THE CLIMATE PRESIDENT'S EMERGENCY POWERS

A LEGAL GUIDE TO BOLD CLIMATE ACTION FROM PRESIDENT BIDEN

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EXECUTIVE SUMMARY

"The United States and the world face a profound climate crisis. We have a narrow moment to pursue action at home and abroad in order to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents."

– U.S. President Joe Biden, Jan. 27, 2021

The climate emergency presents a "code red for humanity,"[1] and its devastating impacts are already here. More than 40% of Americans live in a county hit by climate-related extreme weather last year. At least 656 people died as climate-driven disasters including wildfires, heat domes, deep freezes and hurricanes ravaged the country, costing upwards of $100 billion. These disasters capture only a fragment of the climate emergency's global impact: intensifying food insecurity, climate migration, political unrest and irreversible biodiversity loss.

Fortunately President Biden has the tools to lead a tectonic shift. Now is the moment for Biden to turn the page on a first year marked by stalled climate legislation and fossil fuel expansion. The president possesses unused executive pathways — through both ordinary and emergency executive powers — to protect the country from increasingly dire climate threats and build a just and regenerative energy system.

A course change is crucial. Largely through burning fossil fuels, we've already heated the planet about 1.2 degrees Celsius above preindustrial levels — enough for 80% of the United States to experience a heat wave last year. Scientists expect sea levels on U.S. coasts to rise a foot in the next 30 years. To avert far worse climate consequences and limit warming to 1.5°C, the target of the 2015 Paris Agreement, climate science makes clear that all governments must significantly replace fossil fuels with renewable energy by 2030. Instead the Biden administration has galloped past Trump in its approvals of oil and gas drilling permits on federal lands and held the largest offshore lease sale in U.S. history.

Climate change is a compounding crisis. Every delay makes it worse and harder to solve. It breeds glaring injustice, with Black, Latino, Indigenous, Asian American and Pacific Islanders, and other communities of color and low-wealth communities experiencing the gravest impacts. Unless we ignite a technological and economic transformation now, we will spiral toward a dangerous and increasingly unlivable planet.

By declaring a national climate emergency, Biden can unlock emergency executive powers already granted by Congress to aggressively combat the crisis. This paper identifies five key climate actions the president can take using three emergency and defense framework statutes: the National Emergencies Act, the Defense Production Act, and the Robert T. Stafford Disaster Relief and Emergency Assistance Act. This discussion complements the Center for Biological Diversity's 2019 legal report, which identified the most significant ordinary executive powers that could be used for bold climate action — including a permanent end to the federal fossil fuel leasing and drilling program.[2]

[1] United Nations Secretary-General, *Secretary-General's statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment* (Aug. 9, 2021), https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment.

[2] Kassie Siegel & Jean Su, *Legal Authority for Presidential Executive Action on Climate: Legal Analysis Underpinning the #ClimatePresident Action Plan* (2019), at 20-25, https://climatepresident.org/Legal-Authority-for-Presidential-Climate-Action.pdf

Key Climate Emergency Executive Actions

Climate Action	Legal Authorities
Halt Crude Oil Exports After declaring a national climate emergency, the president can reinstate the crude oil export ban overturned in 2015. This would cut greenhouse gas emissions by up to 165 million metric tons of CO2-equivalent each year, comparable to closing 42 coal plants.	National Emergencies Act Energy Policy Conservation Act (42 U.S.C. § 6212a(d))
Stop Oil and Gas Drilling in the Outer Continental Shelf After declaring a national climate emergency, the president can suspend the operations of all offshore leases. This will stop extraction in the more than 11 million acres of federal waters currently subject to active oil and gas leases and complement ordinary executive powers for offshore oil and gas extraction.	National Emergencies Act Outer Continental Shelf Lands Act (43 U.S.C. §§ 1334(g), 1341(c)) Outer Continental Shelf Lands Act (43 U.S.C. § 1341(a))
Restrict International Trade and Private Investment in Fossil Fuels After declaring a national climate emergency, the president can restrict U.S. fossil fuel exports that are primarily derived from the Permian Basin; curb fossil fuel imports that would add to the U.S.' carbon emissions; and halt hundreds of billions of dollars of U.S. investment in fossil fuel projects abroad.	National Emergencies Act International Emergency Economic Powers Act (50 U.S.C. §§ 1701, 1702)
Grow Domestic Manufacturing for Clean Energy and Transportation to Speed the Nationwide Transition Off Fossil Fuels After determining that the climate emergency threatens the national defense, the president can marshal domestic industry to manufacture renewable energy and clean transportation technologies while generating millions of good-paying, union jobs. The president can leverage DPA funds and the federal procurement budget of $650 billion per year to purchase these technologies and allocate them in federal agencies and in partnership with priority environmental justice communities and public entities.	Defense Production Act Title I (50 U.S.C. §§ 4511 *et seq.*) Title III (50 U.S.C. §§ 4531 *et seq.*) Title VII (50 U.S.C. §§ 4551 *et seq.*)
Build Resilient and Distributed Renewable Energy Systems in Climate-Vulnerable Communities After declaring the climate crisis an emergency and after declaring major disasters, the president can direct the Federal Emergency Management Agency to construct renewable energy systems, optimizing distributed energy resources in partnership with environmental justice communities vulnerable to climate disasters, as well as limit construction of fossil fuel infrastructure.	Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. §§ 5170, 5191)

Congress enacted emergency powers to allow the executive branch greater flexibility to respond to extraordinary events. The climate emergency is the pinnacle of extraordinary events faced in our lifetimes. Biden should lawfully use emergency powers to address this existential threat.

The use of emergency powers to respond to the climate crisis is precisely the purpose for which the laws are intended and should be employed. In fact, Senate Majority Leader Chuck Schumer, Sens. Jeff Merkley and Bernie Sanders, and House Reps. Earl Blumenauer and Alexandria Ocasio-Cortez, with 50 additional representatives, have directly urged Biden to use his lawful emergency powers to declare a national climate emergency and take significant action. The public has echoed these calls in peaceful protest and legal petitions.

The use of emergency powers is not new. Since the National Emergencies Act was enacted in 1976, every president has declared at least one national emergency during their term of office. Further, presidents have routinely used the Defense Production Act and Stafford Act to deal with emergency situations threatening national security. In fact Biden has already employed his executive powers under both statutes to address the coronavirus pandemic and climate-related disasters in his administration's first year.

How the administration confronts the climate emergency will define not just the Biden presidency but the lives of future generations. President Biden can save lives and homes, create good-paying jobs and transform a punishing and racist energy system into a clean, regenerative one – all with the stroke of a pen. It's time for Biden to, in his own words, "seize the opportunity" of this watershed moment and secure the renewable, just, and equitable transformation the country needs.

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"The United States and the world face a profound climate crisis. We have a narrow moment to pursue action at home and abroad in order to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents."

– U.S. President Joe Biden[1]

"I think it might be a good idea for President Biden to call a climate emergency. . . Then he can do many, many things under the emergency powers of the President . . . that he could do without legislation. . . . [I]f there ever was an emergency, climate is one."

– U.S. Senate Majority Leader Chuck Schumer[2]

"The alarm bells are deafening, and the evidence is irrefutable: greenhouse gas emissions from fossil-fuel burning and deforestation are choking our planet and putting billions of people at immediate risk. . . . If we combine forces now, we can avert climate catastrophe. But [] there is no time for delay and no room for excuses."

-United Nations Secretary-General António Guterres[3]

The United States and the planet are irrefutably suffering from the climate emergency. The 2021 report from the United Nations Intergovernmental Panel on Climate Change ("IPCC") made plain that the world faces a "code red for humanity."[4] In the United States, the climate emergency is manifested in this past year's onslaught of fatal hurricanes sweeping the Gulf through Puerto Rico,[5] heat domes exhausting the Pacific Northwest,[6] wildfires scorching the West,[7] and below-freezing temperatures collapsing energy systems in the South.[8] These disasters paint only a fragment of the global portrait of the climate emergency — contoured not only by extreme weather events, but the associated spiraling of climate migration and

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[1] Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021), https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad.

[2] Rachel Maddow Show, *Schumer Calls on President Biden to Declare 'Climate Emergency'*, MSNBC (Jan. 25, 2021), https://www.youtube.com/watch?v=1rC2AuBducw.

[3] Press Release, United Nations Secretary-General, Secretary-General Calls Latest IPCC Climate Report 'Code Red for Humanity', Stressing 'Irrefutable' Evidence of Human Influence (Aug. 9, 2021), https://www.un.org/press/en/2021/sgsm20847.doc.htm.

[4] United Nations Secretary-General, *Secretary-General's statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment* (Aug. 9, 2021), https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment.

[5] Jason Samenow et al., *How Tropical Storms and Hurricanes Have Hit U.S. Shores with Unparalleled Frequency*, Wash. Post, Sept. 29, 2021, https://www.washingtonpost.com/weather/2021/09/29/record-us-hurricane-landfalls-climate/ (An unsurpassed 50 named storms have formed over the warming Atlantic waters since the start of the 2020 season, with a record-setting 18 striking the Lower 48 states, including seven hurricanes); B. F. Battistoli et al., *Voices in the Storm: The Lost Discourse of Climate Change in Hurricanes Harvey and Irma*, 1.2 Int'l J. of Crisis Comm. 72 (2017), https://greenpublishers.org/wp-content/uploads/2018/05/IJCCV1N2A2-Battistoli-OA.pdf.

[6] Andrea Januta, *Pacific Northwest Heat Wave Virtually Impossible Without Climate Change – Research*, Reuters, July 8, 2021, https://www.reuters.com/business/environment/heat-wave-pacific-northwest-could-soon-repeat-due-climate-change-research-2021-07-07/; Sarah Kaplan, *Heat Waves are Dangerous. Isolation and Inequality Make them Deadly*, Wash. Post, July 21, 2021, https://www.washingtonpost.com/climate-environment/2021/07/21/heat-wave-death-portland/.

[7] Alejandra Borunda, *The Science Connecting Wildfires to Climate Change*, Nat. Geo., Sept. 17, 2020, https://www.nationalgeographic.com/science/article/climate-change-increases-risk-fires-western-us; Blacki Migliozzi et al., *Record Wildfires on the West Coast Are Capping a Disastrous Decade*, N.Y. Times, Sept. 24, 2020, https://www.nytimes.com/interactive/2020/09/24/climate/fires-worst-year-california-oregon-washington.html.

[8] Michael E. Webber, *The Texas Power Crisis Didn't Have to Happen*, ASME (June 15, 2021), https://www.asme.org/topics-resources/content/the-texas-power-crisis-didn-t-have-to-happen; Peter Cramton, Opinion, *Lessons From the 2021 Texas Electricity Crisis*, Utility Dive, Mar. 23, 2021, https://www.utilitydive.com/news/lessons-from-the-2021-texas-electricity-crisis/596998/.

political unrest,[9] intensifying infectious disease and food insecurity,[10] and accelerated biodiversity loss whereby one-third of the world's species face extinction by 2070 due to climate change.[11] Climate impacts are also felt unequally. Indigenous, Black, Latino, Asian, and other communities of color in the United States, as well as poor communities in the Global South, experience more acute climate harm that is intertwined with structural racism and colonialism.

The solutions to combatting climate change are also just as clear. Ending fossil fuel extraction, architecting renewable and resilient energy systems,[12] and achieving zero-emission economies are foundational to limiting warming to 1.5 degrees Celsius above preindustrial levels, the target of the 2015 Paris Agreement. At the same time, particularly in the United States, supplanting the fossil fuel complex with regenerative energy systems presents the extraordinary opportunity to redress racial, ecological, and socioeconomic injustices long perpetuated by an extractive economy.

2022 is a clarion call for President Biden to become the much-needed Climate President. Achieving zero-emission economies is technically possible but only with a sharp course change in political direction now. Unfortunately, the Biden administration's first year met challenges in effectuating climate progress. While the administration enacted encouraging policies on renewable energy, job generation, and environmental justice, its legislative vehicle to enact those goals — the Build Back Better Act — faces indefinite abeyance. At the same time, the Biden administration has continued to facilitate fossil fuel extraction, recently holding the largest offshore oil and gas lease sale in U.S. history and approving 34% more oil and gas permits on federal lands than the Trump administration.

Nevertheless, President Biden is poised to lead the tectonic shift in global climate leadership because he possesses the executive tools – both ordinary and emergency executive powers — to do so. In 2019 the Center for Biological Diversity published a legal paper discussing the most critical non-emergency executive powers available to the president for bold climate action.[13] These include a ban on all fossil fuel infrastructure approvals, a permanent end to the federal fossil fuel leasing and drilling program, and regulations of greenhouse gas ("GHG") emissions by setting a national air ambient quality standard under the Clean Air Act.

As a complement to the 2019 research, this paper examines a sibling tranche of lawful authorities available to the president: emergency executive powers that can be applied to combatting the climate crisis. Specifically, this paper explores five meaningful climate executive actions that can be triggered through three emergency and national defense framework statutes: the National Emergencies Act, the Defense Production Act, and the Robert T. Stafford Disaster Relief and Emergency Assistance Act. (See Table 1.) Because fossil fuels are the driving cause of the climate emergency and have yielded devastating impacts on communities, this report focuses on executive powers that can activate the swifter transition away from fossil fuels to a renewable energy system. However, this discussion is not exhaustive of all relevant executive powers that can mitigate climate harm; the application of these statutory frameworks can and should be

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[9] Abrahm Lustgarten, *The Great Climate Migration*, N.Y. Times Magazine, https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html.

[10] Marina Romanello et al., *The 2021 Report of the Lancet Countdown on Health and Climate Change: Code Red for a Healthy Future*, 398 The Lancet 1619 (2021), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01787-6/fulltext.

[11] Cristian Roman-Palacios & John J. Wiens, *Recent Responses to Climate Change Reveal the Drivers of Species Extinction and Survival*, 117 (8) PNAS 4211 (2020), https://doi.org/10.1073/pnas.1913007117.

[12] Mark Jacobson et al., Zero air pollution and zero carbon from all energy at low cost and without blackouts in variable weather throughout the U.S. with 100% wind-water-solar and storage, 184 Renewable Energy 430-442 (2022), https://web.stanford.edu/group/efmh/jacobson/Articles/I/21-USStates-PDFs/21-USStatesPaper.pdf.

[13] Kassie Siegel & Jean Su, Ctr. for Biological Diversity, *Legal Authority for Presidential Executive Action on Climate: Legal Analysis Underpinning the #ClimatePresident Action Plan* (2019), https://www.climatepresident.org/Legal-Authority-for-Presidential-Climate-Action.pdf.

extended to other high GHG-emitting sectors, including agriculture, deforestation and ecosystem destruction, and industrial processes, outside of the energy and electricity system.

Table 1 . Key Climate Emergency Executive Actions

CLIMATE ACTION	LEGAL AUTHORITIES
Halt Crude Oil Exports After declaring a national climate emergency, the president can reinstate the crude oil export ban overturned in 2015. This would cut greenhouse gas emissions by up to 165 million metric tons of CO2-equivalent each year, comparable to closing 42 coal plants.	National Emergencies Act Energy Policy Conservation Act (42 U.S.C. § 6212a(d))
Stop Oil and Gas Drilling in the Outer Continental Shelf After declaring a national climate emergency, the president can suspend the operations of all offshore leases. This will stop extraction in the more than 11 million acres of federal waters currently subject to active oil and gas leases and complement ordinary executive powers for offshore oil and gas extraction.	National Emergencies Act Outer Continental Shelf Lands Act (43 U.S.C. §§ 1334(g), 1341(c)) Outer Continental Shelf Lands Act (43 U.S.C. § 1341(a))
Restrict International Trade and Private Investment in Fossil Fuels After declaring a national climate emergency, the president can restrict U.S. fossil fuel exports that are primarily derived from the Permian Basin; curb fossil fuel imports that would add to the U.S.' carbon emissions; and halt hundreds of billions of dollars of U.S. investment in fossil fuel projects abroad.	National Emergencies Act International Emergency Economic Powers Act (50 U.S.C. §§ 1701, 1702)
Grow Domestic Manufacturing for Clean Energy and Transportation to Speed the Nationwide Transition Off Fossil Fuels After determining that the climate emergency threatens the national defense, the president can spur domestic industry to manufacture renewable energy and clean transportation technologies while generating millions of good-paying, union jobs. The president can leverage DPA funds and the federal procurement budget of $650 billion per year to purchase these technologies and allocate them in federal agencies and in partnership with priority environmental justice communities and public entities.	Defense Production Act Title I (50 U.S.C. §§ 4511 *et seq*.) Title III (50 U.S.C. §§ 4531 *et seq*.) Title VII (50 U.S.C. §§ 4551 *et seq*.)
Build Resilient and Distributed Renewable Energy Systems in Climate-Vulnerable Communities After declaring the climate crisis an emergency and after declaring major disasters, the president can direct the Federal Emergency Management Agency to construct renewable energy systems, optimizing distributed energy resources in partnership with environmental justice communities vulnerable to climate disasters, as well as limit construction of fossil fuel infrastructure.	Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. §§ 5170, 5191)

The use of emergency powers is not new. Since the National Emergencies Act was enacted in 1976, every president has declared at least one national emergency during their term of office for a total of over 70 emergency declarations. Further, presidents have routinely used the Defense Production Act and Stafford Act to deal with emergency situations threatening national security. In fact, Biden has already employed his executive powers under both statutes to address the coronavirus pandemic and climate-related disasters in his administration's first year. [14]

Though obvious, it is critical that emergency powers are used lawfully and effectively. Our democracy was constructed to ensure checks and balances across a tripartite system of government — and must be safeguarded to protect our collective liberties. Congress statutorily enacted emergency powers to allow the executive branch greater flexibility to respond to extraordinary events. The climate emergency is such a seminal event, and the president should use emergency powers to address the existential threat. But we caution that emergency powers can be abused and were in fact violated by the Trump administration.[15] However, the use of emergency powers to respond to the climate crisis is precisely the purpose for which the laws are intended and should be employed.

Moreover, while the powers outlined in this paper can significantly slash GHG and polluting emissions, they are also not sufficient, alone, to fully address the climate emergency. Proceeding with climate action under existing emergency powers does not supplant, but rather complements, the need for full use of the president's ordinary executive powers and additional strong congressional climate legislation. At the same time, any continued lack of climate progress by Congress should not also hamstring the president from using lawful emergency and other executive powers. At base, utilization of presidential emergency authorities is one tool of many, but a potent one that can move the country into an energy and social transition vital to saving the planet.

In fact, current Congress members have been vocal of their support for Biden to utilize the emergency powers Congress has already granted. In January 2020 Senate Majority Leader Chuck Schumer directly called on Biden to declare a climate emergency on national television,[16] while Sen. Jeff Merkley echoed that call in an op-ed in the *Washington Post*.[17] House Rep. Earl Blumenauer, House Rep. Alexandria Ocasio-Cortez and Sen. Bernie Sanders, with 52 additional Congress members, separately introduced the Climate Emergency Act of 2021, which directs the president to declare a climate emergency pursuant to the National Emergencies Act.[18]

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[14] *See* Exec. Order No. 13,987, 86 Fed. Reg. 7019 (Jan. 20, 2021), https://www.federalregister.gov/documents/2021/01/25/2021-01759/organizing-and-mobilizing-the-united-states-government-to-provide-a-unified-and-effective-response; Exec. Order No. 14,001, 86 Fed. Reg. 7219 (Jan. 21, 2021), https://www.federalregister.gov/documents/2021/01/26/2021-01865/a-sustainable-public-health-supply-chain.

[15] The Trump administration abused emergency powers when unlawfully redirecting military funds toward border wall construction. Multiple litigation challenges ensued. *See*, *e.g.*, *Ctr. for Biological Diversity v. Trump*, 453 F. Supp. 3d 11 (D.D.C. 2020); *Sierra Club v. Trump*, 977 F.3d 853 (9th Cir. 2020) (holding Trump administration's abuse of military fund redistribution emergency powers unlawful); *Biden v. Sierra Club*, 142 S Ct. 56 (2021), vacating and remanding *Sierra Club v. Trump*, 977 F.3d 853 (9th Cir. 2020); *Sierra Club v. Biden*, Nos. 19-17501, 19-17502, 20-15044, 2021 U.S. App. LEXIS 34695 (9th Cir. Nov. 22, 2021) (vacated and remanded to District Court). *See also El Paso Cty. v. Trump*, 408 F. Supp. 3d 840 (W.D. Tex. 2019) (striking down Trump's reappropriation of military funds as violating Congress's express denial of additional funds for border wall construction).

[16] Rachel Maddow Show, *supra* note 2.

[17] Jeff Merkley, *Opinion: How Joe Biden Can Act Boldly on the Climate Crisis,* Wash. Post, Dec. 21, 2020, https://www.washingtonpost.com/opinions/2020/12/21/jeff-merkley-biden-climate-crisis-executive-action/.

[18] Climate Emergency Act of 2021, H.R. 794, 117th Cong. (2021), https://www.congress.gov/bill/117th-congress/house-bill/794/text?q=%7B%22search%22%3A%5B%22hr+1%22%5D%7D&r=66&s=1; Press Release, U.S. Congresssman Earl Blumenauer, Blumenauer, Ocasio-Cortez, and Sanders Introduce Legislation to Mandate National Climate Emergency Declaration, (Feb. 4, 2021), https://blumenauer.house.gov/media-center/press-releases/blumenauer-ocasio-cortez-and-sanders-introduce-legislation-mandate.

Calls for a presidential climate emergency declaration are reflected in action taken at sub-national levels. Hawaii is the first state to declare a climate emergency, while over 170 local U.S. jurisdictions have done the same.[19] Further, there is robust domestic public support for a presidential declaration of a climate emergency. Demands for a presidential climate emergency declaration and bold climate executive actions have been endorsed by nearly 750 environmental, racial justice, and faith organizations nationwide.[20] And in October 2021, thousands of people, including Indigenous and faith leaders and environmental and racial justice advocates, marched and risked arrest in the nation's capital to urge a climate emergency declaration from the president.[21]

Public support within the United States is a microcosm of the global movement to confront climate injustice. At least 37 countries have declared states of climate emergency to compel bold climate action, and almost 13 percent of the global population now lives in climate emergency jurisdictions. [22] However, the United States remains an outlier in enacting a climate emergency declaration. United Nations Secretary-General António Guterres has appealed to all countries, including the United States, to declare climate emergencies to combat the global existential crisis.[23] President Biden should heed that clarion call. This paper proffers a roadmap for the president to seize the mantle of the Climate President — and turn this profound emergency into the transformative opportunity the country needs.

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[19] Kate Yoder, *"Climate Emergency": Hawaii is the first state to call it like it is*, Grist, Apr. 30, 2021, https://grist.org/politics/hawaii-is-the-first-state-to-declare-a-climate-emergency/; *See* Climate Emergency Declaration, *Climate Emergency Declarations in 2,071 Jurisdictions and Local Governments Cover 1 Billion Citizens* (Feb. 1, 2021), https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/#nationalgovernments.

[20] *The #ClimatePresident Action Plan: 10 Steps for the Next Administration's First 10 Days*, https://www.climatepresident.org/ (last updated Jan. 2021).

[21] People vs. Fossil Fuels, https://peoplevsfossilfuels.org/ (last visited Feb. 7, 2022); Ellie Silverman, *Indigenous Activists Come to D.C. with a Message for Biden: Declare a National Climate Emergency*, Wash. Post, Oct. 11, 2021, https://www.washingtonpost.com/dc-md-va/2021/10/11/indigenous-protest-dc-climate-change/.

[22] This number includes the 27 member states of the European Union, which declared a climate emergency on November 28, 2019. Several of the EU member states also separately declared climate emergencies, as have many supra-national governments. *See* Climate Emergency Declaration, *supra* note 19.

[23] Fiona Harvey, *UN Secretary General Urges All Countries to Declare Climate Emergencies,* Guardian, Dec. 12, 2020, https://www.theguardian.com/environment/2020/dec/12/un-secretary-general-all-countries-declare-climate-emergencies-antonio-guterres-climate-ambition-summit.

PART 2. THE CLIMATE EMERGENCY IN THE UNITED STATES

I. THE CLIMATE EMERGENCY'S IMPACTS ON AND THREATS TO THE UNITED STATES

The United States is experiencing an accelerating climate emergency.

