



THE GREEN NEW DEAL

Assembled Annotations

IV

116TH CONGRESS
1ST SESSION

H. RES. 109

Recognizing the duty of the Federal Government to create a Green New Deal.

IN THE HOUSE OF REPRESENTATIVES

The Green New Deal
Assembled Annotations

Published by the Temple Hoyne Buell Center for the Study
of American Architecture at Columbia University, with
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This annotated version of H. Res. 109 accompanies “The Green New Deal: A Public Assembly” at the Queens Museum in New York, held on November 17th, 2019. Gathering a wide array of advocates, organizers, and elected officials to explore the Green New Deal’s relationship to society, policy, and the built environment, this event has been organized by the Queens Museum, the Architecture Lobby, the American Institute of Architects New York, Francisco Casablanca, Gabriel Hernández Solano, and Columbia University’s Temple Hoyne Buell Center for the Study of American Architecture.

Climate change is a crisis of unevenly experienced and systemic injustices that ask hard questions of scholars, elected officials, professionals, and community members alike. The Green New Deal (GND) — most famously as drafted in US H. Res. 109 and S. Res. 59, but echoed by activists and politicians around the world — addresses these questions head-on, linking equity, environment, and the economy to structural transformations necessitated by the climate crisis. “The Green New Deal: A Public Assembly” models a democratic discussion that can be repeated across the country, to debate and test the ambitions and challenges of the GND by thinking systemically and across scales.

At the Buell Center, “The Green New Deal: A Public Assembly” forms part of the project “Power: Infrastructure in America,” within which the Center has organized a series of research, curricular, and programming initiatives that consider the social, technical, and political contours of the ambitious — but still largely undefined — proposal. For more information, see power.buellcenter.columbia.edu.

CONVENING PARTNERS

The Temple Hoyne Buell Center for the Study of American Architecture

Columbia University's Temple Hoyne Buell Center for the Study of American Architecture was founded in 1982. Its mission is to advance the interdisciplinary study of American architecture, urbanism, and landscape. A separately endowed entity within the Graduate School of Architecture, Planning, and Preservation, it sponsors research projects, workshops, public programs, publications, and awards. In recent years, the Center has convened issue-oriented conversations around matters of public concern, such as housing, that are addressed to overlapping constituencies including academics, students, professionals, and members of the general public. For more information, see buellcenter.columbia.edu.

The Queens Museum

The Queens Museum is dedicated to presenting the highest quality visual arts and educational programming for people in the New York metropolitan area, and particularly for the residents of Queens, a uniquely diverse, ethnic, cultural, and international community. The Museum fulfills its mission by designing and providing art exhibitions, public programs and educational experiences that promote the appreciation and enjoyment of art, support the creative efforts of artists, and enhance the quality of life through interpreting, collecting, and exhibiting art, architecture, and design. For more information, see queensmuseum.org.



T-H-E
A-R-C-H-I-T-E-C-T-U-R-E
L-O-B-B-Y



QUEENS MUSEUM

The Temple Hoyne
Buell Center
for the Study of
American Architecture



ORGANIZING PARTNERS

Francisco J. Casablanca

Francisco J. Casablanca is a Puerto Rican architect and activist and the creator of the page “¿Quién nos representa?,” which seeks to visualize the political map of Puerto Rico to provide political accountability. ‘Casa,’ as known by his friends, uses his knowledge of architecture, urban, sustainable, and environmental design to collaborate with policy makers, civil servants, academics, and community organizers to create a new vision for the future. Currently, he works as a Lead Lighting Designer and has an architectural background with an MSc in Sustainable & Environmental Design from the Architectural Association School of Architecture in London.

Gabriel Hernández Solano

Gabriel Hernández Solano is Chilean-Canadian designer, activist, and street photographer based in NYC. He is currently an Associate at MASS Design Group, a design firm focusing on impact-driven projects and community-based development in the realms of healthcare, housing, native communities, food justice, and mass incarceration. Prior to MASS, Gabriel worked at Bjarke Ingels Group for 5 years and received his Master of Architecture at the University of Calgary. His thesis explored the reactivation of abandoned buildings by the African migrant community in Barcelona’s former industrial district of Poblenou. Gabriel is currently focusing his organizing efforts around the Green New Deal.

