GOING **CLEAN**... MAKING **GREEN**... **FOR EVERYONE IN BETWEEN**

POLLING DATA SHOWS STRONG VOTER SUPPORT FOR CLEAN ENERGY STIMULUS

NOVEMBER 2020

climatenexus polling

climatenexus.org

ABOUT

CLIMATE NEXUS

Climate Nexus is a nonprofit strategic communications organization that was founded in 2011 to change the conversation on climate and clean energy. We work with and through a diverse network of partners to shape media coverage and reach wider audiences on these issues. Among our services, we help partners conduct public opinion research, sharpen messages, develop collateral, connect with reporters, place op-eds, launch online campaigns, organize events, and coordinate activities across the larger climate and clean energy community. If you are interested in working with us, please email us at campaigns@climatenexus.org.

NEXUS POLLING AND DATA IN THIS REPORT

Climate Nexus, through our in-house polling operation Nexus Polling, regularly conducts national and state polls on climate and energy issues. Over the last two years, Nexus Polling has interviewed more than 200,000 Americans to better understand views on these issues.

Most of the polling data presented in this report come from a series of nationally representative online surveys completed over the last two months of this year's presidential campaign. These surveys were conducted and previously publicly released in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, and are available at https://climatenexus.org/polling. Additional information about each survey is provided in the citations, including sample size, margin of error and dates conducted. If you have questions about Nexus Polling or data in this report, please email us polling@climatenexus.org.

CONTENTS




64% support the Green New Deal after the Trump campaign attempted to tie it to Biden's climate and clean energy investment plan, and after more than two years of sustained attacks by congressional Republicans. The ineffectiveness of these attacks should give Democrats confidence to move forward on significant climate and clean energy investments. It's good policy but also good politics.

INTRODUCTION

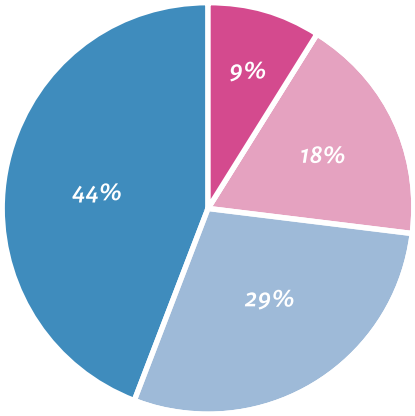
As Joe Biden prepares to take office, the United States faces crisis on multiple fronts. Our economy is reeling from the coronavirus that has taken more than 200,000 American lives. Communities of color are suffering under the weight of continued injustice and inequality. And climate change is causing increasing devastation in the form of wildfires, heatwaves, hurricanes, and other extreme weather.

After securing the Democratic nomination, President-elect Biden proposed a $2 trillion coronavirus recovery plan that would address these problems right away and all at once. By investing heavily in climate and clean energy projects, he argued we can put Americans back to work, lift up struggling communities, including long-neglected Black, Hispanic and Indigenous communities, and rapidly transition to a 100% clean economy (defined as net-zero carbon emissions) to prevent climate catastrophe.

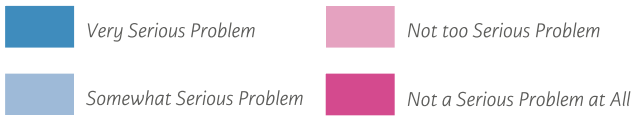
That argument featured prominently during the campaign against President Trump, and it prevailed in the election, giving Biden a strong mandate for action. It will be tested again, however, when the new Congress convenes in January and takes up Biden's stimulus plan. This report makes the case for building a 100% clean economy and provides data from a series of polls conducted by Climate Nexus in the heat of the presidential campaign showing strong public support for doing so (notably, the two most recent polls in this series found voters preferred Biden over Trump by 6 and 5 percentage points, within a point or two of Biden's expected margin in the national popular vote, as some votes are still being counted).

Voters' top priority is the economy, but they back investments in renewable energy and other clean technologies for both climate and economic reasons. Not only do ***they see climate change as a threat that can't be ignored***, they see great potential to create jobs and help struggling communities by building a 100% clean economy.

Q: Do you think climate change is a serious or not serious problem for your local area?



73% of voters think climate change is a very or somewhat serious problem for their local area, including 90% of Democrats, 76% of independents and 54% of Republicans.[1] And 70% believe passing comprehensive legislation to address climate change should be a top or important priority for Congress and the president in 2021. Almost 20% report experiencing property damage or other economic hardships in just the last year as a result of severe storms, flooding, heatwaves, or wildfire.[2]



It turns out voters are right:

Building a 100% clean economy is urgently needed to prevent catastrophic climate change – and it's now within reach. The goal of building a 100% clean economy by 2050 is not arbitrary: It's what the world's leading climate scientists say is necessary to avoid catastrophic climate change. The good news is the U.S. has the ability to achieve 90% clean electricity nationwide by 2035 at no extra cost to consumers, because of sharply declining costs for renewable energy and battery storage. We can then slash carbon pollution further by relying on clean electricity instead of fossil fuels for things like powering vehicles and heating homes and buildings. Aggressive investments to accelerate the ongoing transition to renewable energy and clean technologies can put America on the path to rapidly achieve a 100% clean economy.

Building a 100% clean economy will provide the jolt America needs to recover from the devastating economic shock of coronavirus. Leading economists say the U.S. needs multi-trillion-dollar stimulus to turn around

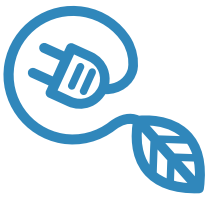
struggling businesses, return to full employment and boost wages as fast as possible. Building a 100% clean economy offers the opportunity to mobilize businesses and workers on a scale similar to World War II, which decisively ended the Great Depression. A groundbreaking Rewiring America study finds such an effort would create up to 25 million good-paying jobs across every zip code in the country, doing things like manufacturing electric vehicles and other clean technologies, installing energy-efficient HVAC systems, and adding new transmission for renewable energy.

Building a 100% clean economy will protect and lift up the most vulnerable among us, including hard-hit communities of color. Black, Hispanic, and Indigenous communities are disproportionately located in areas with heavy fossil fuel pollution and unhealthy air, which has been linked to elevated coronavirus fatality rates. They also have suffered sustained coronavirus-related job losses and income decline, even as wealthier and whiter communities have mostly recovered. This hit has exacerbated pre-existing inequalities that leave communities of color less able to protect themselves against climate change. Building a 100% clean economy would reduce their exposure to fossil-fuel pollution, provide jobs and long-overdue economic development, and fund infrastructure improvements to protect against extreme weather and climate-related disasters while reducing the likelihood of such events.

As Biden and his congressional allies begin the process of enacting climate- and clean-energy stimulus, they should be confident they have the support of the American people – and that the opposition's attacks don't work. For more than a year, congressional Republicans have tried to turn the Green New Deal against Democrats, and President Trump and Vice President Pence followed suit during the presidential campaign. Yet voter support for climate- and clean-energy stimulus – and even the Green New Deal itself – remained high over the campaign's last several months.

In his victory speech, Biden asked the next Congress to choose cooperation over partisan attacks. Republican and Democratic voters strikingly agree on a broad range of climate and clean energy investments. If Republicans and Democrats in Congress are prepared to cooperate, as Biden hopes, they would do well to look to their voters.

IN A NUTSHELL



GOING CLEAN

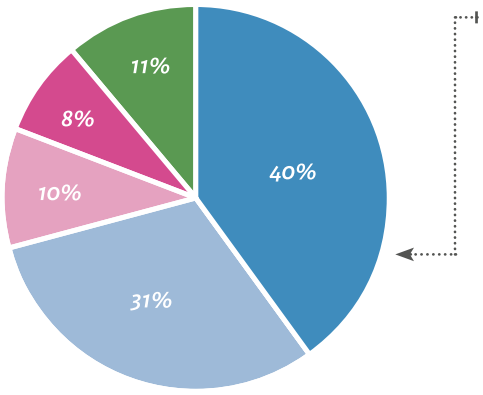
A 100% clean economy is now within our reach. The United States has begun the transition to ever-cheaper renewable energy, electric vehicles, and gas-free buildings that run on increasingly clean electricity. But we need to move faster to prevent catastrophic climate change, as we're already paying a high price for decades of policy inaction: 2020 broke the record for billion-dollar weather and climate-related disasters. Through aggressive new investments, we can kick the clean energy revolution into overdrive and leave a safer, healthier world to our children and grandchildren.

KEY POINTS

We have made tremendous progress toward a clean economy in recent years – despite an administration hostile to clean energy. Electric utilities across the country are choosing ever-cheaper renewable energy over coal and even natural gas – Americans already consume more energy from renewable sources than coal,[1] and clean technologies like wind and solar plus battery storage can provide the reliability of gas, without the emissions, at comparable and often lower cost. Automakers have gone all-in on electric vehicles – more than 500 EV models will be available to consumers by 2022.[2] And leading cities and states have begun the transition to gas-free buildings run entirely on clean electricity.[3] This progress happened even as the Trump administration acted to prop up coal, roll back fuel economy standards, and tilt the scales to fossil fuels like natural gas. Imagine what could be accomplished if politicians in Washington get behind the clean energy revolution.

