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Introduction

The global Coronavirus pandemic has resulted in an unprecedented economic crisis for the United States and the world. Leaders at each level of government must now confront this crisis with solutions scaled to the scope of the challenge, and the foresight to rebuild the economy for resilience and justice in the 21st century.

America's economic and political climate reflect the deepest depths of unemployment and inequality since the Great Depression, when the nation found its path to recovery only through the New Deal and a national industrial mobilization to defeat the rise of global fascism. And now, again, our cities, states, and the nation need an economic recovery plan that starts with short-term stimulus and extends beyond with a future-focused strategy to provide a sustained investment package for long-term economic recovery.

Earlier this week, House Democrats put forward their plan for "phase 4" of Coronavirus relief – a \$3 trillion package with a heavy focus on aid to states and local governments that are on the front lines of the fight to suppress the pandemic, and whose budgets are facing great stress due to declining revenues brought on by the pandemic-fueled economic crisis. While this focus on aid to states is much-needed, this package represents another missed opportunity to invest in growing the clean energy economy. Such investments are critical to capturing the United States' best economic opportunity for growth, and to confronting the climate crisis that portends growing harm to the health of American communities.

With Donald Trump in the White House, state and local leaders have been America's climate leaders. However, huge revenue shortfalls and crippled state budgets now threaten that leadership, and federal investment will be key to allowing it to continue.

The Clean Jumpstart plan calls for major clean energy and infrastructure investments in stimulus legislation. This document provides a concrete and detailed plan with 11 policies and \$320 billion in investment directly to state-run relief programs, giving states and cities greater access to federal financing, and investing in proven state-federal partnership programs for clean energy development and infrastructure. The plan further calls for 21 areas totalling over \$1.2 trillion in immediate investment for federal programs that can help to stimulate and rebuild the economy right now.

Any stimulus package without clean energy investments is a missed opportunity to jump-start economic growth. Our nation is at a critical juncture for rebuilding the economy, and ignoring one of its fastest-growing and most promising sectors – and the climate crisis – would be a major failure by House Democrats, especially while fossil fuel corporations have bent the rules to massively subsidize their dying industry.²

This Clean Jumpstart plan is being released alongside new polling that shows these investments are very popular with the American public. Data For Progress tested 14 different policy provisions that could be included as part of COVID related stimulus legislation that would simultaneously address the economic impact of Coronavirus and the climate crisis, including ideas like tax incentives for modernizing the power grid, and investments for environmentally-friendly farming practices - both which were supported by 69% of voters. Implementing a "Buy Clean" rule – examining the greenhouse gas emissions associated with materials as part of government procurement decisions – is another very popular policy, with 62% of voters in support. All 14 provisions enjoyed considerable margins of support.³

This plan builds from the Evergreen Action Plan: an agenda for national mobilization to defeat the climate crisis and build a just and thriving clean energy economy. And it is a proven playbook: Investment in clean energy creates long-lasting jobs in America. In 2009 stimulus legislation – the American Reinvestment and Recovery Act - a \$90 billion investment was made that revolutionized entire industries and led to massive growth in a sector that now employs nearly 3.4 million Americans. $^{4.5}$

America cannot permit the tragedies of national unpreparedness for our current public health emergency to be repeated in the looming crisis of the climate crisis. American leaders need to make smart investments to revitalize the economy with a focus on future growth, rather than an attempt to put a Band-Aid over the parts of the previous economy that were broken. Every stimulus measure must also be aimed at building a more resilient economy and tackling scientifically proven threats before they become debilitating economic crises.

Furthermore, as the nation confronts the current economic impacts alongside deadly pandemic, leaders must also recognize that low-income communities and people of color have been particularly hard hit,⁶ especially where air pollution has compromised the respiratory health in communities affected by environmental injustice. This plan dedicates substantial new investment to disadvantaged communities and in confronting concentrations of pollution and economic disinvestment with which they have been saddled.

As America grapples with the coronavirus and the economic recession it has brought on, and works on rebuilding in a more sustainable and resilient way, it faces a choice: Does it bail out the fossil fuel-based economy of the past, or build the clean energy future? This plan provides a path for Congress to prioritize investments that are crucial to growing the clean energy economy, defeating climate change, and creating good-paying careers to help sustain families.

Support for State & Local Leadership in Clean Economy Stimulus

As demand for financial assistance has soared to levels unseen since the Great Depression, the coronavirus pandemic has created a crisis for state, local and tribal governments. To date, COVID-related federal emergency response and stimulus spending has not sufficiently addressed the unprecedented challenges facing state and local governments. State budgets and rainy day funds are being tapped at unsustainable levels. At the same time, widespread business losses and personal unemployment (reaching the highest levels in over 80 years), portend a coming collapse in state and local tax revenues and a sustained tail for this economic crisis that will extend well beyond the point at which it is safe to resume normal business activity. House Democrats recently announced that they would pursue direct support for states and local governments.8 However, this plan cannot truly succeed in its mission to strengthen state and local economies unless it makes major investments in building a just and inclusive clean energy economy. Action on aid to states and local governments presents a major opportunity to put people back to work in good, long-lasting jobs in the clean energy economy. And Congress cannot afford to miss this opportunity.

Data for Progress polling shows that aid to states is extremely popular – enjoying a 55 percentage point margin of support among all voters. But voters also want aid to be provided to states to continue their leadership building a clean energy

economy, preferring this to restricting the aid to coronavirus-related expenses by a 43 percentage point margin. For example, 74% of all voters support federal aid to states that will prevent utility shut offs. Investment in state and local public transit systems enjoys a 52% margin of support. While federal support for state programs that provide energy efficiency grants to small businesses is backed by a 50% margin.

Before the global pandemic, states and local governments were making strong progress in clean energy. And their successes have been helping to chart a roadmap for future federal action: in the absence of federal leadership, states have driven fast-growing clean energy industries that now employ nearly 3.4 million Americans. 10 ¹¹ In fact, employment in the U.S. clean energy sector saw 10% growth between 2015-2019.12 But this progress is now threatened. Some states have had to forego investment in crucial clean energy programs, while others have delayed plans to implement performance standards, and many are preparing for layoffs in key agencies.¹³ Intentional federal support for continued state and local clean energy progress is critical as local lawmakers shift resources to confront massive budget shortfalls and lawmaking capacity is consumed by mitigating immediate harms.

As it moves to support states and local governments, Congress should make major investments towards building a clean energy economy. Federal lawmakers should provide resources directly for state-run relief programs, give states and cities greater access to federal financing, and invest in proven state-federal partnership programs for clean energy development and infrastructure. State and local lawmakers, meanwhile, should look to take advantage of federal resources in innovative ways. And these investments should be prioritized in front-line communities facing the greatest environmental injustices, pollution harms, and economic disinvestment. Federal lawmakers should also target 40% of investments into disadvantaged communities.14 The following key programs should be prioritized by federal, state and local lawmakers, as part of a broader agenda of investment in states, local and tribal governments.

INVEST IN STATE AND LOCAL PROGRAMS THAT PROVIDE IMMEDIATE RELIEF

In targeti ng relief to state and local governments, federal lawmakers should think broadly about how to supplement state, county, local, and tribal operating and capital budgets in order to help fill holes in an eroded tax base, and to assist in overcoming restrictions on borrowing from balanced budget commitments. As Congress looks to support subnational governments, these investments should target the state and locally-driven clean energy programs, as well as providing direct relief to low-income citizens and working families. Federal lawmakers can support public welfare and social equity through investments that offset costs to household budgets, while

strengthening the balance sheets of local public utilities which will otherwise be hammered by payment defaults and utility shutoffs resulting from the current unemployment crisis. The following key programs should be prioritized by federal lawmakers, as part of state and local stimulus.