The American Institute of Architects, New York

Founded in 1857, AIA New York is the oldest and largest chapter of the American Institute of Architects. The Chapter’s members include nearly 6,000 practicing architects, allied professionals, students, and public members interested in architecture and design. AIA New York is dedicated to three goals: design excellence, public outreach, and professional development. The Chapter organizes an array of initiatives, programs, and exhibitions that explore topics vital to the architecture profession, including housing, planning, historic preservation, and urban design. For more information, see aiany.org.

The Architecture Lobby

Founded in NYC in 2013, The Architecture Lobby is an organization of workers in the architecture industry and allied disciplines advocating for the value of architecture in the general public and for architectural work within the discipline. The Lobby has a national presence in the U.S. with over a dozen active chapters; in 2019, the first international chapter was formed in Victoria, Australia. The Architecture Lobby believes that the work architects do — aesthetic, technical, social, organizational, environmental, administrative, fiduciary — needs structural change to be more rewarding and more socially relevant. The Lobby believes as long as the discipline of architecture tolerates abusive practices — in its workplaces, in its schools, and on the building site — it cannot insist on its role in and for the public good. For more information, see architecture-lobby.org.

The black text in these pages
is a reproduction of the official
resolution — anything in green
is our addition.

116TH CONGRESS
1ST SESSION

H. RES. 109

Recognizing the duty of the Federal Government to create a Green New Deal.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 7, 2019

Ms. OCASIO-CORTEZ (for herself, Mr. HASTINGS, Ms. TLAIB, Mr. SERRANO, Mrs. CAROLYN B. MALONEY of New York, Mr. VARGAS, Mr. ESPAILLAT, Mr. LYNCH, Ms. VELÁZQUEZ, Mr. BLUMENAUER, Mr. BRENDAN F. BOYLE of Pennsylvania, Mr. CASTRO of Texas, Ms. CLARKE of New York, Ms. JAYAPAL, Mr. KHANNA, Mr. TED LIEU of California, Ms. PRESSLEY, Mr. WELCH, Mr. ENGEL, Mr. NEGUSE, Mr. NADLER, Mr. MCGOVERN, Mr. POCAN, Mr. TAKANO, Ms. NORTON, Mr. RASKIN, Mr. CONNOLLY, Mr. LOWENTHAL, Ms. MATSUI, Mr. THOMPSON of California, Mr. LEVIN of California, Ms. PINGREE, Mr. QUIGLEY, Mr. HUFFMAN, Mrs. WATSON COLEMAN, Mr. GARCÍA of Illinois, Mr. HIGGINS of New York, Ms. HAALAND, Ms. MENG, Mr. CARBAJAL, Mr. CICILLINE, Mr. COHEN, Ms. CLARK of Massachusetts, Ms. JUDY CHU of California, Ms. MUCARSEL-POWELL, Mr. MOULTON, Mr. GRIJALVA, Mr. MEEKS, Mr. SABLAN, Ms. LEE of California, Ms. BONAMICI, Mr. SEAN PATRICK MALONEY of New York, Ms. SCHAKOWSKY, Ms. DELAURO, Mr. LEVIN of Michigan, Ms. MCCOLLUM, Mr. DESAULNIER, Mr. COURTNEY, Mr. LARSON of Connecticut, Ms. ESCOBAR, Mr. SCHIFF, Mr. KEATING, Mr. DEFazio, Ms. ESHOO, Mrs. TRAHAN, Mr. GOMEZ, Mr. KENNEDY, and Ms. WATERS) submitted the following resolution; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Science, Space, and Technology, Education and Labor, Transportation and Infrastructure, Agriculture, Natural Resources, Foreign Affairs, Financial Services, the Judiciary, Ways and Means, and Oversight and Reform, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

RESOLUTION

Recognizing the duty of the Federal Government to create a Green New Deal.