A 100% clean economy is now within our reach. Because of sharply declining costs for renewable energy and battery storage technology, it's possible for the United States to reliably deliver 90% clean electricity nationwide by 2035 at no additional cost to consumers, according to new reports from researchers at UC Berkeley[4] and Energy Innovation.[5] This finding shows 100% clean electricity is well within reach – and can be achieved if we act with more ambition. Clean electricity also provides the opportunity to slash emissions in other sectors of our economy. That includes transitioning to electric vehicles – which industry analysts project will soon be cheaper than gas-powered vehicles – and replacing gas appliances in homes and buildings with affordable, all-electric alternatives for heating, cooking and other purposes. See pages 12-14 for a sector-by-sector look at the opportunities in front of us.

Q: As you may know, legislation has been introduced in Congress that would set the goal of achieving a 100% clean economy (eliminating fossil fuel emissions from the transportation, electricity, buildings, industry, and agricultural sectors) in the United States by the year 2050. Do you support or oppose this legislation?



71% of voters support the goal of achieving a 100% clean economy by 2050, including 86% of Democrats, 61% of independents, and 59% of Republicans.[6] In addition, 71% of voters support requiring electric utilities to generate 100% of their electricity from clean energy sources, such as solar and wind, by 2035.

The destructive consequences of climate change are already here. Seventeen weather or climate disasters causing more than a billion dollars in damages have struck America in 2020, more than any other year on record.[7] This includes two Gulf region hurricanes, Delta[8] and Laura,[9] both of which set records for intensification; an "unusually powerful" derecho that ripped through the Midwest,[10] damaging as much as 14 million acres of farmland in Iowa; and record-setting wildfires sparked by drought conditions out West (California,[11] Oregon,[12] Colorado,[13] and Arizona[14] all experienced historic wildfires this summer). California also suffered a blistering heat wave that led to a spike in emergency room visits[15] and rolling blackouts,[16] caused by poor energy planning that hasn't kept pace with climate change, according to the state's three central energy agencies.[17]

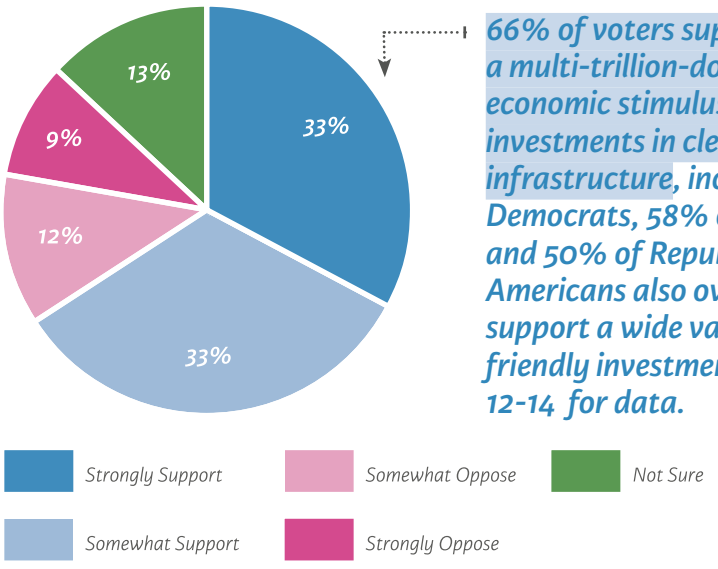
POLLING DATA NEXT PAGE

We have to move faster to prevent even worse consequences. The world has to cut carbon dioxide emissions by about 45% from 2010 levels by 2030 and achieve net-zero emissions by 2050 to stay under 1.5°C of warming and prevent catastrophic climate change, according to the Intergovernmental Panel on Climate Change (IPCC).[18] Adding to this urgency, the National Oceanic and Atmospheric Administration recently reported a disturbing surge of methane in the atmosphere,[19] coinciding with expanded U.S. production and use of natural gas in recent years. Scientists say this "unexpected and sustained" surge in methane – the main component of natural gas and a super potent greenhouse gas[20] – is so great it may overwhelm all emissions reduction efforts made under the Paris Agreement,[21] which was premised on stable methane levels.[22] As far and away the world's largest all-time greenhouse gas emitter and currently the second largest emitter after China, America must do its fair share[23] and move much, much faster to cut carbon dioxide and methane pollution if the world is to avoid the projected horrors of warming above 1.5°, including displacement of tens of millions of people from rising sea levels, widespread water shortages, coral reefs wiped out, and food insecurity from falling agriculture production.[24]

New investments can kick the clean energy revolution into overdrive. The clean energy revolution has arrived, but we need aggressive investments to achieve a 100% clean economy on the timeline required. That means job-creating infrastructure projects such as transmission lines to deliver clean electricity; financial incentives for ordinary Americans and businesses to switch to clean technologies such as solar panels, electric cars and trucks, and all-electric heating and cooling systems; and tax credits to boost production of renewable energy and American manufacturing of clean technologies. This is the American way: Efficient replaces wasteful; clean replaces dirty; high-tech replaces low-tech. And we don't wait for it to happen. We make it happen.

We owe this to our children and grandchildren. Franklin Roosevelt's New Deal brought electricity and clean water to millions of Americans. Soon after, President Eisenhower built the interstate highway system to connect a growing country. These investments in America's infrastructure helped bring millions of families into a thriving middle class, but they weren't perfect either: New Deal policies promoted segregated housing that isolated Black communities,[25] while the interstate highway system later bulldozed and displaced many of those same communities.[26] The question now is what will we leave behind to our children and grandchildren? If we build a 100% clean economy, and do it in a way that benefits everyone, we will not only prevent climate catastrophe; we will provide a new foundation for broadly shared prosperity that leaves no one behind.

Q: As part of coronavirus recovery, do you support or oppose providing a multi-trillion-dollar federal economic stimulus that prioritizes investments in clean energy infrastructure?



66% of voters support providing a multi-trillion-dollar federal economic stimulus that prioritizes investments in clean energy infrastructure, including 83% of Democrats, 58% of independents, and 50% of Republicans.[27] Americans also overwhelmingly support a wide variety of climate-friendly investments. *See pages 12-14 for data.*

WHAT NEEDS TO HAPPEN SECTOR BY SECTOR

The following takes a look at the various sectors of our economy and describes where we are and what we need to do to reach net-zero carbon emissions.[1]

78%

of voters support investing billions of federal dollars to upgrade the electric grid and expand the production of renewable energy, like solar and wind.[5]

ELECTRICITY

While the U.S. electricity sector has been getting incrementally cleaner in recent years, power generation is still responsible for about 27% of the nation's greenhouse gas emissions.[2] Cutting this number down to zero in just 15 years is a huge economic opportunity – and new research finds it's imminently possible and affordable using almost entirely existing technologies.[3] The nation's electric utilities, however, are not even on track to meet their own inadequate decarbonization targets.[4] We can speed things up by:

- Creating a federal clean electricity standard;
- Extending the clean energy investment and production tax credits;
- Streamlining renewable energy and transmission planning and siting processes;
- Promoting the deployment of distributed energy resources; and
- Allowing utilities to securitize debt for the early retirement of their undepreciated fossil assets.

70%

of voters support extending the federal tax credit for electric vehicles beyond each manufacturer's first 200,000 vehicles sold.

TRANSPORTATION

Transportation recently overtook electricity to become the largest emitting sector of the U.S. economy. These emissions result almost entirely from the oil we use to power our cars, trucks, ships, and airplanes. Electric vehicles are poised to win the future: They already displace 1 million barrels of oil demand per day, and BloombergNEF projects that number will rise to almost 18 million barrels per day by 2040.[6] Yet, while the tipping point when unsubsidized EVs become cheaper to purchase than traditional gasoline vehicles is expected to arrive sometime in the next few years,[7] we aren't moving nearly fast enough to reduce transportation sector emissions.[8] We can speed things up by:

- Extending tax credits for the purchase of new EVs as well as for businesses and individuals to install charging infrastructure;
- Building out a network of publicly available charging stations along key corridors;
- Establishing a new cash-for-clunkers voucher program to equitably speed the turnover of the existing vehicle fleet;
- Boosting investment in public transit, bike-commuting, and transit-oriented development;
- Adopting more ambitious vehicle fuel efficiency standards for light-duty vehicles – which were weakened during the Trump administration – and also medium- and heavy-duty vehicles (something that can be accomplished through executive branch regulatory action); and
- Investing more in research and development for the harder to decarbonize parts of the sector, like aviation and long-haul trucking.

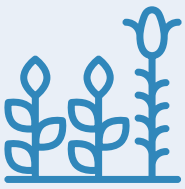
67%

of voters support providing tax credits and other incentives to homeowners, landlords, and businesses to purchase appliances that don't use fossil fuels (such as electric water heaters, heat pumps, and electric induction cooktops).