Extreme weather events. Extreme weather events are sweeping the country and are predicted to become more intense and frequent. Temperatures are expected to rise by 2.5°F (1.4°C), on average, by mid-century relative to 1976-2005, continuing the trend of record-setting hot years.[24] Rising temperatures are exacerbating historic droughts,[25] while hotter and drier conditions are contributing to an increase in extreme fire weather, area burned by wildfire, and a lengthening of the wildfire season, particularly in the U.S. West.[26] Heavy precipitation events — including fatal Atlantic hurricanes and landfalling "atmospheric rivers" on the West Coast — are increasing in frequency and intensity.[27] Meanwhile sea-level rise is boosting the frequency, depth and extent of high tide flooding, and flooding rates are accelerating in many Atlantic and Gulf Coast cities.[28] In Florida and Virginia, nuisance flooding due to sea-level rise has already resulted in severe property damage and social disruption.[29]

Public health harms and fatalities. The climate emergency drives and exacerbates public health harms, disproportionately affecting communities of color and low-wealth communities, as well as vulnerable populations such as children, older adults, and persons with disabilities and pre-existing medical conditions.[30] The Lancet Commission on Health and Climate Change has called climate change "the biggest global health threat of the 21st century"[31] and the "defining narrative of human health" triggering food shortages, deadly disasters, and disease outbreaks that are poised to dwarf the toll of the coronavirus.[32] The

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[24] U.S. Global Change Research Program, *Climate Science Special Report: Fourth National Climate Assessment, Vol. I* 11 (2017), https://science2017.globalchange.gov/ [hereinafter *Fourth National Climate Assessment, Vol. I*].

[25] *Id.* at 45, 236.

[26] U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States, Fourth National Climate Assessment, Vol. II* (2018), https://nca2018.globalchange.gov/ [hereinafter *Fourth National Climate Assessment, Vol. II*].

[27] Fourth National Climate Assessment, Vol. I, *supra* note 24, at 74, 207, 218, 257; Greg Holland & Cindy L. Bruyère, *Recent Intense Hurricane Response to Global Climate Change*, 42 Clim. Dyn. 617 (2014); Erik Fraza & James B. Elsner, *A Climatological Study of The Effect of Sea-Surface Temperature on North Atlantic Hurricane Intensification*, 36 Phys. Geogr. 395 (2015); *Fourth National Climate Assessment, Vol. II*, *supra* note 26, at 74; Kieran T. Bhatia et al., *Recent Increases in Tropical Cyclone Intensification Rates*, 10 Nat. Commun. 635 (2019); Kerry Emanuel, *Assessing the Present and Future Probability of Hurricane Harvey's Rainfall*, 114 PNAS 12681 (2017); David Keellings & José J. Hernández Ayala, *Extreme Rainfall Associated with Hurricane Maria over Puerto Rico and its Connections to Climate Variability and Change*, 46 Geophys. Res. Lett. 2964 (2019); Mark D. Risser & Michael F. Wehner, *Attributable Human-Induced Changes in The Likelihood and Magnitude of the Observed Extreme Precipitation During Hurricane Harvey*, 44 Geophys. Res. Lett. 12,457 (2017); Christina M. Patricola & Michael F. Wehner, *Anthropogenic Influences on Major Tropical Cyclone Events*, 563 Nature 339 (2018).

[28] *Fourth National Climate Assessment, Vol. II*, *supra* note 26, at 75, 77, 98-99, 487, 758.

[29] Larry P. Atkinson et al., *Sea Level Rise and Flooding Risk in Virginia*, 5 Sea Grant Law and Policy Journal 3 (2013), http://digitalcommons.odu.edu/ccpo_pubs/102; Shimon Wdowinski et al., *Increasing Flooding Hazard in Coastal Communities Due to Rising Sea Level: Case Study of Miami Beach, Florida*, 126 Ocean & Coastal Management 1 (2016).

[30] Tim Donaghy & Charlie Jiang, Greenpeace, Gulf Coast Center for Law & Policy, Red, Black & Green Movement, and Movement for Black Lives, *Fossil Fuel Racism: How Phasing Out Oil, Gas, and Coal Can Protect Communities* (2021), https://www.greenpeace.org/usa/wp-content/uploads/2021/04/Fossil-Fuel-Racism.pdf; U.S. Environmental Protection Agency, *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts, EPA 430-R-21-003* (2021), *available at* www.epa.gov/cira/social-vulnerability-report; *Fourth National Climate Assessment, Vol. II*, *supra* note 26, at 548; U.S. Global Change Research Program, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* (2016), https://health2016.globalchange.gov/[hereinafter USGCRP, *The Impacts of Climate Change on Human Health* (2016)].

[31] Nick Watts et al., *The 2018 Report of The Lancet Countdown on Health and Climate Change: Shaping the Health of Nations for Centuries to Come*, 392 The Lancet 2479, 2482 (2018).

[32] Romanello et al., *supra* note 10; *see also* World Health Organization, *WHO's 10 Calls for Climate Action to Assure Sustained Recovery from Covid-19* (Oct. 11, 2021), https://www.who.int/news/item/11-10-2021-who-s-10-calls-for-climate-action-to-assure-sustained-recovery-from-covid-19 (calling climate change "the single biggest health threat facing humanity" and warning that its effects could be more catastrophic and enduring than the coronavirus pandemic).

climate emergency escalates exposure to heat waves, floods, droughts, and other extreme weather events; increases the spread of infectious diseases; decreases the quality and safety of air, food and water; causes increasing displacement of vulnerable populations; and exacerbates stresses on mental health and well-being.[33]

Exacerbated social and racial inequities. Black, Latino, Indigenous, Asian, and other communities of color in the United States bear the brunt of the climate emergency from multiple and cascading angles. First, communities of color and low-wealth families suffer most from the nation's dependence on fossil fuels resulting in environmental racism. Fossil fuel infrastructure — including oil and gas wells, refineries, fossil fuel power plants, and processing, transmission and storage facilities — is often concentrated in communities of color and low-wealth communities, causing asthma, cancer, and other serious health harms to residents exposed to hazardous air and water pollution from these facilities.[34] Critically, fossil fuel extraction — through the establishment of temporary male housing sites used for fossil fuel construction and oilfield work — has been extensively linked to increased levels of violence against Indigenous women, contributing to the Missing and Murdered Indigenous Women, Girls, and Two-Spirit People epidemic.[35]

Much like the health impacts of fossil fuel pollution, climate change impacts are, and will continue to be, unevenly and inequitably distributed across the country.[36] Researchers have found that Black, Latino, and low-income households are more likely to live in high climate-risk areas like heat domes, flood zones, and hurricane-prone areas,[37] less likely to have money to harden infrastructure in advance of disasters and resources to evacuate during disasters, and less likely to receive assistance during recovery periods[38] — all while contributing fewer GHG emissions than high-income households.[39] When analyzing urban patterns across the United States, studies show that communities of color and low-wealth families live in hotter

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[33] *Fourth National Climate Assessment, Vol. II*, *supra* note 26, at 540; USGCRP, *The Impacts of Climate Change on Human Health* (2016), *supra* note 30.

[34] *See* Robert Bullard, *Dumping in Dixie: Race, Class and Environmental Quality* (1990); Robert D. Bullard et al., *Toxic Wastes and Race at Twenty: 1987-2007* (2007), http://www.ejnet.org/ej/twart.pdf; Adrian Wilson et al., NAACP, Indigenous Environmental Network & Little Village Environmental Justice Organization, *Coal Blooded: Putting Profits Before People* (2012), https://naacp.org/resources/coal-blooded-putting-profits-people; U.S. Environmental Protection Agency, *EJ Screening Report for the Clean Power Plan* (2015), https://archive.epa.gov/epa/sites/production/files/2016-04/documents/ejscreencpp.pdf; Emanuele Massetti et al., *Environmental Quality and the U.S. Power Sector: Air Quality, Water Quality, Land Use and Environmental Justice, ORNL/SPR-2016/772* (2017), https://info.ornl.gov/sites/publications/files/Pub60561.pdf; PSE Healthy Energy, *Natural Gas Power Plants in California's Disadvantaged Communities* (2017), https://www.psehealthyenergy.org/wp-content/uploads/2017/04/CA.EJ_.Gas_.Plants.pdf. In fact, People of color are more likely to live near fossil fuel power plants, with one study showing the share of minorities living within three miles (five kilometers) of a coal- or oil-fired power plant is up to 37% higher than the national average of 25%.

[35] Livia Charles, Saffia Cissoko, & Osprey Orielle Lake, *Gendered and Racial Impacts of the Fossil Fuel Industry in North America and Complicit Financial Institutions* (2021), https://e01c23b4-9f2e-4830-9320-a86de06b013e.filesusr.com/ugd/d99d2e_918b1e133b2548549b686e4b6eac4cc3.pdf; Barbara Clabots, Opinion, *The Darkest Side of Fossil-Fuel Extraction*, Scientific American, Oct. 14, 2019, https://blogs.scientificamerican.com/voices/the-darkest-side-of-fossil-fuel-extraction/; *Human Trafficking in the U.S.*, C-SPAN (Sept. 23, 2020), https://www.c-span.org/video/?315168-1/human-trafficking-us.

[36] Solomon Hsiang et al., *Estimating Economic Damage from Climate Change in the United States*, 356 *Science 1362* (2017), https://science.sciencemag.org/content/356/6345/1362; U.S. Env't Protection Agency, *supra* note 34; Wanter Uja, *The Effects of Natural Disasters on Energy Infrastructure*, Lewis & Clark Law School (Aug. 19, 2020), https://law.lclark.edu/live/blogs/132-the-effects-of-natural-disasters-on-energy.

[37] *See Poor, Southern Counties are Most at Risk*, Associated Press (2017), https://interactives.ap.org/climate-change-economic-damage/; Ben Wisner, *At Risk: Natural Hazards, People's Vulnerability and Disasters* (2006).

[38] *See* Christopher Flavelle, *Why Does Disaster Aid Often Favor White People?,* N.Y. Times, June 7, 2021; Rebecca Hersher, *Why FEMA Aid is Unavailable To Many Who Need It The Most*, NPR, June 29, 2021, https://www.npr.org/2021/06/29/1004347023/why-fema-aid-is-unavailable-to-many-who-need-it-the-most.

[39] Lutz Sager, *Income Inequality and Carbon Consumption: Evidence from Environmental Engel Curves*, 84 Energy Econ. 104,507 (2019).

neighborhoods than their white counterparts,[40] as exposure to extreme heat is associated with century-old patterns of residential redlining, racist housing covenants and other discriminatory practices.[41] The climate emergency thus also exacerbates energy insecurity and poverty among communities of color. Black and Latino families on average bear quadruple the energy burdens of white families, with some Black households in the South bearing energy burdens as much as 40% of their total income, due to historical racist redlining policies.[42] As severe climate-induced heat waves and cold freezes increase the demand for electricity and gas heat, communities of color face increased energy burden and likelihood of shutoffs for inability to pay — with potentially fatal consequences.[43]

Species extinction and ecocide. Additionally, fossil fuel pollution and the climate emergency threaten catastrophic species losses if GHG emissions continue unabated.[44] Climate change is increasing stress on species and ecosystems, causing disruptions of species' distribution, timing of breeding and migration, physiology, vital rates, genetics, and the ecosystem processes that support basic human needs.[45] Climate change-related local extinctions are already widespread.[46] Species extinction risk will accelerate with continued carbon pollution, threatening the loss of at least one-third of animal and plant species in the next 50 years.[47] A 2019 United Nations report concluded that 1 million animal and plant species are now threatened with extinction, with climate change as a primary driver.[48] Scientists have called for a rapid transformation of our energy system away from fossil fuels to prevent such a mass extinction.[49]

Economic harms. The climate crisis is exacting a heavy economic toll, already costing the U.S. economy more than $1 trillion dollars in damages, with economic losses worsening with each additional

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[40] Angel Hsu et al., *Disproportionate Exposure to Urban Heat Island Across Major U.S. Cities* (2020), https://ssrn.com/abstract=3684952; Susanne Benz & Jennifer Burney, *Widespread Race and Class Disparities in Surface Urban Heat Extremes Across the United States*, 9 Earth's Future e2021EF002016 (2021).

[41] Jeremy S. Hoffman et al., *The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas*, 8 Climate 12 (2020).

[42] *Low-Income, Black, Hispanic, and Native American Households Face High Energy Burdens,* ACEEE, https://www.aceee.org/energy-burden (last visited Feb. 7, 2022); *Climate Change—Preparing for the Energy Transition: Hearing Before the H. Subcomm. on Energy and Mineral Res. of the H. Comm on Nat. Res*, 116th Cong. 8-10 (2019) (statement of Chandra Farley, Just Energy Director, Partnership for Southern Equity).

[43] Critically, energy insecurity and resulting utility disconnections have fatal consequences. A study from the National Bureau of Economic Research found that a national moratorium on power and water utility shutoffs, had it been implemented at the start of the pandemic, could have reduced COVID-19 deaths by 14.8% and infections by 8.7%. Kay Jowers et al., *Housing Precarity & the Covid-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across U.S. Counties*, (Nat'l Bureau of Econ. Res., Working Paper No. 28394, 2021), https://www.nber.org/system/files/working_papers/w28394/w28394.pdf. *See also* Jean Su, *Climate, Environmental, and Energy Justice: Integrating Justice into Electricity System Design and Decision-Making, in* Advancing Equity in Utility Regulation, Lawrence Berkeley National Laboratory (Nov. 2021), https://eta-publications.lbl.gov/sites/default/files/feur_12_-_advancing_equity_in_utility_regulation.pdf; Jean Su & Chris Kuveke, Ctr. for Biological Diversity and Bailout Watch, *Powerless in the Pandemic* (2021), https://bailout.cdn.prismic.io/bailout/6d3d3f34-8a75-4ed5-9d42-225446bd32a8_Powerless_Report_v6.pdf.

[44] Intergovernmental Panel on Climate Change, *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (2021), https://www.ipcc.ch/report/ar6/wg1/#FullReport.

[45] *See, e.g.*, Kassie Siegel & Brendan Cummings, Ctr. for Biological Diversity, *Before The Secretary Of Interior: Petition to List the Polar Bear (*Ursus Martimus*) as a Threatened Species Under the Endangered Species Act* (2005), https://www.biologicaldiversity.org/species/mammals/polar_bear/pdfs/15976_7338.pdf; Press Release, Ctr. for Biological Diversity, Court Upholds Endangered Species Act Protection for Polar Bears: Ruling Confirms that Global Warming Threatens Polar Bears with Extinction, (June 30, 2011), https://www.biologicaldiversity.org/news/press_releases/2011/polar-bear-06-30-2011.html; Rachel Warren et al., *Increasing Impacts of Climate Change upon Ecosystems with Increasing Global Mean Temperature Rise*, 106 Climatic Change 141 (2011); Brett R. Scheffers et al., *The Broad Footprint of Climate Change from Genes to Biomes to People,* 354 Science 719 (2016).

[46] John J. Wiens, *Climate-Related Local Extinctions are Already Widespread Among Plant and Animal Species*, 14 PLoS Bio. e2001104 (2016).

[47] Roman-Palacios & Wiens, *supra* note 11.

[48] IPBES, *Global Assessment Report on Biodiversity and Ecosystem Services* (E.S. Brondízio et al eds., 2019), https://ipbes.net/news/Media-Release-Global-Assessment.

[49] Anthony D. Barnosky, *Transforming the Global Energy System is Required to Avoid the Sixth Mass Extinction*, 2 MRS Energy and Sustainability E10 (2015).

ton of carbon pollution.[50] Each 1°C temperature rise is estimated to decrease U.S. gross domestic product (GDP) by 1.2%, with the poorest U.S. regions suffering most.[51] The National Oceanic and Atmospheric Administration estimated that since 1980, the U.S. has experienced more than 310 weather and climate disasters, amounting to over $2.155 trillion in damages.[52] In 2021 alone, there were 20 weather and climate disaster events with losses exceeding $1 billion each and 688 deaths.[53] Further, a 2021 study of the U.S. health costs of air pollution from fossil fuel combustion and resulting climate change estimated the costs already exceed $800 billion per year and are expected to become even higher without rapid action to curb fossil fuel pollution.[54]

National and global security. Finally, the climate emergency also poses significant security risks to the country and the planet. At the start of his presidency, Biden issued Executive Order 14008 that stated: "[i]t is the policy of my Administration that climate considerations shall be an essential element of United States foreign policy and national security."[55] Recently the White House, Pentagon, and intelligence agencies released reports expressing deep concern that the shifts unleashed by climate change can reshape U.S. strategic interests and threaten its geopolitical position.[56] In a 2021 report, the White House acknowledged the intimate relationship among climate change, migration and conflict.[57] Extreme weather events has been leading to climate migration and political unrest in at-risk countries and is expected to increase.[58] The Office of the Director of National Intelligence forecasted that climate change could spawn social upheaval and threaten political stability due to global famine.[59] These reports echo longstanding concerns from the intelligence and defense communities that called for action to reduce greenhouse gas emissions and in some cases have adopted renewable energy solutions.[60] The Army notes that climate change poses "an increased risk of armed conflict in places where established social orders and populations are disrupted.[61] The risk will rise even more where climate effects compound social instability, reduce access to basic necessities, undermine fragile governments and economies, damage vital infrastructure, and lower agricultural production."[62]

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50 Hsiang, *supra* note 36; *Examining the Macroeconomic Impacts of a Changing Climate: Hearing Before the Subcomm. on Nat'l Sec., Int'l Dev., and Monetary Policy of the H. Comm. on Fin. Servs.*, 116th Cong. (2019), *available at* https://www.congress.gov/116/meeting/house/109911/witnesses/HHRG-116-BA10-Wstate-BurkeM-20190911.pdf.

51 Hsiang, Hsiang, *supra* note 36.

52 NOAA National Centers for Environmental Information (NCEI), *Billion-Dollar Weather and Climate Disasters* (2022), https://www.ncdc.noaa.gov/billions/, DOI: 10.25921/stkw-7w73.

53 *Id.*

54 Med. Soc. Consortium on Climate and Health, *The Costs of Inaction: The Economic Burden of Fossil Fuels and Climate Change on Health in the United States* (2021) 5, https://medsocietiesforclimatehealth.org/wp-content/uploads/2021/05/CostofInactionReport-May2021.pdf.

55 Exec. Order No. 14,008, 86 Fed. Reg. 7619, *supra* note 1.

56 U.S. Dep't of Defense, Office of the Undersecretary for Policy (Strategy, Plans, and Capabilities), *Department of Defense Climate Risk Analysis, Report Submitted to National Security Council* (2021), https://media.defense.gov/2021/Oct/21/2002877353/-1/-1/0/DOD-CLIMATE-RISK-ANALYSIS-FINAL.PDF; U.S. Dep't of the Army, Office of the Assistant Secretary of the Army for Installations, Energy and Environment, *United States Army Climate Strategy* (2022), https://www.army.mil/e2/downloads/rv7/about/2022_army_climate_strategy.pdf; White House, *Report on the Impact of Climate Change on Migration* (2021), https://www.whitehouse.gov/wp-content/uploads/2021/10/Report-on-the-Impact-of-Climate-Change-on-Migration.pdf. *See also* Christopher Flavelle et al., *Climate Change Poses a Widening Threat to National Security*, N.Y. Times, updated Oct. 24, 2021, https://www.nytimes.com/2021/10/21/climate/climate-change-national-security.html.

57 White House, *supra* note 56.

58 *Id.*; Shane Harris & Michael Birnbaum, *White House, Intelligence Agencies, Pentagon Issue Reports Warning Climate Change Threatens Global Security*, Wash. Post, Oct., 21, 2021, https://www.washingtonpost.com/national-security/intelligence-pentagon-climate-change-warnings/2021/10/21/ea3a2c84-31d3-11ec-a1e5-07223c50280a_story.html; Nat'l Intelligence Council, *Global Trends 2040: A More Contested World* (2021), https://www.dni.gov/files/ODNI/documents/assessments/GlobalTrends_2040.pdf.

59 Nat'l Intelligence Council, *supra* note 58.

60 Michael T. Clare, *All Hell Breaking Loose: The Pentagon's Perspective on Climate Change* (2020).

61 In its first climate strategy report recently released in 2022, the U.S. military set the goals of using 100% pollution-free electricity on Army installations by 2030. U.S. Dep't of the Army, *supra* note 56.

62 *Id.* at 4-5.

II. THE BIDEN ADMINISTRATION'S RECORD ON CLIMATE ACTION

The Biden administration's record on climate action is confused, breaks key campaign promises, and warrants clearer and more progressive leadership. Encouragingly, the administration jumpstarted the term with productive executive orders on climate, environmental justice, and renewable energy job generation. But the execution of these initiatives remains to be seen, largely because the administration chose to primarily pursue its climate priorities through legislative strategy — rather than a complementary executive strategy — in the Build Back Better Act,[63] which has failed to pass to date. Discouragingly, the Biden administration has permitted fossil fuel extraction, even superseding the Trump administration on federal drilling permitting. To date the administration has been characterized by a mélange of positive rhetoric, expanding fossil fuel extraction, and moribund climate legislation that has resulted in a lack of substantial progress on climate in its first year.[64]

First, the Biden administration enacted a series of forward-looking climate directives encouraging the renewable energy transition and accompanying clean job generation, but these priorities have yet to be realized. In recognizing the "narrow moment" to tackle the "profound climate crisis," Biden issued a "whole of government" directive to "deploy [their] full capacity" to combat the climate crisis.[65] This included the order to leverage the federal government's procurement power to catalyze a 100% carbon-free electricity system by 2035 and a clean vehicle fleet.[66] The administration has yet to take any action on actualizing this order,[67] however, and the U.S. Postal Service is poised to approve one of the largest vehicle purchases globally, of which 90% of the new fleet will be fossil fuel vehicles.[68] Separately, the Biden administration has increased offshore wind leasing[69] and has issued a broad solar blueprint whereby half of the country's electricity could be solar-powered by 2040,[70] but it also maintains strong support for continued oil and gas production when tied to greenwashing technologies like carbon capture and storage — a major funding priority for the Department of Energy[71] — that perpetuates fossil fuel extraction and environmental racism. Similarly, the administration has finalized near-term tailpipe emissions standards that are weaker than what President Obama proposed a decade ago and rely on unenforceable voluntary commitments from

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[63] White House, *Remarks by President Biden in Address to a Joint Session of Congress*, (Apr. 28, 2021), https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/04/29/remarks-by-president-biden-in-address-to-a-joint-session-of-congress/ ("For too long, we've failed to use the most important word when it comes to meeting the climate crisis: 'jobs.' Jobs. Jobs."); White House, The Build Back Better Agenda, https://www.whitehouse.gov/build-back-better/; White House, *Fact Sheet: The American Jobs Plan* (Mar. 31, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/ [hereinafter *Fact Sheet: The American Jobs Plan*].

[64] *See* Ctr. for Biological Diversity Action Fund, *President Biden's Environmental Report Card: Semester Two: C-*, (Jan. 2022) https://centeractionfund.org/wp-content/uploads/Biden-Environmental-Report-Card-12-Months.pdf.

[65] Exec. Order No. 14,008, 86 Fed. Reg. 7619, *supra* note 1.; White House, *Fact Sheet: President Biden Takes Executive Actions to Tackle the Climate Crisis* (Jan. 27, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/.

[66] Exec. Order No. 14,008, 86 Fed. Reg. 7619, *supra* note 1., Sec. 204-205.

[67] William Snape, Ctr. for Biological Diversity, *Petition for the General Services Administration to Commit the Federal Real Estate Portfolio to 100% Clean and Renewable Electricity Sources, Lease Out Excess Clean Renewable Energy Capacity, and Electrify the Federal Fleet with Zero Emission Vehicles* (2021), https://www.biologicaldiversity.org/programs/climate_law_institute/energy_and_global_warming/pdfs/GSA-Petitionn.pdf.

[68] *See* U.S. Postal Serv., *Final Environmental Impact Statement: Next Generation Delivery Vehicle Acquisitions* (2021), https://uspsngdveis.com/documents/USPS+NGDV+FEIS_Dec+2021.pdf.

[69] White House, *Fact Sheet: Biden-Harris Administration Races to Deploy Clean Energy that Creates Jobs and Lowers Costs* (Jan. 12, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/12/fact-sheet-biden-harris-administration-races-to-deploy-clean-energy-that-creates-jobs-and-lowers-costs/.

[70] U.S. Dep't of Energy, *Solar Futures Study* (2021), https://www.energy.gov/sites/default/files/2021-09/Solar%20Futures%20Study.pdf.