Whereas the October 2018 report entitled “Special Report on Global Warming of 1.5 °C” by the Intergovernmental Panel on Climate Change and the November 2018 Fourth National Climate Assessment report found that—

(1) human activity is the dominant cause of observed climate change over the past century;

(2) a changing climate is causing sea levels to rise and an increase in wildfires, severe storms, droughts, and other extreme weather events that threaten human life, healthy communities, and critical infrastructure;

Fig.1

Fig.2

Fig. 1
Costs of Sea Level Rise and Storm Surge to Coastal Property, 2000–2100
Source: National Climate Assessment

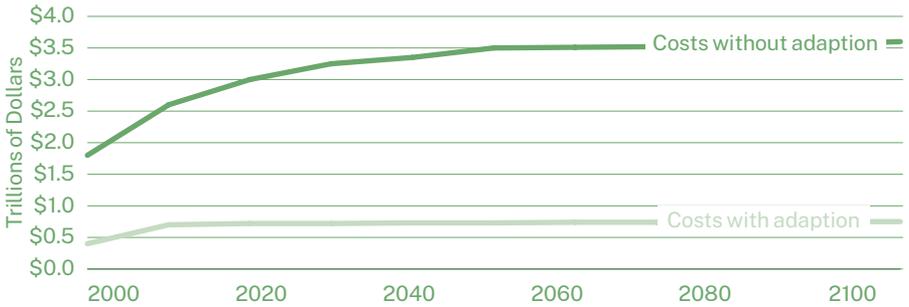
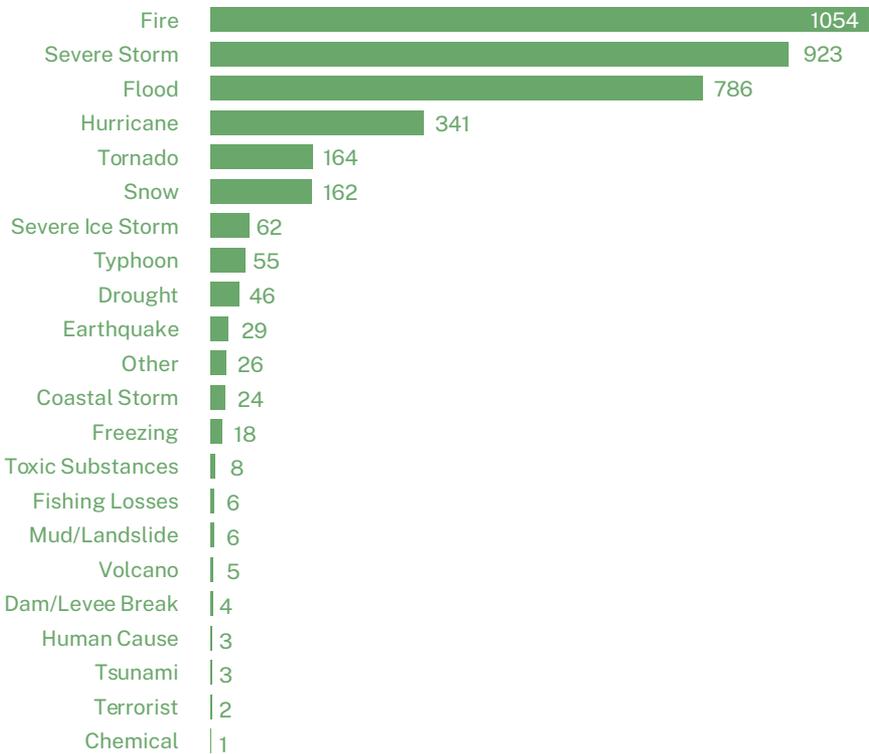


Fig. 2

Federally Declared Disasters in the United States Since 1953

Source: Federal Emergency Management Agency



(3) global warming at or above 2 degrees Celsius beyond preindustrialized levels will cause—

2



“Preindustrialized” — before certain machines were introduced to produce goods on a large scale, understood by the IPCC to have been between 1850–1900