► Invest in Low-Income Home Energy Assistance & Weatherization

Given the growing crisis of income and job loss, and in response to a mounting climate challenge, Congress should dramatically expand funding for the Low-Income Home Energy Assistance Program (LIHEAP) to \$25 billion, and the Weatherization Assistance Program (WAP) to \$10 billion, in order to cut energy burdens for ratepayers, jumpstart local construction, and decarbonize the nation's building stock. 15 In the face of the Coronavirus economic crisis, Congress must also put a moratorium on the practice of shutting off energy services for low-income and unemployed families, and instead provide direct relief to household budgets while funding local utilities to keep the lights on. According to Data for Progress polling, 74% of American voters support federal action to prevent utility shut offs.¹⁶

LIHEAP, administered through the Department of Health and Human Services, and WAP, operated through the Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy, provides resources to states and local agencies for essential cost-saving services for family budgets strained by high utility bills. In 2019, LIHEAP was funded at \$3.65 billion,¹⁷ an insufficient level to serve all of those families that qualified for relief based on their income. The *CARES Act* provided an additional \$900 million in funding.¹⁸ But it

has been estimated that to serve every income eligible household in America even prior to the global pandemic, at current levels of benefits, the program would require funding of approximately \$17 billion¹⁹ per year.²⁰ LIHEAP coverage should also be expanded to cover home electrification, solar installation, and purchase of off-site renewable energy. Further, eligibility should be raised to 250% of the poverty line, to allow participation from middle-income families in addition to the working poor and unemployed. Before this crisis, one in three Americans struggled to pay their energy bills — a figure which has no doubt increased over the past three months.²¹ A LIHEAP stimulus investment should therefore offer funding of approximately \$25 billion annually. There is precedent for a major expansion of LIHEAP; it once reached a peak of serving 8.1 million qualifying homes in need of energy assistance, when it received additional funding in 2009 and 2010 during the previous economic downturn.²²

The Weatherization Assistance Program (WAP), meanwhile, currently supports a network of more than 900 local service providers²³ who upgrade buildings by fixing ductwork, heating and cooling systems, and reducing electricity consumption, free of charge to qualifying homeowners. The program enables around 8,500 ongoing jobs providing services through Community Action Agencies to weatherize approximately 35,000 homes each year. 24 These investments will not only help hard-hit middle class families with utility bills, but they will upgrade their homes, which for many Americans represent their most important investment. And support for home energy upgrades is strong among voters; by a 40% margin voters support federal investment in state programs that upgrade insulation in homes.²⁵ WAP should also be

expanded to include installation of renewable energy technologies, as proposed in Sec. 1101 of the bipartisan *American Energy Innovation Act* led by Sens. Lisa Murkowski (R-AK) and Joe Manchin (D-WV). ²⁶ And this program should include investments to address significant health and safety improvements in every property reached, undertaking remediation for mold, moisture, asbestos, lead, toxics, structural and electrical concerns, pests, or other threats to public health that are encountered in the homes they serve. ²⁷

Establish a Low Income Households Drinking Water & Wastewater Assistance Program

Congress should immediately establish a program for emergency water assistance, to be administered through the Department of Health & Human Services (HHS), in coordination with other existing programs and federal agencies such as the Environmental Protection Agency (EPA) drinking water programs. It should provide this program with a \$10 billion investment. The growing unemployment crisis has made it increasingly difficult for ratepayers to keep up with their utility bills, while also straining the ability of local water authorities to continue meeting their service obligations to those who can pay, in the face of declining revenue. Yet, as a matter of basic public health and safety it is essential that we keep water flowing for all Americans as they shelter in place. Any stimulus package must therefore include a commitment to ban water shut-offs during the recovery period, as well as an immediate safe water reconnections policy. This can be achieved in part by providing direct assistance to low-income and unemployed individuals that encounter difficulty keeping up with utility bills. This funding would provide ratepayer relief for unpaid water

bills, and would make up shortfalls in local water authority budgets, for both municipal and private utilities, to protect residents, relieve burdens on local governments tied to denial of service, and stabilize the utility rate base. A particular focus should be on small and/or vulnerable water systems that serve rural and inner-city communities. A Low Income Households Drinking Water and Wastewater Assistance Program, could draw important lessons from the LIHEAP program administered through HHS, and will offer an urgently needed support for working families to fill a critical gap in the social safety net during this time of pandemic and on the long road ahead as we rebuild to achieve full economic recovery.

State Buy-Outs for Fossil Fuel-Dependent Communities

Congress should offer energy producing states a one-time buyout of revenue associated with leasing and extracting fossil fuels on federal public lands, equal to projected revenues for the next 10 years.28 All states that lease fossil fuels on federal lands receive 49 percent of revenues associated with leasing and developing the energy resources. Alaska is the exception, receiving 90 percent.²⁹ In exchange for the one-time federal bailout, states would forgo any shared revenue associated with energy leasing and extraction on federal public lands for the next 10 years, with all revenues instead being directed to the federal Treasury. This program would provide relief for up to 30 states, with Wyoming eligible to receive the largest percentage of the fund at \$4.3 billion.30 According to the Center for

American Progress, this one-time buyout would cost approximately \$11.2 billion, and would allow states to backfill budgets to support critical social infrastructure, including public education and rural healthcare.³¹

GIVE STATES GREATER ACCESS TO FEDERAL INVESTMENTS AND FINANCING PROGRAMS

The federal government possesses a broad and diverse range of fiscal tools and financing authorities that state and local governments can use and should be empowered to access. This capital can directly fund urgently needed public investments, and leverage new private capital. These authorities include both direct lending of public dollars at beneficial rates and terms to encourage construction of public infrastructure, and the use of credit enhancements like loan guarantees, to encourage private investment in productive and job-creating assets. Notably, these resources also include emergency management resources available to states through the Federal Emergency Management Agency (FEMA). Congress can enhance these programs and federal financing tools to more rapidly deploy economic stimulus dollars, while safeguarding against the worst of the climate crisis or future public health emergencies.

► Accelerate State-level FEMA Hazard Mitigation Investments

For the first time in American history, a Major Presidential Disaster Declaration has been issued simultaneously in every state in the United States.³² Thanks to early state leadership in confronting the Coronavirus pandemic, some states will have the opportunity and imperative to plan and build resilience for other future crises. To do this, state lawmakers should utilize FEMA investments to mitigate the hazards of pollution that causes both higher mortality from COVID and more intense droughts, fires, floods, heat waves and storms associated with the climate crisis. And federal lawmakers should continue investing in these critical programs. The CARES Act provided \$45 billion to the Federal Emergency Management Agency's (FEMA) Disaster Relief Fund³³ for states to use. Of the total funding, \$15 billion can be used for investments in all key disaster response and hazard mitigation needs under the *Stafford Act* – protecting public health but also in building greater resilience in cleaner and distributed energy systems, transportation networks, more productive agricultural soils, healthier forests, and a wide range of other investments. Under a presidential directive first issued and updated by President George W. Bush, federal, state and local governments should apply the existing National Preparedness Framework.³⁴ The majority of states have incorporated the dangers of climate change into their Hazard Mitigation Plans, which are approved by FEMA, and are empowered to invest in confronting and building resilience.³⁵ Congress should also continue to invest in the Disaster Relief Fund, and the new Building Resilient Infrastructure & Communities (BRIC) program, especially as warmer temperatures

and drought conditions could portend costly wildfire³⁶ and hurricane³⁷ seasons in the future. According to Data for Progress polling, 70% of voters support federal investment in state and local disaster preparedness efforts.³⁸

► Let States Access Clean Energy Loan Programs

Federal lawmakers should engage states and local governments to deploy credit authorities from federal clean energy financing programs — especially the DOE Loan Program Office (LPO) and the United States Department of Agriculture (USDA) Rural Development Administration. Congress should also adopt Sec. 1807 of the American Energy Innovation Act, led by Sens. Lisa Murkowski (R-AK) and Joe Manchin (D-WV), to make state and local clean energy financing institutions eligible for DOE LPO financing.³⁹ And it should accelerate access to this lending authority by appropriating funding to cover the approximately 15% cost for project credit subsidies. The DOE Title 17 Innovative Energy Loan Guarantee Program currently contains \$4.6 billion in available loan guarantees for renewable energy, with nearly \$20 billion more that can be used for zero-emitting technologies that should be redirected to renewables and energy efficiency projects.⁴⁰ Sixty-five percent of voters support federal financing for state and local programs offering low-interest loans to businesses in the clean economy, according to polling from Data for Progress. 41 These programs have an tremendous record of success, but have been largely mothballed in recent years. 42,43 For example, since the first investments in this program in the American Recovery & Reinvestment Act (ARRA) of 2009, the U.S. has gone from zero utility-scale solar PV facilities larger than 100 MW in 2009, to 28 such facilities by 2016.44,45 Congress should

accelerate access to this lending authority by empowering state and local actors to define and deliver project finance. And in time, this and other DOE LPO programs (e.g. the Advanced Technology Vehicle Manufacturing program) could be folded into a federal Clean Infrastructure Bank (discussed later in this report).