[71] James Osbourne, *Energy Secretary Sees Future for Oil and Gas, Just Not the One You Might Want*, Hous. Chron., Aug. 27, 2021, https://www.houstonchronicle.com/business/energy/article/Granholm-sees-future-for-oil-and-gas-just-not-16414786.php; U.S. Dep't of Energy, *DOE invests $45 million to decarbonize natural gas power and industrial sectors using carbon capture and storage* (Oct. 6, 2021), https://www.energy.gov/articles/doe-invests-45-million-decarbonize-natural-gas-power-and-industrial-sectors-using-carbon.

automakers to electrify their fleets.[72] The administration also put all of its proverbial climate eggs into the Build Back Better Act — a piece of legislation that faces indefinite abeyance and whose purgatory arguably lies in how the administration undercut progressive calls to marry it to the Republican-favored Bipartisan Infrastructure Law.[73]

Second, the Biden administration's record on fossil fuel extraction is self-contradictory and retrograde. Fulfilling a campaign promise long fought for by environmental organizations, Biden paused new oil and gas leasing on federal lands and launched a review of the federal fossil fuel leasing and permitting program at the start of his term.[74] But the temporary moratorium was blocked by a Trump-appointed district court judge in June 2021.[75] Since this single district court ruling, which was wrongly decided and is on appeal, the administration has not used all existing executive powers to slow fossil fuel leasing, including deferring sales while completing the required environmental review on their effects, updating management plans to remove areas from leasing eligibility, and withdrawing all unleased offshore areas from leasing.[76] In a whiplash move, the Biden administration held the largest oil and gas lease sale in U.S. history of 80 million acres off the Gulf of Mexico just days after committing to climate action at the 2021 international climate talks in Glasgow; the sale was recently struck down as unlawful by another district court due to flaws in the government's analysis of the greenhouse gas pollution that will result from the sale.[77] Further undermining his initial order to address federal fossil fuel leasing, Biden's administration has approved more than 3,500 permits on existing leases on public lands and waters just in his first year — outpacing the Trump administration's first-year total by an astounding 34%.[78] Additionally, while the administration has canceled the Keystone XL oil pipeline from Canada and did not appeal a court decision shutting down the largest Alaskan oil-and-gas drilling project,[79] it continues to support the buildout of fossil

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[72] Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards, 86 Fed. Reg. 74,434 (Dec. 30, 2021) (to be codified at 40 C.F.R. pts. 86 and 600).

[73] Adia Chavez, *How Democrats Lost Build Back Better*, The Nation, Dec. 21, 2021, https://www.thenation.com/article/politics/build-back-better-cpc/; Michelle Goldberg, Opinion, *Pramila Jayapal Won't Let the Biden Presidency Fail*, N.Y. Times, Oct. 16, 2021, https://www.nytimes.com/2021/10/16/opinion/pramila-jayapal-infrastructure.html.

[74] Exec. Order No. 14,008, 86 Fed. Reg. 7619, *supra* note 1.; *see also* Press Release, Ctr. for Biological Diversity, 500 Groups Urge Biden to Order Fossil Fuel Leasing Ban (Dec. 15, 2020), https://biologicaldiversity.org/w/news/press-releases/500-groups-urge-biden-order-fossil-fuel-leasing-ban-2020-12-15/.

[75] Kevin McGill, *Federal judge blocks Biden's pause on new oil, gas leases*, Associated Press, June 16, 2021, https://apnews.com/article/joe-biden-climate-change-environment-and-nature-business-9751c4909a8b1baba28f3bcff9d5fa6e.

[76] In January 2022, 361 climate, conservation, and environmental justice organizations legally petitioned the Biden administration to take these actions within his statutorily-authorized powers to phase out fossil fuel production on federal lands. Ctr. for Biological Diversity, *Petition to Reduce the Rate of Oil and Gas Production on Public Lands and Waters to Near Zero by 2035* (2022), https://www.biologicaldiversity.org/programs/public_lands/energy/dirty_energy_development/pdfs/Petition-to-Phase-Down-Fossil-Fuel-Production-on-Public-Lands-and-Water-19-Jan-2022.pdf. *See also* Randi Spivak, Opinion, *Climate can't wait: Biden must use his power to end new fossil fuel leasing*, The Hill, Dec. 7, 2021, https://thehill.com/opinion/energy-environment/584784-climate-cant-wait-biden-must-use-his-power-to-end-new-fossil-fuel.

[77] *Friends of the Earth v. Haaland*, No. 21-2317-RC, 2022 U.S. Dist. LEXIS 15172, at *29-54 (D.D.C. Jan. 27, 2022).

[78] Press Release, Ctr. for Biological Diversity, New Data: Biden's First Year Drilling Permitting Stomps Trump's by 34% (Jan. 21, 2022), https://biologicaldiversity.org/w/news/press-releases/new-data-biden-slays-trumps-first-year-drilling-permitting-by-34-2022-01-21/.

[79] In October 2021, the Biden administration decided not to appeal a federal district court decision halting ConocoPhillips' Willow Master Development Plan, which would have been the largest oil-and-gas drilling project in the Alaskan Arctic. *Sovereign Iñupiat for a Living Arctic v. Bureau of Land Mgmt.,* No. 3:20-cv-00290-SLG, 2021 U.S. Dist. LEXIS 155471 (D. Alaska Aug. 18, 2021).

fuel infrastructure, including the controversial Line 3, Dakota Access, and Mountain Valley Pipelines;[80] continued drilling in Alaska; and multiple liquefied gas export terminals.[81]

Third, the Biden administration's agenda on environmental justice is similarly fraught and unrealized. In an initial set of executive orders, Biden articulated the need to "secur[e] environmental justice" and established the Justice40 Initiative ("J40"), a whole-of-government effort that commits to deliver 40% of federal investments "in climate and clean energy to disadvantaged communities."[82] The J40 initiative has yet to produce tangible results and has drawn criticism from key environmental justice leaders, including for the omission of race as a factor in the White House's recent proposal of the Climate and Economic Justice Screening Tool to help direct J40 funds.[83] The Biden administration pursued a "people as policy" strategy to appoint several environmental justice leaders into positions with the administration to build a J40 framework for execution, but the administration's failure to provide adequate resources to support this tremendous piece of work has started to lead to attrition.[84] Further, the administration's commitment to fossil fuel extraction and support for carbon capture and storage and other polluting energies explicitly undermines recommendations from the White House Environmental Justice Advisory Council.[85]

Finally, Biden fulfilled a campaign promise to rejoin the Paris Agreement, but the administration's global commitments remain lackluster in meeting the country's fair share of global climate action.[86] The administration's international climate pledges of reducing climate-heating emissions by 50-52% by 2030 fails to meet the demands of climate science and environmental justice. A 70% reduction in greenhouse gas emissions by 2030 — accompanied by international financial support to enable the equivalent of another 125% reductions in developing countries — is needed to comport with the U.S.'s fair share to cut domestic emissions as the world's largest historical climate polluter.[87] Further, the administration's pledges similarly fall short of the U.S. fair share of financial support for addressing adaptation, mitigation, and loss and

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[80] The future of the Mountain Valley Pipeline is precarious, in light of several recent federal court rulings invalidating key permits. *See Appalachian Voices et al. v. U.S. Dept. of Interior, et al.*, No. 20-2159, slip op. (4th Cir. Feb. 3, 2022) (invalidating the biological opinion and incidental take statement issued by the U.S. Fish and Wildlife Service under the Endangered Species Act), https://www.sierraclub.org/sites/www.sierraclub.org/files/press-room/Document%20%2859%29.pdf; *Wild Virginia v. U.S. Forest Serv.*, Nos. 21-1039, 21-1082, 2022 U.S. App. LEXIS 2313 (4th Cir. Jan 25, 2022); Press Release, Ctr. for Biological Diversity, Federal Court Invalidates Another Key Permit in Endangered Species Act Case, Casting Serious Doubt on Future of Mountain Valley Pipeline (Feb. 3, 2022), https://biologicaldiversity.org/w/news/press-releases/federal-court-invalidates-another-key-permit-in-endangered-species-act-case-casting-serious-doubt-on-future-of-mountain-valley-pipeline-2022-02-03/email_view/.

[81] Carlos Anchondo et al, *Surging U.S. LNG puts Biden in climate bind*, E&E News, July 8, 2021, https://www.eenews.net/articles/surging-u-s-lng-puts-biden-in-climate-bind/.

[82] White House, *supra* note 65; Shalanda Young, Brenda Mallory & Gina McCarthy, *The Path to Achieving Justice40,* White House (July 20, 2021), https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/. *See also* White House, Exec. Order No. 13,985, 86 Fed. Reg. 7009 (Jan. 20, 2021), https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/.

[83] Valerie Valcovici, U.S. unveils tool to direct green investment in disadvantaged communities, Reuters, Feb. 18, 2022, https://www.reuters.com/business/sustainable-business/us-unveils-tool-direct-green-investment-disadvantaged-communities-2022-02-18/; Zack Coleman, *Tensions Erupt Between Environmental Justice Leaders and White House*, Politico, Oct. 5, 2021, https://www.politico.com/news/2021/10/05/environmental-justice-white-house-biden-515094; *see also* Dana Johnson & Jean Su, Opinion, *Regulators Can No Longer Rubber-Stamp the Expansion of the Oil and Gas Industry*, The Hill, Oct. 15, 2021, https://thehill.com/opinion/energy-environment/576950-we-can-no-longer-rubber-stamp-expansion-of-the-oil-and-gas.

[84] Darryl Fears, *Biden's Focus on Environmental Justice Led to a Year of Progress—and Burnout*, Wash. Post., Jan. 27, 2021, https://www.washingtonpost.com/climate-environment/2022/01/27/environmental-justice-biden-cecilia-martinez/.

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

[86] Press Release, Ctr. for Biological Diversity, COP26 Summit Ends Without Biden Taking Crucial Action on Fossil Fuels (Nov. 13, 2021), https://biologicaldiversity.org/w/news/press-releases/cop26-summit-ends-without-biden-taking-crucial-action-on-fossil-fuels-2021-11-13/; The U.S. Climate Fair Share, https://usfairshare.org/ (last visited Feb. 22, 2022).

[87] Press Release, Ctr. for Biological Diversity, U.S. Climate Target Falls Short of What Science, Justice Demand (Nov. 13, 2021), https://biologicaldiversity.org/w/news/press-releases/us-climate-target-falls-short-of-what-science-justice-demand-2021-04-22/email_view/; Brady Dennis, *As Biden Convenes World Leaders, U.S. Pledges to Cut Emissions up to 52% by 2030*, Wash. Post, Apr. 22, 2021, https://www.washingtonpost.com/climate-environment/2021/04/22/global-emissions-52-percent-biden/.

damage needs in the Global South.[88] The administration's FY21 budget, with its $1.2 billion for the Green Climate Fund, is not even sufficient to pay the $2 billion still owed from Obama's initial pledge of $3 billion for the GCF's Initial Resource Mobilization phase, much less catch up to other developed countries that, unlike the United States, have since made additional pledges to the GCF-1 Replenishment.[89]

The public wants and needs the president to make meaningful progress to confront the climate emergency.[90] The laws discussed below provide him with broad emergency executive powers to achieve substantial reductions in carbon emissions and rebuild a just and renewable economy.

[88] In September 2021, the U.S. promised to deliver $11.4 billion per year in climate finance by 2024. By contrast, that amount is roughly what the Pentagon spends in about six days based off the defense appropriations for Fiscal Year 2022. The Overseas Development Institute conservatively estimated that the U.S. fair share should be $43 billion per year, while the U.S. Fair Share NDC called for $90 billion per year. Under any estimate, the Biden administration's pledge is woefully inadequate. *See* Action Aid, *Action Aid Reacts to Revised U.S. Climate Finance Pledge* (Sept. 21, 2021), https://www.actionaidusa.org/news/actionaid-usa-reaction-to-revised-us-climate-finance-pledge/; see also Valerie Volcovici, *Biden Pledges to Double U.S. Climate Change Aid; Some Activists Unimpressed*, Reuters, Sept. 21, 2021, https://www.reuters.com/business/environment/us-seeks-double-climate-change-aid-developing-nations-biden-2021-09-21/.

[89] Joe Lo, *Joe Biden's $1.2bn Budget for Green Climate Fund Falls Short of Campaigner Demands*, Climate Home News, Apr. 13, 2021, https://www.climatechangenews.com/2021/04/13/joe-bidens-1-2bn-budget-green-climate-fund-falls-short-campaigner-demands/.

[90] Ryan Heath, *The World is on Fire and Our Leaders are Failing, Poll Finds*, Politico, Feb. 8, 2022, https://www.politico.com/news/2022/02/08/citizens-politicians-combat-climate-change-00004590.

PART 3. THE PRESIDENT'S EMERGENCY POWERS TO EFFECT BOLD CLIMATE ACTION

This section discusses the president's most significant powers to effect bold climate action under three statutory emergency and national defense frameworks: (1) the National Emergencies Act ("NEA"); (2) the Defense Production Act ("DPA"); and (3) the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("the Stafford Act").

The first part identifies three impactful climate actions that can be triggered when the president declares a national climate emergency under the NEA: (i) banning crude oil exports pursuant to the Energy Policy Conservation Act; (ii) stopping oil and gas drilling on the Outer Continental Shelf pursuant to the Outer Continental Shelf Lands Act; and (iii) curtailing international trade and investment in fossil fuels pursuant to the International Emergency Economic Powers Act. The second part explores how Biden can marshal the Defense Production Act to command and finance domestic industry to: (i) manufacture clean energy and transportation technologies; (ii) leverage federal procurement power and other agency resources to buy those products; and (iii) allocate those goods to federal agencies, environmental justice communities and public entities. These significant DPA actions can burgeon a thriving renewable energy and transportation industrial base and generate millions of good-paying green jobs. The third part examines the president's ability, pursuant to emergency and major disaster declarations under the Stafford Act, to build resilient and distributed renewable energy systems in frontline communities vulnerable to climate change.

To note, the actions enumerated here are not exhaustive of all emergency actions that can address the climate crisis. This paper primarily focuses on actions in the energy sector because fossil fuels are the dominant driver of the climate emergency nationally and worldwide.[91] At the same time, conversion to a renewable energy grid brings vital benefits of not only carbon reduction but also restorative racial justice, environmental protection, and job generation.[92] These legal pathways, though, can be applied to other GHG emitting sectors beyond the energy system — including agriculture, deforestation and ecosystem destruction, and heavy industrial processes.

I. PRESIDENTIAL POWERS UNDER THE NATIONAL EMERGENCIES ACT

Congress enacted the National Emergencies Act of 1976, 50 U.S.C. §§ 1601-1651 ("NEA"), to empower the president to declare a national emergency "with respect to acts of Congress authoring the exercise." The Brennan Center has identified 136 statutory powers that may become available to the president upon declaration of a national emergency.[93] The NEA further provides a framework of congressional oversight over the president's emergency declaration and prevents those declarations from

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91 *Fourth National Climate Assessment, Vol. II, supra* note 26, at 39, 60 (reporting that fossil fuel combustion accounts for approximately 85% of total U.S. greenhouse gas emissions, which are " driving an increase in global surface temperatures and other widespread changes in Earth's climate that are unprecedented in the history of modern civilization.")

92 *See* Jacobson et al., *supra* note 12; Shalanda Baker, *Revolutionary Power* 30 (2021); Al Weinrub & Denise Fairchild, *Energy Democracy: Advancing Equity in Clean Energy Solutions* (2017).

93 Brennan Center, *A Guide to Emergency Powers and their Use* (Apr. 24, 2020), https://www.brennancenter.org/our-work/research-reports/guide-emergency-powers-and-their-use. In contrast, the Congressional Research Service has identified 117 sections of the U.S. Code that would be triggered by a national emergency declaration. Cong. Research Serv., R46379, *Emergency Authorities Under the National Emergencies Act, Stafford Act, and Public Health Service Act* (2020), https://crsreports.congress.gov/product/pdf/R/R46379.

continuing in perpetuity.[94] If triggered by the president's declaration of a national climate emergency pursuant to the NEA, the following statutory powers serve as the most significant and relevant levers to effect meaningful climate action.

The NEA does not explicitly define "national emergency" and permits wide presidential discretion for that designation. Absent a statutory definition, the plain meaning of emergency is defined as "an unforeseen combination of circumstances or the resulting state that calls for immediate action."[95] The climate crisis personifies the term's plain definition because, as detailed in Part 2 (I), *infra*, it is manifesting in unforeseen and intensifying harms to public health and lives, ecosystems, the economy and property, and national and global security. Moreover, climate scientists have stated that immediate action — specifically, slashing greenhouse gas emissions by 45% from 2010 levels by 2030 — must be taken now to limit global warming to 1.5°C above preindustrial levels to avert climate's most catastrophic consequences.[96] Accordingly, the climate crisis qualifies as an emergency under the NEA and warrants the president's national emergency declaration.

1. Ban Crude Oil Exports

The president can unilaterally ban all crude oil exports pursuant to his authorities under the NEA and the Energy Policy and Conservation Act ("EPCA"). In doing so, he can reinstate the ban on crude oil exports that was repealed in 2015, significantly curb crude oil extraction, and lower the country's greenhouse gas emissions.

Legal Authority

In the 2016 Appropriations Act,[97] Congress lifted a 40-year ban on the export of crude oil that was originally enacted in the 1975 Energy Policy and Conservation Act ("EPCA") in response to the 1973 Arab oil embargo crisis.[98] However, Congress amended EPCA to include a safety valve for the president to stop crude oil exports in times of national emergency. Specifically, 42 U.S.C. § 6212a(d)(1)(A) provides:

> (1) IN GENERAL—The President may impose export licensing requirements or other restrictions on the export of crude oil from the United States for a period of not more than 1 year if—

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[94] The NEA provides that a national emergency will end (1) automatically after one year unless the President publishes a notice of renewal in the Federal Register, (2) upon a presidential declaration ending the national emergency, or (3) if Congress enacts a joint resolution terminating the emergency (which would likely require the votes of two-thirds majorities in each house of Congress to override a presidential veto). 50 U.S.C. § 1622. In addition, NEA requires that all emergency declarations are published in the Federal Register and subject to regular reporting requirements from the President. 50 U.S.C. § 1703.

[95] Definition of "Emergency," Merriam-Webster Dictionary, https://www.merriam-webster.com/dictionary/emergency#:~:text=%3A%20an%20unexpected%20and%20usually%20dangerous,emergency%20saved%20the%20baby's%20life.

[96] Joeri Rogelj et al., *Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development*, *In:* Global Warming of 1.5°C, An IPCC Special Report on the Impacts of Global Warming Of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty (2018), https://www.ipcc.ch/sr15/ at 95, Figure 2.5, Figure 2.6, *see also* Intergovernmental Panel on Climate Change, *Summary for Policymakers, In:* Global Warming of 1.5°C, An IPCC Special Report on the Impacts of Global Warming Of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty (2018), https://www.ipcc.ch/sr15/ at 12-14; Intergovernmental Panel on Climate Change, *supra* note 44, *Summary for Policymakers*, at Table 1, 1-52, 1-53; United Nations Environment Programme, *Emissions Gap Report 2021: The Heat Is On – A World of Climate Promises Not Yet Delivered* (2021), https://www.unep.org/resources/emissions-gap-report-2021.

[97] Consolidated Appropriations Act, 2016, Pub. L. No. 114-113, https://www.congress.gov/114/plaws/publ113/PLAW-114publ113.pdf.

[98] 42 U.S.C. § 6212a. In response to the 1973 Arab oil embargo crisis, Congress passed EPCA to, among other things, prohibit the export of crude oil and natural gas from the United States with the purpose of conserving national energy supplies and reducing the impact of energy supply disruptions. 42 U.S.C. §6201.

(A) the President declares a national emergency and formally notices the declaration of a national emergency in the Federal Register;

Further, 42 U.S.C. § 6212a(d)(2) provides that any such imposed restriction on crude oil exports "may be renewed for 1 or more additional periods of not more than 1 year each," allowing the president to reinstate the crude oil export ban on a year-by-year basis as consistent with other emergency declarations under the NEA.

Application to Climate Action: Halt Crude Oil Exports

The president can declare a climate emergency and reinstate the crude oil export ban pursuant to the NEA and EPCA. No president has yet declared a national climate emergency and triggered 42 U.S.C. § 6212a(d)(1)(A) to reimpose the crude oil export ban.

However, in the six years that have passed since the export ban was lifted, crude oil exports have exacerbated the climate emergency. Crude oil exports have skyrocketed, increasing by approximately 750% since the export ban was lifted, and now averaging 3 million barrels per day.[99] More than one-quarter of U.S crude production is now exported.[100] This surge in exported crude oil has been supplied almost entirely by a corresponding increase in U.S. oil production — which has risen by 20 to 30% since 2015 — incentivized by lifting the export ban.[101] Reinstating the crude oil export ban could cut global emissions by up to 165 million metric tons of CO2-equivalent each year, comparable to closing 42 coal plants, making this action a key piece of fighting the climate emergency.[102]

The harms from greatly bolstered oil production and export due to the ban's repeal are felt not only in the global climate, but also in the country's own land, air and communities. The ban's repeal has unleashed devastating effects on U.S. land, with the footprint of new well pads and related infrastructure consuming upwards of 2,000 square miles over 15 years.[103] Moreover, as the majority of new wells are being developed through unconventional, ultra-hazardous hydraulic fracturing ("fracking"), American communities are experiencing increased toxic air pollution, drinking water contamination, decimation of wildlife habitat, risk of explosions from "bomb trains" and spills from pipelines carrying crude oil cross-country, and surges in earthquakes like those caused by the oil industry in Oklahoma.

There is broad public support for the ban on crude oil exports. Prior to the Obama administration's lift of the ban, polling showed wide popular support for continued restrictions on crude oil exports.[104] In

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99 Oil Change Int'l & Greenpeace, *Policy Briefing: Carbon Impacts of Reinstating the U.S. Crude Export Ban* (2020), http://priceofoil.org/2020/01/28/crude-export-ban-carbon; U.S. Energy Info. Admin., *Petroleum & Other Liquids: Data - Exports*, https://www.eia.gov/dnav/pet/pet_move_exp_dc_NUS-Z00_mbblpd_m.htm (last visited February 2, 2022) [hereinafter U.S. E.I.A., *Petroleum & Other Liquids: Data – Exports*].

100 In 2020, 29% of U.S. crude production was exported, and 26% was exported in 2021. Monthly U.S. crude production was sourced from U.S. Energy Info. Admin, *Petroleum & Other Liquids: Data – Crude Oil Production*, https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbl_m.htm (last visited February 2, 2022) [hereinafter U.S. E.I.A., *Petroleum & Other Liquids: Data – Crude Oil Production*]. Monthly U.S. crude exports were sourced from U.S. E.I.A., *Petroleum & Other Liquids: Data – Exports, supra* note 99.

101 Government Accountability Office, GAO-21-118, *Crude Oil Markets: Effects of the Repeal of the Crude Oil Export Ban* (2020), https://www.gao.gov/products/GAO-21-118; Compared with 2015, U.S. crude oil production was 30% higher in 2019 and 20% higher in 2020 and 2021. U.S. crude oil production data sourced from U.S. E.I.A., *Petroleum & Other Liquids: Data – Crude Oil Production, supra* note 100.

102 Oil Change Int'l & Greenpeace, *supra* note 99.

103 Matt Lee-Ashley & Alison Cassady, *The Environmental Impacts of Exporting More American Crude Oil,* Ctr. for American Progress (Aug. 21, 2015), https://www.americanprogress.org/issues/green/news/2015/08/21/119756/the-environmental-impacts-of-exporting-more-american-crude-oil/.

104 Selam Gebrekidan, *Americans Choose Savings at the Pump over Oil Exports: Reuters/Ipsos Poll*, Reuters, Mar. 20, 2014, https://www.reuters.com/article/us-usa-energy-exports/americans-choose-savings-at-the-pump-over-oil-exports-reuters-ipsos-poll-idUSBREA2J1TT20140320.

April 2016, 350 organizations petitioned Obama to reinstate the crude oil export ban using these emergency powers.[105] Similarly, launched in 2020, the Build Back Fossil Free Campaign, comprised of 750 organizations, urged Biden to ban crude oil exports.[106]

The climate emergency is a national emergency. In light of the substantial contribution of crude oil exports to greenhouse gas emissions and the grave domestic harms associated with crude oil export infrastructure, Biden should unilaterally reinstate the ban on crude oil exports.