BUILDINGS

Residential and commercial buildings produce 12.3% of U.S. greenhouse gas emissions.[9] Yet less than 1% of the existing building stock is built to net-zero carbon standards,[10] and about two-thirds of today's buildings will still be in use in 2050.[11] Eliminating emissions from this sector is possible – electrification of space and water heating is now frequently less expensive than fossil-fueled alternatives, especially for new construction.[12] But it will require a massive effort to upgrade and electrify the nation's 130 million households and 5.5 million commercial buildings.[13] We can speed things up by:

- Creating a suite of incentives that encourage residential and commercial building owners to invest in energy efficiency upgrades;
- Promoting new construction of net-zero buildings; and
- Encouraging state and local governments to adopt the latest model building codes and, following the lead of California[14] and New York,[15] wind down investment in the gas distribution network.



76%

of voters support providing no-interest loans, tax credits, grants and other incentives to farmers to expand agricultural practices that reduce carbon pollution and store carbon in the soil.

AGRICULTURE

Agricultural activities are responsible for about 10% of U.S. greenhouse gas emissions.[16] Yet America's farmers and ranchers have a great opportunity to contribute to and benefit from the fight to solve climate change. Farmers can produce more food while reducing emissions,[17] and with better soil management techniques, agricultural soil can sequester substantially more carbon.[18] This is only happening to a limited extent now, however. We can speed things up by:

- Dramatically boosting financial and technical assistance for America's farmers and ranchers to implement climate-smart agricultural practices;
- Establishing programs that can help eliminate food waste; and
- Funding research and development to develop crops and trees that are more climate resilient and improve nutrient management.

72%

of voters support investing federal dollars in research and development to reduce carbon pollution from industrial manufacturing of goods and raw materials.

INDUSTRY

The industrial sector, consisting of activities like mining, manufacturing, and the production of steel, cement, and chemicals, represents 22% of U.S. greenhouse gas emissions.[19] The good news is industry may not be as difficult to decarbonize as frequently assumed, in part because a huge amount of these emissions (and at least 11% of our total energy use) is tied to the production and delivery of fossil fuels that are used elsewhere throughout our economy – about 4% of U.S. energy is consumed just to refine gasoline from oil.[20] For non-energy industrial processes, we can speed things up by:

- Boosting federal investment in research and development to spur innovation to reduce carbon pollution from the industrial sector; and
- Establishing a suite of programs and incentives to advance electrification and zero-emission industrial heat technologies as well as feedstocks and alternative building materials with net-zero or net-negative emissions.

82%

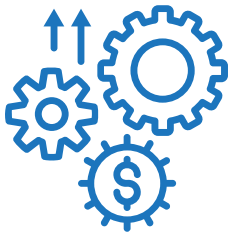
of voters support increasing funding for reforestation on federal lands to restore forests and plant trees after natural disasters, including severe flooding and wildfires.

FORESTRY

Land use and forestry in the United States has absorbed more carbon from the atmosphere than it's emitted in recent years.[21] Much more could be done in this sector to fight climate change, though. We can speed things up by:

- Increasing investment in reforestation on federal lands as well as in partnership with states, local governments, tribes, and individual landowners to plant up to 60 billion new trees by 2040 (without impacting food production)[22]; and
- Curbing illegal logging and supporting reforestation and sustainable forestry, as deforestation and peatland destruction contributes to about 13% of global greenhouse gas emissions.[23]

IN A NUTSHELL



MAKING GREEN

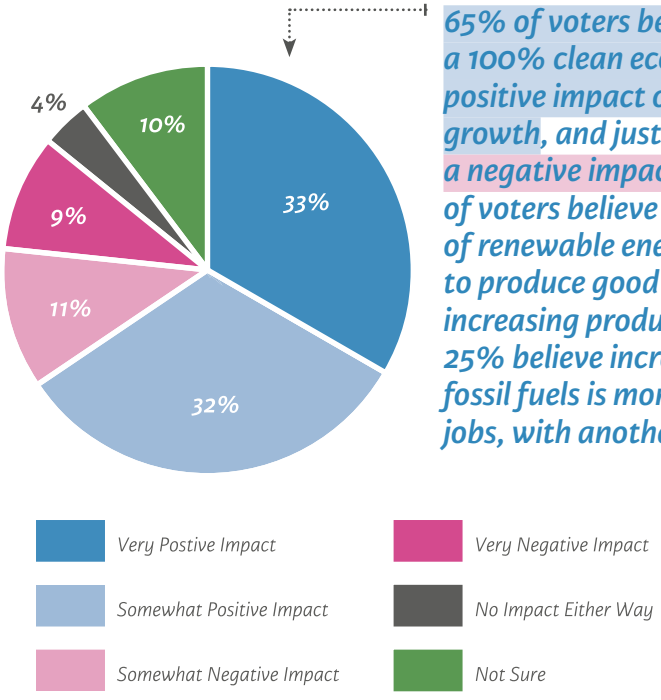
Building a 100% clean economy will create up to 25 million good-paying jobs that can only be done in America, providing the jolt we need to turn around an ailing economy. This jolt will be felt in communities everywhere and benefit professions we aren't accustomed to thinking of as "clean energy jobs," such as electricians and plumbers, who we'll need to install and maintain clean technologies. The long-term economic benefits are significant too: The average American household will save up to $2,500 a year on energy bills; we'll avoid punishing costs of extreme weather and other consequences of catastrophic climate change; and we'll position ourselves to compete in a world that runs on clean technologies, not fossil fuels.

KEY POINTS

Going clean will provide the economic jolt America needs to recover from the coronavirus downturn. The economy shrank at a staggering annual rate of almost 32% in the second quarter (April-June).[1] And although growth was expected to bounce back in the third quarter (at the time of this writing), this "is largely mechanical, and the road will be more difficult from here," according to S&P Global analysts,[2] as the official unemployment rate still stands at 8%[3] and the true unemployment rate – including the underemployed looking for full-time work – may be as high as 26%.[4] The mobilization of U.S. industry and workers for World War II decisively ended the crushing unemployment of the Great Depression. Building a 100% clean economy provides the opportunity for a similar mass mobilization, which is exactly what leading economists say we need.[5]

This mobilization will create up to 25 million jobs. The clean energy sector is already a major part of the American economy. Before the coronavirus pandemic (which caused layoffs across the energy sector), clean jobs outnumbered fossil fuel jobs nearly three to one, totaling about 3.3 million.[6] Building a 100% clean economy promises millions more jobs – enough to bring America back to full employment. According to a groundbreaking study released by Rewiring America, the United States can create 25 million jobs by substantially transitioning from fossil fuels in the power, transportation, building, and industrial sectors by 2035, using only existing technologies.[7]

Q: Generally speaking, do you think transitioning to a 100% clean economy (eliminating fossil fuel emissions from the transportation, electricity, buildings, industry, and agricultural sectors) would have a positive or negative impact on jobs and economic growth in the United States, or would it have no impact either way?



65% of voters believe transitioning to a 100% clean economy would have a positive impact on U.S. jobs and economic growth, and just 20% say it would have a negative impact.[8] In addition, 58% of voters believe increasing production of renewable energy is more likely to produce good American jobs than increasing production of fossil fuels. Just 25% believe increasing production of fossil fuels is more likely to produce good jobs, with another 17% unsure.

Workers and communities everywhere will benefit. Jobs adding renewable energy capacity, building out new transmission, installing EV chargers, and retrofitting buildings can't be outsourced to other countries. And to do this work, we will need electricians, plumbers, HVAC technicians, construction workers, and building contractors in every zip code in America. Importantly, these are also among the professions hardest hit by the coronavirus pandemic and most in need of stimulus. The clean energy sector suffered a net loss of nearly 500,000 jobs from March 2020 through August 2020, with 345,000 of these lost jobs coming from energy efficiency-related professions, as homes and buildings suddenly became off-limits.[9] We may not be accustomed to thinking of careers in the building trades as "clean energy jobs," but they will be primary beneficiaries in the transition to a 100% clean economy.