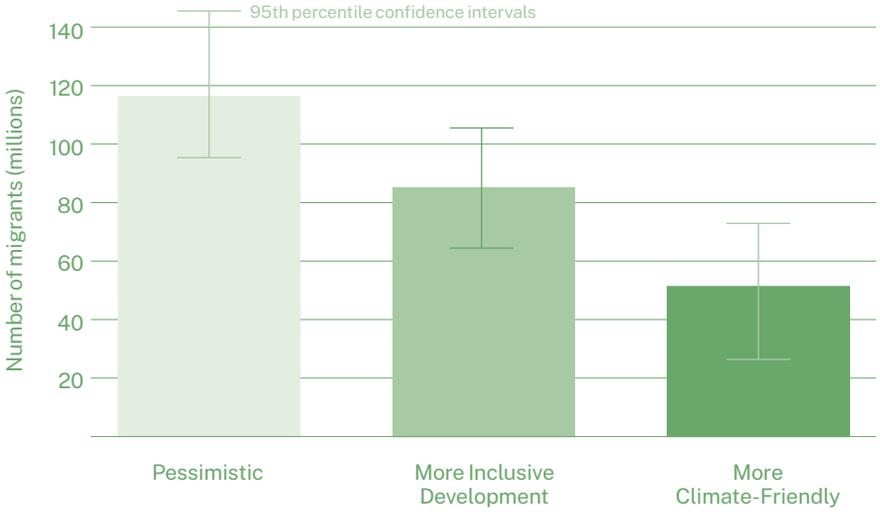
Fig.3

(A) mass migration from the regions most affected by climate change;

Fig.3

Projected number of climate migrants in Sub-Saharan Africa, South Asia, and Latin America under three scenarios, by 2050

Source: World Bank

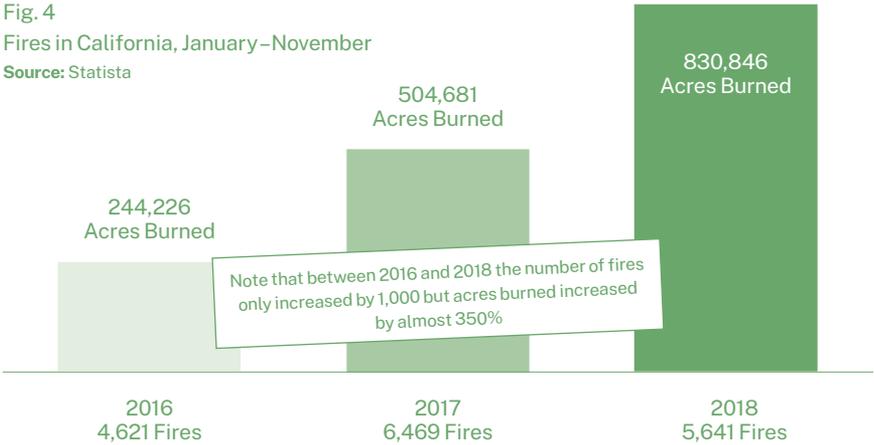


(B) more than \$500,000,000,000 in lost annual economic output in the United States by the year 2100;

(C) wildfires that, by 2050, will annually burn at least twice as much forest area in the western United States than was typically burned by wildfires in the years preceding 2019;

Fig.4

Fig. 4
 Fires in California, January–November
 Source: Statista



(D) a loss of more than 99 percent of all coral reefs on Earth;

(E) more than 350,000,000 more people to be exposed globally to deadly heat stress by 2050; and

(F) a risk of damage to \$1,000,000,000,000 of **public infrastructure** and coastal real estate in the United States; and



This can include **transport** (bridges, roads, airports, rail transport), **water** (water supply, water resource management, flood management, proper sewage and drainage systems, coastal restoration infrastructure), **power and energy** (power grid, power stations, wind turbines, windmills, solar panels), **telecommunications** (telephone network, broadband network, WiFi services), **political** (governmental institutions like courts of law, regulatory bodies), **public security services** (police force, defense), **educational** (public schools and universities, public training institutes), **health** (public hospitals, subsidized health check-ups), **recreational** (public parks and gardens, beaches, historical sites, natural reserves)

Source: Corporate Finance Institute

Centered numbers like this are the page numbers of the original text — they have been moved to the margins on all other pages.