2. Stop Oil and Gas Drilling on the Outer Continental Shelf

A national climate emergency declaration provides the president with one of several pathways to phase out offshore drilling, another significant contributor to the climate crisis. The Outer Continental Shelf Lands Act ("OCSLA") establishes a framework for the disposition and management of potential oil and gas resources on the Outer Continental Shelf ("OCS").[107] By declaring a national climate emergency under the NEA, the president triggers Section 12(c) of OSCLA, which provides that the secretary of the U.S. Department of the Interior (upon recommendation from the secretary of Defense) can suspend operations on any offshore lease during a state of national emergency declared by the president.[108] This executive action can help promote the end to the pollution and destruction caused by offshore oil extraction and curb the country's greenhouse gas emissions.

Legal Authority

OCSLA establishes a framework under which the secretary of the Interior may lease areas of the OCS for purposes of exploring and developing the oil and gas deposits of the OCS's submerged lands.[109] It also provides for the protection of the environment from these activities. In particular, OCSLA directs that offshore oil and gas operations shall be "subject to environmental safeguards," consistent with "national needs," and be conducted so as to "prevent or minimize . . . damage to the environment."[110] OCSLA also specifically requires that offshore oil development be balanced "with protection of the human, marine, and coastal environments."[111]

In amending OCSLA in 1978, Congress recognized that offshore oil and gas development was more of a stopgap measure than a long-term solution to the nation's energy needs:

> Development of our OCS resources will afford us needed time — as much as a generation — within which to develop alternative sources of energy before the inevitable exhaustion of the world's

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105 Ctr. for Bio. Diversity et al., *Before the President of the United States: Petition for the Declaration of a National Emergency Addressing Climate Change and the Consequent Prohibition of United States Crude Oil* (2016), https://www.biologicaldiversity.org/programs/climate_law_institute/energy_and_global_warming/pdfs/National_Climate_Emergency_Petition_4-20-16.pdf; Jean Su, Ctr. for Bio. Diversity, *Before the President of the United States: Addendum to Petition: Legal, Factual, and Scientific Basis and Justification for the Presidential Declaration of a National Emergency Addressing Climate Change and the Consequent Prohibition of U.S. Crude Oil Exports* (2016), https://www.biologicaldiversity.org/programs/climate_law_institute/energy_and_global_warming/pdfs/ADDENDUM_to_National_Climate_Emergency_Petition_4-20-16.pdf.

106 Build Back Fossil Free, https://buildbackfossilfree.org/ (last visited Feb. 9, 2022).

107 *See* 43 U.S.C. § 1332.

108 *Id.* § 1341(c).

109 43 U.S.C. §§ 1331, *et seq.*

110 *Id.* § 1332(3), (6).

111 *Id.* § 1802(2).

> traditional supply of fossil fuels. It will provide time to bring on-line, and improve energy technologies dealing with, solar, geothermal, . . . and other energy forms.[112]

In keeping with these goals, OCSLA contains multiple provisions under which the executive branch can restrict offshore drilling activities without the need for an emergency declaration.[113] Indeed, the president and the secretary of the Interior have many tools to end offshore oil and gas leasing and drilling without the need for an emergency declaration, but the president can supplement this authority by declaring a climate emergency.

In particular, Section 12(c) contains a "[n]ational security clause." This clause specifies that any offshore oil and gas lease issued under OCSLA "shall contain or be construed to contain a provision whereby authority is vested in the Secretary [of the Interior], upon a recommendation of the Secretary of Defense, during a state of war or national emergency declared by the Congress or the President of the United States *. . . to suspend operations under any lease*."[114]

Application to Climate Action: Halt Offshore Drilling

Pursuant to past lease sales issued under OCSLA in the nearly seven decades since the statute's enactment, there are currently more than 11 million acres of federal waters subject to active oil and gas leases, including more than 10.7 million acres of the Gulf of Mexico; over 152,500 acres of the Pacific Ocean; over 79,300 acres of the Arctic Ocean; and over 76,600 acres of Cook Inlet.[115] Indeed, since the first offshore oil and gas lease sale in 1954, the federal government has offered over *2.8 billion acres* of our offshore waters through lease sales.[116]

While the Department of the Interior has never properly examined the true cumulative climate impacts of all offshore oil and gas leases, the best available science indicates that offshore oil and gas leasing and drilling has exacerbated, and continues to exacerbate, the climate emergency.[117] By declaring a national climate emergency under the NEA, the president can direct the secretary of the Interior to suspend all operations of offshore leases under Section 12(c) of the Act.

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[112] H.R. Rep. No. 95-590, at 53 (1977). Notably, a generation typically comprises of 20-30 years, thereby expiring the need for offshore drilling in our current time period per Congress's acknowledgment in 1978.

[113] *See, e.g.*, 43 U.S.C. § 1341(a) (vesting the President with the authority to withdraw federal waters from availability for future oil and gas leasing); *id.* § 1334(g) (requiring lessees to produce oil at a rate consistent with any order issued by the President); *id.* §§ 1340(c)(1), 1334(a)(2)(A)(i) (requiring Interior to reject exploratory drilling plan if it "would probably cause serious harm or damage to life (including fish and other aquatic life), to property, to any mineral (in areas leased or not leased), to the national security or defense, or to the marine, coastal, or human environment" and the "activity cannot be modified to avoid such condition.").

[114] *Id.* § 1341(c). The clause also provides for "the payment of just compensation to the lessee whose operations are thus suspended." *Id.* While it does not specify how such compensation should be calculated, other sections of OCSLA specify how to calculate compensation for cancelling a lease sale. These provisions mandate that such calculations include "costs, including cleanup costs and damages in the case of an oil spill costs," *id.* § 1334(a)(2)(C), indicating that any consideration of compensation should include of environmental costs, such as the social cost of carbon.

[115] Bureau of Ocean Energy Mgmt., *Combined Leasing Report as of Feb. 1, 2022*, https://www.boem.gov/sites/default/files/documents/oil-gas-energy/Lease%20stats%202-1-22.pdf.

[116] Bureau of Ocean Energy Mgmt., *Table 1. All Lease Offerings*, https://www.boem.gov/sites/default/files/documents/about-boem/Table%201%20SwilerTable%2024FEB2021.pdf (updated Nov. 18, 2020).

[117] A D.C. District Court judge recently vacated Lease Sale 257 in the Gulf of Mexico – the largest oil and gas lease sale in U.S. history. *Friends of the Earth v. Haaland*, No. 21-2317-RC, 2022 U.S. Dist. LEXIS 15172, at *29-54 (D.D.C. Jan. 27, 2022). The court invalidated the lease sale after determining that the administration arbitrarily failed to consider the full effects of the lease sale on climate change. *Id.*

The U.S.'s (and World's) Production Gap:
Why Climate Action Starts With Keeping Fossil Fuels in the Ground

Three-quarters of global greenhouse emissions and 85% of U.S. greenhouse pollution comes from fossil fuels.[118] An overwhelming scientific consensus has concluded that new fossil fuel production and infrastructure must be halted and much existing production must be phased out to limit global temperature rise to 1.5°C and avoid catastrophic damage throughout the country and the world.[119] The oil and gas fields and coal mines already in development contain enough carbon to exceed a 1.5°C limit.[120] Unfortunately, fossil fuel producers currently plan to extract more than twice as much fossil fuels by 2030 than can be burned and still limit warming to 1.5°C.[121] This discrepancy is known as the "production gap." In order to keep within the 1.5°C limit, the world's fossil fuel production must decrease by roughly six percent per year between 2020 and 2030.[122] Most developed oil and gas fields and coal mines must be shut down before their reserves are fully depleted to keep warming to below 1.5°C.[123]

The United States is the world's largest oil and gas producer, second largest coal producer, and a dominant driver of global fossil fuel expansion.[124] Without major shifts in policy, U.S. production of both oil and gas is projected to increase more than twice as much as any other country's by 2030.[125] In total the U.S. fossil fuel industry is on track to account for 60% of the world's projected growth in oil and gas production this decade.[126] If global fossil fuel expansion is not immediately halted, it will be impossible to limit temperature rise to 1.5°C and preserve a livable planet.

3. Curtail International Trade and Investment in Fossil Fuels

President Biden can restrict fossil fuel trade and curb investment in fossil fuel infrastructure abroad pursuant to his powers under NEA and the International Emergency Economic Powers Act ("IEEPA"). IEEPA grants the president broad authority to regulate economic transactions to address a threat that occurs substantially outside the country's boundaries,[127] which the climate emergency does.[128] Because

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118 *Fourth National Climate Assessment, Vol. II, supra* note 26, at 60.

119 Oil Change Int'l, *The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (2016), http://priceofoil.org/2016/09/22/the-skys-limit-report/ [hereinafter Oil Change Int'l, *The Sky's Limit*]; Oil Change Int'l, *Drilling Toward Disaster: Why U.S. Oil and Gas Expansion Is Incompatible with Climate Limits* (2019), http://priceofoil.org/drilling-towards-disaster [hereinafter Oil Change Int'l, *Drilling Toward Disaster*]; Ploy Achakulwisut & Peter Erickson, *Trends in Fossil Fuel Extraction: Implications for a Shared Effort to Align Global Fossil Fuel Production with Climate Limits* (Stockholm Env't Inst., Working Paper, 2021), www.sei.org/publications/trends-in-fossil-fuel-extraction/; Sven Teske & Sarah Niklas, *Fossil Fuel Exit Strategy: An Orderly Wind Down of Coal, Oil and Gas to Meet the Paris Agreement* (2021), https://fossilfueltreaty.org/exit-strategy.

120 Oil Change Int'l, *The Sky's Limit, supra* note 119; Oil Change Int'l, *Drilling Toward Disaster, supra* note 119.

121 SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report: 2020 Special Report* (2020), http://productiongap.org/ [hereinafter SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2020*]; SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2021* (2021), http://productiongap.org/2021report [hereinafter SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2021*].

122 SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2020, supra* note 121; SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2021, supra* note 121.

123 Oil Change Int'l, *The Sky's Limit, supra* note 119; Oil Change Int'l, *Drilling Toward Disaster, supra* note 119.

124 SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2021, supra* note 121, at Table 4.1.

125 Achakulwisut & Erickson, *supra* note 119 at Figure 3.

126 Oil Change Int'l, *Drilling Toward Disaster, supra* note 119.

127 50 U.S.C. §§ 1701, 1702.

128 Global Carbon Project, *Global Carbon Budget 2021* (2021) at 19-20, https://www.globalcarbonproject.org/carbonbudget/21/files/GCP_CarbonBudget_2021.pdf.

fossil fuels are the primary driver of the global climate emergency, climate science mandates that over time all fossil fuel production, export and import must fall to zero. The president can use his IEEPA powers to restrict fossil fuel imports, exports, and international investment to meet these decarbonization goals.

Legal Authority

IEEPA authorizes the president to regulate a variety of economic transactions to address "any unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States."[129] Exercising this authority requires him to first declare a national emergency under the NEA with respect to the identified threat.[130]

Once a national emergency is declared, IEEPA provides the president with powers regarding financial transactions that can address the identified threat. Most relevant here is his authority to prohibit the importation or exportation of any property, subject to U.S. jurisdiction, to address the identified threat. Specifically, the president may:

> investigate, block during the pendency of an investigation, regulate, direct and compel, nullify, void, *prevent or prohibit*, any acquisition, holding, withholding, use, transfer, withdrawal, transportation, *importation or exportation of*, or dealing in, or exercising any right, power, or privilege with respect to, or transactions involving, any property in which any foreign country or a national thereof has any interest by any person, or with respect to any property, subject to the jurisdiction of the United States. . . .[131]

Additionally, the president can prohibit financial transactions to address the identified threat. Specifically, he may:

> investigate, regulate, or prohibit—
>
> (i) any transactions in foreign exchange,
>
> (ii) transfers of credit or payments between, by, through, or to any banking institution, to the extent that such transfers or payments involve any interest of any foreign country or a national thereof,
>
> (iii) the importing or exporting of currency or securities, by any person, or with respect to any property, subject to the jurisdiction of the United States; [132]

Presidents have used IEEPA authorities routinely;[133] in fact, the vast majority of emergencies declared under the NEA has relied on IEEPA powers.[134] Since the statute's passage in 1977, IEEPA has been invoked at least 65 times to address issues including global weapons proliferation, human rights abuses, terrorism, and U.S. election interference.[135]

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129 50 U.S.C. § 1701 (a).

130 *Id.*

131 50 U.S.C. § 1702(a)(1)(B) (emphasis added).

132 50 U.S.C. § 1702(a)(1)(A).

133 The president's IEEPA actions can take the form of regulations, instructions, and revocation of licenses and are generally administered by the Treasury Department's Office of Foreign Assets Control. 50 U.S.C. § 1702(a).

134 Andrew Boyle, Brennan Center for Justice, *Checking the President's Sanction Powers* (2021), https://www.brennancenter.org/sites/default/files/2021-06/BCJ-128%20IEEPA%20report.pdf.

135 Id. See also Cong. Research Serv., R45618, *The International Emergency Economic Powers Act: Origins, Evolution, and Use* (2020), https://crsreports.congress.gov/product/pdf/R/R45618 at 17, 20. See Exec. Order No. 12,735, 55 Fed. Reg. 48587 (Nov. 16, 1990); Exec. Order No. 13,224, 3 C.F.R. 13224 (2002); Exec. Order No. 13,694, 3 C.F.R. 13694 (2016); Exec. Order No. 13,757, 3 C.F.R. 13757 (2017); Exec. Order No. 13,848, 83 Fed. Reg. 46843 (Sept. 12, 2018); Exec. Order No. 13,873, 3 C.F.R. 13873 (2020).

Application to Climate Action: Curtail International Trade and Investment in Fossil Fuels

IEEPA grants the president broad authority to regulate business transactions necessary to address core threats to the United States that originate substantially outside of the country. As discussed in Part 2(I), *infra*, the climate emergency poses an extraordinary threat to the country's national security and economy. The climate emergency also originates in "substantial part" outside of the United States because, even though the country is the largest historical emitter and the second highest current emitter, its total contribution is 25.1% of global carbon dioxide emissions resulting from fossil fuels.[136] The remaining three-quarters derive from outside the United States. The following three actions concerning fossil fuels serve to substantially curb fossil fuel production and combustion.

A. Prohibit the Export of Oil, Petcoke, Coal, and Gas

The United States exports significant amounts of fossil fuels that, when extracted and combusted, increase climate pollution and exacerbate the climate emergency. Restricting U.S. fossil fuel exports helps mitigate climate pollution and thus warrants the president's use of his IEEPA emergency powers to "prohibit" the "exportation" of fossil fuel exports to address the climate emergency.[137]

In 2020 the United States became a net annual petroleum exporter for the first time since at least 1949.[138] U.S. petroleum exports in 2020 exceeded 3.1 billion barrels, including 1.2 billion barrels of crude oil and 1.9 billion barrels of refined petroleum products such as liquified petroleum gases and fuel oils.[139] Notably, the United States is the world's largest exporter of petcoke,[140] an extremely toxic byproduct of refining crude oil, especially heavy crude like Canadian tar sands. Petcoke emits more carbon dioxide than coal when burned.[141] Produced during refining operations, petcoke is exported from the United States to places like Mexico, Japan, Indian, Canada and China to be burned.[142] In 2020 the United States exported about 190 million barrels of petcoke[143]; if burned, those barrels would produce 121 million metric tons CO_2-equivalent each year.[144] With respect to coal, the United States exported approximately 69 million metric short tons in 2020 — about 13% of U.S. coal production.[145]

Additionally, U.S. fossil gas exports are growing aggressively, particularly through a surge in shipping liquified gas ("LNG") to global markets but also via pipeline transport to Mexico and Canada.[146] U.S. gas exports have tripled since 2016, when the first U.S. LNG terminal started exporting.[147] In 2020 the

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136 Pierre Friedlingstein et al, *Global Carbon Budget 2021*, Earth System Science Data (2021), https://doi.org/10.5194/essd-2021-386.

137 50 U.S.C. § 1702(a)(1)(B) (emphasis added).

138 U.S. Energy Info. Admin., *Oil and Petroleum Exports Explained*, https://www.eia.gov/energyexplained/oil-and-petroleum-products/imports-and-exports.php (last updated Apr. 13, 2021).

139 U.S. E.I.A., *Petroleum & Other Liquids: Data – Exports, supra* note 99.

140 *Petroleum Coke in United States*, Observatory of Economic Complexity, https://oec.world/en/profile/bilateral-product/petroleum-coke/reporter/usa?redirect=true (last visited Feb. 9, 2022).

141 Petroleum coke produces more CO_2, CH_4, and N_2O per short ton than coal when combusted. U.S. Env't Protection Agency, *Emissions Factors for Greenhouse Gas Inventories*, https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_apr2021.pdf (last modified Apr. 1, 2021).

142 *Petroleum Coke in United States*, *supra* note 140.

143 U.S. Energy Info. Admin., *Petroleum & Other Liquids: Data – U.S. Exports of Petroleum Coke,* https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mckexus1&f=a (last visited Feb.10, 2022).

144 Emissions calculations for petcoke are based on U.S. EPA emissions factors (U.S. Env't Protection Agency, *supra* note 141) and the U.S. EIA conversion factor of 5 barrels of petcoke per short ton (U.S. Energy Info. Admin., *Petroleum & Other Liquids: Data – Definitions, Sources and Explanatory Notes,* https://www.eia.gov/dnav/pet/TblDefs/pet_pnp_refp_tbldef2.asp (last visited Feb. 10, 2022)).

145 U.S. Energy Info. Admin., *Coal explained: Coal Imports and Exports*, https://www.eia.gov/energyexplained/coal/imports-and-exports.php (last updated May 27, 2021).

146 Oil Change Int'l, Permian Climate Bomb (2021), https://www.permianclimatebomb.org/ (last visited Feb. 10, 2022).

147 *Id.*

United States exported 16% of its gas production,[148] totaling 5.3 trillion cubic feet[149] that, when burned, emits the annual carbon pollution of 73 coal-fired power plants. Gulf Coast communities particularly have been hit hard by the proliferation of LNG terminals and the pollution and safety risks they bring, with four terminals already operating, two under construction, and up to 18 more proposed.[150]

The surge in U.S. fossil fuel exports comes largely from the exponentially growing extraction of the Permian Basin, effectively the largest carbon bomb on the planet, which covers 6,000 square miles in west Texas and Southeast New Mexico.[151] Burning all the oil, gas, and gas liquids projected to be produced in the Permian Basin between 2021 and 2050 would emit 46 billion metric tons of carbon dioxide.[152] This is equivalent to the annual emissions of 400 typical U.S. coal plants over the 31-year period — roughly 10% of the world's remaining carbon budget under a 1.5° scenario.[153]

The president should use his IEEPA authorities to sanction entities and individuals attempting to export U.S.-produced fossil fuels.[154] Such utilization is consistent with precedent uses, where previous presidents have, for example, restricted U.S. exports to Nicaragua in a proxy war during the Cold War and South Africa to impose sanctions on the apartheid government.[155]

Importantly, a ban on gas exports under IEEPA supersedes allowances for gas exports under the Natural Gas Act ("NGA"). The NGA prohibits the import or export of natural gas, including liquefied natural gas, to or from a foreign country without prior approval from the Department of Energy ("DOE").[156] The DOE may only approve such applications for import/export if they are found to be in the public interest.[157] Thus, to the extent that the president has declared fossil fuel import and export to be contrary to the public interest under a national emergency declaration, DOE cannot approve applications for import or export of natural gas.[158]

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148 *Id.*

149 U.S. Energy Info. Admin., *Natural Gas: Data – U.S. Natural Gas Exports and Re-Exports by Country*, https://www.eia.gov/dnav/ng/ng_move_expc_s1_a.htm (last visited Feb. 10, 2022).

150 Oil Change Int'l, *supra* note 146. The U.S. EIA projects that U.S. LNG export capacity will be the world's largest at the end of 2022. U.S. Energy Info. Admin., *U.S. Liquified Natural Gas Export Capacity Will Be World's Largest by End of 2022,* Today in Energy (Dec. 9, 2021), https://www.eia.gov/todayinenergy/detail.php?id=50598.

151 Oil Change Int'l, *supra* note 146; Robert Rapier, *The Permian Basin Is Now the World's Top Oil Producer*, Forbes, Apr. 5, 2019, https://www.forbes.com/sites/rrapier/2019/04/05/the-permian-basin-is-now-the-worlds-top-oil-producer/?sh=2cf9366c3eff.

152 Urgewald et al., *Five Years Lost: How Finance is Blowing the Paris Carbon Budget* (2020), https://reclaimfinance.org/site/wp-content/uploads/2020/12/FiveYearsLostReport.pdf at 29.

153 *Id.* at 29.

154 If an entity is sanctioned under IEEPA, U.S. financial institutions, businesses, and banks are required to determine whether they hold any property belonging to that entity and freeze it. See, e.g., U.S. Dep't of the Treasury, *Financial Sanctions: Frequently Asked Questions*, https://home.treasury.gov/policy-issues/financial-sanctions/faqs (last visited Feb. 10, 2022).

155 Exec. Order No. 12,513, 3 C.F.R. 12513 (1985); Exec. Order No. 12,532, 3 C.F.R. 12532 (1985).

156 15 U.S.C. § 717b(a).

157 *Id.*

158 *See Sierra Club v. Dep't of Energy*, 867 F.3d 189, 203 (D.C. Cir. 2017) (explaining that the NGA contains a "general presumption favoring [export] authorization" that can only be overcome through "an affirmative showing of inconsistency with the public interest"). Separately, for nations with which the United States has entered into a free trade agreement, the NGA declares that import/export applications "shall be deemed to be in the public interest" and "shall be granted." 15 U.S.C. § 717b(c). It would be a question of first impression as to whether IEEPA powers invoked pursuant to a declaration of national emergency finding fossil fuel import/export is not in the public interest override the NGA's clear statutory language governing import/export to free trade agreement nations. Nations with such a free trade agreement include: Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Korea, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, and Singapore.

Additional Benefits of Halting Exports From the Permian Basin: Methane Reductions and Addressing Environmental Racism

The astronomical methane emissions from oil and gas extraction in the Permian Basin are supercharging the damage from the region's growing production. Scientists estimate that as much as 3.7% of gas production at the Permian Basin is being vented and leaked into the atmosphere — making methane emissions in the Permian Basin amount to over 9.5 billion tons of CO2-equitvalent by 2050.[159] The oil and gas are mostly shipped via pipelines to the Gulf Coast where they are refined or processed in highly toxic petrochemical — or plastics — plants, and ultimately exported, causing substantial harm to communities, the environment, and the climate at every stage. If the dozens of proposed oil, petrochemical, and LNG export projects under federal jurisdiction are built, Gulf Coast communities will suffer acute, significant impacts of added pollution, and then take a double hit when climate disasters strike. The urgency of changing course is central for Gulf Coast communities that have been impacted by 2020's record-breaking hurricane season and 2021's deep freeze that cut off electricity and heat and saddled Texan communities with astronomical energy bills.

B. Restrict Fossil Fuel Imports[160]

The United States also imports significant amounts of fossil fuels that, when combusted, increase climate pollution and exacerbate the climate emergency. Restricting fossil fuel imports helps mitigate climate pollution and thus warrants the president's economic regulation under IEEPA to "prohibit" the "importation" of fossil fuels to address the climate emergency.[161]

In 2020 alone the U.S. imported 2.9 billion barrels of crude oil and other petroleum products, 2.6 trillion cubic feet of gas, and 5.1 million short tons of coal.[162] Combusting these produces considerable emissions that contribute to the climate crisis and the maintenance of the U.S. position as the second largest GHG emissions emitter on the planet. Moreover, imports of fossil fuels correspondingly lock in weighty capital investments in fossil fuel infrastructure, rendering it more difficult to transition quickly to renewable energy resources.[163]

C. Restrict Investment in Foreign Fossil Fuel Projects and Infrastructure

Restricting the estimated hundreds of billions of dollars in U.S. financial investments directed toward fossil fuel projects abroad will help reduce the financial viability of overseas fossil fuel infrastructure, helping to mitigate the climate crisis. Pursuant to his NEA and IEEPA powers, the president can prohibit

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159 Oil Change Int'l, *supra* note 146.

160 Importantly, an alternative non-emergency pathway to limiting the import of fossil fuels lies in Section 232 of the U.S. Trade Expansion Act, which allows the Secretary of Commerce to investigate the impacts of fossil fuel imports on U.S. national security and make recommendations to the President regarding the regulation of such imports. 19 U.S.C. § 1862(b)(1)(A). The President may determine to limit the imports.

161 50 U.S.C. § 1702(a)(1)(B) (emphasis added).