These jobs pay well and offer good benefits. Clean energy jobs provide a median hourly wage of about $24 an hour, 25% higher than the national median wage, according to analysis recently released by Environmental Entrepreneurs and the American Council on Renewable Energy.[10] The wind industry offers the highest paying clean energy jobs at $26 an hour, 36% higher than the national median wage. Clean energy jobs are also more likely to provide health care and retirement benefits than other jobs. Take

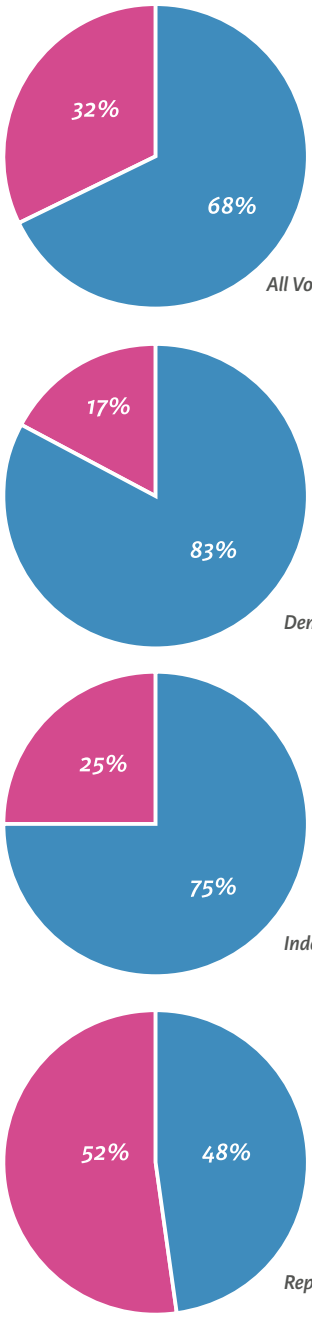
clean energy assemblers and fabricators: 86% enjoy health benefits and 80% receive retirement benefits, compared to 69% and 67%, respectively, for other private sector jobs and 81% and 73%, respectively, for comparable production jobs. Union workers are more likely to receive higher pay and better benefits than non-union workers in comparable jobs, and unionization rates are typically higher in the clean energy sector as well. In particular, 12% of jobs in grid modernization and 10% of jobs in energy efficiency are unionized compared to the national unionization rate of just 6%.

Families and businesses will save on energy costs too. Not only are more Americans out of work because of the coronavirus pandemic, they're using more electricity, water, and gas as they spend more time at home.[11] Many are consequently struggling to pay their utility bills[12] – by July up to 1 million had fallen behind in North Carolina alone,[13] and unpaid utility bills in Pennsylvania totaled nearly $480 million through June, more than 40% higher than 2019 levels.[14] To provide immediate relief, Congress should establish a federal moratorium on utility shut-offs and extend federal energy assistance to help struggling Americans pay their energy bills – something it has failed to do.[15] But moving to a 100% clean economy would also help lower bills over the long term and insulate Americans against future shocks. According to Rewiring America analysis, the average American household stands to save up to $2,500 in annual energy costs in a 100% clean economy – totaling $320 billion in nationwide household energy savings.[16] Potential savings are even greater in states that use higher levels of fossil fuels for heating, cooling and driving. [17]

POLLING DATA NEXT PAGE

The U.S. economy will be on stronger footing for the future. America faces hundreds of billions of dollars in annual climate-related costs – such as added health care expenses, infrastructure repairs, and higher food prices – if we stay on our present course.[18] Avoiding this devastating economic toll is reason enough to act. But the United States also risks falling behind countries in Asia and Europe that have adopted more favorable policies to spur transition, including heavy investments in renewable energy, electric vehicles, and other clean technologies. China, the world's leading clean energy producer,[19] recently pledged to be carbon neutral by 2060[20] and invested almost $30 billion more on clean energy research and development than the United States in 2019.[21] Building a 100% clean economy will stimulate U.S. innovation and manufacturing, and position America to compete in a world that runs on clean technologies, not fossil fuels.

Q: Below are two statements about how government action to address climate change will impact the economy and jobs. Which comes closest to your view?



By a more than 2-1 margin, voters believe government action to address climate change will encourage innovation, create high-paying jobs, and make America more competitive rather than the opposite. That includes 83% of Democrats, 75% of independents, and almost half of Republicans (48%).[22]

- *If the government takes action to address climate change, the private sector will be encouraged to innovate and transition away from fossil fuels to renewable sources of energy. In the process, the United States will expand its clean energy economy, create high-paying jobs, and put itself in a stronger position to compete in a world economy that is rapidly moving to renewable energy and zero-emission vehicles.*

- *If the government takes action to address climate change, the private sector will be forced to comply with burdensome regulations that will raise energy prices. In the process, the United States will suffer slower economic growth, lose good jobs in a variety of industries that depend on cheap fossil fuels, and sacrifice its competitive advantage as one of the world's leading producers of coal, oil, and natural gas.*

IN A NUTSHELL

FOR EVERYONE IN BETWEEN

Building a 100% clean economy will protect the most vulnerable among us, including children, the elderly, the working class and communities of color from air pollution and climate change caused by fossil fuels. It also promises more and better-paying jobs and economic development for long-neglected Black, Hispanic, immigrant and Indigenous communities that have been especially hard hit by the coronavirus crisis. And it provides new opportunities for fossil fuel workers – whose jobs are disappearing – to use their skills for cleanup, such as plugging abandoned oil and gas wells, and building clean infrastructure. As this transition progresses, the oil and gas industry's pernicious influence will decline. America will then get a chance to build a new politics that prioritizes broadly shared prosperity after decades of growing inequality.

KEY POINTS

Children and the elderly get healthier air. Children, the elderly, and those who work outside or have pre-existing health conditions are among the most vulnerable to air pollution, which is linked to lung and heart disease and causes more than 100,000 premature deaths[1] per year in the United States.[2] Communities of color often face especially unhealthy air, as they are disproportionately subjected to high levels of pollution from automobiles, fossil fuel operations, and other industrial facilities.[3] This is one reason why Black Americans are three times more likely to die from asthma, and five times more likely to visit the ER due to an asthma attack.[4] It also might help

explain why Black, Hispanic and Indigenous[5] communities have elevated coronavirus fatality rates: According to new research out of Harvard, people who have been exposed to higher levels of air pollution are at significantly greater risk of dying from COVID-19.[6] What's worse, higher temperatures and other consequences of climate change are increasing the number of unhealthy air days.[7] A 100% clean economy would slash fossil-fuel pollution and limit the exacerbating effects of climate change.

Communities of color get opportunity and climate protection.

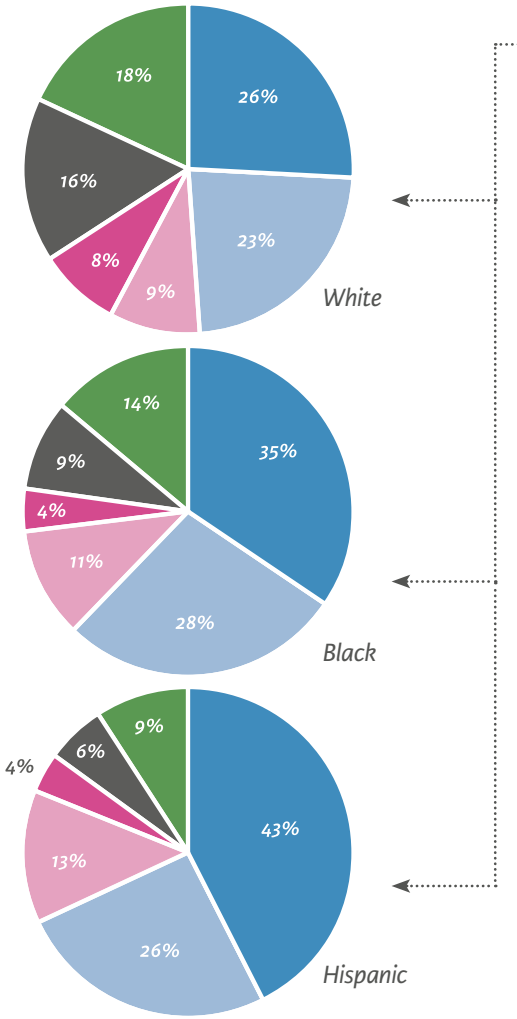
- *Communities of color need an economic boost.* The coronavirus crisis has taken a heavy economic toll on Black, Hispanic, and Indigenous[8] communities, exacerbating pre-existing inequities. Recent survey results released by NPR found 72% of Latino households, 60% of Black households, and 55% of Native American households (compared to 36% of white households) report "facing serious financial problems during the coronavirus outbreak, with issues ranging from depleting their savings to serious problems paying for food and rent."[9] Many are having problems paying their electricity bills too,[10] which could result in shutoffs at a time when people are working from home or searching for work, and kids are depending on home electricity for online school.[11]

- *Communities of color need climate protection.* In 2019, white Americans had a median household income almost $31,000 greater than the median household income of Black Americans and about $20,000 greater than the median household income of Hispanic Americans.[12] The typical white family also has nearly 10 times the wealth of the typical Black family.[13] This gaping inequality leaves people of color more vulnerable to climate change: They are less likely to have air conditioning to survive a heat wave, a car to escape from wildfires, shelter that can withstand heavy winds and flooding, or savings to move to a safer location.

POLLING DATA NEXT PAGE

- *Transitioning to a 100% clean economy provides both.* Building a 100% clean economy would create more and better-paying jobs for people of color: Already, more than a quarter of American solar jobs are filled by Black and Hispanic workers,[14] while abundant solar[15] and wind[16] resources on Tribal lands could power tens of millions of homes[17] and provide thousands of jobs for Native Americans. But such an effort would also fund needed improvements in communities that the federal government has shortchanged for too long. These improvements include more energy efficient homes (with lower energy bills), easier access to public transportation, electricity for the thousands of Native American households that lack it,[18] and more resilient infrastructure to protect against climate change.