Additionally, the USDA Rural Development Administration's Rural Utility Service (RUS) which has provided low-cost financing for electricity generation, transmission, and distribution projects since the New Deal era — should utilize its existing \$5 billion annual authorization to make loans at Treasury rates, now less than 1% interest. Further, it should receive an additional \$10 billion in lending authority to expand its existing capacity to finance clean energy — including distributed renewable energy, battery storage, community solar, and energy efficiency upgrades, as well as broadband infrastructure and smart grids. Congress should also appropriate funds for the RUS to use its existing authority to make insured loans to borrowers experiencing hardship, a condition for which the current pandemic would qualify. With adjustments to terms, RUS can write-down debt for coal plants and other fossil fuel assets owned by rural electric co-ops, provided that the beneficiaries dedicate new investment of an equivalent amount to clean energy assets. One estimate suggests that buying out all coal plants owned by rural electric cooperatives served by the RUS would cost just \$7 billion.⁴⁶ This idea is popular, with 57% of voters supporting federal aid to states being used to replace coal power with renewable energy.⁴⁷

► Tap the Federal Reserve Facility for Municipalities

Following a \$35 billion appropriation in the CARES Act for the Federal Reserve, the Fed offered to support state and municipal entities with \$500 billion in additional financing in 2020 that can span the next 3 years.⁴⁸ This has created a new opportunity for state and local lawmakers to catalyze transformative investments by taking advantage of low-cost short-term federal financing to staunch the bleeding in key programs facing revenue shortfalls and to deploy new capital into a clean energy-led economic recovery. On April 9, 2020, the Fed announced the establishment of a Municipal Liquidity Facility, backed by \$35 billion in credit protection that will be used to "purchase up to \$500 billion of short term notes directly from U.S. states, U.S. counties with a population of at least two million residents, and U.S. cities with a population of at least one million residents."49 And the Fed's Open Market Committee (FOMC) has indicated that it is willing to interpret flexibility on restrictions of the use of these facilities. 50 States and cities can use these resources to fund key service-delivery programs, and to fill deficits in necessary investments in physical infrastructure, through programs like Clean Energy Funds, Green Banks, state and local Infrastructure Banks, and other finance authorities. Congress and the Fed should look for every opportunity to remove barriers and increase access to this financing, and explore further opportunities to extend forgivable Section 14 funding to states and cities in need of fiscal relief as well.

FUND PROVEN STATE-FEDERAL CLEAN ENERGY AND INFRASTRUCTURE PROGRAMS

There already exist a suite of powerful federal programs that deploy investment through state and local agencies into building resilience and prosperity in American communities. These programs support local communities and job creation, and many of them have been called upon for expansion and counter-cyclical fiscal stimulus during past economic downturns—including as part of ARRA. That legislation provided the single greatest historical down payment in America's clean energy economy, directly supporting 900,000 job-years rebuilding infrastructure and catalyzing unprecedented innovation, technology cost reductions, and industrial growth for key clean energy sectors like solar, wind, energy storage, and electric vehicles.51 Now these state-federal programs should be called upon once again to drive a clean energy-led economic recovery. Congress can - and should - repeat the successful job-creating playbook of investing in state-federal clean energy and infrastructure programs.

▶ Invest in the State Energy Program

Congress should invest in state clean energy leadership by directing \$10 billion to the Department of Energy (DOE) State Energy Program, and it should provide states with tools and incentives to advance equity as well as additional choices in using these funds to cover a greater mix of advanced energy deployment activities. Using federal dollars to support states energy needs is

popular. Sixty three percent of voters, for example, support giving aid to states that can be used to modernize the power grid. 52 A decade ago, amidst the Great Recession, ARRA successfully invested \$3.1 billion through SEP.53 The need today is greater and more urgently felt, which is why a threefold increase above the ARRA investment is necessary. States can further leverage these funds with private capital to achieve at least another order of magnitude increase in impact. The SEP program is the most flexible pot of federal resources available to support states in planning for their energy needs, allowing them to invest in community projects and continue to support job creation in burgeoning clean energy industries. For example, in December 2019, the SEP announced its support for the Clean Energy Roadmap⁵⁴ initiative put forward by the Michigan Agency for Energy and the Ohio Development Services Agency's Office of Energy and Redevelopment to accelerate their region's clean energy sector, including through "energy efficiency building technologies, products, services and clean energy manufacturing."55 In North Carolina, the SEP has supported the state's Upgrade & Save program that helps provide energyefficient heat pumps that save homeowners an average of \$630 per year.56 And during ARRA, states from Florida to Montana put SEP in job-creating and cost-saving energy efficiency projects, accelerating the growth of clean energy industries, and demonstrating new advanced energy technologies.⁵⁷ Conditions for access to SEP funds should require states to establish Energy Equity Indicators, similar to those adopted by the California Energy Commission "to improve access to clean energy technologies for low-income customers and disadvantaged communities,

increase clean energy investment in those communities, and improve community resilience to grid outages and extreme events." Once established, these indicators or use of existing federal geographic designations for community reinvestment can qualify states to tap a dedicated pool of funds available to states with investment strategies that advance equity.

► Fund State Revolving Loan Funds for Clean & Safe Drinking Water

America is in the middle of a drinking water crisis. In 2015 alone an estimated 77 million Americans' tap water suppliers violated federal drinking water rules, with low-income communities of color disproportionately affected - and this number is likely a conservative estimate as it does not include the millions of Americans served by very small water systems or private domestic wells.⁵⁹ Congress should immediately invest in rebuilding America's clean water infrastructure, with \$90 billion for the U.S. EPA's Drinking Water State Revolving Fund (DWSRF) and Clean Water State Revolving Fund (CWSRF), and related efforts. These critical federal-state-local partnership programs ensure access to clean water for all Americans while creating good jobs rebuilding critical drinking water, wastewater and stormwater infrastructure. This sizable annual investment will finance new project construction, restore public health and safety by replacing toxic lead service lines and upgrade outdated water infrastructure, and support ongoing water treatment operations and maintenance, while prioritizing communities that have been most heavily impacted by a legacy of inadequate water infrastructure. Studies show that for every \$1 billion invested in clean water infrastructure. we create between 10,000 and 15,000 jobs.60

As America's drinking water infrastructure degrades, children and adults across the country are exposed to lead poisoning from aging pipes, leading to risk of intellectual disability and long-term physical disease. One study estimates that at least 3,810 neighborhood areas⁶¹ have higher lead poisoning levels. However, lead pipes are just one facet of America's drinking water infrastructure problem. Industrial pollution and chemical spills continue to plague the nation's waterways and drinking water supplies. In Senate Majority Leader Mitch McConnell's home state of Kentucky, Martin County residents have suffered since 2000 from toxic drinking water, when Massey Energy spilled 300 million gallons of coal slurry into the nearby Big Sandy River and contaminated the water supply for 27,000 people. The spill was one of the worst environmental disasters in US history – larger even than the Exxon-Valdez oil spill.⁶² To this day, many residents still do not have access to safe drinking water, and their federal representatives have failed to secure funding to properly decontaminate the river.

Congress should provide \$40 billion to the CWSRF and \$30 billion to the DWSRF, as well as \$10 billion grants to states and local governments for clean water projects - including those addressing per- and polyfluoroalkyl substances (PFAS). In addition, Congress should invest \$5 billion in a lead abatement grant program focusing on schools and daycare centers, and remediating lead in public buildings. And it should also establish a Lead Safety Tax Credit for homeowners to invest in remediation (as proposed by Sen. Elizabeth Warren [D-MA]), and fund IDEA programs to support children with developmental challenges from lead exposure. Voters overwhelmingly support federal

investment to states for replacing lead pipes, with 70% in support.⁶³ Finally, Congress should also establish a water efficiency and conservation block grant program, modeled after the DOE Energy Efficiency and Conservation Block Grant program – as has been proposed by Sen. Kamala Harris (D-CA). This program can direct a new source of funding for state and local drinking water infrastructure and conservation projects to upgrade the health, safety, and sustainability of the nation's drinking water supplies.

Support State & Local Building Upgrade Projects to Lower Utility Bills

The DOE Energy Efficiency & Conservation Block Grant program (EECBG) should be reauthorized and funded at \$15 billion, split between formula and competitive grants, to fund community level energy efficiency and conservation projects that achieve carbon reduction goals and save ratepayers money. The EECBG program was originally created in the 2007 Energy Independence and Security Act⁶⁴ and was funded at \$3.2 billion under ARRA, distributed to 2,100 local governments by formula.65 For every EECBG dollar spent, program participants have received approximately \$1.76 in energy bill savings over the lifetime of the projects. 66 And, EECBG projects have saved consumers \$5.2 billion and created over 60,000 jobs.⁶⁷ But, funding for the program has lapsed, even as local governments face a backlog of many billions of dollars in EECBG-eligible investment opportunities. In re-authorizing spending for EECBG, Congress should distribute half of appropriation through formula grants, making the remainder available through competitive grant awards, with a priority on those projects that achieve substantial private sector or community leverage, to make investments go further. It is clear there is a growing need

for federal dollars to support local energy efficiency projects, and the EECBG program offers a proven and highly effective vehicle for driving new federal capital investment into community-based projects that create jobs, reduce carbon emissions, and save consumers money. Lowering energy bills will also provide an enduring stimulus for American households, by freeing up dollars in strained family budgets to be spent on other pressing needs.