162 U.S. petroleum product imports from U.S. Energy Information Administration. U.S. Energy Info. Admin., *Petroleum & Other Liquids: Data – U.S. Imports by Country of Origin*, https://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbl_a.htm (last updated Jan. 31, 2022); U.S. gas imports from U.S. Energy Information Administration. U.S. Energy Info. Admin., *Natural Gas: Data – U.S. Natural Gas Imports by Country*, https://www.eia.gov/dnav/ng/ng_move_impc_s1_a.htm (last updated Jan. 31, 2022); U.S. coal imports from U.S. Energy Information Administration. U.S. Energy Info. Admin., *Coal Data Browser, Import quantity from total world of all coal 2020*, https://www.eia.gov/coal/data/browser (last visited Feb. 8, 2022).

163 Peter Erickson et al., *Assessing Carbon Lock-in*, 10 Envtl. Rsch. Letters 084023 (2015).

financial transfers of any banking institution or other persons subject to U.S. jurisdiction[164] to address the climate emergency.

Finance is foundational to the viability of fossil fuel infrastructure, a capital-intensive endeavor requiring upfront and maintenance capital.[165] Investment in new fossil fuel infrastructure results in "carbon lock-in," whereby financial investments made now can lock in decades-worth of fossil fuel extraction that breaks the carbon budget necessary to limit warming to a livable planet.[166] Globally, investments in oil, coal, and gas exploration, extraction, and transport have averaged approximately U.S. $1 trillion annually and are poised to exceed U.S. $20 trillion cumulatively over the next 20 years.[167]

Estimates of U.S. fossil fuel finance directed overseas are at least in the hundreds of billions of dollars. According to a 2020 report, 16 U.S. financial institutions invested over $470 billion — nearly half of the total investments of $1.1 trillion — in bonds and shares in 12 non-U.S. fossil fuel expansion projects in 2020.[168] These 12 projects alone are expected to pollute at least 175 gigatons of additional CO2-equivalent emissions — almost half of the 395 gigaton carbon budget remaining if we are to limit to 1.5° with a 50% probability.[169] Further, according to a 2021 report, the eight largest U.S. banks contributed $356 billion in fossil fuel funding, in the form of lending and underwriting of debt and equity issuances, to non-U.S.-based companies from 2016-2020,[170] though we note this figure does not exclude finance for U.S.-based fossil fuel projects. Globally, the world's 60 largest banks have financed fossil fuels to the tune of $3.8 trillion during that same five-year period.[171] These figures do not account for additional areas of fossil fuel financing that may be subject to IEEPA regulations, including financial ownership in non-U.S. companies investing in non-U.S. fossil fuel projects. The president should use his IEEPA authorities to sanction financial institutions within its jurisdiction investing in fossil fuels overseas.[172]

In addition to private fossil fuel finance, U.S. public finance has contributed more than $11.3 billion in overseas oil, gas, and coal projects since 2016.[173] In December 2021 the Biden administration issued interim guidance to all agencies to stop public fossil fuel finance with exemptions for national security, energy access, and development in low-income and climate-vulnerable countries[174] as part of implementing an earlier pledge to divest federal finance from fossil fuels.[175] To enforce these commitments, Biden can use his IEEPA powers to formally restrict U.S. public finance of fossil fuel projects abroad.

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164 50 U.S.C. § 1702(a)(1)(A).

165 Steven J. Davis & Robert H. Socolow, *Commitment Accounting of CO_2 Emissions*, 9 Environmental Research Letters 084018 (2014); Erickson et al., *supra* note 163; Peter Erickson et al., *Carbon Lock-in from Fossil Fuel Supply Infrastructure*, (Stockholm Env't Inst., Discussion Brief, 2015); Karen C. Seto et al., *Carbon Lock-In: Types, Causes, and Policy Implications*, 41 Annual Review of Environmental Resources 425 (2016); Fergus Green & Richard Denniss, *Cutting with Both Arms of the Scissors: The Economic and Political Case for Restrictive Supply-Side Climate Policies*, 150 Climatic Change 73 (2018).

166 Green & Denniss, *supra* note 165, at 78.

167 Int'l Energy Agency, World Energy Outlook 2017 (2017); Int'l Energy Agency, World Energy Investment 2016 (2016).

168 Urgewald et al., *supra* note 152.

169 *Id.* at 6.

170 Rainforest Action Network, Banktrack, Indigenous Environmental Network, Sierra Club, Oil Change International, *Banking on Climate Chaos* (2021), https://www.bankingonclimatechaos.org/.

171 *Id.*

172 If an entity is sanctioned under IEEPA, U.S. financial institutions, businesses, and banks are required to determine whether they hold any property belonging to that entity and freeze it. *See*, e.g., U.S. Dep't of the Treasury, *supra* note 154.

173 Oil Change Int'l & Friends of the Earth, *Past Last Call: G20 Public Finance Institutions Are Still Bankrolling Fossil Fuels* (2021), https://priceofoil.org/2021/10/28/past-last-call-g20-public-finance-institutions-are-still-bankrolling-fossil-fuels/.

174 Memorandum from U.S. State Department to Agencies and Embassies re: Interim International Energy Engagement Guidance (Dec. 2021), http://priceofoil.org/content/uploads/2021/12/US-Fossil-Fuel-Guidance-December-2021.pdf.

175 This guidance is part of implementing the Biden administration's commitment to a 20-plus-country pledge made during the November Glasgow climate negotiations to stop financing of "unabated" oil and gas projects by the end of 2022. *Statement on International Public Support for the Clean Energy Transition,* UN Climate Change Conference UK 2021 (Apr. 11, 2021), https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/.

II. PRESIDENTIAL POWERS UNDER THE DEFENSE PRODUCTION ACT

1. Grow Domestic Green Manufacturing to Speed the Nationwide Transformation to Clean Energy and Transportation

The Defense Production Act[176] ("DPA") is a wartime statute that permits the president to marshal domestic industry to manufacture critical materials needed for the national defense. While its historical uses have been applied to manufacturing weapons for combat in war, its most recent employment – by President Biden — has been fittingly used to produce vaccines, personal protection equipment, and other medical supplies to battle the coronavirus pandemic.[177] As a logical extension, President Biden should use the DPA to manufacture clean energy and transportation technologies that can be deployed domestically and internationally to fight the climate emergency.

While using the DPA alone cannot render the country's electricity and transportation systems 100% clean, it jumpstarts the market for that transformation. The DPA is arguably the most well-positioned executive vehicle to spur the green technology transition because it explicitly identifies renewable energy and storage as critical materials[178] for the national defense.[179] On the supply side, the president can give manufacturers security in producing clean technology with federal finance and government purchase agreements. On the demand side, the federal government can drive demand by leveraging its annual $650 billion federal procurement budget, DPA funds, and other agency-managed grants to buy and install clean technology on public infrastructure and in partnership with environmental justice communities on climate change's frontlines. And job generation through a new U.S. manufacturing base can serve to rejuvenate the economy.

The DPA Provides a Missing Piece to Green Manufacturing Reticence, While Also Enabling Biden to Prioritize Equitable Deployment and High Labor Standards

When confronting challenges in green technology deployment, policy makers have traditionally relied on tools like clean energy tax incentives, subsidies, and portfolio mandates. Recently, manufacturers have been reticent to expand or convert to renewable energy operations due to the uncertainty of clean energy tax incentives in pending climate legislation.[180] The DPA can complement and fill gaps in this policy equation. First, the DPA provides Biden with commanding authority to directly mobilize domestic industry to meet green technology demands, which can initially be fulfilled by federal procurement of $650 billion per year.[181] Second, the DPA also empowers the president to plan for equitable allocation of these technologies in environmental justice communities using DPA funds. Finally, inserting presidential coordination of private industry permits the president to tie government contracts to goods made and installed with high labor standards, as well as involve labor unions in the industry coordination process.

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176 50 U.S.C. § 4567 *et seq*.

177 *See* Exec. Order No. 13,987, 86 Fed. Reg. 7019, *supra* note 14; Exec. Order No. 14,001, 86 Fed. Reg. 7219, *supra* note 14. *See also* U.S. Gov't Accountability Office, GAO-22-105380, *COVID-19: Agencies are Taking Steps to Improve Future Use of Defense Production Act Authorities* (2021), https://www.gao.gov/products/gao-22-105380.

178 50 U.S.C. §4516.

179 50 U.S.C. §4502(a)(5)-(6).

180 Jeff Stein & Steven Mufson, Democrats' Climate Plan Languishes, Putting Hundreds of Billions in Private Investment on Hold, Wash. Post, Feb. 16, 2022, https://www.washingtonpost.com/us-policy/2022/02/16/build-back-better-climate/.

181 *See*, *e.g.*, The Buy Green Act of 2021, S.1925, 117th Cong (2021), https://www.congress.gov/bill/117th-congress/senate-bill/1925/text?r=85&s=1 (expanding federal procurement budgets to $1.5 trillion over the next ten years to specifically buy American-made products).

Legal Authority

The DPA confers upon the president a broad set of authorities to coordinate an at-scale response from domestic industry players to combat matters threatening the national defense.[182] Specifically, Congress found that "the security of the United States is dependent on the ability of the domestic industrial base to supply materials and services for the national defense and to prepare for and respond to military conflicts, natural or *man-caused disasters* . . . within the United States."[183] Accordingly, DPA empowers the president[184] to shape the domestic industrial base so that, when called upon, it is capable of providing essential materials and goods needed for the national defense.[185] While use of the DPA does not require a national emergency declaration, certain provisions are triggered when a national emergency has been declared.

As a threshold matter, the use of any DPA authority must be directed toward promoting what is essential for the national defense.[186] The DPA defines "national defense" capaciously to include (emphasis added):

> programs for military and *energy production or construction*, military or *critical infrastructure* assistance to any foreign nation, homeland security, stockpiling, space, and any directly related activity. Such term includes *emergency preparedness activities* conducted pursuant to title VI of the [Stafford Act] and *critical infrastructure protection and restoration*.[187, 188]

Importantly, Congress particularly identified that the buildout of distributed renewable energy, battery storage, and energy efficiency technologies should be optimally deployed to strengthen the national defense.[189] Congress found that:

> to further assure the adequate maintenance of the domestic industrial base, to the maximum extent possible, domestic energy supplies should be augmented through reliance on *renewable energy sources (including solar, geothermal, wind, and biomass sources), more efficient energy storage and distribution technologies, and energy conservation measures*.[190]

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182 Since 1950, the DPA has been reauthorized by Congress over 50 times. Congress last reauthorized the DPA in 2019 and extended the Act until 2025. Further extension of the Act's significant authorities will require Congressional reauthorization. *See* Cong. Research Serv., R43767, *The Defense Production Act of 1950: History, Authorities, and Considerations for Congress* (2020), https://sgp.fas.org/crs/natsec/R43767.pdf.

183 50 U.S.C. §4502(a)(1) (emphasis added).

184 While the DPA authorities are generally afforded to the President, in 2012, former President Obama delegated many of the DPA's presidential authorities to executive agencies. While DPA authorities are most frequently used and commonly associated with the Department of Defense ("DOD"), President Biden can and should extend the DPA authorities to other relevant agencies. *See* Exec. Order No. 13,603, 77 Fed. Reg. 16651 (Mar. 16, 2012), https://www.govinfo.gov/content/pkg/DCPD-201200186/pdf/DCPD-201200186.pdf. Under Executive Order 13,603, the President delegates priorities and allocations authority to the heads of six federal departments: the U.S. Department of Agriculture; the U.S. Department of Energy; the U.S. Department of Health and Human Services; the U.S. Department of Transportation; the U.S. Department of Defense; and the U.S. Department of Commerce. The agency heads have jurisdiction over the resources within their respective areas of responsibility and expertise. E.O. 13,603 provides that the priorities and allocations authority may only be used to support programs that are determined to be "necessary or appropriate to promote the national defense," and assigns responsibilities for making this determination.

185 Additionally, federal departments and agencies are charged with shoring up domestic industrial base capacities under "both peacetime and emergency conditions." 50 U.S.C. §4502(b)(1).

186 The DPA contains several references to national defense throughout the DPA. See, e.g., Title I, Section 101 priorities and allocations authority requires the President to deem action as "necessary or appropriate to promote the national defense" (50 U.S.C. §4511(a)); Title III authorities can be used when "essential for the national defense" (50 U.S.C. §§4531(a), 4532(a), 4533(a)); and Title VII voluntary agreement authority requires that the use helps "provide for the national defense" (50 U.S.C. §4558(c)(1)).

187 50 U.S.C. § 4552(14) (emphasis added).

188 "Critical infrastructure" includes all assets "so vital to the United States that [their] degradation . . . would have a debilitating impact on national security, including, but not limited to, national economic security and national public health or safety. 50 U.S.C. § 4552(2).

189 50 U.S.C. §4502(a)(5)-(6).

190 50 U.S.C. §4502(a)(6) (emphasis added).

The DPA includes three major authorities.

Title I (Priorities and Allocations). Title I empowers the president to demand that private companies prioritize government contracts and allocate produced materials to meet national security requirements.[191] Under Title I the president can identify critical materials necessary for the national defense (§ 101(b)) and require corporations to: (1) prioritize and accept federal government contracts for these critical materials before any other competing interest or customer (§ 101(a)); (2) allocate the general distribution of these critical materials as necessary to promote the national defense (§ 101(a)); and (3) protect against company hoarding of such materials (§ 102).[192]

Importantly, as relevant to the climate emergency, Title I contains important provisions related to domestic energy. Section 106 of Title I identifies "energy" as a "strategic and critical material."[193] Further, Section 101(c) gives authority to the president to use his priority and allocation authorities to "maximize domestic energy supplies" in certain circumstances.[194,195]

Title III (Expansion of Productive Capacity and Supply). While Title I ensures that the government has priority access to materials being produced by domestic industry, Title III powers help create a sufficient domestic supply of those critical materials.[196] Specifically, Title III authorizes the president to generate a menu of financial incentives to create, expand or preserve domestic industrial manufacturing capabilities for national defense materials.[197] These financial incentives fall into three categories: (1) loan guarantees (§ 301)[198] and (2) direct loans (§ 302)[199], both of which are extended by the federal government to private corporations or other governments to be used for the purpose of reducing current or projected shortfalls of essential resources and materials needed for national defense; and (3) "catchall" financing mechanisms (§ 303), including direct purchases and purchase commitments from the federal government,[200] subsidy payments for produced materials,[201] and direct equipment upgrades for government and privately owned industrial facilities to expand their productive capacity.[202] These Title III financial instruments do require a number of findings before the executive branch can use them, but those prerequisites are waived when the president or Congress declares a national emergency.[203]

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191 Importantly, the priorities and allocation authority cannot be used for wage or price controls or contract of employment.

192 50 U.S.C. §4511.

193 50 U.S.C. §4516.

194 These include if the president finds that "such materials, services, and facilities are scarce, critical, and essential (i) to maintain or expand . . . transportation; (ii) to conserve energy supplies; or (iii) to construct . . . energy facilities." 50 U.S.C. §4511(c).

195 Further, Title I authorities have been used to specifically address energy and climate disaster needs. For example, the Department of Energy used Title I authorities to direct emergency supplies of methane gas continued to flow to California utilities to avoid threatened electrical blackouts in 2001, while the Federal Emergency Management Agency ("FEMA") utilized Title I powers to prioritize contracts to restore electrical transmission and distribution systems in Puerto Rico during the 2017 climate disaster season. *See California Energy Crisis and Use of the Defense Production Act*, *Hearing Before S. Comm. on Banking, Housing and Urban Affairs,* 107th Cong. (2001) S.Hrg. 107-215; Dep't of Homeland Security, *The Defense Production Act Committee: Report to Congress, Calendar Year 2017 Report* 10 (2018).

196 50 U.S.C. §4531.

197 50 U.S.C. § 4517.

198 A loan guarantee allows the federal government to guarantee a loan made by a nonfederal lender to a nonfederal borrower, either by pledging to pay back all or part of the loan in cases when the borrower is unable to do so. *Id.* at 4531(a)(1).

199 A direct loan is a loan from the federal government to another government or private sector borrower that requires repayment, with or without interest. *Id.* at 4532(a).

200 50 U.S.C. § 4533(a).

201 50 U.S.C. § 4533(c).

202 50 U.S.C. § 4533(e).

203 For example, to take action under the loan guarantee or the catchall program, the President must first find that the target resource is critical to national defense; the action is necessary and the most effective way to guarantee supply; and, in the case of loans, the loan is likely to be repaid. Id. §§ 4531(a)(2), 4533(a)(5). This finding requirement is waived if the President or Congress declares a national emergency. Id. §§ 4533(d)(1)(B)(i), 4532(d)(1)(B)(i), 4533(a)(7).

The funding for Title III instruments involves congressional appropriations and helps provide a check on the president's use of DPA powers. Created under Title III as a Treasury account, the DPA Fund is available to carry out all of the provisions and purchases of Title III, as well as resale of DPA-procured commodities.[204] Congress can make appropriations for the DPA Fund in any of the bills providing funding to the numerous agencies delegated Title III authorities, which the president can expand through executive order.[205]

In 2015, section 711 of Title VII was amended to specifically authorize appropriations of $133 million per fiscal year starting in FY 2015, as well as an additional $117 million for each fiscal years 2020 through 2024 to carry out Title III activities[206] — amounting to base DPA Fund appropriations of $250 million per fiscal year through at least 2024. In past years, the DPA Fund received appropriations, mainly from DOD appropriations acts, ranging widely from $34.3 million to $223 million. (See Table 2.[207])

Moreover, to increase the base appropriations of $250 million to the DPA Fund, the president can work with Congress to boost funding for clean technology manufacturing, as President Biden did with respect to Covid-19 medical products. In 2020 and 2021, Congress made two special appropriations to the DPA Fund for Covid-19 purposes: (1) an additional $1 billion to respond to Covid-19 until March 2022 pursuant to the Coronavirus Aid, Relief, and Economic Security ("CARES") Act of 2020[208]; and (2) an additional $10 billion to strengthen the medical industrial base in the American Rescue Plan Act of 2021.[209] This is an area where the president and Congress can work collaboratively to appropriate Title III DPA funds, which appears to have been the case with the Biden administration's use of the DPA to address Covid-19 and companion congressional appropriations in the Special American Rescue Plan Act.

Additionally, agencies also have the ability to make direct transfers to the DPA Fund, and Title III projects have also been cost-shared by private sector partners and through other federal agencies. [210] Any singular project receiving greater than $50 million in a Title III financial instrument must receive congressional authorization first, but these prerequisites and funding caps are waived if the president or Congress declare a national emergency.[211]

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204 Statute also prohibits the fund from exceeding $750 million at the end of any fiscal year 50 U.S.C. §4534.

205 Exec. Order No. 13,603, 77 Fed. Reg. 16651, *supra* note 184. Under Executive Order 13603, the President delegates priorities and allocations authority to the heads of six federal departments: the U.S. Department of Agriculture (USDA); the U.S. Department of Energy (DOE); the U.S. Department of Health and Human Services (HHS); the U.S. Department of Transportation (DOT); the U.S. Department of Defense (DoD); and the U.S. Department of Commerce (DOC). The agency heads have jurisdiction over the resources within their respective areas of responsibility and expertise. E.O. 13603 provides that the priorities and allocations authority may only be used to support programs that are determined to be "necessary or appropriate to promote the national defense," and assigns responsibilities for making this determination. Under this structure, DHS makes determinations with respect to all other national defense programs, such as emergency preparedness and response, domestic counter-terrorism, critical infrastructure protection and restoration, and continuity of government. Given this is an executive order, President Biden would have the authority to expand this list to other relevant agencies.

206 50 U.S.C. §§ 4561.

207 In FY2014-2016, the Department of Energy made transfers of $45 million to the DPA Fund each year from other appropriations, under a joint memorandum of agreement with other agencies to support the construction of biofuels facilities. See *The Defense Production Act of 1950*, 13 (2020), https://sgp.fas.org/crs/natsec/R43767.pdf

208 Coronavirus Aid, Relief, and Economic Security Act of 2020, Pub. L. No. 116-136, 134 Stat. 281, § 4017(1), Title III.

209 American Rescue Plan Act of 2021, Pub. L. No. 117-2, 135 Stat. 4, § 3101(a), Title III (amending the DPA).

210 Cong. Research Serv., R43767, *The Defense Production Act of 1950* 13 (2020), https://sgp.fas.org/crs/natsec/R43767.pdf.

211 50 U.S.C. §§ 4531(d)(1)(B)(i), 4532(d)(1)(B)(i), 4533(a)(7). Generally, though, very few projects exceed the $50 million threshold. *See* Cong. Research Serv., R43767, *The Defense Production Act of 1950* 11, (2020), https://sgp.fas.org/crs/natsec/R43767.pdf.

Table 2. Congressional Appropriations to the DPA Fund Since FY2010

Fiscal Year	Law	Appropriation Amount (in millions)
2010	Pub. L. No. 111–118, 123 Stat. 3422	$150.7
2011	Pub. L. No. 112–10, 125 Stat. 51	$34.3
2012	Pub. L. No. 112–74, 125 Stat. 800	$170.0
2013	Pub. L. No. 113–6, 127 Stat. 291	$223.5
2014	Pub. L. No. 113–76, 128 Stat. 98	$60.1
2015	Pub. L. No. 113–235, 128 Stat. 2246	$51.6
2016	Pub. L. No. 114–113, 129 Stat. 2345	$76.7
2017	Pub. L. No. 115–31, 131 Stat. 242	$64.1
2018	Pub. L. No. 115–141, 132 Stat. 458	$67.4
2019	Pub. L. No. 115–245, 132 Stat. 2995	$53.6
2020	Pub. L. No. 116–93, 133 Stat. 2331	$64.4
2021	Pub. L. No. 116–260, 134 Stat. 1299	$174.6
Special CARES Appropriation: 2020 - 2022	Pub. L. No. 116-136, 134 Stat. 281	$1,000.0
Special ARPA Appropriation: 2021-2025	Pub. L. No. 117-2, 135 Stat. 4	$10,000.0

Title VII (General Provisions). Title VII empowers the president to transform relevant portions of the competitive market into a cooperative one in ways that might otherwise violate antitrust law.[212] Specifically, Title VII grants authorities to coordinate a nationwide domestic industry response to a national crisis, including the authority to establish voluntary agreements and plans of action with private industry for the national defense (§ 708). Section 705(a) of Title VII also gives the president authority to "obtain . . . information . . . as may be necessary or appropriate" to the Act's enforcement, including the authority to "perform industry studies assessing the capabilities of the United States industrial base to support the national defense."[213]

[212] 50 U.S.C. § 4588.
[213] 50 U.S.C. § 4555.

The Act has been routinely used by previous administrations. Since the law's passage in 1950, it has been invoked by every administration to prioritize federal contracts or to shore up vulnerabilities in domestic production to protect national defense.[214] In its first week in office, the Biden administration utilized the DPA twice to shore up the public health supply chain of medical supplies and vaccines for Covid-19.[215]

Application to Climate Action: Grow Domestic Manufacturing of Clean Technologies to Spur Nationwide Green Transition

The president can lawfully use DPA authorities to compel production and installation of clean technologies in the country's two leading climate-polluting sectors to boost national defense against the climate emergency: electricity and transportation.[216]

A. The Climate Emergency Constitutes a Threat to National Defense that Warrants President Biden's Use of the Defense Production Act

The climate emergency is irrefutably a threat to national defense. As described in Part 2(I), *infra*, the Biden administration has concluded that climate change threatens "national security and defense" because it is "reshaping the geostrategic, operational, and tactical environments" for the United States and is "exacerbating existing risks and creating new security challenges for U.S. interests."[217] These climate impacts are precisely the type of "man-caused disasters" that the DPA identifies as a security threat to the country and requires response from the "domestic industrial base" to strengthen national defense. [218]

The DPA is arguably the most well-positioned executive vehicle to catalyze the green transition because it explicitly identifies renewable energy as critical to the national defense. The DPA defines the national defense as "programs for . . . energy production or construction"[219] and identifies energy as a "strategic and critical material" to the national defense.[220] But Congress goes even further by stating that "renewable energy sources (including solar, geothermal, wind, and biomass sources), more efficient energy storage and distribution technologies, and energy conservation measures" should be prioritized to strengthen the national defense.[221]

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214 *See* Cong. Research Serv., R43767, *The Defense Production Act of 1950* (2020), https://sgp.fas.org/crs/natsec/R43767.pdf.