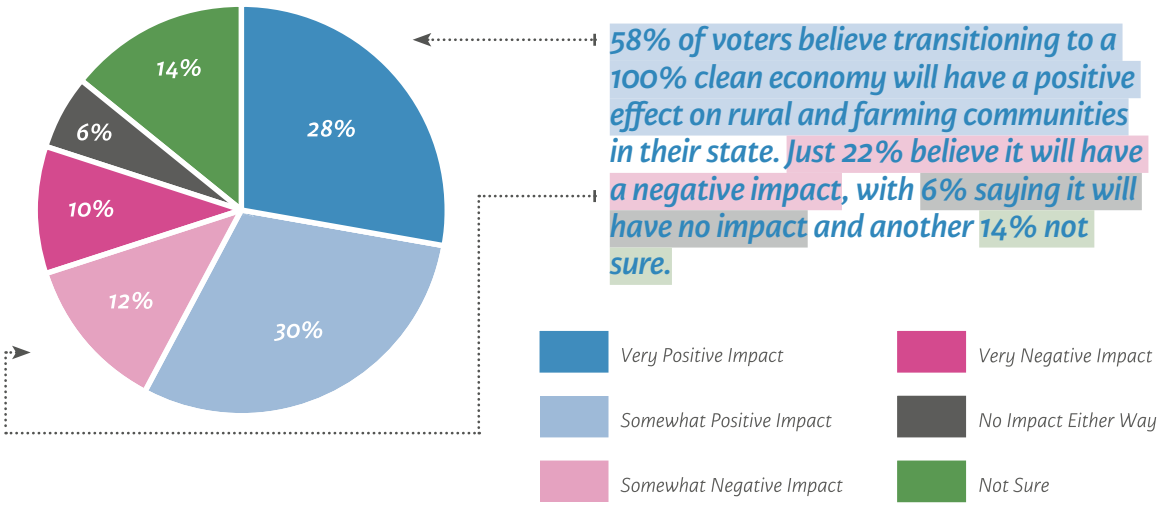
Q: Generally speaking, do you think transitioning to a 100% clean economy (eliminating fossil fuel emissions from the transportation, electricity, buildings, industry, and agricultural sectors) would have a positive or negative impact on communities of color (such as Black and Hispanic communities) in your state, or would it have no impact either way?



69% of Hispanic voters and 63% of Black voters believe transitioning to a 100% clean economy will have a positive effect on communities of color in their state. Slightly less than half of white voters believe this (49%), weighing down the overall number (51%) who believe this.[19] However, only 16% of voters overall believe transitioning to a 100% clean economy will have a negative impact on communities of color. In addition, 58% believe transitioning to a 100% clean economy will have a positive impact on their energy bills, including 67% of Black voters and 63% of Hispanic voters. Just 22% believe it will have a negative impact.

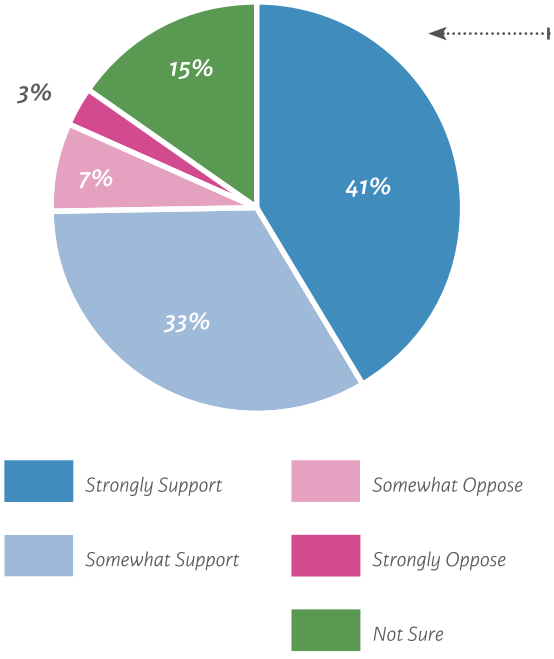
Rural communities get a new economic engine. A 100% clean economy will require more renewable energy, and that will give an economic boost to rural areas, where wind and solar farms are typically built. Almost all U.S. wind capacity comes from rural areas, generating revenue for local governments and school districts and higher incomes for farmers and other rural landowners. The wind industry in 2019 alone paid $912 million in state and local tax payments and $706 million in landowner lease payments.[20] Jobs in renewable energy and energy efficiency (including manufacturing and installation of efficient technologies for homes, buildings, and businesses) have also been growing rapidly in rural areas. There are already more than 400,000 clean energy jobs across rural America,[21] and that number will climb even higher with a commitment to a 100% clean economy.

Q: Generally speaking, do you think transitioning to a 100% clean economy (eliminating fossil fuel emissions from the transportation, electricity, buildings, industry, and agricultural sectors) would have a positive or negative impact on rural and farming communities in your state, or would it have no impact either way?



Fossil fuel workers get jobs. Jobs in the oil and gas sector have been declining since 2018,[22] and the industry now appears to have joined coal[23] in terminal decline.[24] Investing in a clean economy would provide new opportunities to fossil fuel workers who have lost their jobs but whose skills are still needed for cleaning up fossil fuel sites and building or installing clean infrastructure and technologies. A coalition of 31 oil- and gas-producing states has requested stimulus funding to remediate the nation's 3 million abandoned oil and gas wells, which could create up to 24,000 jobs.[25] Two-thirds of these wells are unplugged[26] and leak significant amounts of methane,[27] a super potent greenhouse gas. The United Association of Union Plumbers and Pipefitters also endorsed Joe Biden despite their differences on building the Keystone XL pipeline. In explaining the endorsement, the union's president said they considered a range of infrastructure and energy-related jobs, including HVAC work and retrofitting buildings,[28] which would be enormous job creators in the transition to a 100% clean economy.

Q: Do you support or oppose creation of a jobs program that would employ currently unemployed oil and gas workers to safely close down tens of thousands of abandoned oil and gas wells, which are a source of water and methane pollution?



74% of voters support creating a jobs program that would hire currently unemployed oil and gas workers to safely close down abandoned oil and gas wells. That includes 79% of Democrats, 73% of Republicans, and 66% of independents. The same percentage (74%) supports requiring oil and gas companies to pay for at least some of the costs of this program. And 67% believe methane emissions, which can leak from abandoned wells, are having a large (39%) or moderate (28%) effect on climate change.

America gets a political makeover. After a period of broadly shared prosperity following World War II, America has seen economic inequality steadily grow. Today, the richest 1% hold about 40% of the nation's wealth and pocket more than 20% of the nation's income.[29] The fossil fuel industry has been a powerful backer of policies that have exacerbated inequalities, including massive tax cuts for big corporations and the wealthy. Oil and gas companies saw their effective tax rate shrink to just 3.6% after the Trump tax cuts,[30] and the top 1% of households – including fossil fuel CEOs, whose median pay was $13 million in 2019[31] – have received a combined tax cut of more than $100 billion a year resulting from changes to the tax code since 2000.[32] Coronavirus relief efforts also disproportionately benefited fossil fuel companies[33] and their executives,[34] who raked in huge bonuses this year even though their companies had been underperforming[35] and shedding jobs well before the pandemic struck.[36] Transitioning to a 100% clean economy would weaken the fossil fuel industry's ability to buy political favor and give America the chance to build a new politics that values shared prosperity once again.

CONCLUSION

During the presidential campaign, President Trump and Vice President Pence aggressively attacked Biden's climate and clean energy plan and attempted to tie it to the Green New Deal, which they characterized as a costly job killer. The polling presented in this report, however, shows those attacks didn't work and might have even backfired.

Not only do 71% of voters support the goal of a 100% clean economy by 2050, 65% believe building a 100% clean economy would be good for jobs and the economy, according to a poll taken just after the first presidential debate. They also support making the necessary investments to accomplish this goal: 66% of voters support providing a multi-trillion-dollar federal economic stimulus that prioritizes investments in clean energy infrastructure.

Even the Green New Deal held up during the campaign despite being disavowed by Biden: The vice presidential debate featured repeated attacks by Pence on the Green New Deal, but a poll conducted just a week later found public support for it had actually risen slightly to 64%.

This should provide confidence to President-elect Biden and congressional Democrats as they seek to enact transformative investments to lift up the economy and put America on a path to a safer, more equitable future.