Invest in Community Development Block Grants for Hazard Mitigation

Congress should appropriate an additional \$35 billion for the Department of Housing & Urban Development (HUD) Community Development Block Grant (CDBG) program to fund state and local economic development priorities, with a focus on climate mitigation and hardening public infrastructure. The CDBG program offers a highly flexible vehicle to provide federal funding directly to states and cities to invest in infrastructure modernization. There is a history of Congress authorizing additional CDBG funding during economic and natural disasters to spur recovery. Congress previously authorized \$5 Billion for CDBG-Coronavirus (CDBG-CV) funding to assist states and cities in responding to this public health crisis, and provided additional flexibility for state and local governments to repurpose existing 2019 and 2020 CDBG allocations.⁶⁸ In 2018, Congress appropriated \$28 billion in CDBG Disaster Recovery (CDBG-DR) funds to address recovery in the wake of Hurricanes Harvey, Irma, and Maria.⁶⁹ Similarly in the wake of Hurricane Sandy, \$10.5 billion was made available in two CDBG-DR allocations to the 5 states hardest hit by the superstorm and to New York City. 70 Additional CDBG funding should be appropriated through the CDBG

Mitigation (CDBG-MIT) funding pathway, to support long-term disaster mitigation projects that rebuild infrastructure, reduce risk to local economies, and improve resilience to future disasters.

Support State and Local Public Transit Systems

Congress should provide a major expansion of funding for public transit systems, including new capital for construction projects and funding for continuation of operations amidst a drop in revenues. Congress should provide \$100 billion for the Mass Transit Account of the Highway Trust Fund, the Capital Investment Grants (CIG or "New Starts") program, and the Better Utilizing Investments to Leverage Development (BUILD) program, well as in the provision of urgent aid through the Public Transportation Emergency Relief Program. This investment builds upon the \$25 billion provided to transit agencies in the CARES Act, 71 and should be done through an infusion of new federal spending, as well as a permanent rebalancing of federal funding for highways and transit projects. Currently, approximately 80% of federal surface transportation spending

goes to highways, with only 20% to transit.⁷² Expanding the capability of these transit programs will stimulate local economies, reduce air pollution, and improve state and local budgets. The Mass Transit Account provides crucial resources via several programs, by formula and by population, to states and local governments. The New Starts program and the precursor to the BUILD program – formerly the Transpo no rtation Investment Generating Economic Recovery (TIGER) program – were among the most successful programs in 2009 stimulus legislation. Infusions of larger, badly-needed investments into these programs also must be joined by accountability and reforms in these programs.⁷³ The Trump Administration's delay and failure to process billions of appropriated New Starts funds for rail, streetcar, and bus projects has already cost state and local transit agencies at least \$845 million since 2019.74 Congress must provide larger and urgently-needed investments building sustainable transportation infrastructure. And, this type of federal aid to states is popular - with 70% of voters favoring grants for public transportation to be included in a federal aid to states package.⁷⁵

Federal Investment in Clean Infrastructure, Industries & Communities

Congress can make substantial progress in building a just, inclusive and thriving clean energy economy by investing in and empowering state and local leadership. But it cannot achieve the full promise of millions of clean energy jobs without major complementary investments in federal programs. Stimulus legislation should do both. Climate scientists and economic experts have indicated that urgent investments to defeat climate change will require the mobilization of trillions in public and private investment over the next decade. Further, efficient public policy demands that legislators look to leverage private capital through financing tools and performance standards, which can induce private sector capital, dramatically extend the impact of federal dollars, and reduce the cost to the Treasury of facilitating a transition to a 100% clean energy economy.

A program of federal public investment to drive economic recovery can powerfully re-energize American business and industry, job creation, and economic development. Policies that accelerate clean energy transition and public safety also represent an enormous opportunity to renew America's infrastructure for a future that requires greater sustainability and resilience. These federal investments funding should use proven federal programs and smart policy instruments that

draw in new productive investment from the wider economy. And these investments must be grounded in equity; federal lawmakers should devote no less than 40% of clean economy investments into disadvantaged communities – implemented using an intergovernmental commitment Equity Impact Mapping initiative that ensures full data comparing disparities across communities.⁷⁶

This program of economic investment should include protection for the workers and communities who have been mistreated by fossil fuel corporations, even before the downturn that has left thousands out of work. It should expand the value and accessibility of clean energy incentives for consumers. It should support American manufacturing leadership and build resilient supply chains – a key vulnerability that the Coronavirus pandemic has especially brought to light. It should also provide major investments in clean energy financing, built infrastructure, sustainable agriculture, and urban and rural communities alike. And it should establish new programs that mobilize the energies of the American people to recover the economy and confront the climate crisis that further endangers the country and the world.

PROTECT ECONOMIC SECURITY FOR FOSSIL FUEL WORKERS

Fossil fuel industry lobbyists and the Trump Administration have successfully lobbied the Federal Reserve to modify the Main Street lending program to allow fossil fuel companies, which did not originally qualify as borrowers for the program, to qualify for loans. Rather than use this lending to support energy workers who have lost their jobs as a result of Coronavirus, fossil fuel companies have suggested they will use the money to cover their past debts that have been accruing long before the start of the global pandemic — a clear sign of an industry in decline. Rather than bail out fossil fuel companies, Congress should act quickly to provide meaningful support to energy workers as the nation transitions to a clean energy economy.

Stabilize Existing Programs that Support Fossil Fuel Workers and Energy Communities

While the Trump administration prioritizes bailing out fossil fuel corporations, energy workers and their communities have not benefited from federal stimulus dollars. In fact, the Federal Reserve is not requiring companies to keep workers as a condition for loans. At the same time, many existing programs intended to support fossil fuel workers are nearing insolvency. Most dire are the Black Lung Disability Trust Fund, which is currently \$6 billion in debt, 77 and the Pension Benefits Corporation, which faced a \$53.9 billion deficit in 2018 and is on a path to insolvency by 2025. 78 Additionally, many fossil

fuel companies, particularly coal companies, have been let off the hook for retirement and survivor benefits as they shed liabilities through the bankruptcy process. Congress can stabilize the Black Lung Disability Trust Fund by raising the 2018 excise tax rates by 25%. 79 Federal lawmakers should invest the dollars necessary to ensure programs that fossil fuels workers and their families rely on are solvent. And as a matter of justice, Congress should tighten bankruptcy laws to ensure that as fossil fuel companies emerge from the bankruptcy process they cannot shed liabilities that include long term healthcare or pensions obligations.

Create Environmental Remediation Jobs to Restore Energy Communities

The negative public health impacts and associated environmental degradation from a legacy of resource extraction and associated pollution provides an opportunity for public investment and job creation. Congress should appropriate \$4 billion for a new "Restoration Fund" to direct investment towards activities such as orphan well clean-up and environmental remediation that will create jobs and clean up remediation left behind by the fossil fuel industry. This fund could build on and expand the 2019 RECLAIM Act, which had more than a dozen Republican co-sponsors, and proposed appropriating \$1 billion for the Abandoned Mine Reclamation Fund to revitalize communities hardest hit by the downturn of the coal industry. The Center For American Progress (CAP) estimates that a \$2 billion investment in orphan well clean-up has the potential to create 14,000 to 24,000 jobs in energy producing states.80 Canada has already begun implementing a similar program, and the Interstate Oil and Gas Compact Commission, which includes 31

states, has already been urging DOE to provide funding to states for such an effort.⁸¹ The Restoration Fund should condition dollars on local hiring, prevailing wages, the right to organize, and on-the-job training.

Establish a New GI Bill of Rights for Energy Workers

In addition to stabilizing existing programs, Congress should go further by establishing a "GI Bill" for energy workers to provide necessary bridge funding and federal programs to ensure that no fossil fuel worker or community is left behind during the transition to 100% clean energy. A new Energy Worker GI Bill of Rights should include: I) Guaranteed wage and benefit parity for workers transitioning into new industries; II) continued health care coverage; III) stipends for and access to job training; IV) And for those workers of a certain age who choose not to find new employment and wish to retire with dignity, ensuring full financial security, including promised pensions and early retirement benefits. Some cost estimates exist for variations on such a program at the national and state levels.82,83 However, Congress' initial appropriation for a new GI Bill for Energy Workers should include funds for a full and detailed analysis of program costs given the fast pace with which the fossil fuel industry is declining.

SUPPORT CLEAN ENERGY JOBS THROUGH ACCESSIBLE INCENTIVES

Federal incentives to drive investments in renewable energy, energy efficiency, electric vehicles, and other clean technologies can be more efficiently deployed as direct payments or refundable credits to property owners and project developers, rather than as traditional tax credits awarded to investors to reduce federal tax burden. His becomes especially true during an economic downturn, when businesses or homeowners may lack the necessary upfront capital to access traditional tax credits and may also lack federal tax liabilities sufficient to use them. Voters are overwhelmingly in support of tax incentives for modernizing the power grid, with 69% in favor. His property of the power grid, with 69% in favor.