215 Exec. Order No. 13,987, 86 Fed. Reg. 7019, *supra* note 14; Exec. Order No. 14,001, 86 Fed. Reg. 7219, *supra* note 14. Additionally, President Biden issues three executive orders with potential relevance to the DPA, including: Exec. Order No. 13,994, 86 Fed. Reg. 7189 (Jan. 26, 2021), https://www.federalregister.gov/documents/2021/01/26/2021-01849/ensuring-a-data-driven-response-to-covid-19-and-future-high-consequence-public-health-threats; Exec. Order No. 13,996, 86 Fed. Reg. 7197 (Jan. 26, 2021), https://crsreports.congress.gov/product/pdf/IN/IN11593; Exec. Order No. 13,999, 86 Fed. Reg. 7211 (Jan. 21, 2021), https://www.federalregister.gov/documents/2021/01/26/2021-01863/protecting-worker-health-and-safety.

216 In addition to using the DPA authorities to coordinate domestic transportation, if the president declares a national climate U.S. Env't Protection Agency, *Sources of Greenhouse Gas Emissions*, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions (last visited Feb. 11, 2022).

217 U.S. Dep't of Defense, *supra* note 56.

218 50 U.S.C. §4502(a)(1) (emphasis added).

219 50 U.S.C. § 4552(14) (emphasis added).

220 50 U.S.C. §4516.

221 50 U.S.C. §4502(a)(6) (emphasis added). The president has also recognized domestic transportation as vital to maintaining "resilient, diverse, and secure supply chains to ensure our economic prosperity and national security." Exec. Order No. 14,017, 86 Fed. Reg. 11849 (Mar. 1, 2021). *See also* Proclamation No. 10212, 86 Fed. Reg. 27021 (May 14, 2021) ("Since our Nation's founding, our transportation infrastructure has enabled our economic growth and enhanced our national security.").

B. Setting the Gameplan for a Green Technology Transition with Industry Players, Environmental Justice Leaders, Unions, Agencies, and Other Stakeholders under DPA Title VII

Under Title VII authorities, the president can coordinate industry players and other key stakeholders to create a game plan — and ultimately, enter into cooperative voluntary agreements — for the manufacturing and deployment of green energy and transportation technologies. Specifically, the president should leverage the planning and agreement stage to spur the design of electricity and transportation systems that are not only decarbonized but center justice and equity to redress harms experienced by communities and environments disproportionately harmed by the fossil fuel energy complex.

Title VII permits the president to lead a coordinated plan among private and public players and immunizes private corporations from antitrust claims. The president should create a task force consisting not only of relevant private manufacturers but also engineers, scientists, and planning experts in the field of equitable energy, energy democracy and transportation design; environmental justice community leaders; labor unions; and Departments of Energy, Transportation, Labor, national laboratory staff and other relevant federal, state, and local agencies.[222] This task force should play an active role throughout the DPA process.

With regard to electricity, the Biden administration should intentionally design an electricity system that not just ends fossil fuels but optimizes generation from distributed energy resources ("DERs") — including rooftop and community solar and storage installed on homes and public buildings across the country. Congress in the DPA already encouraged the president to bolster "renewable energy resources," "storage and distribution technologies" to improve the energy system in the national defense.[223] When compared with utility-scale clean energy,[224] DERs provide greater social and environmental benefits of climate resilience and reliability, avoided environmental costs,[225] electricity affordability, energy democracy and local job generation.[226] Further, as an investment proposition, a recent report from Vibrant Clean Energy found that renewable electricity generation would be $473 billion cheaper with dramatic rooftop solar and batteries than proceeding with status quo ramp-ups of centralized, utility-scale solar and wind

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[222] This task force can work in companionship with Biden's newly created Buy Clean Task Force designed to wield the $650 billion in annual purchases of the federal government to support construction materials and goods made with lower emissions. These measures can be combined with the Biden administration's current objective of lowering emissions of high-polluting industrial manufacturing sectors. *See* Emily Pontecorvo, *Biden Administration Could Finally Define What 'Clean' Manufacturing Is*, Grist, Feb. 15, 2022, https://grist.org/transportation/biden-administration-could-finally-define-what-clean-manufacturing-is/.

[223] 50 U.S.C. §4502(a)(6) (emphasis added).

[224] DERs are often left out of clean energy policy debates because regulators and policymakers have assumed that large-scale wind and solar farms have an inherent cost advantage over the rooftop alternative due to utilities of scale. Incumbent utilities also lobby against DER deployment because DERs are viewed as a competing generation source and threaten incumbent utility business models. *See*, *e.g.*, Edison Electric Inst., *Disruptive Challenges* (2013), http://roedel.faculty.asu.edu/PVGdocs/EEI-2013-report.pdf; J. David Lippeatt et al., Environment America, Frontier Group & U.S. PIRG Education Fund, *Blocking Rooftop Solar* (2021), https://uspirg.org/reports/usp/blocking-rooftop-solar. However, studies have shown DERs offer far greater economic, social, and environmental benefits that policymakers should take into account and should inform favorability for DERs over incumbent utility-scale systems. *See* Paul Denholm et al., Nat'l Renewable Energy Lab'y, *Methods for Analyzing the Benefits and Costs of Distributed Photovoltaic Generation the U.S. Electric Utility System* (2014), https://www.nrel.gov/docs/fy14osti/62447.pdf; Gideon Weissman et al., Environment America & Frontier Group, *The True Value of Solar* (2019), https://environmentamerica.org/sites/environment/files/resources/AME%20Rooftop%20Solar%20Jul19%20web.pdf.

[225] *See* R.R. Hernandez et al., *Techno-Ecological Synergies of Solar Energy for Global Sustainability,* 2 Nature Sustain. 560 (2019); D. Richard Cameron et al., *An Approach to Enhance the Conservation-Compatibility of Solar Energy Development*, 7 PLOS One e38437 (2012). *See also* Jacobson et al., *supra* note 12 (finding that a clean energy grid with DERs requires only ~0.29% and 0.55% of U.S. land area for footprint and spacing, respectively, for new energy technologies. The sum is less than the 1.3% occupied by the fossil fuel industry today).

[226] Baker, *supra* note 92; Weinrub & Fairchild, *supra* note 92; Sherry Stout et al., Nat'l Renewable Energy Lab'y., *Distributed Energy Planning for Climate Resilience* (2018), https://www.nrel.gov/docs/fy18osti/71310.pdf; John Farrell, The New Rules Project, *Community Solar Power: Obstacles and Opportunities* (2010), https://ilsr.org/wp-content/uploads/files/communitysolarpower2.pdf.

farms.[227] Indeed, the National Renewable Energy Laboratory found that greater use of rooftop solar can reduce the need for new transmission lines, displace expensive power plants, and save the energy that is lost when electricity is moved long distances.[228] A recent study also demonstrated that storage paired with renewable resources avoided summer blackouts in California in 2020 and winter blackouts in Texas in 2021, highlighting the importance of DERs in securing energy resilience in the face of climate disasters.[229]

Similarly, with regard to transportation, the Biden administration should design a comprehensive transportation system that maximizes construction, deployment, and access to zero-emission vehicles ("ZEVs") — including freight transport and equipment, public transit buses and trains, ride sharing, and private vehicles. Low-wealth communities and communities of color bear the brunt of the nation's climate, pollution and health impacts,[230] resulting from a legacy of environmental racism in zoning and redlining, housing, and placement of shipping hubs and transport corridors, as well as an economy based on consumption of imported items, planned obsolescence, and fossil fuel extraction. Rapidly transitioning to ZEVs would save billions of dollars in health costs and thousands of lives annually, especially in overburdened communities.[231] Building out ZEV public transition systems will also help improve transportation options in communities of color and rural communities,[232] reduce fossil-fueled vehicle miles traveled, and cut climate emissions.[233]

The DPA can accelerate the clean transportation reformation by precipitously manufacturing and deploying ZEVs and ZEV infrastructure,[234] and prioritizing investment, access, and deployment in low-

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227 Christopher T. M. Clack et al., Vibrant Clean Energy, *Why Local Solar For All Costs Less: A New Roadmap for the Lowest Cost Grid* 3 (2020), https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_TR_Final.pdf. *See also* Sammy Roth, *How Rooftop Solar Could Save Americans $473 Billion*, L.A. Times, Jan. 7, 2021, https://www.latimes.com/environment/newsletter/2021-01-07/how-rooftop-solar-could-save-americans-473-billion-dollars-boiling-point; Saul Griffith & Sam Calisch, *No Place Like Home: Fighting Climate Change (and Saving Money) by Electrifying America's Households* (2020), https://static1.squarespace.com/static/5e540e7fb9d1816038da0314/t/5f9125184a17493652db0ba9/1603347768714/No_Place_Like_Home_RA.pdf (finding that a national transition to solar-powered, fully electrified homes could save the average household more than $2,500 per year).

228 *See* Denholm et al., *supra* note 224.

229 See Jacobson et al., *supra* note 12.

230 Moving Forward Network, *Making the Case for Zero-Emission Solutions in Freight: Community Voices for Equity and Environmental Justice* (2021), https://www.movingforwardnetwork.com/wp-content/uploads/2021/10/MFN_Making-the-Case_Report_May2021.pdf. Our transportation network was built through neighborhoods of color, exacerbating inequalities. And decades of disinvestment have allowed our transportation infrastructure to fall into disrepair. As the President has acknowledged, we need to rapidly modernize our transportation system and infrastructure to "reconnect[] communities, provide[] equitable access to transportation services, and mitigate[] the devastating effects of climate change." Proclamation No. 10212, 86 Fed. Reg. 27021, *supra* note 221.

231 Moving Forward Network, *supra* note 230; American Lung Association, *Fact Sheet: Medium and Heavy Duty Vehicles* (https://www.lung.org/getmedia/bb0d60ba-eff2-4084-907b-916839ae985d/medium-and-heavy-duty-vehicles-fact-sheet.pdf.

232 *See e.g.*, Electrification Coalition, *Electric Vehicles in Rural Communities* (2022), https://www.electrificationcoalition.org/wp-content/uploads/2022/02/rural-guide.pdf; Will Englund, *Without Access to Charging Stations, Black and Hispanic Communities May be Left Behind in the Era of Electric Vehicles*, Wash. Post, Dec. 9, 2021; Evan Halper, *A Neglected California City Reinvents Itself with Electric Cars – and Plots a Road Map for the Nation*, L.A. Times, Jan. 10, 2022, https://www.latimes.com/politics/story/2022-01-10/neglected-california-town-reinvents-itself-with-electric-cars-and-plots-a-roadmap-for-the-nation. It would also save on vehicle maintenance costs. Chris Harto, Consumer Reports, *Electric Vehicle Ownership Costs: Today's Electric Vehicles Offer Big Savings for Consumers* (2020), https://advocacy.consumerreports.org/wp-content/uploads/2020/10/EV-Ownership-Cost-Final-Report-1.pdf. *See also* American Lung Association, *supra* note 231.

233 Increased vehicle miles traveled is a main reason that emissions from cars and trucks continue to increase. U.S. Env't Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019* at ES-13 – 14 (2021), https://www.epa.gov/sites/default/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf?VersionId=wEy8wQuGrWS8Ef_hSLXHy1kYwKs4.ZaU; Brad Plumer, *How Billions in Infrastructure Funding Could Worsen Global Warming,* N.Y. Times, Feb. 14, 2021, https://www.nytimes.com/2022/02/10/climate/highways-climate-change-traffic.html

234 Note that to support the transition to electric vehicles the International Council on Clean Transportation estimates the need for approximately 2.4 million public chargers, 17 million home charges, and one million multi-unit dwelling chargers to support apartment residents, by 2030. Gorden Bauer et al., Int'l Council on Clean Transp., *Charging Up America: Assessing the Growing*

wealth and rural communities and communities of color. Also, the DPA can help the administration build out a high-speed rail network, already in place in Europe and Asia, which can significantly shift activity from more polluting sectors such as conventional rail and aviation.[235] And the DPA can help the administration increase efficiencies at ports and airports with clean technologies, while decarbonizing shipping and aviation as quickly as possible.[236]

Importantly, advances in the massive manufacturing and deployment of local energy and transportation systems result in greater green jobs generation — helping to fulfill Biden's American Jobs Plan. According to one study, maximizing DER deployment could increase jobs up to 10 million by 2050, while other studies found that operating a clean, renewable grid with DERs could create 5 million long-term jobs through 2035.[237] Other studies estimate that the transition to electric vehicles could generate 1.9 million new jobs.[238] The president should work with unions and industry players in the coordination and execution process to ensure that labor is unionized and upholds Buy America and Buy Clean standards, pays prevailing wages, honors project labor agreements, uses Department of Labor-registered apprenticeship programs, adheres to local and equitable hiring standards, and maintains high environmental standards.

C. Identifying Clean Technologies and Financing Domestic Green Manufacturing Under DPA Titles I and III

Pursuant to his Title I DPA authorities, the president should identify the manufacturing needs to realize the plans for renewable energy and transportation systems. Regarding the electricity system that optimizes DERs, he should prioritize the manufacturing of solar panels, photovoltaic cells, photovoltaic

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Need for U.S. Charging Infrastructure through 2030 (2021), https://theicct.org/wp-content/uploads/2021/12/charging-up-america-jul2021.pdf. This estimate is based on 100% light-duty zero-emission vehicles sales by 2040, far fewer sales than climate science demands. President Biden's stated goal of only 500,000 public electric vehicle chargers by 2030 is woefully inadequate to meet demand and would vastly benefit from a coordinated and concerted effort under the DPA. White House, *Fact Sheet: The Biden-Harris Electric Vehicle Charging Action Plan* (Dec. 13, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/13/fact-sheet-the-biden-harris-electric-vehicle-charging-action-plan/.

[235] For example, high-speed rail can reduce aviation and conventional rail activity on the same corridors as much as 80% shortly after becoming operational. Int'l Energy Agency, *The Future of Rail: Opportunities for Energy and the Environment* (2019), at 99, https://iea.blob.core.windows.net/assets/fb7dc9e4-d5ff-4a22-ac07-ef3ca73ac680/The_Future_of_Rail.pdf. A switch to electric rail would cut the industry's annual CO_2 emissions by more than half, and it would sharply curtail the $6.5 billion in health costs and 1,000 premature deaths that result from train-related air pollution each year. Natalie Popovich et al., *Economic, Environmental and Grid-Resilience Benefits of Converting Diesel Trains to Battery-Electric*, 6 Nat Energy 1017 (2021), https://www.nature.com/articles/s41560-021-00915-5.These improvements are especially significant as U.S. freight rail capacity is expected to double by 2050. *Id.*

[236] For instance, the federal government can work with industry to ensure that when the federal government is "directly in charge of arranging shipments of goods," "the most efficient ships," routes, modes of transportation, "and the maximum of operational measures are used on the voyage to or around the United States to reduce greenhouse gas emissions." Aoife O'Leary, *Shipping*, *in:* Legal Pathways to Deep Decarbonization in the United States (Env'tl. Law Inst., Michael Gerrard & John C. Dernback eds., 2018). It can also incentivize more efficient air travel, such as by requiring airline owners to evaluate flight occupancy, paths, days, and timing to determine which routes justify reducing the numbers of flights and to operate their planes only if they are at least a certain percentage full. *See generally,* John Fleming, Ctr. for Biological Diversity, *Flight Path: A Trajectory for U.S. Aviation to Meet Global Climate Goals* (2020), https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Flight-Path-A-Trajectory-for-U-S-Aviation-to-Meet-Global-Climate-Goals.pdf. Further, it can catalyze research and development of newer technologies, such as inductive charging (roads embedded with wireless vehicle charging systems).

In addition to using the DPA authorities to coordinate domestic transportation, if the president declares a national climate emergency, he also has the option of invoking section 114(g) of the Aviation and Transportation Security Act, which charges the Transportation Security Administration ("TSA") with the responsibility to "coordinate domestic transportation, including aviation, rail, and other surface transportation, and maritime transportation (including port security)." This emergency provision also requires TSA "to coordinate and oversee the transportation-related responsibilities" of *other* federal agencies during such emergency. The TSA's responsibility over security extends to all modes of transportation, including the nation's interstate pipeline system. 49 U.S.C. §§ 114(d)(2), (g)(1)(A).

[237] Clack et al., *supra* note 227, at 3; *see also* Jacobson et al., *supra* note 12, (estimating that a clean energy transition will create 4.7 million more long-term, full-time jobs than lost across the U.S.).

[238] Karla Walter et al., Ctr. for Am. Progress, *Electric Vehicles Should Be a Win for American Workers* (2020), https://www.americanprogress.org/ issues/economy/reports/2020/09/23/489894/electric-vehicles-win-american-workers/.

wafers, solar modules, solar grade polysilicon, inverters, racking equipment, trackers, direct current optimizers and other relevant solar components; microgrids and related components; home and community storage technologies and related components; and energy efficiency technologies.[239] The assessment of technologies should also include a supply analysis of which components should be sourced as imports as opposed to domestically manufactured products. This careful analysis should consider severe supply chain delays for imported products driven by Covid-19 and exposing potential national security vulnerabilities of the country[240]; human rights and environmental abuses related to solar panel production, particularly Uyghur slave labor and mineral mining[241]; both international and domestic concerns to ensure that mining and labor practices adhere to environmentally safe and high labor standards[242]; and considerations regarding compliance with international trade laws and free trade agreements.

Similarly, for transportation, the president should identify the critical materials necessary to maximize ZEV deployment, including minerals, batteries, microchips, steel, and electricity components for as described above, for the vehicles themselves and their infrastructure, including necessary acquisitions and materials for building out a high-speed rail network. As with DER, the assessment of technologies must include a supply assessment of which components can and should be manufactured domestically, as opposed to being imported. Its analysis should take into account the severe supply chain delays for imported products driven by Covid-19, which has exposed potential national security vulnerabilities,[243] as well as human rights, labor, and environmental abuses related to mineral mining.[244]

Unfortunately, the United States lacks a robust manufacturing sector for these needed technologies, and Biden should provide financial incentives for renewable energy and clean transportation technologies. In particular, solar, wind, and battery storage manufacturing have all particularly languished in the United States and are produced primarily in Asia and Europe to fulfill global markets. [245] Meanwhile, while automakers have boasted in recent months about ramping up their ZEV manufacturing, they have, in

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[239] In 2019, more than 35,000 Americans were employed in U.S. solar manufacturing facilities, most of which focus on the production of steel, racking systems, and trackers. The United States currently has significant production capacity for polysilicon, modest production capacity for solar panels, encapsulants, backsheet, and inverters but no meaningful production capacity for ingots, wafers, cells, solar glass, machine tools, and many balance of system components. There is, thus, a tremendous opportunity to grow the U.S. solar manufacturing base across a broad category of products. See Solar Energy Indus. Ass'n, *American Renewable Energy Manufacturing* (2020), https://www.seia.org/sites/default/files/2020-09/SEIA-American-Manufacturing-Vision-2020_FINAL.pdf.

[240] Bradley Martin, *Supply Chains and National Security*, RAND: The RAND Blog (Apr. 12, 2021), https://www.rand.org/blog/2021/04/supply-chains-and-national-security.html.

[241] The Biden administration has already banned imports of polysilicon, used to make solar panels, because it is allegedly sources from Uyghur slave labor. *See* White House, *Fact Sheet: New U.S. Government Actions on Forced Labor in Xinjiang* (June 24, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/24/fact-sheet-new-u-s-government-actions-on-forced-labor-in-xinjiang/; Press Release, Senator Jeff Merkley, Merkley's Bipartisan Uyghur Forced Labor Prevention Act has been Signed into Law (Dec. 23, 2021), https://www.merkley.senate.gov/news/press-releases/merkleys-bipartisan-uyghur-forced-labor-prevention-act-has-been-signed-into-law#:~:text=The%20Uyghur%20Forced%20Labor%20Prevention,goods%20in%20work%20camps%2C%20prisons%2C; *Coalition to End Forced Labour in the Uyghur Region*, End Uyghur Forced Labor, https://enduyghurforcedlabour.org/ (last visited Feb. 14, 2022); Phred Dvorak & Matthew Dalton, *Solar-Energy Supply Chain Depends on Region Where China Is Accused of Genocide*, Wall St. J., April 11, 2021, https://www.wsj.com/articles/solar-energy-supply-chain-depends-on-region-where-china-is-accused-of-genocide-11618147228.

[242] Payal Sampat, *Can Mining Certification Benefit Communities, Workers, and the Environment?,* Earthworks: EARTHblog (July 6, 2018), https://earthworks.org/blog/can-mining-certification-benefit-communities-workers-and-the-environment/; Blaine Miller-McFeeley, *To Create a Clean Energy Future, Mining Reform Must be Front and Center*, Earthjustice: From the Experts (June 28, 2021), https://earthjustice.org/from-the-experts/2021-june/to-create-a-clean-energy-future-mining-reform-must-be-front-and-center.

[243] Martin, *supra* note 240.

[244] *See e.g.,* Earthworks, *Declaration on Mining and the Energy Transition for COP 26*, https://earthworks.org/campaigns/making-clean-energy-clean/declaration-on-mining-and-the-energy-transition-for-cop26/ (last visited Oct. 30, 2021). *See also* Sampat, *supra* note 242, https://earthworks.org/blog/can-mining-certification-benefit-communities-workers-and-the-environment/; Miller-McFeeley, *supra* note 242.

[245] *See* Solar Energy Indus. Ass'n, *supra* note 239

fact, lobbied against much stronger emissions standards.[246] For model year 2020, EVs and hybrids comprised only 2.2% of new vehicle fleets, and are expected to have reached a mere 4.2% for model year 2021.[247] At the same time, China has quickly ramped up its ZEV manufacturing, racing far ahead of American automakers with the aim of dominating the global ZEV market.[248]

Pursuant to his Title III DPA authorities, the president can offer loan guarantees, loans, and grants to government or privately-owned manufacturing plants to expand their productive capacity and repurpose equipment to meet the manufacturing demands in clean energy and transportation technologies.[249] To increase the amounts available to support industrial players, the president can work with Congress to appropriate additional funds to the DPA Fund as was accomplished in the additional $10 billion recently appropriated to shore up domestic manufacturing of Covid-19 medical supplies.[250,251] The president can also collaborate within federal agencies to transfer funds to the DPA Fund that align with the purposes of addressing the climate emergency, drawing from the Departments of Energy and Transportation in particular.

Finally, the president can also work with existing agency programs to reach similar ends. For example, the Department of Energy loan program can be directed to prioritize loans for manufacturing goods identified. And the Department of Transportation could offer loans and loan guarantees to "any contractor, subcontractor, provider of critical infrastructure, or other person in support of production capabilities" for ZEVs and ZEV infrastructure, including toward electrified and high-speed rail and zero-emission freight transport.[252] These actions should be done in coordination with existing offices — including the Department of Energy's Office of Small and of Small and Disadvantaged Business Utilization and Office of Economic Impact and Diversity, as well as the Department of Transportation's Disadvantaged Business Enterprise (DBE) program — which were established to remedy past and ongoing discrimination and level the playing field for small businesses owned and controlled by economically disadvantaged individuals to compete for federal contracts.

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246 *See* Hope Yen & Tom Krisher, *Auto Industry Urges Emissions Deal Weaker than Obama's*, AP News, Mar. 12, 2021, https://apnews.com/article/joe-biden-donald-trump-technology-climate-climate-change-fe2e9ea95ac1a987b63251eeb99433b9; InfluenceMap, *2021 Climate Policy Footprint* (2021), https://influencemap.org/report/The-Carbon-Policy-Footprint-Report-2021-670f36863e7859e1ad7848ec601dda97.

247 U.S. Env't Protection Agency, *The 2021 EPA Automotive Trends Report* (2021) 55-56, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013L1O.pdf.

248 Michael Schuman, *The Electric-Car Lesson That China is Serving Up for America*, Atlantic, May 21, 2021, https://www.theatlantic.com/international/archive/2021/05/joe-biden-china-infrastructure/618921/; *see also Fact Sheet: The American Jobs Plan*, *supra* note 63.

249 DOD has used the Title III program and funding from the DPAF to develop emerging military technologies for six decades, with over $1 billion in combined government and industry investment as of 2017. U.S. Dep't of Defense, *Annual Industrial Capabilities*, *Fiscal Year 2017 Report to Congress* 33 (2018). DOE and DOT can use these resources instead to develop and deploy clean, zero-emission technologies.