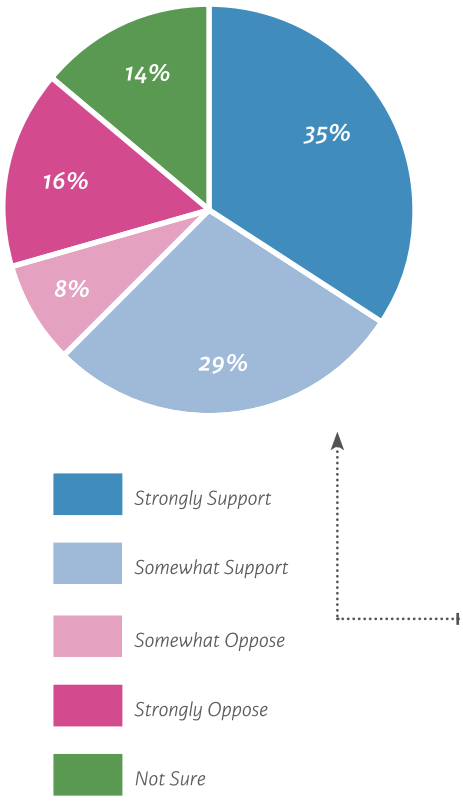
Some Republicans in Congress may again be tempted to use the Green New Deal as a cudgel against recovery efforts that invest in climate and clean energy needs. But the verdict is already in: Those attacks don't work.

The better choice — in both policy and political terms — is to work with Democrats to enact clean energy investments, including investments strongly supported by both Republican and Democratic voters to expand adoption of renewable energy, electric vehicles, and clean technologies for homes and buildings.

In his victory speech, Biden said cooperation was "part of the mandate given to us from the American people. They want us to cooperate in their interest. And that's the choice I'll make. And I'll call on Congress, Democrats and Republicans alike, to make that choice with me."

With the American people hurting and climate change threatening, clean energy investments are a good place to start.

Q: As you may know, some members of Congress are advocating for a proposal called the Green New Deal, which is a plan to significantly reduce carbon pollution and create millions of jobs by spending billions of government dollars on infrastructure, wind and solar energy, and more efficient buildings and transportation systems.



Climate Nexus has asked the question shown above in polls conducted over the last two years. Support was 69% in December 2018 as Green New Deal advocates coalesced. Support from older Republicans, in particular, then declined as party leaders began to attack the Green New Deal resolution, which was introduced in Congress in February 2019. But overall support still stood at 59% a year later, in February 2020, and two polls conducted during the last two months of the presidential campaign showed that number had ticked up several percentage points. The most recent of these polls, conducted in mid-October, found support for the Green New Deal at 64% – the highest it's been in almost two years – even after it had taken heavy fire from the Trump campaign and other Republican candidates.[1]

Endnotes

Introduction

1. These results are from a representative online national survey of 1,884 registered voters conducted Oct. 13, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.4%.
2. This result is from a representative online national survey of 1,517 registered voters conducted Sept. 8-9, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.6%.

Going Clean

1. U.S. Energy Information Administration, "U.S Renewable Energy Consumption Surpasses Coal for the First Time in over 130 Years," May 28, 2020, available at https://www.eia.gov/todayinenergy/detail.php?id=43895.
2. BloombergNEF, "Electric Vehicle Outlook 2020" (2020), available at https://about.bnef.com/electric-vehicle-outlook/.
3. For examples, see Matt Gough, "California's Cities Lead the Way to a Gas-Free Future," Sierra Club, updated Oct. 7, 2020, available at https://www.sierraclub.org/articles/2020/03/californias-cities-lead-way-gas-free-future.
4. Amol Phadke et al., "Plummeting Solar, Wind, and Battery Costs Can Accelerate Our Clean Electricity Future" (The 2035 Report), University of California Berkeley Goldman School of Public Policy, June 2020, available at http://www.2035report.com/wp-content/uploads/2020/06/2035-Report.pdf.
5. Sonia Aggarwal and Mike O'Boyle, "Rewiring the U.S. for Economic Recovery," Energy Innovation, June 2020, available at https://energyinnovation.org/wp-content/uploads/2020/06/90-Clean-By-2035-Policy-Memo.pdf.
6. These results are from a representative online national survey of 2,047 registered voters conducted Sept. 30-Oct. 1, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.2%.
7. Rachel Kaye, "2020 Likely to Break Record for Number of $1 Billion Weather & Climate Disasters," ABC 7 WJLA Washington, D.C., Oct. 12, 2020, available at https://wjla.com/weather/stormwatch7-weather-blog/a-look-at-the-2020-billion-dollar-weather-and-climate-disasters-so-far
8. Steve Evans, "Hurricane Delta Total Insured Losses Said up to $2.7bn by CoreLogic," Artemis, Oct. 14, 2020, available at https://www.artemis.bm/news/hurricane-delta-total-insured-losses-said-up-to-2-7bn-by-corelogic/
9. Nick Miroff, "Hurricane Laura Strikes Louisiana as Category 4 Storm, Battering Lake Charles Area and Bringing Flood Threat," The Washington Post, Aug. 27, 2020, available at https://www.washingtonpost.com/nation/2020/08/27/hurricane-laura-updates-louisiana-texas/.
10. Christina Morales and Azi Paybarah, "Unusual 'Derecho' Storms Rip Through Midwest," The New York Times, Aug. 10, 2020, available at https://www.nytimes.com/2020/08/10/us/derecho-storm-chicago-weather.html.
11. Matthew S. Schwartz, "'The Worst Is Not Behind Us': California Wildfires Continue to Burn," NPR, Aug. 22, 2020, available at https://www.npr.org/2020/08/22/905099950/the-worst-is-not-behind-us-california-continues-to-burn.
12. Mike Baker, "After Years of Gridlock, Oregon's Fire Disaster Brings 'New Reality,'" The New York Times, Sept. 23, 2020, available at https://www.nytimes.com/2020/09/23/us/oregon-fires-politics.html.
13. Sam Tabachnik, Tynin Fries, and Kieran Nicholson, "Colorado Wildfires Update: Latest on Pine Gulch, Grizzly Creek, Cameron Peak and Williams Fork Fires," The Denver Post, Sept. 2, 2020, available at https://www.denverpost.com/2020/09/02/colorado-wildfires-update-september-2-pine-gulch-cameron-peak/.
14. Steve Horn, "Arizona Reels as Three of the Biggest Wildfires in its History Ravage State," The Guardian, July 2, 2020, available at https://www.theguardian.com/environment/2020/jul/02/arizona-wildfires.
15. Tony Barboza, "As Second Heat Wave Sears California, Experts Say Health Impacts Will Worsen with Climate Change," Los

Angeles Times, Sept. 5, 2020, available at https://www.latimes.com/california/story/2020-09-05/heat-health-risks.

16. Zeeshan Aleem, "California's Heat Wave Caused Rolling Blackouts for Millions," Vox, Aug. 15, 2020, available at https://www.vox.com/2020/8/15/21370128/california-blackouts-rolling-power-outage.
17. California Independent System Operator, California Public Utilities Commission, and California Energy Commission, "Preliminary Root Cause Analysis: Mid-August 2020 Heat Storm," Oct. 6, 2020, available at http://www.caiso.com/Documents/Preliminary-Root-Cause-Analysis-Rotating-Outages-August-2020.pdf.
18. Climate Nexus, "IPCC Report: Planet Nears Tipping Point" (October 2018), available at https://climatenexus.org/international/ipcc/ipcc-1-5c-report-planet-nearing-tipping-point/.
19. Ed Dlugokencky, NOAA/ESRL, "Trends in Atmospheric Methane," available at https://esrl.noaa.gov/gmd/ccgg/trends_ch4/.
20. Adam Voiland, NASA Earth Observatory, "Methane Matters," March 8, 2016, available at https://earthobservatory.nasa.gov/features/MethaneMatters.
21. E.G. Nesbit et al., "Very Strong Atmospheric Methane Growth in the 4 Years 2014-2017: Implications for the Paris Agreement," Feb. 5, 2019, Global Biogeochemical Cycles,Vol. 33 Issue 3 (March 2019), available at https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2018GB006009.
22. Climate Nexus, "Unexpected Surge in Methane Emissions," available at https://climatenexus.org/climate-change-news/methane-surge/.
23. US Climate Action Network, "The US Climate Fair Share to Limit Global Warming to 1.5°C" (October 2020), available at https://usfairshare.org/.
24. Climate Nexus, "Comparing Climate Impacts at 1.5°C, 2°C, 3°C and 4°C" (October 2018), available at https://climatenexus.org/international/ipcc/comparing-climate-impacts-at-1-5c-2c-3c-and-4c/.
25. Terry Gross, "A 'Forgotten History' of How the U.S. Government Segregated America," NPR, May 3, 2017, available at https://www.npr.org/2017/05/03/526655831/a-forgotten-history-of-how-the-u-s-government-segregated-america.
26. Deborah N. Archer, "'White Men's Roads Through Black Men's Homes': Advancing Racial Equity Through Highway Reconstruction," Vanderbilt Law Review, Feb. 18, 2020, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3539889.
27. These results are from a representative online national survey of 2,047 registered voters conducted Sept. 30-Oct. 1, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.2%.