In ARRA, Congress established the Treasury Department 1603 Grant Program, which provided payments in lieu of federal renewable energy production and investment tax credits. That program proved highly successful, deploying approx. \$26 billion in federal investment ⁸⁶ – and leveraging an estimated \$94 billion ⁸⁷ in combined private, local, state and federal investment. ⁸⁸ These funds supported development of 109,766 wind, solar, geothermal and other renewable energy projects, which have produced over 34.6 gigawatts of power — enough clean energy to power over

8.5 million homes. ⁸⁹ And these projects led to enormous growth in the solar and wind energy industries, which now employ over 350,000 Americans and boast some of the nation's fastest-growing careers. ⁹⁰ Now, with the nation once again facing an economic crisis, and with clean energy industries offering even greater opportunity, federal lawmakers should extend, expand and establish more accessible grant and tax incentive programs -- especially supporting deployment of clean energy technologies and consumer access to electric vehicles.

► Make Clean Energy Tax Incentives Refundable and Available as Cash Grants

Congress should pass a 10-year extension for the federal Renewable Energy Investment Tax Credit (ITC) resetting the tax credit at 2019 levels of at 30% for all currently eligible technologies, as well as for the Renewable Energy Production Tax Credit (PTC). And Congress should simultaneously make these tax incentives refundable and re-establish the 1603 Clean Energy Grant Program that provided direct payments in lieu of the ITC and PTC from the Treasury between 2009-12. Claimants should have the opportunity to either file for a refundable credit, or to apply to the Treasury Department for a cash grant under a reinvigorated 1603 program, as suits their needs. And technologies eligible for the ITC should be expanded to include energy storage and offshore wind power. Furthermore, as proposed in the *Good* Paying Jobs for 21st Century Energy Act, an additional 10% investment credit should be made available to projects claiming these credits that meet certain labor standards, such as ensuring high-quality benefits, living wages, and apprenticeship opportunities.91 Eligible recipients for this federal support should also include non-profits and academic institutions who do not hold federal tax

liability. This expanded tax incentive policy could conservatively reach \$25 billion in average annual cost over the next decade. 92 Furthemore, the IRS should consider project delays due to Coronavirus related disruptions as 'excusable disruptions' and access should be granted to ITC and PTC credits under existing law if supply disruptions prevent them from meeting certain deadlines.

Extend Electric Vehicle Tax Credit as a Point-of-Sale Rebate

Congress should extend the Electric Vehicle Tax Credit at its original \$7,500 value, and eliminate the cap on manufacturers' allowable credits. Crucially, it should be reformed into a point-of-sale rebate, making it far more accessible for millions of Americans who do not carry enough federal tax liability to take advantage of the credit in its current form. Assuming the rapid EV deployment that is necessary for both pollution reduction and for global competitiveness of U.S. industries. Electric vehicles (EVs) are already costcompetitive with internal combustion engine vehicles, in terms of cost-of-ownership over their lifecycle, but this rebate will reduce the up-front cost that can remain a barrier to entry for EV ownership. All zero-emission vehicles (ZEV) technologies should qualify for this credit. In addition, this tax credit should be expanded to \$10,000 for vehicles manufactured in facilities meeting qualifying pro-worker labor standards. Electric vehicles made up approximately 2% of auto sales in the United States last year, and this incentive would cost approximately \$2 billion if available for every EV this year. But this more accessible incentive should be an integral tool in promoting the rapid increase in deployment of new domestic light- and medium-duty EV sales, along with domestic EV manufacturing, over the coming decade.

And it is hoped that federal expenditure on this incentive policy could grow rapidly with commensurate growth in EVs. This policy is very popular, with 57% of voters supporting tax credits for electric vehicles as part of a federal stimulus package.⁹³

RESTORE AMERICAN MANUFACTURING LEADERSHIP & RESILIENT SUPPLY CHAINS

The Coronavirus pandemic has helped bring to light the importance of resilient domestic supply chains that can support critical needs in the face of crisis—specifically, in this case, the need for essential medical services equipment like Personal Protective Equipment (PPE) and ventilators. The domestic need and global market in manufacturing advanced energy technologies, meanwhile, and for greening traditional manufacturing industries, invite compelling comparisons. The economic opportunity is also enormous: The International Finance Corporation estimates that there is a \$23 trillion investment opportunity in climate solutions that will be implemented under initial commitments to the Paris Climate Agreement in the 21 largest developing countries, alone.94 And it's estimated that decarbonizing four of the major global carbon pollution-heavy industries – cement, steel, ammonia, and ethylene – represents a \$11 to \$21 trillion economic opportunity over the coming decades.95

Amidst increasing global competition, greater policy leadership is especially necessary to ensure U.S. automakers and autoworkers can lead the

world in the production of zero-emission vehicles – and electric vehicles (EVs), specifically. 96 Federal lawmakers must confront the broad realities of domestic need and global supply chains, and, for the first time in decades, devote meaningful policy planning for strategic industrial growth, across a range of sectors. The lessons of economic stimulus from a decade ago also provide important lessons in the critical need for industrial policy and investments that will grow domestic industries - from steel to vehicles to renewable energy technologies – that can not only compete, but thrive, in the 21st century global economy. Fortunately, there are existing and dormant programs and smart bipartisan ideas for growing clean and competitive American manufacturing industries.

▶ Build Clean & Smart Industrial Policy

Congress should embrace policies to support clean and smart manufacturing industries to meet 21st century energy needs, as part of a broader smart manufacturing agenda. This includes manufacturing clean and zeroemission energy technologies, and a focused commitment to decarbonizing traditional industries. It should also involve concerted attention in securing and recycling critical elements that are necessary for production. Specifically, Congress should include in stimulus legislation the Smart Manufacturing *Leadership Act*⁹⁷ – a bipartisan bill in the U.S. Senate which was also included in the American Energy Innovation Act⁹⁸ led by Senate Energy Committee leaders Sens. Lisa Murkowski (R-AK) and Joe Manchin (D-WV). These bills direct the DOE and National Academies of Sciences (NAS) to develop a national plan for smart manufacturing to "improve the productivity and efficiency of the domestic manufacturing sector."99 And this proposal calls for engagement of DOE

National Labs in this smart manufacturing agenda, and provides for investments in states to develop their own smart manufacturing programs. Congress should also create a Quadrennial Industrial Review (QIR), led by the Department of Commerce and modeled on similar products for defense and energy policy. This QIR should lead American manufacturing policy in a concerted agenda for industrial competitiveness and prosperity. Congress should appropriate \$600 million to the Departments of Energy and Commerce, and the NAS, for these purposes.

Invest in Advanced Energy Manufacturing Leadership

Federal lawmakers should re-establish a new and uncapped Advanced Energy Manufacturing Tax Credit, to provide a 30% credit for investments into a variety of clean technology manufacturing facilities. Eligible expenditures should also include certain business investments that reduce greenhouse gas pollution from existing manufacturing operations. This credit should be modeled on the Section 48C credit passed as part of ARRA, in 2009. In one year, that credit provided \$2.3 billion to catalyze \$5.4 billion in non-federal funding that supported tens of thousands of jobs building 183 projects expanding domestic clean energy manufacturing capacity across 43 states. 101 Unfortunately, it was capped at \$2.3 billion, even while \$5.8 billion in eligible project applications went unmet, 102 and even while other successful federal programs invested ten-fold as much in technology deployment. Due in part to these policy choices, a decade later, American clean energy industries have grown considerably and yet certain domestic manufacturing sectors, like solar, have fallen behind competitors in China and Europe. An extrapolation of the one-year experience of the 48C credit shows

that a new Advanced Energy Manufacturing Tax Credit could cost the federal government approximately \$40 billion and leverage \$90 billion or more in non-federal project funding over the next 5 years. ¹⁰³This new expanded manufacturing credit can ensure American workers and companies regain a leadership position and can lead in critical burgeoning sectors like offshore wind and energy storage.