250 American Rescue Plan Act of 2021, Pub. L. No. 117-2, 135 Stat. 4, § 3101(a), Title III.

251 In May 2021, the Biden administration changed the DPA loan program to ensure the all funds are dedicated to Covid-19 response. A similar approach can be adopted for clean energy and transportation technologies. Ben Kesslen, *Biden Announces Changes to Defense Production Act, Ensuring Funds go to Direct Covid-19 Response*, NBC, May 7, 2021, https://www.nbcnews.com/politics/joe-biden/biden-announces-changes-defense-production-act-ensuring-funds-go-direct-n1266698.

252 50 U.S.C. §§ 4531, 4531.

The Renewable Energy Transition Cannot Repeat the Ecological and Human Rights Harms of Status Quo Fossil Fuel and Mining Practices

Rapid and widescale deployment of renewable energy and clean transportation is essential to addressing the climate emergency. However, such actions must be conducted in ways that do not exacerbate the biodiversity crisis and commit human rights abuses traditionally undertaken by the fossil fuel and mining industries.

Battery storage technologies require materials extraction, with most commercial batteries relying on often contentious and harmful lithium, cobalt, and other critical minerals mining abroad.[253] Lithium batteries are particularly important for distributed solar generation, including community solar and solar microgrids, which themselves bring benefits of avoided ecosystem destruction and energy democracy opportunities that centralized energy systems do not. The issue is how to ensure the supply chain for these technologies respects environmental and human dignity.

Any renewable energy mining, manufacturing, and siting should be undertaken responsibly and be designed to avoid, minimize, and/or mitigate impacts on imperiled species and communities. Care must be taken to ensure projects do not destroy sensitive habitat, violate the rights of Indigenous and environmental justice communities, or unduly deplete groundwater resources. Some technologies such as direct lithium extraction ("DLE") hold promise for reducing the impacts of lithium production. The U.S. should embark on a large-scale planning effort to identify low-conflict places to produce lithium and low-footprint technologies to produce it with. Overall, the renewable energy transition should be consistent with the societal goals of biodiversity conservation and climate and energy justice.

D. Buying and Allocating Manufactured Goods to Be Deployed to Federal Government Agencies, Environmental Justice Communities, and Public Entities Under DPA Titles I and III

Under DPA Title I, Biden can mandate domestic manufacturers prioritize federal government purchasing contracts for clean technologies, as well as allocate the technologies per the president's discretion. Under DPA Title III, the president can offer federal government purchasing contracts to compel clean manufacturing.

First, under Title I, the president can direct domestic manufacturers to prioritize government contracts purchasing clean technologies and allocate them to federal agencies. The federal government is the single largest energy consumer in the country with a budget of $650 billion per year.[254] Under section 3 of Title III authorities, the president can offer government purchase contracts as a way to fund the

[253] For more information on critical minerals concerns, *see, e.g.,* Benjamin K. Sovacool, Saleem H. Ali, Morgan Bazilian, Ben Radley, Benoit Nemery, Julia Okatz, Dustin Mulvaney, *Sustainable minerals and metals for a low-carbon future,* 367 Science 30 (2020), https://science.sciencemag.org/content/sci/367/6473/30.full.pdf?ijkey=p2yHdYIUFKUPg&keytype=ref&siteid=sci.

[254] "As the nation's largest energy consumer, the federal government is poised to play a significant role in mitigating the most severe impacts of climate change. With more than 350,000 energy-utilizing buildings and 600,000 vehicles, the U.S. government consumes more energy than New Zealand. Vehicle and equipment use accounts for 60% of total federal government energy use, while the remaining 40% represents energy used in buildings and facilities. Federal buildings spend roughly $6 billion for electricity and natural gas and produce more than 30 million metric tons of GHG emissions each year. Thus, federal procurement policies can either reinforce our current reliance on fossil resources, or provide a model template for a broader societal shift towards an emission free, renewable electricity and transportation sector." Snape, *supra* note 67; U.S. Dep't of Energy, *Energy Efficiency & Renewable Energy, Comprehensive Annual Energy Data and Sustainability Performance FY 2020,* https://ctsedwweb.ee.doe.gov/Annual/Report/Report.aspx.

manufacturing transition, offering industry players security in new clean technology investments with stable and substantial purchasing agreements.[255,256] Under this purchase and allocation scheme, DER and renewable energy systems can be constructed on federal buildings to power the approximately 8,700 federally-owned and leased properties across the country, as well as generate community solar for surrounding commercial and residential properties and sites for electric vehicle charging.[257] In addition, the government contracts can be used to electrify the federal vehicle fleet — including U.S. Postal Service delivery vehicles (currently the largest federal fleet, poised to execute a procurement contract for 165,000 new vehicles, 90% of which are fossil-fueled trucks),[258] National Park Service shuttles, and Department of Defense vehicles, among many other federal fleets.[259]

Second, under both Titles I and III, the president can purchase clean technologies through government contracts and allocate the technologies in collaboration with environmental justice and low-wealth communities. As a matter of national defense, these communities are the most vulnerable to climate change impacts because of historical redlining and other racist housing policies (see Part 2(I), *infra*) and thus warrant priority deployment to mitigate national climate harms. To finance this purchasing, he should adhere to the Justice40 initiatives and draw from the DPA Fund. The administration can also work with existing financing programs, like the Department of Energy's loan program, including the renewable energy and efficient energy projects division and the Tribal energy loan guarantee program, to fund these government contracts under Title III.

Third, to the extent there remains funds in the DPA Fund, the president should prioritize subsidized purchasing and allocation of clean technologies to state, local, and other public entities pursuant to Title I and II powers. As a matter of national defense, the DPA encourages that energy complexes are strategically dispersed to optimize defense capabilities.[260] Public buildings are systematically dispersed across the country and states, acting as hubs for local community solar to generate renewable energy for their own needs and for surrounding homes and buildings. These entities can also be anchor institutions for green vehicle fleets and charging infrastructure.

Bolstering domestic industrial supply also enables the potential for demand to be met through renewable and clean technology exports internationally, supporting Biden's objectives in The American Jobs Plan. The government can work with international climate aid and other aid programs, including the U.S. Agency for International Development, to provide American-made clean energy products and services abroad. Doing so not only secures international demand for domestic DER and clean transportation technologies but also enables other countries to expedite their own respective renewable and clean energy

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255 The DPA serves to complement the president's January 2021 directive to fully utilize the federal government's procurement power to "catalyze private sector investment into, and accelerate the advancement of America's industrial capacity to supply, domestic clean energy, buildings, vehicles, and other necessary products and materials." Exec. Order No. 14,008, *supra* note 1, at Section 5, "Federal Clean Electricity and Vehicles Procurement Strategy".

256 *The Biden Plan for a Clean Energy Revolution and Environmental Justice* (2020), https://joebiden.com/climate-plan/; White House, *Paris Climate Agreement: Acceptance on Behalf of the United States of America* (Jan. 20, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/.

257 Snape, *supra* note 67.

258 The new USPS trucks have a fuel economy of, at best, 14.7 mpg fuel economy without air conditioning 8.6 mpg with air conditioning, a negligible (0.4 mpg) improvement over the existing trucks that admittedly do not have air conditioning, but which are, on average, 30 years old. U.S. Postal Serv., *supra* note 68, at 2-2, 3-2, B-144, G-2. The average real-world fuel economy for truck SUVs and minivans is 23 mpg and for pickup trucks is 19 mpg. U.S. Env't Protection Agency, *Highlights of the Automotive Trends Report,* Automotive Trends Report https://www.epa.gov/automotive-trends/highlights-automotive-trends-report (last visited Feb. 8, 2022).

259 Snape, *supra* note 67.

260 50 U.S.C. §4502(b)(6).

transitions in concert with the United States. This ultimately serves to fulfill the country's fair share of climate debt by providing technological assistance and financial aid to other countries.[261]

Transportation Priorities and Allocations System

DOT promulgated regulations under Title I of the DPA in 2012.[262] Called the Transportation Priorities and Allocation System ("TPAS"), the regulations establish the process for prioritizing federal contracts and allocating resources and scarce materials related to civil transportation.[263] The nation's largest energy consumer, the federal government consumes more energy than New Zealand and sets an important precedent for other private fleets and the consumer marketplace.[264] Vehicle and equipment use accounts for 60% of total federal government energy use.[265] DOT should revise the TPAS so that the federal government prioritizes orders for ZEVs and ZEV infrastructure, ensuring that those orders would be fulfilled before lower-rated private ZEV orders and lower-rated conventional vehicle orders.[266] This would serve Biden's plan to "purchase 100 precent zero-emission vehicle acquisitions by 2035."[267] Such prioritization would also be in the best long-term interests of vehicle manufacturers, almost all of which have announced ambitious plans to shift their production to ZEVs in the coming years.[268]

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261 The U.S. Climate Fair Share, *supra* note 86.

262 Prioritization and Allocation Authority Exercised by the Secretary of Transportation Under the Defense Production Act, 77 Fed. Reg. 69769 (Nov. 21, 2012) (to be codified at 49 C.F.R. Pt. 33).

263 49 C.F.R. Part 33. Note too: Exec. Order No. 13,603 allows DOT to authorize other agencies to make use of the TPAS regulations and prioritize their own orders for products related to civil transportation. *See* Exec. Order No. 13,603, 77 Fed. Reg. 16651, *supra* note 184, at 16652.

264 U.S. Dep't of Energy, *About the Federal Energy Management Program* (2021), https://www.energy.gov/eere/femp/about-federal-energy-management-program (last visited Feb. 14, 2022).

265 *Id.*

266 Notably, the federal government has several authorities under which it can mobilize its purchasing power to buy ZEVs. The General Services Administration is authorized by 40 U.S.C. 501 to prescribe policies and methods governing the acquisition and supply of utility services for Federal agencies. (40 U.S.C. § 501(b).) This authority includes taking action for an executive agency "to the extent that the Administrator of General Services determines that the action is advantageous to the Federal Government in terms of economy, efficiency, or service…." (40 U.S.C. §501(a)(1).) In addition to GSA's general statutory procurement authority, they are also required to purchase sustainable products and services that reduce greenhouse gas emissions and promote clean energy under the Federal Acquisition Regulations System Part 23. (48 CFR 23.) Snape, *supra* note 67.

267 *See* Exec. Order No. 14,057 § 102, 86 Fed. Reg. 70,935, 70,935–36 (Dec. 13, 2021). Notably, rapidly ramping up federal procurement of zero-emission vehicles to 40% of the purchases by 2025 will save the federal government over $1 billion over the lifetime of vehicles (and could save the Postal Service even more, provided that it nullifies its recent NGDV – fill in – a executes a contract for ZEVs instead). James Di Filippo et al., Atlas Pub. Policy, *Federal Fleet Electrification Assessment* (2021), https://atlaspolicy.com/wp-content/uploads/2021/09/Federal_Fleet_Electrification_Assessment.pdf.

268 *See, e.g.*, Annie White, *Here Are All the Promises Automakers Have Made About Electric Cars*, Car and Driver, Jun. 21, 2021, https://www.caranddriver.com/news/g35562831/ev-plans-automakers-timeline/.

III. PRESIDENTIAL POWERS UNDER THE STAFFORD ACT

"FEMA is no longer looking at itself as just a response agency but a true resilience agency."

– White House National Climate Advisor Gina McCarthy[269]

1. Direct FEMA to Construct Climate-Resilient Energy Systems in Frontline Communities

President Biden can use the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("Stafford Act")[270] to unlock significant finance to construct resilient renewable energy systems in frontline and environmental justice communities vulnerable to climate disasters, as well as direct disaster funding away from fossil fuel investments. Once he declares the climate crisis as an emergency and when he declares major disasters in states, Tribal nations, and territories, the Stafford Act permits the president to deploy federal assistance to supplement state and local efforts towards disaster and emergency relief.[271] As of now, FEMA has budgeted $19 billion for FY2022 to address ongoing disasters — which can be supplemented by congressional appropriations. By directing a large proportion of this funding toward pre-disaster mitigation and building clean, resilient, efficient energy systems — prioritizing underserved communities that bear the brunt of climate harm and that have been historically neglected — the president and FEMA can help reduce emissions, better prepare communities to withstand future climate disasters, realize the Biden administration's Justice40 goals, and redress historical patterns of environmental racism in FEMA's relief work.

Legal Authority

Under the Stafford Act, the president can undertake two types of declarations to unlock several forms of financial assistance to states, Tribal states, and local governments: *emergency* and *major disaster* declarations. Both declarations provide different ranges of assistance and financial support, as well as differ in the process of triggering such declarations. The declaration of one does not prevent the declaration of the other. This section outlines (1) the general types of funding assistance made available under declarations; (2) the funding and programmatic scope of each type of declaration.

1. Funding Assistance

As a threshold matter, the Disaster Relief Fund ("DRF") is the primary source of funding for the federal government's disaster relief program.[272] As FEMA coordinates federal disaster relief efforts, it manages the DRF, though funds from the DRF are directed toward disaster preparedness and relief programs of several agencies, including FEMA itself.[273] In addition to annual and continuing appropriations from Congress, FEMA also receives supplemental appropriations from Congress in the wake of specific

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269 FEMA, *2022-2026 Strategic Plan: Building the FEMA Our Nation Needs and Deserves* (2021), https://www.fema.gov/sites/default/files/documents/fema_2022-2026-strategic-plan.pdf.

270 42 U.S.C. § 5121 *et seq*.

271 42 U.S.C. § 5122(1). The definition of "emergency" in the Stafford Act is broad, and includes "any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to less or avert the threat of a catastrophe in any part of the United States."

272 Cong. Research Serv., R45484, *The Disaster Relief Fund: Overview and Issues* (2022), https://sgp.fas.org/crs/homesec/R45484.pdf [hereinafter *CRS, Disaster Relief Fund*].

273 *Id.*

incidents — usually not limited to relief for a specific incident, timeframe, or program — for the DRF.[274] FEMA's budgeted DRF spending for FY2022 is approximately $19 billion, and includes some support for confronting climate change.[275]

The president's declaration of an emergency or major disaster under the Stafford Act unlocks the following principal forms of federal assistance to support state, local, and Tribal governments in disaster management:[276] All of these forms of assistance receive funds from the DRF.[277] There are three primary buckets of assistance: (A) Public Assistance (which includes funds for hazard mitigation); (B) Individual Assistance; and (C) Pre-disaster Mitigation Grants.

***A. Public Assistance ("PA")*:** Provides grants to state, territorial, Tribal, and local governments, and certain private nonprofit organizations to provide emergency protective services, conduct debris removal operations, and repair or replace damaged public infrastructure. PA constitutes the largest draw from the DRF of any Stafford Act program[278] and includes three buckets of aid:[279]

(i) *Emergency Work*. Emergency Work assistance is for immediate threats to lives, safety, and property. This bucket includes work such as debris removal and emergency protective measures, such as medical care, evacuations and sheltering, search and rescue, dissemination of information, security, and fighting floods.[280] This assistance is *available for emergency and major disaster declarations*.[281]

(ii) *Permanent Work*. Permanent Work assistance is for longer-term restoration work. It includes restoration of roads and bridges, water control facilities, buildings and equipment, utilities and infrastructure, and parks, recreational, and other facilities.[282] This assistance is *available for major disaster declarations only*.[283]

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274 Cong. Research Serv., *supra* note 272, at 4; Cong. Research Serv., IF11529, *A Brief Overview of FEMA's Public Assistance Program* (Mar. 8, 2021), https://crsreports.congress.gov/product/pdf/IF/IF11529 [hereinafter Cong. Research Serv., *IF11529*].

275 U.S. Dep't of Homeland Security, *Budget-in-Brief Fiscal Year 2022* (2021), https://www.dhs.gov/sites/default/files/publications/dhs_bib_-_web_version_-_final_508.pdf.

276 The assistance FEMA provides for emergencies and major disasters is subject to cost share with the state and Tribal governments. In general, the federal government's share not less than 75 percent. FEMA, FP 104-009-2, *Public Assistance Program and Policy Guide, Version 4* (June 1, 2020), https://www.fema.gov/sites/default/files/documents/fema_pappg-v4-updated-links_policy_6-1-2020.pdf [hereinafter FEMA, *Public Assistance Program and Policy Guide*]. However, President Biden made FEMA assistance for the COVID-19 emergency available at 100 percent federal cost share for a specified period of time. White House, *Memorandum to Extend Federal Support to Governors' Use of the National Guard to Respond to COVID-19 and to Increase Reimbursement and Other Assistance Provided to States* (Jan. 21, 2021), https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/21/extend-federal-support-to-governors-use-of-national-guard-to-respond-to-covid-19-and-to-increase-reimbursement-and-other-assistance-provided-to-states/.

277 Cong. Research Serv., R45484, *supra* note 272*: Overview and Issues* (2022), https://sgp.fas.org/crs/homesec/R45484.pdf at 5. While the majority of federal financial disaster assistance is made available from FEMA under the Stafford Act, there are additional programs administration by other agencies that also provide federal assistance in disasters. See Cong. Research Serv., R41981, *Congressional Primer on Responding to and Recovering from Major Disasters and Emergencies* 15-16 (2020), https://sgp.fas.org/crs/homesec/R41981.pdf.

278 Cong. Research Serv., *IF11529*, *supra* note 274, at 24.

279 *See generally,* FEMA, *Public Assistance Program and Policy Guide, supra* note 276.

280 *Id.* at Ch. 7.

281 Cong. Research Serv., *IF11529*, *supra* note 274. The two forms of PA emergency work authorized for an emergency declaration are debris removal (authorized under Stafford Act Sections 403, 407, and 502) and emergency protective measures (authorized under Stafford Act Sections 402, 403, 418, 419, and 502). *See also* FEMA, *How a Disaster Gets Declared*, https://www.fema.gov/disaster/how-declared (last updated Jan. 4, 2022) [hereinafter FEMA, *How a Disaster Gets Declared*].

282 FEMA, *Public Assistance Program and Policy Guide*, *supra* note 276, at Ch. 7. Note that funding is capped based on the estimated amount to restore the damaged facility to its pre-disaster design and function. *Id.* at 163.

283 Cong. Research Serv., *IF11529*, *supra* note 274; FEMA, *How a Disaster Gets Declared*, *supra* note 281.

(iii) *Hazard Mitigation Assistance*. Funding for hazard mitigation comes through FEMA's Hazard Mitigation Grant Program ("HMGP"),[284] which includes both mitigation projects that reduce the risks of future disasters, and resiliency projects that increase community resilience to future disasters.[285] The funding amounts are capped depending on the overall amount of assistance for the disaster and as provided in FEMA-approved Hazard Mitigation Plans, required to be in place prior to a recipient receiving any Permanent Work PA assistance.[286,287] FEMA obligated approximately $8.5 billion dollars total for PA mitigation projects from 1999 to Aug. 21, 2020.[288] On Aug. 8, 2021, Biden approved more than $3.46 billion (4% of the overall Covid-19 pandemic disaster costs) in hazard mitigation funding for the Covid-19 pandemic to be used for mitigation projects to reduce the impacts of climate change.[289] *This assistance is available for major disaster declarations only*.[290]

B. Individual Assistance ("IA"): Provides direct aid to affected individuals and households, including housing assistance, with caps at $35,500 for any individual or household in FY2020 (and adjusted annually).[291] *This assistance is available for emergency and major disaster declarations.*[292]

C. Pre-disaster Mitigation Grants. In addition to the Hazard Mitigation Grant Program, FEMA administers the Flood Mitigation Assistance program[293] and the Building Resilient Infrastructure and Communities ("BRIC") program (previously, the Pre-Disaster Mitigation Program), a competitive grant program that provides funds annually for hazard mitigation

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284 42 U.S.C. §§ 5170c, 5172(e); 44 C.F.R. § 206.226(e). Hazard Mitigation Assistance Grants include Post-Fire Grants.

285 The HMGP includes Fire Management Assistance Grants available to mitigation future fire disasters. 42 U.S.C. §§ 5170c; 5187(d). *See* FEMA, *Fire Management Assistance Grants*, https://www.fema.gov/assistance/public/fire-management-assistance (last updated July 1, 2021) [hereinafter FEMA, *Fire Management Assistance Grants*].

286 42 U.S.C. § 5170c(a). Hazard Mitigation Grant Funding is authorized with a Presidential Major Disaster Declaration. The amount of funding made available to the applicant is up to 20 percent of the total federal assistance amount provided for recovery from the presidentially declared disaster (42 U.S.C. 5165(e); 44 C.F.R. § 206.432(b)), though it is more commonly around 15 percent. FEMA, *Fact Sheet: Summary of FEMA Hazard Mitigation Assistance Grant Programs* (2021), https://www.fema.gov/sites/default/files/documents/fema_summary-fema-hazard-mitigation-assistance-grant-programs_032321.pdf [hereinafter FEMA, *Summary of Hazard Mitigation Assistance Grant Programs*].

287 Recipients of funding for PA Permanent Work must have a FEMA-approved Hazard Mitigation Plan in place, showing how they intend to reduce risks from natural hazards. The plan must be updated every 5 years. 44 C.F.R. §§ 201.3(c)(1), (e)(1), 206.226(a). Hazard Mitigation Plans can be funded through PA Mitigation as well as non-emergency Hazard Mitigation Assistance funds, such as the BRIC program. FEMA, *Mitigation Planning and Grants*, https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/requirements (last updated May 29, 2021).

288 Cong. Research Serv., R46749, *FEMA's Public Assistance Program: A Primer and Considerations for Congress* 23 (2021), https://crsreports.congress.gov/product/pdf/R/R46749.

289 Press Release, FEMA, Biden Administration Commits Historic $3.46 Billion in Hazard Mitigation Funds to Reduce Effects of Climate Change (Aug. 5, 2021), https://www.fema.gov/press-release/20210805/biden-administration-commits-historic-346-billion-hazard-mitigation-funds. The investment is available for natural hazard mitigation measures across the 59 major disaster declarations issued due to the COVID-19 pandemic.

290 42 U.S.C. § 5170c; FEMA, *How a Disaster Gets Declared*, *supra* note 281; FEMA, *Summary of Hazard Mitigation Assistance Grant Programs, supra* note 286.

291 42 U.S.C. § 5174(h)(1); Notice of Maximum Amount of Assistance Under the Individuals and Households Program, 84 Federal Register 55324 (Oct. 16, 2019), https://www.govinfo.gov/content/pkg/FR-2019-10-16/pdf/2019-22471.pdf. It is adjusted annually to reflect changes in the Consumer Price Index for All Urban Consumers published by the Department of Labor (42 U.S.C. §5174(h)(3)).

292 FEMA, *How a Disaster Gets Declared*, *supra* note 281; FEMA, FP 104-009-03, *Individual Assistance Program and Policy Guide (IIAPPG), Version 1.1* (2021), https://www.fema.gov/sites/default/files/documents/fema_iappg-1.1.pdf.

293 The Flood Mitigation Assistance Program, which provides funding for flood mitigation projects and flood hazard mitigation planning in order to reduce or eliminate claims under the National Flood Insurance Program. FEMA, *Flood Mitigation Assistance (FMA) Grant*, https://www.fema.gov/grants/mitigation/floods (last updated Feb. 8, 2022). This paper will focus generally on the BRIC program, however.

planning and projects.[294] The BRIC program prioritizes projects that: incentivize activities that mitigate risk to public infrastructure; benefit disadvantaged communities or mitigate risk to one or more community lifelines; incorporate nature-based solutions; enhance climate resilience and adaptation; and facilitate the adoption and enforcement of the latest building codes.[295] The Stafford Act authorizes FEMA to set aside six percent of estimated disaster expenses for each major disaster to fund the BRIC program.[296] In 2021, Biden set aside $1 billion for the BRIC program.[297] The projected budget for the FY2022 BRIC program includes an additional $500 million specifically set aside for climate resilience projects.[298] The ability to apply for BRIC funds requires only that the state or Tribal government within the state received a *major disaster declaration within the last 7 years*.[299]

2. Presidential Declarations

A. ***Emergency declaration***. The first type of presidential declaration is an emergency declaration, which is defined as:

> any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States. [300]

An emergency declaration is far more limited than a major disaster declaration in the type of assistance it can provide through federal agencies alone, cloistered to Individual Assistance and Public Assistance Emergency Work only. Emergency declarations may be declared prior to an incident occurring to "lessen or avert the threat of a catastrophe" to protect the public.[301] However, the assistance provided for a single emergency declaration is capped at $5 million, though it may (and often does) exceed the cap upon the president's determination that continued emergency assistance is required.[302]

While the type of assistance is more limited, the process of declaring an emergency is arguably more flexible than the declaration of a major disaster. The president may declare an emergency under two circumstances: (1) at the request of a state governor or the chief executive of a Tribal government "based on a finding that the [disaster or] situation is of such severity and magnitude that effective response is beyond the capabilities of the State and the affected local governments and that Federal assistance is necessary";[303]

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294 42 U.S.C § 5133.