What Needs to Happen Sector by Sector Box

1. Policy ideas in this section are drawn from: U.S. House Select Committee on the Climate Crisis, "Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America," Majority Staff Report (June 2020), available at https://climatecrisis.house.gov/report; Senate Democrats' Special Committee on the Climate Crisis, "The Case for Climate Action: Building a Clean Economy for the American People," Aug. 25, 2020, available at https://www.democrats.senate.gov/climate-report; and Sonia Aggarwal and Mike O'Boyle, "Rewiring the U.S. for Economic Recovery," Energy Innovation, June 2020, available at https://energyinnovation.org/wp-content/uploads/2020/06/90-Clean-By-2035-Policy-Memo.pdf.
2. U.S. Environmental Protection Agency, "Sources of Greenhouse Gas Emissions," available at https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.
3. Amol Phadke et al., "Plummeting Solar, Wind, and Battery Costs Can Accelerate Our Clean Electricity Future" (The 2035 Report), University of California Berkeley Goldman School of Public Policy, June 2020, available at http://www.2035report.com/wp-content/uploads/2020/06/2035-Report.pdf.
4. Jeff St. John, "'Math Doesn't Yet Add Up' for Utility Decarbonization Goals: Deloitte,"Greentech Media, Sept. 21, 2020, available at https://www.greentechmedia.com/articles/read/math-doesnt-yet-add-up-for-u.s-utility-decarbonization-goals.

5. Polling data here and throughout this section are mostly from a representative online national survey of 9,087 registered voters conducted June 6-11, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 1%. Updated polling data are provided for buildings and forestry.

6. BloombergNEF, "Electric Vehicle Outlook 2020" (2020), available at https://about.bnef.com/electric-vehicle-outlook/.

7. Jack Ewing, "The Age of Electric Cars is Dawning Ahead of Schedule,"The New York Times, Sept. 20, 2020, available at https://www.nytimes.com/2020/09/20/business/electric-cars-batteries-tesla-elon-musk.html.

8. Jack Ewing, "The Age of Electric Cars is Dawning Ahead of Schedule,"The New York Times, Sept. 20, 2020, available at https://www.nytimes.com/2020/09/20/business/electric-cars-batteries-tesla-elon-musk.html.

9 U.S. Environmental Protection Agency, "Sources of Greenhouse Gas Emissions," available at https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

10. Renilde Becqué et al., "Accelerating Building Decarbonization: Eight Attainable Policy Pathways to Net Zero Carbon Buildings for All," World Resources Institute (September 2019), available at https://www.wri.org/publication/accelerating-building-decarbonization.

11. Architecture 2030, "Why the Building Sector?", available at https://architecture2030.org/buildings_problem_why/.

12. Sherri Billimoria et al., "The Economics of Electrifying Buildings" (2018), Rocky Mountain Institute, available at https://rmi.org/insight/the-economics-of-electrifying-buildings/.

13. Saul Griffith and Sam Calisch, "Mobilizing for a Zero Carbon America: Jobs, Jobs, Jobs, and More Jobs," Rewiring America (July 2020), available at https://www.rewiringamerica.org/jobs-report.

14. Kavya Balaraman, "California Launches Rulemaking to Manage Transition Away from Natural Gas," Utility Dive, Jan. 17, 2020, available at https://www.utilitydive.com/news/cpuc-launches-rulemaking-transition-natural-gas/570653/.

15. For documents related to New York's proceeding on gas transition planning, see http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=20-G-0131&submit=Search.

16. U.S. Environmental Protection Agency, "Sources of Greenhouse Gas Emissions," available at https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

17. Richard Waite and Alex Rudee, "How the US Can Curb Climate Change and Grow More Food," GreenBiz, Sept. 16, 2020, available at https://www.greenbiz.com/article/how-us-can-curb-climate-change-and-grow-more-food.

18. Lori Ioannou, "This is a $15 Trillion Opportunity for Farmers to Fight Climate Change," CNBC.com, June 12, 2019, available at https://www.cnbc.com/2019/06/11/this-is-a-15-trillion-opportunity-for-farmers-to-fight-climate-change.html.

19. U.S. Environmental Protection Agency, "Sources of Greenhouse Gas Emissions," available at https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

20. Saul Griffith, "A Handbook for Winning the Climate Fight," Rewiring American, available at https://www.rewiringamerica.org/handbook.

21. U.S. Environmental Protection Agency, "Sources of Greenhouse Gas Emissions," available at https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

22. Alex Rudee, "How and Where to Plant 60 Billion Trees in the US," World Resources Institute, Feb. 12, 2020, available at https://www.wri.org/blog/2020/02/how-where-plant-trees-us.

23. U.N. Intergovernmental Panel on Climate Change, "Climate Change and Land" (August 2019), available at https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf.

Making Green

1. Josh Boak, "U.S. Economy Plunged an Annualized 31.7% in Second Quarter," Associated Press, Aug. 27, 2020, available at https://apnews.com/article/a9ef11294c55f6fc8d130194dd507d0a.

2. Dion Rabouin, "How the U.S. Economy Powered Through Q3,"Axios, Oct. 6, 2020, available at https://www.axios.com/us-economy-recovery-q3-coronavirus-recession-e6a9caa9-5498-4c44-997b-29b4a82f3831.html.

3. Greg Iacurci, "Why the Real Unemployment Rate is Likely Over 11%," CNBC.com, Sept. 8 2020, available at https://www.

cnbc.com/2020/09/08/why-the-real-unemployment-rate-is-likely-over-11percent.html.

4. Felix Salmon, "Exclusive: America's True Unemployment Rate,"Axios., Oct. 13, 2020, available at https://www.axios.com/americas-true-unemployment-rate-6e34decb-c274-4feb-a4af-ffac8cf5840d.html.
5. Matthew Yglesias, "Economists Say Congress Should Think Big on Next Rescue Package," Vox, July 25, 2020, available at https://www.vox.com/2020/7/25/21337087/how-much-stimulus-is-needed.
6. E2, "Clean Jobs America 2020," April 15, 2020, available at https://e2.org/reports/clean-jobs-america-2020/.
7. Saul Griffith and Sam Calisch, "Mobilizing for a Zero Carbon America: Jobs, Jobs, Jobs, and More Jobs," Rewiring America (July 2020), available at https://www.rewiringamerica.org/jobs-report.
8. These results are from a representative online national survey of 2,047 registered voters conducted Sept. 30-Oct. 1, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.2%.
9. BW Research Partnership, "Clean Jobs, Better Jobs: An Examination of Clean Energy Job Wages and Benefits," Environmental Entrepreneurs (E2) and the American Council on Renewable Energy (ACORE), October 2020.
10. BW Research Partnership, "Clean Jobs, Better Jobs: An Examination of Clean Energy Job Wages and Benefits," Environmental Entrepreneurs (E2) and the American Council on Renewable Energy (ACORE), October 2020.
11. Megan Leonhardt, "Utility Bills Will Likely Increase by 10% on Average in Big Cities This Summer," CNBC.com, June 30, 2020, available at https://www.cnbc.com/2020/06/30/utility-bills-may-increase-by-10-percent-on-average-in-big-cities-this-summer.html.
12. Alana Semuels, "A 'Tidal Wave' of Power Cuts May Be Coming as Electric Companies Resume Shutoffs," TIME, Aug. 31, 2020, available at https://time.com/5884556/power-cuts-coronavirus/.
13. Tony Romm, "In North Carolina, Unpaid Electric and Water Bills are Driving Families and Cities to the Financial Brink," The Washington Post, July 23, 2020, available at https://www.washingtonpost.com/business/2020/07/23/north-carolina-utility-bills-coronavirus/.
14. Andrew Maykuth, "Unpaid Utility Bills are Soaring in the Pandemic. Consumer Advocates Fear Mass Shutoffs Loom," The Philadelphia Inquirer, Aug. 20, 2020, available at https://www.inquirer.com/business/pennsylvania-covid-utility-shutoff-terminations-moratorium-puc-20200820.html.
15. Mark Wolfe and Cass Lovejoy, "Congress Must Address the Coming Utility Bill Crisis," InsideSources.com, Sept. 8, 2020, available at https://www.insidesources.com/congress-must-address-the-coming-utility-bill-crisis/.
16. Saul Griffith and Sam Calisch, "Mobilizing for a Zero Carbon America: Jobs, Jobs, Jobs, and More Jobs," Rewiring America (July 2020), available at https://www.rewiringamerica.org/jobs-report.
17. Saul Griffith and Sam Calisch, "No Place Like Home: Fighting Climate Change (and Saving Money) by Electrifying America's Households," Rewiring America (October 2020).
18. Jeremy Martinich and Allison Crimmins, "Climate Damages and Adaptation Potential Across Diverse Sectors of the United States," Nature Climate Change, April 8, 2019, available at https://www.nature.com/articles/s41558-019-0444-6.
19. Charlie Campbell, "China is Bankrolling Green Energy Projects Around the World," TIME, Nov. 1, 2019, available at https://time.com/5714267/china-green-energy/.
20. Somini Sengupta, "China, in Pointed Message to U.S., Tightens its Climate Targets," The New York Times, Oct. 5, 2020, available at https://www.nytimes.com/2020/09/22/climate/china-emissions.html.
21. Statista, "Investment in Clean Energy Globally in 2019, by Select Country," available at https://www.statista.com/statistics/799098/global-clean-energy-investment-by-country/.
22. These results are from a representative online national survey of 1,517 registered voters conducted Sept. 8-9, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.6%.