To further America's clean cars manufacturing leadership, Congress and the federal administration should also deploy greater, more expansive and faster investments from the DOE Advanced Technology Vehicle Manufacturing Program (ATVM), including by increasing its lending capacity three-fold, from \$25 billion to \$75 billion. Congress should also allow the program to support EV component part manufacturers and those building clean medium- and heavy-duty vehicles. And subsidy costs should be paid by the program, as they were under the DOE 1705 program, under ARRA. Based on its past precedent, Congress should appropriate \$15 billion to cover the subsidy costs of this \$50 billion in expanded loan authority. 104 In addition, Congress should provide direct grants to innovative technology manufacturers, as it did with \$2 billion in ARRA grants supporting advanced battery manufacturing. 105 The Clean Cars for America proposal in the U.S. Senate, for example, proposes \$17 billion in grants for auto manufacturers to build new factories for assembling electric vehicles, component parts, or charging equipment, and to re-tool existing factories. 106

▶ Implement Clean Cars for Clunkers

Congress should create a "Clean Cars for Clunkers" program, modeled on the 2009 Cash for Clunkers program, through which Americans can trade-in their existing fossil

fuel-powered cars or trucks and receive a rebate for purchase of a zero-emission vehicle, or for use in covering their transit costs. The 2009 program, which grew out of original legislation sponsored by Reps. Steve Israel (D-NY) and Jay Inslee (D-WA)¹⁰⁷ and policy papers authored by the Center for American Progress (CAP), 108 provided an enormous boost for American car companies and jobs that were in crisis. A new Clean Cars for Clunkers program can do so again. Congress should advance the Clean Cars for America¹⁰⁹ proposal offered by Sens. Chuck Schumer (D-NY) and Debbie Stabenow (D-MI), and also provides aforementioned investments in domestic EV manufacturing and charging infrastructure. Finally, it is critically important that this new vehicle program provides rebates only for purchase of new vehicles that are zeroemission, as 21st century taxpayer dollars should not be continuing to subsidize production of 20th century vehicle technologies.

► Use Government Procurement to Support Clean Manufacturing

The federal government spends more than \$500 billion each year on contracts — buying the goods and services necessary to ensure federal agencies can carry out their respective missions. This enormous annual investment can play an important role spurring new industries at home and abroad. Congress should adopt federal Buy Clean standards to ensure all federal procurement meets baseline climate standards. This policy is popular. Sixty two percent of voters are in favor of a "buy clean" rule for the federal government. The man and above the federal government.

heat pumps to low-carbon building materials used in new federal construction, the federal procurement process can be an important lever in driving demand for new clean and advanced manufacturing while creating jobs and promoting competition among domestic industries. The State of California has already adopted a successful Buy Clean Program that has leveled the playing field for low carbon producers, particularly steel producers in the state, who were once competing with under or unregulated producers overseas. 112 The Green Manufacturing Plan put forward by Sen. Elizabeth Warren (D-MA) detailed an ambitious clean energy procurement agenda for the next decade. 113 Importantly, the plan ties domestic manufacturing leadership to R&D dollars, so that technologies innovated at home are then produced on American soil.

Given the national security threat climate change poses at home and abroad, federal lawmakers should consider utilizing the Defense Production Act (DPA) to prioritize reorienting to clean and low-carbon alternatives instead of fossil fuel-dependent supply chains that put national security most at risk. The Trump administration has used the DPA to place hundreds of thousands of orders from military equipment to body armor for guards along the southern border.¹¹⁴ Rather than use the DPA to support the Trump administration's politically driven motives, the Korean War era law should be used to prioritize clean and advanced manufacturing to ensure the future of a livable planet. And at a time of record high unemployment, the market signal created by the DPA would help put Americans back to work when it is safe to do so.

LAUNCH CLEAN ENERGY INFRASTRUCTURE BANK & EXPAND SMALL BUSINESS GREEN LENDING

To ensure that sufficient capital flows towards building the new clean energy economy, responding to future environmental and public health emergencies, and building a more resilient national economy, Congress must deploy capital from existing financing authorities and look to new funding models. The federal government already possesses a broad and diverse range of tools to leverage private capital to scale climate solutions and investments in resilient infrastructure to create jobs. These authorities include directly lending public dollars at beneficial rates, favorable terms to encourage private construction of beneficial public infrastructure, and credit enhancements to encourage private investment. These programs can be enhanced and federal financial tools more readily deployed to support both immediate economic stimulus and long-term recovery.

▶ Launch a Clean Infrastructure Bank

Congress should create a new Clean Infrastructure Bank, capitalized at \$90 billion, to provide low-cost investment for clean energy infrastructure projects in market segments where the private sector is underinvesting. In 2009, then-Congressman Jay Inslee and the late Rep. John Dingell (D-MI) introduced legislation to form a Clean Energy Deployment Administration (CEDA) in the House of Representatives, and Sen.

Jeff Bingaman (D-NM) did so in the Senate. 115 In this Congress various members of the House and Senate have since proposed versions of a CEDA or Green Bank, notably the 2019 National Climate Bank legislation introduced by Sen. Ed Markey¹¹⁶ and Rep. Debbie Dingell.¹¹⁷ This federal financing authority would deploy low-cost loans and loan guarantees that will earn a return, allowing for cost-effective support for clean energy transformation on an ongoing basis. A national CEDA would credit enhance direct loans and provide a credit enhancement backstop for lending undertaken by others. This authority can work directly with state and local green banks, clean energy funds, infrastructure finance authorities, and Community Development Financial Institutions (CDFIs), to leverage aggressive state climate leadership for accelerated clean energy deployment, support for zerocarbon technology manufacturing, de-risking innovative technology deployment, and expedited retirement of coal power plants and fossil fuel infrastructure. This policy is popular, with 62% of voters supporting the creation of a green bank as part of a federal stimulus package.¹¹⁸

Expand Green Real Estate Lending for Small Businesses (SBA 504 Green Loan Program)

Congress should increase funding for green building loan programs, by authorizing \$15 billion in new forgivable small business green building loans, dedicating \$5 billion of those funds specifically to non-profit organizations. The Small Business Administration (SBA) recently demonstrated in the *CARES Act*, its ability to rapidly deploy over \$400 billion in federally debt. This represents important capacity to draw upon in subsequent rounds

of stimulus investments. Specifically, the SBA 504 Loan program provides long-term (up to 25 years) financing at low fixed rates to allow approved small businesses to acquire fixed assets for expansion or modernization, thereby promoting business growth, job creation, and economic development that strengthens the local tax base. The SBA 504 program funds approximately \$5 billion in loans each year, made as a second mortgage on property through an existing network of over 260 community based non-profit Certified Development Corporations (or CDCs). This existing capacity can enable rapid deployment of capital on a national basis. The SBA also typically guarantees 40% of project costs, expanding the leverage of the program through local lenders and small business partners. 119 The SBA 504 "Green Loan Program", makes these 504 loan funds available for commercial real estate projects with loans capped at \$16.5 million per project, allowing multiple loans by the same borrower, in exchange for a commitment to reduce energy use by 10%, generate at least 10% renewable energy on site, or achieve LEED certification. To expand successful small business lending through the CARES Act, and maximize benefits for local small businesses and construction job creation, \$10 billion of additional forgivable SBA loans should be made available through the SBA 504 Green Loans program. Further, an additional \$5 billion in new forgivable loan capacity should be offered specifically targeting local non-profit organizations to channel stimulus benefits into community-serving health clinics, community centers and cultural institutions.

BUILD CLEAN & RESILIENT AMERICAN INFRASTRUCTURE

The current economic crisis is hurting families and straining state and local budgets, yet costly natural disasters won't wait. Every year, power outages cost the U.S. economy from \$18 to \$32 billion dollars. 120 Additionally, the annual cost of damage from hurricanes and storm related flooding totals another \$54 billion annually. 121 Yet, America continues to underinvest in the modernized and resilient infrastructure needed will need to power economic recovery and future growth. The American Society of Civil Engineers gives U.S. infrastructure a barely passing D+ grade¹²² when compared with global competitors. In the face of increasingly frequent and severe storm systems, rising drought and wildfire, and other newly intensified natural hazards, immediate investments in resilient infrastructure are necessary to protect public health and safety. Therefore, stimulus investments that harden critical infrastructure to ensure public health and safety, will not only offer job creating and productive infusions of capital into every community in America, but it will help to position local economies to become more resilient, more productive, and more sustainable contributors to long-term prosperity. American taxpayers and governments are already paying a price for inaction on climate change and resilient infrastructure. This program of strategic

re-investment in stronger, safer, healthier, and more productive communities should prioritize strengthening the electricity grid, protection from flooding and drought, and hardening a host of community-based infrastructure.

