Home and Abroad." Federal Register: The Daily Journal of the United States Government, January 27, 2021. https://www.govinfo.gov/content/pkg/FR-2021-02-01/pdf/2021-02177.pdf.

Executive Office of the President. 2021c. "Executive Order 14052: Implementation of the Infrastructure Investment and Jobs Act." Federal Register: The Daily Journal of the United States Government, November 15, 2021. https://www.federalregister.gov/documents/2021/11/18/2021-25286/implementation-of-the-infrastructure-investment-and-jobs-act.

Falk, Gene, Karen E. Lynch, and Jessica Tollestrup. 2018. F*ederal Spending on Benefits and Services for People with Low Income: In Brief*. Washington, DC: Congressional Research Service. https://sgp.fas.org/crs/misc/R45097.pdf#:~:text=The%20Congressional%20Research%20Service%20%28CRS%29%20regularly%20receives%20requests,spending%20data%20were%20available%20as%20of%20January%202018.

Gewin, Virginia. 2022. "How Corn Ethanol for Biofuel Fed Climate Change." *Civil Eats*, February 14, 2022. https://civileats.com/2022/02/14/how-corn-ethanol-for-biofuel-fueled-climate-change/.

Gordner, Jillian. 2021. *Superfund Underfunded: How Taxpayers Have Been Left with a Toxic Financial Burden*. Denver, CO and Washington, DC: US PIRG Education Fund and Environment America. https://environmentamerica.org/sites/environment/files/reports/USP_AME_SuperfundUnderfunded_1_0.pdf.

Grinapol, Corrine, and Pam McFarland. 2020. "Superfund Still Struggling at 40." *Engineering News-Record*, December 10, 2020. https://www.enr.com/articles/50850-superfund-still-struggling-at-40.

Hiltonsmith, Robert. 2013. *At What Cost? How Student Debt Reduces Lifetime Wealth*. New York: Demos. https://www.demos.org/research/what-cost-how-student-debt-reduces-lifetime-wealth.

Howarth, Robert W., and Mark Z. Jacobson. 2021. "How Green is Blue Hydrogen." *Energy Science & Engineering* 00: 1—12. https://www.actu-environnement.com/media/pdf/news-38015-etude-energy-science-engineering-hydrogene-bleu.pdf.

Iaconangelo, David, Lesley Clark, and Carlos Anchondo. 2021. "White House Panel Rebuts Biden on CCS, Hydrogen." *E&E News*, May 17, 2021. https://subscriber.politicopro.com/article/eenews/1063732711.

Indigenous Environmental Network. n.d. "Free, Prior and Informed Consent." Accessed March 17, 2022. https://www.ienearth.org/fpic/.

Inglis, Aimee. 2021. "Frontline Grassroots Groups Respond to Bipartisan Infrastructure Bill Vote Delay: Congress Must Pass a Full Budget That Does No Harm and Invests in Real Solutions." United Frontline Table, October 1, 2021. https://unitedfrontlinetable.org/frontlinesrespondinfrabill/.

Jacobson, Mark Z., et al. 2015. "100% Clean and Renewable Wind, Water, and Sunlight (WWS) All Sector Energy Roadmaps for the 50 United States." *Energy & Environmental Science* 8: 2093. http://web.stanford.edu/group/efmh/jacobson/Articles/I/USStatesWWS.pdf.

Jacobson, Mark Z. 2019. "The Health and Climate Impacts of Carbon Capture and Direct Air Capture." *Energy &Environmental Science* 12, 3567—74. https://pubs.rsc.org/en/content/articlelanding/2019/ee/c9ee02709b/unauth.

Konisky, David M. 2015. *Failed Promises: Evaluating the Federal Government's Response to Environmental Justice*. Cambridge, MA: The MIT Press.

Kusnetz, Nicholas. 2021. "Fossil Fuel Companies Stand to Make Billions from Tax Break in the Democrats' Build Back Better Bill." *Inside Climate News*, December 1, 2021. https://insideclimatenews.org/news/01122021/carbon-capture-reconciliation-bill-exxon-oil-companies-biden/.

Lark, Tyler J., et al. 2022. "Environmental Outcomes of the US Renewable Fuel Standard." *Proceedings of the National Academy of Sciences* 119, no. 9 (February). https://www.pnas.org/doi/10.1073/pnas.2101084119.

Leonhardt, David. 2020. "The Black-White Wage Gap is as Big as It Was in 1950." *New York Times*, June 25, 2020, sec. Opinion. https://www.nytimes.com/2020/06/25/opinion/sunday/race-wage-gap.html.

Milford, Lew, Seth Mullendore, and Abbe Ramanan. 2020. "Hydrogen Hype in the Air." Clean Energy Group, December 14, 2020. https://www.cleanegroup.org/hydrogen-hype-in-the-air/.