295 FEMA, *Notice of Funding Opportunity for Fiscal Year 2021 Building Resilient Infrastructure and Communities Grants* (Aug. 9, 2021), https://www.fema.gov/fact-sheet/notice-funding-opportunity-fiscal-year-2021-building-resilient-infrastructure-and; *see also* Cong. Research Serv., IN11515, *FEMA Pre-Disaster Mitigation: The Building Resilient Infrastructure and Communities (BRIC) Program* (updated Sept. 17, 2021), https://crsreports.congress.gov/product/pdf/IN/IN11515; 42 USC § 5133(g).

296 42 U.S.C. § 5133(i). *See also* Hazard Mitigation Assistance: Building Resilient Infrastructure and Communities, 85 Fed Reg. 20291 (Noticed Apr. 10, 2020), https://www.federalregister.gov/documents/2020/04/10/2020-07609/hazard-mitigation-assistance-building-resilient-infrastructure-and-communities.

297 White House, *Fact Sheet: Biden Administration Invests $1 Billion to Protect Communities, Families, and Businesses Before Disaster Strikes* (May 24, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/05/24/fact-sheet-biden-administration-invests-1-billion-to-protect-communities-families-and-businesses-before-disaster-strikes/.

298 U.S. Dep't of Homeland Security, Federal Emergency Management Agency, *Disaster Relief Fund: Fiscal Year 2022 Funding Requirements* 5 (2021), https://www.dhs.gov/sites/default/files/publications/fema_-_disaster_relief_fund_fy_2022_funding_requirements.pdf; Cong. Research Serv., R46822, *DHS Budget Request Analysis: FY2022* 21-22 (2021), https://sgp.fas.org/crs/homesec/R46822.pdf.

299 42 U.S.C. § 5133(g).

300 42 U.S.C. § 5122(1).

301 42 U.S.C. §§ 5122, 5192(a)(1)

302 42 U.S.C. § 5193; Press Release, FEMA, Statement Regarding FEMA's Emergency Declaration $5 Million Cap (Jan. 13, 2020), https://www.fema.gov/press-release/20210318/statement-regarding-femas-emergency-declaration-5-million-cap.

303 42 U.S.C. § 5191.

or (2) unilaterally declare that an emergency exists in situations where the primary responsibility for responding to an emergency rests with the federal government.[304] While presidents are only permitted to unilaterally announce emergencies with respect to areas that are of the primary responsibility of the federal government,[305] the climate crisis is an issue of grave national security whose protection lies first and foremost with the federal government.

B. ***Major disaster declaration***. The second type of presidential declaration is the major disaster declaration, which is defined as:

> any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this chapter to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby. [306]

A major disaster declaration unlocks all types of assistance. Most notably for climate mitigation and resilience, this includes Public Assistance Permanent Work (in addition to Emergency Work also available with an emergency declaration) and Hazard Mitigation Assistance. The process of declaring a major disaster is arguably more limited than an emergency declaration: the president can only declare a major disaster at the request of a state governor or the chief executive of an Indian tribal government. Without such "bottom up" requests, he cannot unilaterally declare a major disaster.

Past presidents have frequently invoked the Stafford Act. According to analysis by the Brennan Center, "[b]etween 1953 and 2014, averages of 35.5 major disaster declarations were issued annually by Presidents under the Stafford Act and its predecessor Disaster Relief Acts. Emergency declarations under this Act have been issued on average 9 times annually between 1974 and 2014."[307]

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304 See *id*. § 5191(b). Note that a President cannot unilaterally declare a "major disaster," however.

305 42 U.S.C. § 5191(b).

306 A42 U.S.C. § 5122(1). Of note for climate change, FEMA has also established a third type of declaration, Fire Management Assistance Grant (FMAG) declarations, through regulation. That process differs significantly from the emergency and major disaster processes and is not discussed here. *See* FEMA, *Fire Management Assistance Grants, supra* note 285.

307 Brennan Center, *supra* note 93.

FEMA and the Defense Production Act

FEMA has been delegated significant authority under the DPA. FEMA is responsible for government-wide coordination for use of DPA authorities.[308] To protect national security, the agency can use DPA Title I priorities and allocations authorities to support emergency and disaster activities, including for emergency preparedness programs under Title VI of the Stafford Act and programs to protect or restore critical infrastructure.[309] The agency also has authority under Title VII of the DPA to develop national plans of action and voluntary agreements to address emergencies, such as the Covid-19 pandemic.[310] Through both the DPA and the Stafford Act, FEMA can coordinate the Departments of Energy, Transportation, and Defense to facilitate the creation of a game plan and cooperative agreements among industry players and deploy DER and clean transportation infrastructure. By using its authorities under the Stafford Act in combination with those conferred by the DPA, FEMA can expedite a coordinated government effort to transform our nation's energy and transportation systems with a priority concentration on climate-vulnerable communities.

Application to Climate Action: Develop Climate-Resilient Communities Prioritizing Frontline Communities and Redress Disaster Aid Inequities

The president should declare the climate crisis as an emergency and major disaster, where states have requested such declarations. He should ensure all mitigation funding unlocked through emergency and major disaster declarations is allocated, and that all FEMA funding undertaking pre- or post-disaster relief work prioritizes climate resiliency and equity instead of polluting, fossil-fuel-based infrastructure. At the same time, the president should work with Congress to: 1) boost funding for climate mitigation, including by expanding appropriations and lifting statutory spending caps for mitigation projects; and 2) clarify FEMA's role in funding projects that minimize or prevent slow-onset, compounding, or cascading disasters like desertification, sea-level rise, and coastal erosion.[311] As past FEMA Administrator Brock Long testified before Congress, "I cannot overstate the importance of focusing on investing in mitigation before

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308 Exec. Order No. 13,603, 77 Fed. Reg. 16651, *supra* note 184, at sec. 202; Dep't of Homeland Security, Delegation 09052 Rev. 00, *Delegation of Defense Production Act Authority to the Administrator of the Federal Emergency Management Agency* (Jan. 3, 2017), https://www.dhs.gov/sites/default/files/publications/2017-HQFO-01350%20records.pdf; FEMA, *Defense Production Act Authority and Functions of the FEMA Administrator*, https://www.fema.gov/es/node/481474 [hereinafter FEMA, *Defense Production Act Authority*]. *See also* DPA Act, 50 U.S.C. § 4502(b)(8) (identifying FEMA as a coordinating body for geographic dispersal of industrial facilities in the interest of the national defense).

309 FEMA, *Department of Homeland Security (DHS) Approved Programs,* FEMA, https://www.fema.gov/disaster/defense-production-act/dhs-approved-programs (last updated July 6, 2021); FEMA, *Defense Production Act Authority, supra* note 308. See also 44 C.F.R. § 330.2 authorizing FEMA to use priorities and allocations authority under Section 101(c) of the DPA to "maximize domestic energy supplies" through "transportation, or conservation of energy supplies, or the construction and maintenance of energy facilities" if materials are "scarce, critical, and essential," and those activities cannot otherwise reasonably be accomplished without using this authority.

310 Voluntary Agreements Under Section 708 of the Defense Production Act of 1950, 44 C.F.R. Part 332 (2022). *See e.g.,* Plan of Action to Establish a National Strategy for the Manufacture, Allocation, and Distribution of Personal Protective Equipment (PPE) to Respond to Covid-19 Implemented Under the Voluntary Agreement for the Manufacture and Distribution of Critical Healthcare Resources Necessary to Respond to a Pandemic, 85 Fed. Reg. 79,020 (Noticed Dec. 7, 2020), https://www.regulations.gov/document/FEMA-2020-0016-0044.

311 Congressman Earl Blumenauer, *From Ruin to Resilience: Protecting Communities and Preventing Disasters* 13 (2021), https://blumenauer.house.gov/sites/blumenauer.house.gov/files/2021_CommunityResilience_web.pdf; Cong. Research Serv., IN11696, *Climate Change, Slow-Onset Disasters, and the Federal Emergency Management Agency* (updated Nov. 12, 2021), https://crsreports.congress.gov/product/pdf/IN/IN11696.

a disaster strikes . . . building more resilient communities is the best way to reduce risks to people, property, and taxpayer dollars."[312]

Over the past several decades, the United States has experienced almost 300 weather and climate disasters that cost more than $1 billion dollars.[313] At the same time, legacy fossil fuel systems are also immensely vulnerable to the threats of climate change.[314] Climate-induced disasters and extreme weather events threaten the integrity of infrastructure used to transmit and distribute fossil fuels, as well as fossil fuel production, particularly where fossil fuel power plants are located along the coasts and may be compromised by sea-level rise.[315]

As a general matter, Biden should address two problems that plague FEMA's aid regarding climate: (1) inequitable distributions of aid whereby low-income and environmental justice communities — which disproportionately suffer climate impacts — are disproportionately denied FEMA aid and assistance; and (2) favoritism of stopgap fossil fuel solutions that perpetuate the climate emergency and environmental justice in disaster response and recovery.

First, as discussed above (*see* Part 2(I), *supra*), communities of color and low-income communities not only disproportionately experience climate disasters but are more harmed and face more difficulty in recovering from those disasters. While FEMA is the central agency tasked with preparing for and responding to disasters, numerous studies, including FEMA's own internal analyses, demonstrate how FEMA has disproportionately provided aid to white and higher-income disaster victims as compared to people of color and those with lower incomes, including in cases where homeowners across these groups have suffered equal amounts of damage.[316] Thus, as the FEMA National Advisory Council noted, FEMA recovery programs currently "provide an additional boost to wealthy homeowners and others with less need, while lower-income individuals and others sink further into poverty after disasters." [317] These systemic inequities have been found to pervade FEMA's programs.[318] Additionally, lower-income communities are further disadvantaged because they lack the money to match federal grants or resources to prepare competitive grant applications.[319]

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312 *Emergency Response and Recovery: Central Takeaways from Unprecedented 2017 Hurricane Season: Hearing Before the H. Comm. on Transp. and Infrastructure*, 115th Cong. (2017) (statement of William B. Long, Administrator, FEMA), http://docs.house.gov/meetings/PW/PW00/20171102/106571/HHRG-115-PW00-Wstate-LongW-20171102.pdf.

313 NOAA, Nat'l Ctrs. for Env't Info., *U.S. Billion-Dollar Weather and Climate Disasters* (2021), https://www.ncdc.noaa.gov/billions/, DOI: 10.25921/stkw-7w73.

314 Mark Dyson & Becky Li, Rocky Mountain Inst., *Reimagining Grid Resilience* (2020), https://rmi.org/wp-content/uploads/2020/07/reimagining_grid_resilience.pdf.

315 U.S. Dep't of Energy, *U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather* (2013), https://www.energy.gov/sites/default/files/2013/07/f2/20130716-Energy%20Sector%20Vulnerabilities%20Report.pdf.

316 Junia Howell & James R. Elliott, *As Disaster Costs Rise, So Does Inequality,* 4 Socius: Soc. Res. for a Dynamic World (2018), https://doi.org/10.1177/2378023118816795 (finding that, "holding disaster costs constant, the more [FEMA] money a county receives, the more whites' wealth tends to grow and the more blacks' wealth tends to decline, all else equal"); Junia Howell & James R. Elliot, *Damage Done: The Longitudinal Impacts of Natural Hazards on Wealth Polarization in the United States,* 66 Soc. Problems 448 (2018), https://doi.org/10.1093/socpro/spy016 (finding that "as local hazard damages increase, so too does wealth inequality, especially along the lines of race, education, and homeownership. Results also indicate that the more funds areas receive from FEMA, the more this wealth inequality increases"). *See also* Flavelle, *supra* note 38; Hersher, *supra* note 38.

317 FEMA Nat'l Advisory Council, *National Advisory Council Report to the FEMA Administrator* (2020), https://www.fema.gov/sites/default/files/documents/fema_nac-report_11-2020.pdf; *see also* Oronde Drakes et al., *Social Vulnerability and Short-Term Disaster Assistance in the United States*, 53 Int'l J.of Disaster Risk Reduction 102010 (2021), https://doi.org/10.1016/j.ijdrr.2020.102010.

318 *See* Christopher T. Emrich et al., Measuring Social Equity in Flood Recovery Funding, 19 Env't Hazards 228 (2020), https://doi.org/10.1080/17477891.2019.1675578.

319 Congressman Blumenauer, *supra* note 311, at 1; Thomas Frank, *FEMA Climate Grants Pose Challenge for Poor Communities*, ClimateWire, June 1, 2021, https://www.eenews.net/articles/fema-climate-grants-pose-challenge-for-poor-communities/.

Second, many of FEMA's current policies perpetuate a reliance on fossil-fuel power, which further harms communities of color and low-income communities. Multiple FEMA programs allow fossil fuel-powered generators to qualify as emergency equipment and receive federal funds;[320] the emissions from these generators include toxic air contaminants that threaten human health and the environment.[321] FEMA grants are also used to repair and develop larger fossil fuel infrastructure, unnecessarily locking in polluting power sources and undermining resilience in future emergencies.

Added to these systemic deficiencies is the fact that mitigation programs are chronically underfunded. According to Rep. Earl Blumenauer, for example, "[f]or the Fiscal Year 2020 grant application cycle, FEMA received nearly $4 billion in applications for the BRIC and [Flood Mitigation Assistance] programs but had only $700 million total to disburse."[322]

As discussed above in Part 2(II)(1) *infra*, DER systems and energy efficiency are fundamental to protecting the public health and safety threatened by the climate emergency because they eliminate polluting sources of energy and offer resilient energy to withstand climate-induced disasters. A recent study also demonstrated that storage paired with renewable resources avoided blackouts during the 2021 Texas freeze spell and 2020 California summer power outages, highlighting the importance of DER in securing energy resilience. [323] Critically, FEMA should deploy DER systems and energy efficiency technologies in partnership with the communities of color that are not only at the fencelines of fossil fuel pollution and the frontlines of climate disasters, but also which FEMA itself has historically neglected in its aid relief.[324] In addition to establishing distributed renewable energy and transport technology, FEMA should implement additional best practices to protect communities from future risks — including avoiding (re-)construction in areas prone to flooding, wildfire, and other climate disasters and investing in community water resilience, conservation, and efficiency.[325]

1. Declaration of a climate emergency to target recovery to support climate resiliency

The president can declare a climate emergency under the Stafford Act. As described in Part 2(I), *supra*, the climate emergency has proven to endanger Americans and their property, thus qualifying the emergency requirement under the Stafford Act as an "occasion for which Federal assistance is needed to supplement State and local efforts and capabilities" in order to "to lessen or avert the threat of a catastrophe in any part of the United States."[326]

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320 Currently, diesel-powered generators and related equipment purchases (e.g. hoo.k-ups) are eligible under the Hazard Mitigation Grant Program (HMGP), which assists in implementing long-term hazard mitigation planning and projects following a Presidential major disaster declaration, and the Building Resilient Infrastructure & Communities (BRIC) program (previously, the Pre-Disaster Mitigation Program), which provides funds annually for hazard mitigation planning and projects. FEMA, *Generator*, https://www.fema.gov/hmgp-appeal-categories/generator (last visited Feb. 17, 2022).

321 Niyi Awofeso, *Generator Diesel Exhaust: A Major Hazard to Health and the Environment in Nigeria,* 183 Am. J. of Respiratory and Critical Care Med. 1437, https://doi.org/10.1164/ajrccm.183.10.1437.

322 Congressman Blumenauer, *supra* note 311, at 17. While the BRIC program is capped at six percent of the funding provided for declared major disasters, in March 2020, the CARES Act, P.L. 116-136, Div. B, appropriated $45 billion in emergency- and disaster-relief supplemental spending for Stafford Act programs broadly, six percent of which is $2.7 billion.

323 *See* Jacobson et al., *supra* note 12.

324 Ilana Cohen, Howard Crystal, Jaclyn Lopez, Ctr. for Biological Diversity, Comments Submitted re: Docket ID FEMA-2021-0011 (Notice and Request for Information) (July 21, 2021), https://www.regulations.gov/comment/FEMA-2021-0011-0265; Howard Crystal, Opinion, *FEMA Must Protect the Hardest-Hit Communities from Climate Change*, The Hill, Sept. 9, 2021, https://thehill.com/opinion/energy-environment/571334-fema-must-protect-the-hardest-hit-communities-from-climate-change.

325 *See* Congressman Blumenauer, *supra* note 311; Tiffany Yap et al., *Built to Burn: California's Wildlands Developments are Playing With Fire, Bold Land-Use Reforms Needed Now to Ensure Safer, Sustainable Future* (2021), https://www.biologicaldiversity.org/programs/urban/pdfs/Built-to-Burn-California-Wildfire-Report-Center-Biological-Diversity.pdf; Jaclyn Lopez, *From Bail Out to Righting the Course: The Commonsense Action the United States Must Take to Address Its Flood Crisis,* 33 Tulane Env't L. J. 1 (2020), https://www.biologicaldiversity.org/publications/papers/Lopez-2020-From-Bail-Out-to-Righting-the-Course.pdf.

326 42 U.S.C. § 5122(1).

Under a climate emergency declaration, the president can unlock key emergency funding streams to maximize mitigation against a future climate disasters. Specifically, the president is empowered to provide Individual Assistance through the Individuals and Households Program, which provides financial and direct services to individuals and households affected by an emergency or disaster to help homeowners repair or rebuild stronger, more durable homes.[327] This can entail equipping homes with independent solar and battery systems, as well as greater energy efficiency technologies to cut down energy demand, within limits of around $35,500 per household in FY2020 (and annually adjusted).[328] This aid can help fund solar plus storage systems and low-cost weatherization technologies. It can also entail equipping homes and multi-family dwellings with fast chargers for electric vehicles, which will become increasingly essential as the country decarbonizes its transportation system.

Additionally, the president can unlock Public Assistance for immediate threats, such as emergency protective measures to prevent or mitigate risks to lives, health, safety, or property.[329] The president should ban those funds from going toward fossil fuel stopgap solutions like diesel generators and restoration of large fossil fuel infrastructure and instead prioritize, when feasible, portable electric generators to power essential services and other electric recovery equipment.[330]

2. *Declaration of a climate major disaster to undertake pre-disaster mitigation and target recovery to support resilient, clean systems*

The president can also declare a major disaster when states, territories, and Tribal governments that request it. Climate-induced extreme weather events constitute "natural catastrophes," including flood and fire, that cause sufficient damage to warrant major disaster assistance" from the federal government.[331] States should be encouraged to request declarations when faced with climate disaster in the same way the federal government encouraged states to request disaster declarations when faced with COVID-19.[332] In 2020-2021 alone, climate-induced disasters including flooding from Hurricane Ida and wildfires compelled California, Pennsylvania, North Carolina, New York and several other states to declare major disasters under the Stafford Act to receive federal assistance.[333]

Under a major disaster declaration, the president may unlock the full bevy of assistance programs for both pre-disaster mitigation and post-disaster relief, including: Public Assistance funding for emergency *and* permanent work — which includes the restoration of damaged facilities, including utilities and public works facilities, roads and bridges, buildings, and other facilities;[334] Individual Assistance; and HMGP

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327 FEMA, *Individuals and Households Program*, https://www.fema.gov/assistance/individual/program (last updated Oct. 4, 2021).

328 42 U.S.C. §5174(h)(1); Notice of Maximum Amount of Assistance Under the Individuals and Households Program, 84 Federal Register 55324 (Oct. 16, 2019), https://www.govinfo.gov/content/pkg/FR-2019-10-16/pdf/2019-22471.pdf. It is adjusted annually to reflect changes in the Consumer Price Index for All Urban Consumers published by the Department of Labor (42 U.S.C. §5174(h)(3)).

329 FEMA, *Public Assistance Program and Policy Guide, supra* note 276, at 97.

330 Nat'l Renewable Energy Lab'y, *Counting on Solar Power for Disaster Relief* (1999), https://www.nrel.gov/docs/fy99osti/26042.pdf.

331 42 U.S.C. § 5122(1).

332 *See Letter from President Donald J. Trump on Emergency Determination Under the Stafford Act* (Mar. 13, 2020), https://trumpwhitehouse.archives.gov/briefings-statements/letter-president-donald-j-trump-emergency-determination-stafford-act/ ("I believe that the disaster is of such severity and magnitude nationwide that requests for a declaration of a major disaster as set forth in section 401(a) of the Stafford Act may be appropriate. I encourage all governors and tribal leaders to consider requesting Federal assistance under this provision of the Stafford Act, pursuant to the statutory criteria. I stand ready to expeditiously consider any such request.")

333 *New FEMA Major and Emergency Disaster Declarations*, HUD Exchange (Jan. 3, 2022), https://www.hudexchange.info/news/new-fema-major-disaster-declarations/.

334 42 U.S.C. § 5172; 44 CFR § 206.226(b).

assistance.[335] At the outset, the president must ensure that the full amount of available mitigation funding allowed under disaster declarations be allocated, and that the funding is focused on climate, resilience, and equity. For instance, FEMA can prescribe guidance and regulations requiring that PA permanent work and HMGP assistance provided in the wake of a major disaster declaration fund DER, microgrids, public transportation, and zero-emission transportation infrastructure over the simple restoration of traditional stopgap fossil fuel infrastructure.[336,337] In doing so, FEMA should give priority to historically underserved communities within the areas affected by climate disaster by directing at least 40% of the PA and IA to those communities, pursuant to Biden's Justice40 initiative. Finally, the president should ensure that FEMA dispenses the full amount of BRIC funding unlocked by disaster declarations each year, and as with HMGP assistance, that BRIC funding prioritize DER and climate resilient projects in historically neglected communities. FEMA also must provide more assistance to communities with few resources to prepare competitive applications and to help them receive funds.

335 Cong. Research Serv., *supra* note 288, at 23.

336 Pursuant to his Stafford Act authority to prescribe rules and regulations to carry out the Stafford Act and to assist Governors in requesting the declaration of an emergency in advance of a natural or man-made disaster, the President should enshrine these resiliency principles by adopting regulations that proactively require that emergency and disaster assistance as well as hazard mitigation planning prioritize long-term climate-resilient infrastructure to avoid even more catastrophic climate-fueled harms in the future. 42 U.S.C. §§ 5164, 5192(c), 5201(a)(1).

337 As but one example of a regulatory reforms, FEMA should lift the cap on funding projects that have significant changes to the pre-disaster configuration of a facility in order to facilitate more innovative climate-resilient projects that achieve the same function – such as replacing outdated fossil-fueled power plants with DER. *See* FEMA, *Public Assistance Program and Policy Guide, supra* note 276, at 163, https://www.fema.gov/sites/default/files/documents/fema_pappg-v4-updated-links_policy_6-1-2020.pdf ("FEMA provides three options that provide flexibility for the Applicant to use PA funding differently than restoring pre-disaster design and function of the facility. For these options, FEMA caps the amount of PA funding based on the estimated amount to restore the damaged facility to its pre-disaster design and function, including current eligible codes and standards…."). As another example, FEMA should prioritize portable electric generators with accompanying solar generation over gasoline or diesel-powered engine generators to provide emergency power. Diesel-powered generators and related equipment purchases (e.g. hook-ups) are currently eligible under the HGMP and the BRIC program. FEMA, *Generator*, https://www.fema.gov/hmgp-appeal-categories/generator (last visited Feb. 17, 2022). By steering federal assistance toward further fossil fuel power in this manner, FEMA promotes reliance on the very emissions fueling the climate emergency. In addition, fossil fuel-powered engine generators are less safe, less reliable, more polluting, and more expensive than their electric alternatives. *See* U.S. Dep't of Energy, *When Disaster Strikes, the Sun Can Still Shine Through* (1994); *see also* Nat'l Renewable Energy Lab'y, *supra* note 330.

CONCLUSION

2022 is a clarion call for President Biden to become the Climate President. The indefinite abeyance of the Build Back Better Act may close the door on significant climate legislation under his administration's first term. But it leaves open the vital and necessary pathway of taking bold executive action to beat back the defining emergency of the Biden presidency and of our time. Tepid climate policies and failure to act meaningfully are simply unacceptable. This report demonstrates that the issue is not whether President Biden *can* make substantial progress on climate; the question is *will* he do so. In this extraordinary moment of both crisis and opportunity, President Biden can and should use the immense emergency and ordinary powers at his disposal — but which he has not yet employed — to jettison the fossil-fuel economy and burgeon a just, anti-racist, and regenerative America in its place.