► Harden Grid Infrastructure & Ensure Electricity Reliability

Congress should provide \$12 billion in funding for smart electricity infrastructure, including reactivating the Smart Grid Investment Grant Program (SGIG) formerly administered by DOE under the Energy Independence and Security Act (EISA Section 1306), through 2015. This program can fund technology upgrades like advanced metering and distribution automation technology, working with regional electric utilities. 123 In addition, the Smart Grid Regional and Energy Storage Demonstration Project (under EISA 1304) offers a mechanism for demonstrating new technology like battery storage and state of the art microgrids, leveraging significant matching investments from the private sector. 124 The SGIG program should be authorized at \$8 billion, and Smart Grid and Energy Storage Demonstration projects funded with an additional \$4 billion. Locallybased microgrids offer a reliable generation asset at the point of energy demand, to provide uninterruptible energy services in the event of disruption. 125 Microgrids are especially important for ensuring community stability during natural disasters and for ensuring that first responders are able to offer essential public services. ARRA made a historic initial investment of \$10.4 billion in grants to modernize the U.S. electric grid, matched by significantly greater industry funding. 126 Investments in state-of-the-art and technology-enabled electricity transmission and distribution infrastructure will also enable deep renewable energy deployment

and rapid decarbonization of the energy grid, while enhancing the security, reliability, and affordability of energy access.

In addition, Congress should establish a new Transmission Investment Tax Credit, and provide low-cost financing through new and existing federal financing programs, to leverage public and private capital to meet an approximate \$15 billion annual transmission infrastructure investment needed between 2020-2030 — to help the nation meet ambitious clean electricity goals. 127 This includes investment in anticipatory construction of transmission capacity to areas with significant queues of clean-energy generation capacity awaiting transmission, such as federal lands throughout the West that are ripe for clean energy development. Further, by expanding the Authorized Equipment List¹²⁸ eligible in FEMA's grant programs for preparedness, Congress can ensure that local response centers and critical facilities such as schools and community shelters have access to all the power components needed for micro-grids as well as access to grant funds to help deploy them. Focusing on schools is popular. Sixty three percent of voters support using federal dollars for green retrofits of schools as part of a federal stimulus package. 129

Finally, the Power Marketing Administrations (PMAs) offer powerful engines for mobilizing public investment in the deployment of clean power generation and transmission. Some PMAs have existing borrowing authority that can be used and expanded, while others have the authority to partner with 3rd parties to develop transmission. Federal wholesale power providers can use existing authority to help build renewables, storage, and transmission infrastructure. Providing dedicated assistance

to the Tennessee Valley Authority (TVA) and the four Power Marketing Administrations (BPA, SEPA, SWAPA and WAPA) through DOE can promote grid stability and resilience, and help their regions plan and execute a transition to 100% clean power.

Establish "Rebuilding America" Building Retrofit Incentives

Congress should immediately move to establish \$50 billion in consumer rebates and refundable tax credits available to American homeowners to improve residential and small commercial properties and put carpenters, plumbers and electricians back on the job. A new suite of strong consumer tax incentives and rebates for building energy upgrades can rapidly generate stimulus and new economic development, while achieving long-term cost savings for homeowners, renters and business owners through reduced energy bills.¹³⁰ This "Rebuild America" program is a win-win-win. It will: reduce pollution; reduce customers' energy bills; put millions of construction workers, electricians and mechanical contractors back to work at decent wages: and result in a large economic boon for local businesses and domestic manufacturers. Notably, these jobs cannot be shipped overseas. A suite of targeted refundable tax credits for installing new energy saving equipment in existing buildings will create a strong incentive for installation of electric and super efficient HVAC systems, building envelope improvements like insulation and window replacement, as well as advanced (and solar) water heaters and innovative solutions like thermal energy storage and geothermal. Bonus incentives should be offered for transitioning from heating oil to speed reduction in fossil fuel use especially in the wake of oil industry bailouts. The credits will extend to equipment upgrades for commercial

buildings as well, including advanced boilers and chillers, district heating and cooling, and co-generation. 131

This program of residential and commercial building retrofit incentives will draw upon previously introduced federal "HomeStar" 132 and "BuildingStar" legislation. 133,134 Congress should establish a tiered incentive for the purchase and installation of energy saving building improvements, for up to 50% of the cost of qualifying measures that improve energy performance. This incentive could be capped at \$10,000 per building measure. In addition, an incentive would be offered for 50% of the cost of whole home energy retrofits that reduce home energy use by 20% or more, based on modeled building performance as assessed by a qualified energy auditor. The home performance incentive would be capped at \$25,000 per home. Like the CARS (aka "Cash for Clunkers") program, this incentive would establish a point-of-sale rebate made available directly to consumers and/or contractors, with the incentive paid by the federal government, through a network of certified rebate aggregators, with the total program overseen by the Secretary of Energy. An initial allocation of \$50 billion would establish a robust program for driving efficiency and electrification in buildings.¹³⁵

In addition, both expanded weatherization efforts and new residential and commercial building retrofit incentives should be supported by the further commitment of federal agencies. USDA should be appropriated \$1 billion to support expansion of the Rural Energy Savings Program by providing technical assistance to facilitate adoption of low cost financing for energy saving retrofits¹³⁶ working with Public Power and Rural Electric Cooperatives. HUD should

receive \$8 billion in new allocations to support building retrofits through Public Housing Capital Fund formula grants and competitive grant awards, renewing the multifamily Green Retrofit Program (GRP), and funding projects through the Native American Housing Block Grant Program, Neighborhood Stabilization Program, and Tax Credit Assistance Program investments, which have all been utilized successfully in previous rounds of federal stimulus for job creation through green building retrofits.

▶ Commit to Superfund Cleanup

Congress should provide a robust \$20 billion commitment to Superfund cleanup, an amount equivalent to that advocated for by Senator Tammy Duckworth (D-IL) and other members of the Senate Environmental Justice Caucus. 137 Congress should also provide \$2 billion for Brownfields redevelopment, an amount equivalent to that asked for by the authors of the Equitable & Just National Climate Platform. 138 Both programs are important for dealing with sites that are largely located in urban and marginalized communities. Nearly 1,400 Superfund sites remain to be decontaminated, and approximately 53 million Americans lived within 3 miles of a final, deleted, or proposed Superfund site, including 40% and 27% overrepresentations of African-Americans, and Latinx-Americans, respectively. 139 This agenda should include ramping up investments in Superfund cleanup activities, in partnership with local front-line communities, and reinstating and tripling Superfund taxes on corporate polluters. It should also require increasing resources for Brownfields redevelopment to achieve more sustainable approaches to local land use. There are strong examples of local leadership leveraging federal funding alongside non-public investment

to build healthier and more sustainable communities. The ReGenesis project, in South Carolina, is a model for the country in hard work and successful investments through the EPA's Superfund and Brownfields programs. 140

Expand Electric Vehicle Charging Infrastructure

Congress should create a new \$36 billion grant program at the Department of Transportation, modeled after the existing BUILD grant program, to support state and local governments and utilities as they accelerate deployment of electric vehicle charging infrastructure for light, medium, and heavy vehicles, and transit and school buses. Since 2009 the BUILD program, formerly TIGER, has granted nearly \$7.9 billion in successful transportation-related infrastructure projects across all 50 states and several U.S. territories. 141 To achieve the bold carbon reduction goals needed across the transportation sector, a new program must be created to specifically channel funding into projects related to electric vehicle charging and associated grid needs. The Californiabased Transportation Electrification Partnership estimates 84,000 public and workplace chargers are needed by 2028 for LA County alone in order to meet state and local climate and air pollution reduction goals.¹⁴² Federal funds should be tied to local hiring and strong labor standards.

▶ Protecting Local Economies & Public Health from Flooding & Storm Disasters

Congress should spend \$24 billion on job creating infrastructure projects that reduce flood risk and improve the health and productivity of our nation's waterways. Weather events, made more severe by climate change, strain aging inland and coastal flood

control infrastructure, while inadequate management of urban stormwater and rural non point source run off threatens the health of bays and estuaries and hurts the ability of states to meet requirements of the Clean Water Act. The American Society of Civil Engineers (ASCE) has given the nation's inland levee system, which protects an estimated \$1.3 trillion in property, a "D" grade. Meanwhile, flooding, storms, and erosion associated with climate change-driven sea-level rise threatens an additional \$1 trillion in coastal property. A stimulus package that invests in coastal and inland water infrastructure needs, such as culverts, dams. levees, seawalls and locks will create hundreds of thousands of high quality construction jobs all across America.