For Everyone in Between

1. Andrew L. Goodkind et al., "Fine-Scale Damage Estimates of Particulate Matter Air Pollution Reveal Opportunities for Location-Specific Mitigation of Emissions," PNAS, April 30, 2019, available at https://www.pnas.org/content/116/18/8775.
2. Health Effects Institute, "State of Global Air 2019" (2019), available at https://www.stateofglobalair.org/sites/default/files/soga_2019_report.pdf.
3. Union of Concerned Scientists, "The Hidden Costs of Fossil Fuels," updated Aug. 30, 2016, available at https://www.ucsusa.org/resources/hidden-costs-fossil-fuels.
4. Asthma and Allergy Association of America, "Asthma Disparities in America," available at https://www.aafa.org/asthma-disparities-burden-on-minorities.aspx.
5. Clean Air Task Force, "Tribal Communities at Risk: The Disproportionate Impacts of Oil and Gas Pollution on Tribal Air Quality" (2018), available at https://www.catf.us/wp-content/uploads/2018/05/Tribal_Communities_At_Risk.pdf.
6. Clean Air Task Force, "Tribal Communities at Risk: The Disproportionate Impacts of Oil and Gas Pollution on Tribal Air Quality" (2018), available at https://www.catf.us/wp-content/uploads/2018/05/Tribal_Communities_At_Risk.pdf.
7. Natural Resources Defense Council, "Climate Change and Health," available at https://www.nrdc.org/climate-change-and-health-air-quality#/map.
8. Centers for Disease Control and Prevention, "CDC Datta Show Disproportionate COVID-19 Impact in American Indian/Alaska Native Populations," Aug. 19, 2020, available at https://www.cdc.gov/media/releases/2020/p0819-covid-19-impact-american-indian-alaska-native.html.
9. NPR, Robert Wood Johnson Foundation and Harvard T.H. Chan School of Public Health, "The Impact of Coronavirus on Households by Race/Ethnicity," September 2020, available at https://cdn1.sph.harvard.edu/wp-content/uploads/sites/94/2020/09/NPR-Harvard-RWJF-Race-Ethnicity-Poll_091620.pdf.
10. E&E News Staff, "China is Bankrolling Green Energy Projects Around the World," E&E News, Sept. 14, 2020, available at https://www.eenews.net/energywire/stories/1063713529/.
11. Alana Semuels, "A 'Tidal Wave' of Power Cuts May Be Coming as Electric Companies Resume Shutoffs," TIME, Aug. 31, 2020, available at https://time.com/5884556/power-cuts-coronavirus/.
12. U.S. Census Bureau, "Income and Poverty in the United States: 2019," Sept. 15, 2020, available at https://www.census.gov/library/publications/2020/demo/p60-270.html.
13. Kriston McIntosh et al., "Examining the Black-White Wealth Gap," The Brookings Institution, Feb. 27, 2020, available at https://www.brookings.edu/blog/up-front/2020/02/27/examining-the-black-white-wealth-gap/.
14. The Solar Foundation, "National Solar Jobs Census," Feb. 19, 2020, available at https://www.thesolarfoundation.org/national/.
15. Silvio Marcacci, "Could This New Approach Unlock Gigawatts of Native American Solar Energy Potential?," Forbes, June 24, 2020, available at https://www.forbes.com/sites/energyinnovation/2019/06/24/could-this-new-approach-unlock-gigawatts-of-native-american-solar-energy-potential/.
16. Peter Meisen and Trevor Erberich, "Renewable Energy on Tribal Lands," Global Energy Network Institute, available at http://www.geni.org/globalenergy/research/renewable-energy-on-tribal-lands/Renewable-Energy-on-Tribal-Lands.pdf.
17. U.S. Department of Energy, "Developing Clean Energy Projects on Tribal Lands," available at https://www.nrel.gov/docs/fy13osti/57748.pdf.
18. American Public Power Association, "Light Up Navajo Nation," available at https://www.publicpower.org/LightUpNavajo.
19. Polling data here and throughout this chapter are from a representative online national survey of 2,047 registered voters conducted Sept. 30-Oct. 1, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.2%.
20. U.S. Department of Energy, "Developing Clean Energy Projects on Tribal Lands," available at https://www.nrel.gov/docs/fy13osti/57748.pdf.

21. E2, "Clean Jobs Rural America 2019," May 12, 2020, available at https://e2.org/reports/clean-jobs-rural-america-2019/.

22. John Kemp, "U.S. Oil and Gas Jobs Fall as Drilling Declines," Reuters, Oct. 15, 2019, available at https://www.reuters.com/article/us-usa-oiljobs-kemp/u-s-oil-and-gas-jobs-fall-as-drilling-declines-kemp-idUSKBN1WU1V4.

23. Arianna Skibell, "Thousands of Coal Workers Lost Jobs. Where Will They Go?," Energywire, June 25, 2020, available at https://energynews.us/2020/06/25/southeast/thousands-of-coal-workers-lost-jobs-where-will-they-go/.

24. Matthew Green, "'Terminal Decline' of Fossil Industry Risks Crisis Unless Regulators Act: Study," Reuters, June 4, 2020, available at https://www.reuters.com/article/us-climate-change-fossil/terminal-decline-of-fossil-industry-risks-crisis-unless-regulators-act-study-idUSKBN23B1AL.

25. Kate Kelly and Jenny Rowland-Shea, "How Congress Can Help Energy States Weather the Oil Bust During the Coronavirus Pandemic," Center for American Progress, April 29, 2020, available at https://www.americanprogress.org/issues/green/reports/2020/04/29/484158/congress-can-help-energy-states-weather-oil-bust-coronavirus-pandemic/.

26. E. Allison and B. Mandler, "Abandoned Wells: What Happens to Oil and Gas Wells When They are No longer Productive?," American Geosciences Institute, June 1, 2018, available at https://www.americangeosciences.org/geoscience-currents/abandoned-wells.

27. Mike Lee, "Millions of Abandoned Wells Spark Climate, Safety Fears," E&E News, May 20, 2019, available at https://www.eenews.net/stories/1060364121?utm.

28. Kelsey Tamborrino, "Biden Picks Up Pipeline Workers' Union Backing," Politico, Aug. 18, 2020, available at https://www.politico.com/newsletters/morning-energy/2020/08/18/biden-picks-up-pipeline-workers-union-backing-790000.

29. Chad Stone et al., "A Guide to Statistics on Historical Trends in Income Inequality," Center on Budget and Policy Priorities, Jan. 13, 2020, available at https://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality.

30. Will Peischel, "Chevron Made $4.5 Billion in 2018. So Why Did the IRS Give Them a Refund?," Mother Jones, Jan. 3, 2020, available at https://www.motherjones.com/politics/2020/01/chevron-made-4-5-billion-in-2018-so-why-did-the-irs-give-them-a-refund/.

31. Collin Eaton, "Shale Companies Had Lousy Returns. Their CEOs Got Paid Anyway," The Wall Street Journal, Oct. 2, 2020, available at https://www.wsj.com/articles/shale-companies-had-lousy-returns-their-ceos-got-paid-anyway-11601631002.

32. David Leonhardt, "$111 Billion in Tax Cuts for the Top 1 Percent," The New York Times, July 11, 2018, available at https://www.nytimes.com/2018/07/11/opinion/trump-republicans-tax-cuts-inequality.html.

33. Julieta Biegner, "COVID Bailouts Funded Fossil Fuel CEO Bonuses While Workers and the Planet Suffered," BailoutWatch, Sept. 21, 2020, available at https://bailoutwatch.org/analysis/covid-bailouts-ceo-bonuses.

34. BailoutWatch, "COVID Oversight Panel Asks Fed Why Fossil Fuels Got to Design Their Own Bailouts," Aug. 7, 2020, available at https://bailoutwatch.org/analysis/watchdogs-to-ask-fed-why-fossil-fuel-industry-got-to.

35. Tim McLaughlin and David French, "Why U.S. Energy CEOs Will Get Big Payouts Despite Oil Meltdown," Reuters, May 27, 2020, available at https://www.reuters.com/article/us-global-oil-shale-executives-insight/why-u-s-energy-ceos-will-get-big-payouts-despite-oil-meltdown-idUSKBN2331IC.

36. Lukas Ross et al., "Big Oil's $100 Billion Bender: How the U.S. Government Provided a Safety Net for the Flagging Fossil Fuel Industry," BailoutWatch, Friends of the Earth, and Public Citizen, Sept. 30, 2020, available at https://bailoutwatch.org/analysis/big-oils-100-billion-bender.

Conclusion

1. This result is from a representative online national survey of 1,884 registered voters conducted Oct. 13, 2020, by Climate Nexus in partnership with the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, available at https://climatenexus.org/polls/climate-change-polling/. The margin of error for this poll is +/- 2.4%.

climatenexus
polling

climatenexus.org