Mullin, Rick. 2021. "Cecelia Martinez on Coordinating a US Government Push for Equity." *Chemical and Engineering News*, June 6, 2021. https://cen.acs.org/environment/Cecilia-Martinez-coordinating-US-government/99/i21.

National Energy Assistance Directors' Association (NEADA). 2019. "High Cost of Heat this Winter Will Mean a Cold Holiday Season for Many Families Average Prices Expected to Remain Above $900." https://neada.org/wp-content/uploads/2019/10/Winterfuels2020charts.pdf.

Natter, Ari, Jennifer Epstein, and Justin Sink. 2022. "Biden, Utility CEOs Tout Clean Power ro Revive Spending Bill." *Bloomberg Green*, February 8, 2022. https://www.bloomberg.com/news/articles/2022-02-08/biden-to-meet-with-utilities-in-new-push-for-climate-spending.

NY Renews. n.d. "Justice & Equity in the Climate and Community Protection Act." Accessed March 17, 2022. https://www.nyrenews.org/equity-memo.

Pontecorvo, Emily. 2022. "New York Environmental Justice Leaders Propose New Definition for 'Disadvantaged Communities.'" *Grist*, February 2, 2022. https://grist.org/equity/new-york-environmental-justice-leaders-propose-new-definition-for-disadvantaged-communities/.

Ramirez, Rachel. 2021. "The New York Highway that Racism Built: 'It Does Nothing But Pollute.'" *The Guardian*, May 21, 2021. https://www.theguardian.com/us-news/2021/may/21/syracuse-new-york-highway-i81-viaduct-biden.

Reich, David, Isaac Shapiro, Chloe Cho, and Richard Kogan. 2017. "Block-Granting Low-Income Programs Leads to Large Funding Declines Over Time, History Shows." Center on Budget and Policy Priorities, February 22, 2017. https://www.cbpp.org/sites/default/files/atoms/files/2-22-17bud.pdf.

Rothstein, Richard. 2017. *The Color of Law: A Forgotten History of How our Government Segregated America*. New York, NY: Liveright.

Saadat, Sasan, and Sara Gersen. 2021. *Reclaiming Hydrogen for a Renewable Future: Distinguishing Fossil Fuel Industry Spin from Zero-Emission Solutions*. San Francisco: Earthjustice. https://earthjustice.org/features/green-hydrogen-renewable-zero-emission.

Searchinger, Timothy D., Ralph Heimlich, Richard A. Houghton, and Fengxia Dong. 2008. "Use of US Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change." *Science* 319, 5867. https://www.researchgate.net/publication/326450544_Use_of_US_Croplands_for_Biofuels_Increases_Greenhouse_Gases_Through_Emissions_from_Land-Use_Change.

Southern Environmental Law Center. 2021. Letter to the President. https://www.southernenvironment.org/wp-content/uploads/2021/09/2021.09.09-NGO-Biomass-Letter-to-President-Biden.pdf.

Speare-Cole, Rebecca. 2021. "Biomass Is Promoted as a Carbon Neutral Fuel. But Is Burning Wood a Step in the Wrong Direction?" *The Guardian*, October 5, 2021. https://www.theguardian.com/environment/2021/oct/04/biomass-plants-us-south-carbon-neutral.

Sunter, Deborah, Sergio Castellanos, and Dan Kammen 2019. "Installing Inequality: The Racial Disparities in Solar Deployment." University of California, Berkeley, Renewable and Appropriate Energy Laboratory. https://rael.berkeley.edu/wp-content/uploads/2019/06/Sunter-Castellanos-Kammen-TheBeam9-Installing-inequality.pdf.

US Government Accountability Office (GAO). 2019. *Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change*. Washington, DC: GAO. https://www.gao.gov/products/gao-20-73.

US Government Accountability Office. 2021. *Carbon Capture and Storage: Actions Needed to Improve DOE Management of Demonstration Projects*. Washington, DC: GAO. https://www.gao.gov/products/gao-22-105111.

The White House. 2022a. "FACT SHEET: Biden-Harris Administration Announces Historic Investment to America's Port and Waterway Infrastructure." Press Release, January 19, 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/19/fact-sheet-biden-harris-administration-announces-historic-investment-to-americas-port-and-waterway-infrastructure/.

The White House. 2022b. "Building a Better America." https://www.whitehouse.gov/build/.

White House Environmental Justice Advisory Council (WHEJAC). 2021. *Final Recommendations: Justice40, Climate and Economic Justice Screening Tool & Executive Order 12898 Revisions*. Washington, DC: WHEJAC. https://www.epa.gov/sites/default/files/2021-05/documents/whiteh2.pdf.

Young, Shalanda D., Brenda Mallory, and Gina McCarthy. 2021. "Memorandum for the Heads of Departments and Agencies." Executive Office of the President, Office of Management and Budget. July 20, 2021. https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf.

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