In recent years, funding for the U.S. Army Corps of Engineers has not kept pace with demand, leading to a major backlog of authorized but unconstructed Army Corps infrastructure projects to address local flooding, navigation, and environmental restoration needs while improving environmental and public health and safety. This funding package should include \$7 billion for Critical Construction Funds for Water Resources Development Projects funding flood control and other pressing needs. A further \$10 billion should be dedicated to inland waterway investments, as a downpayment on a fully modernized system. Another \$2 billion should be dedicated to increase grant funding to States and cities for reauthorization of the Sewer Overflow and Stormwater Grant Authority to address combined sewer overflows and stormwater. While a further \$3.5 billion in EPA regional programs can support restoration initiatives from Long Island Sound and the

Chesapeake Bay, to the Great Lakes and Lake Pontchartrain Basin, to the Puget Sound, San Francisco Bay, Columbia River Basin, as well as National Estuaries Restoration Projects in many other regions. Finally, EPA provides vital assistance to states to co-administer the implementation of the Clean Water Act, and increased funding of \$1.5 billion should be made available immediately to fully fund approved State Clean Water programs. 143

GROW PROSPEROUS FARMING & RURAL COMMUNITIES

Many rural communities are struggling to sustain a tax base that supports essential services like quality education, healthcare and profitable small businesses. In the face of Coronavirus, funding streams that rural communities depend on will become even more scarce. It is important Congress prioritize policies geared toward rebuilding vibrant rural communities that invest in a new clean energy economy while putting people back to work. Rural communities, especially farm communities, have an important role to play in our fight against climate change. Natural solutions that promote carbon sequestration and generate new revenue streams will be necessary as America recovers from Coronavirus. In fact, Data For Progress found that 69% of voters support including financial incentives for environmental friendly farming practices in a federal stimulus package.144

► Invest in Soil Carbon and Climate-Smart Agriculture

The Federal government can meaningfully support small farmers by creating new

revenue streams, awarded based on climate friendly practices that yield measurable and additional carbon sequestration across America's farmlands. Congress should provide \$30 billion in funding to the United States Department of Agriculture (USDA) to expand the Conservation Stewardship Program (CSP), which is routinely oversubscribed and underfunded,145 so that small farmers can bring in more revenue by expanding climate friendly on-farm practices. Conservation practices such as cover cropping and no till have been shown to improve nutrient cycling, reduce soil erosion, and increase crop yields -- all in addition to increasing soil carbon. 146 This emergency funding should be used to develop metrics and certify carbon farming practices that are shown to meaningfully increase soil carbon, by swiftly expanding, accelerating, and implementing Soil Health Demonstration Projects authorized in the 2018 Farm Bill, and utilizing data from successful initiatives like the USDA COMET-Farm program. Additionally, NOAA should be charged with developing a new Blue Carbon program to include ocean based carbon farming, including algae and seaweed which are the trees of our ocean.

Expand Rural Broadband

Congress should act quickly to expand access to broadband across rural communities to ensure every American has access, by investing \$86 billion in broadband deployment, including funds specifically earmarked for Tribal nations to expand service to the nearly 50% of Native Americans living on tribal lands who do not have internet access. ¹⁴⁷ As rural economies continue to shutter due to Coronavirus, it is now more important than ever to put Americans back to work by investing in rural broadband to enable distance learning, telehealth services,

and access to a networked global community. According to the FEC's latest broadband deployment report, in 2017 over one quarter of American's living in rural areas do not have access to broadband. Deloitte estimated that \$130 to 150 billion was needed in the 2017 to 2022 period to adequately support growing demand for broadband nationwide. Although some of the total investment can come from private dollars leveraged by federal investments, Congress must commit to broadband connectivity so that no one, and no community, is left behind.

Protect Rural Water Resources for Farms, Fish and Families

Protecting and enhancing water supplies – for people, farms and ecosystems – is absolutely critical for many rural communities, particularly those in drought-prone basins in the American West, especially as climate change exacerbates drought. Congress should invest \$5 billion in Department of Interior (DOI) Bureau of Reclamation programs supporting unmet and anticipated water resources infrastructure needs, including the Water and Related Resources Account, WaterSMART grants, and Rural Water Supply and Indian Water Rights Settlement projects. 150 Furthermore, Congress should provide \$3 billion for the USDA's Regional Conservation Partnerships Program (RCPP), administered by the Natural Resources Conservation Service, with a particular focus on Western water projects and "critical conservation areas" like the California Bay Delta and the Colorado and Columbia River Basins. Congress should also reauthorize the interagency Rural Water Supply program that compelled different federal departments to work together to identify and address critical water supply in Western states.¹⁵¹ And, crucially, Congress should ensure that all

major federal water resources investments including through the aforementioned DOI and USDA programs, but also those led by the Army Corps of Engineers or other federal agencies – are required to demonstrate a net ecosystem benefit, as proposed in the Water *Justice Act* put forward by Sen. Kamala Harris (D-CA). 152 Fortunately there are examples of collaborative and innovative partnerships in water resources management that achieve multiple goals – including ecosystem and fish habitat restoration. The Yakima Basin Integrated Plan in Central Washington state, which was authorized by Congress with bipartisan support in 2019, 153 has utilized Reclamation and RCPP support in its collaborative mission to "protect lands and waters, improve water quality and quantity, restore salmon and steelhead populations, improve natural and built infrastructure, drive a healthy recreation economy, and return sustainable jobs to the woods."154 155

CREATE A CLIMATE CONSERVATION CORPS

Americans have an opportunity to meet this moment of economic crisis with a spirit of public service that is deeply embedded in the nation's best traditions. The unprecedented job loss and economic contraction resulting from the global Coronavirus pandemic are likely to be more dramatic and prolonged than any felt in generations. In the face of this shock to the economy, the next administration must be ready to directly create jobs putting people to work in productive ways. This need will be especially urgent for young people entering

the job market for the first time in a period of sustained downturn, as well as for those facing industry transition or with fewer job skills. A Climate Conservation Corps (or "Climate Corps") can build on the legacy of American service and the construction of job opportunities as it helps to mobilize the American people rising to the climate challenge. ¹⁵⁶ Creating a Climate Conservation Corps is very popular with voters. Sixty-nine percent of voters support such a policy as part of a larger federal stimulus package. Additionally this concept has bipartisan support, with Republicans supporting by a margin of 34 points. ¹⁵⁷

Americans rose to confront the Great Depression under President Franklin Delano Roosevelt, who created the Civilian Conservation Corps (CCC) in 1933 that put Americans to work to "conserve our precious natural resources." ¹⁵⁸ In proposing the creation of the Peace Corps, in 1960, President John F. Kennedy recognized that America held an "immense reservoir of such men and women – anxious to sacrifice their energies and time and toil to the cause of world peace and human progress." 159 A decade ago, federal lawmakers revisited that legacy with the Serve America Act, which established a national Clean Energy Service Corps sponsored by then-Rep. Jay Inslee (D-WA) that provided service, green skills and job-training opportunities for disadvantaged youth in communities throughout the country as they implemented energy efficiency, waste reduction, and conservation projects. 160 That program contributed in building the Conservation Corps network – a movement that today involves some 25,000-plus Americans. 161 The Clean Energy Service Corps was never fully funded, but the crises facing the world now demand a bolder, 3-part domestic and international vision of mobilizing Americans of all ages for service and career-training.

► Establish a National Climate Service Corps

Congress should authorize \$3 billion to jumpstart a new National Climate Corps within the Corporation for National and Community Service (CNCS), to give young people the opportunity to serve in creating new public health and sustainability solutions in their own communities. They'll get right to work changing the world with their hands, even as they earn new skills to assist in future employment. Members of this corps should be engaged in supporting environmental and public health research, and learning skills to retrofit buildings, install solar panels, and build healthier and pollution-free communities with clean water, food security, and green development, as well as natural resources conservation. And also in recovering and rebuilding resilient communities in the face of increasingly devastating climate disasters. This corps should build upon the Conservation Corps Network, which is the foundation upon which Americans' service can be deployed in immensely powerful ways building a sustainable future.

▶ Launch a Global Climate Service Corps

Congress should invest \$2 billion in a new program that provides Americans the opportunity to conduct a tour of service overseas working side by side with local partners, as they build expertise in climate mitigation and resilience, clean water, and sustainable economic development. This program, like the National Climate Service Corps, will prioritize opportunities for lowincome and disadvantaged young men and women, and also those with advanced degrees

who can put their skills to work. There may be no better way to help young Americans learn about the challenges facing the global community, and to rebuild America's standing and its partnerships in the world — which have been so badly damaged during the past 4 years — than by sending them out to help rebuild a more sustainable world.

▶ Build a Clean Careers Network

A third component of this Climate Corps should be a Green Careers Network, which Congress should establish with a \$4 billion grant to the Department of Labor to focus on the challenge of permanent job creation in a clean energy economy. This investment will allow America to start taking the necessary steps to prepare to put people back to work, as soon as it is safe to do so, with a special focus on creating new pathways into career track jobs for young people that are impacted by a contracting job market and high unemployment. This effort should expand investments in skills-training, apprenticeships and on-the-job education, to award credentials and build career ladders for long-term employment in good jobs. It should partner with labor unions, businesses, technical schools, non-profit organizations, and community development institutions working with existing infrastructure for registered apprenticeships, training and placement to connect Americans with new jobs and lifelong careers. And this network should support the alumni of the service corps as well as Americans of all ages and backgrounds who want to get involved in growing green industries.

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