(4) global temperatures must be kept below 1.5 degrees Celsius above preindustrialized levels to avoid the most severe impacts of a changing climate, which will require—

(A) global reductions in greenhouse gas emissions from human sources of 40 to 60 percent from 2010 levels by 2030; and

(B) net-zero global emissions by 2050;

Whereas, because the United States has historically been responsible for a disproportionate amount of greenhouse gas emissions, having emitted 20 percent of global greenhouse gas emissions through 2014, and has a high technological capacity, the United States must take a leading role in reducing emissions through economic transformation;

Fig. 5

Fig. 5
Per Capita Greenhouse Gas Emissions in Billion Tons
Source: ourworldindata.org

	USA	Japan	China	UK	India
1980	20.53	8.02	1.47	10.29	0.45
1990	20.28	9.28	2.06	10.51	0.71
2000	21.28	9.9	2.61	9.62	0.98
2010	18.47	9.42	6.25	8.09	1.38
2017	16.24	9.45	6.98	5.81	1.84

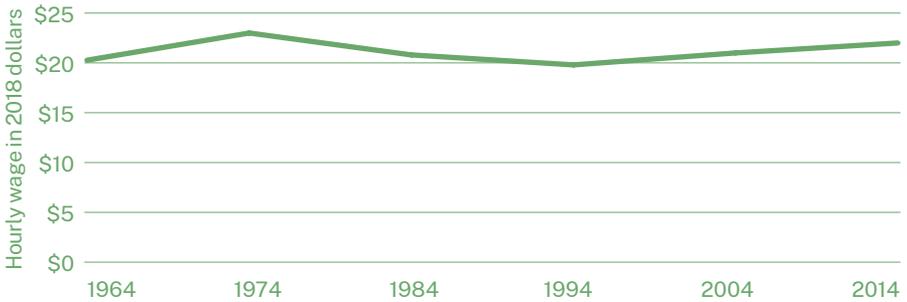
Whereas the United States is currently experiencing several related crises, with—

(1) life expectancy declining while basic needs, such as clean air, clean water, healthy food, and adequate health care, housing, transportation, and education, are inaccessible to a significant portion of the United States population;

(2) a 4-decade trend of wage stagnation, deindustrialization, and antilabor policies that has led to—

(A) hourly wages overall stagnating since the 1970s despite increased worker productivity; Fig. 6

Fig. 6
Average Hourly Wages in the US Adjusted for Inflation, 1964–2014
Source: Pew Research Center



(B) the third-worst level of socioeconomic mobility in the developed world before the Great Recession;

(C) the erosion of the earning and bargaining power of workers in the United States; and

(D) inadequate resources for public sector workers to confront the challenges of climate change at local, State, and Federal levels; and

(3) the greatest income inequality since the 1920s, with—

Fig.7

(A) the top 1 percent of earners accruing 91 percent of gains in the first few years of economic recovery after the Great Recession;

Fig. 7

Usual Weekly Earnings of Full-Time Wage and Salary Workers in 2018 Dollars, 2000–2018

Source: Pew Research Center

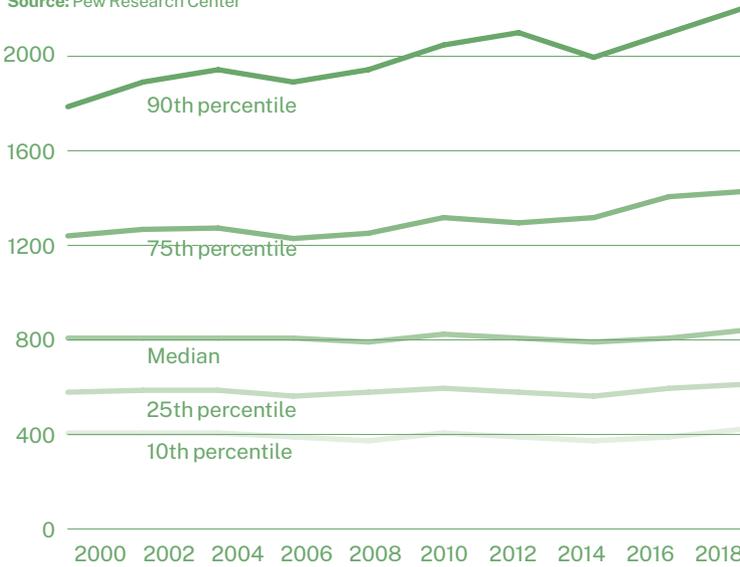


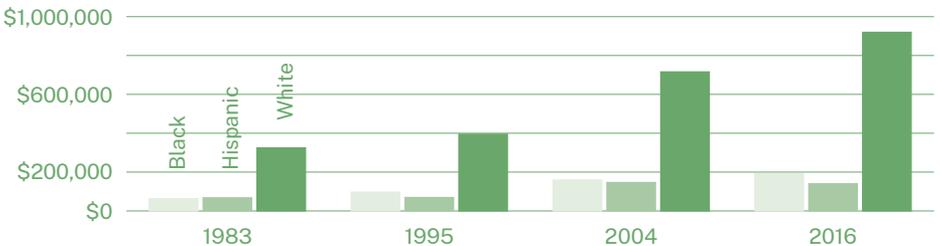
Fig. 8

(B) a large racial wealth divide amounting to a difference of 20 times more wealth between the average white family and the average black family; and

Fig. 8

Average Family Wealth by Race

Source: Pew Research Center



(C) a gender earnings gap that results in women earning approximately 80 percent as much as men, at the median;

Whereas climate change, pollution, and environmental destruction have exacerbated systemic racial, regional, social, environmental, and economic injustices (referred to in this preamble as “systemic injustices”) by disproportionately affecting indigenous peoples, communities of color, migrant communities, deindustrialized communities, depopulated rural communities, the poor, low-income workers, women, the elderly, the unhoused, people with disabilities, and youth (referred to in this preamble as “frontline and vulnerable communities”);

Whereas, climate change constitutes a direct threat to the national security of the United States—

(1) by impacting the economic, environmental, and social stability of countries and communities around the world; and

(2) by acting as a threat multiplier;

Whereas the Federal Government-led mobilizations during World War II and the New Deal created the greatest middle class that the United States has ever seen, but many members of frontline and vulnerable communities were excluded from many of the economic and societal benefits of those mobilizations; and

Whereas the House of Representatives recognizes that a new national, social, industrial, and economic mobilization on a scale not seen since World War II and the New Deal era is a historic opportunity—

(1) to create millions of good, high-wage jobs in the United States;

(2) to provide unprecedented levels of prosperity and economic security for all people of the United States; and

(3) to **counteract systemic injustices**: Now, therefore, be it

Resolved, That it is the sense of the House of Representatives that—

(1) it is the duty of the Federal Government to create a Green New Deal—

(A) to achieve **net-zero** greenhouse gas emissions through a **fair and just transition for all communities and workers**;

“Net-Zero” greenhouse gas (GHG) emissions describes a ‘neutral’ amount of GHG emissions supported by a combination of their slowed (but potentially not stopped) generation and carbon removal technologies, many of which have yet to be developed at the necessary scale. For buildings, net-positive energy remains the long-term goal. “Net-Positive” energy is when a system creates more energy from renewable energy sources than it imports from external, non-renewable sources.

(A) to achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers;

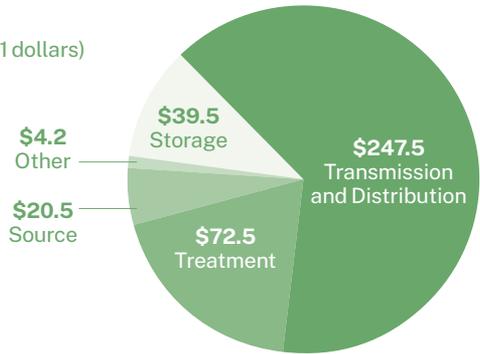
(B) to create millions of good, high-wage jobs and ensure prosperity and economic security for all people of the United States;

(C) to **invest in the infrastructure and industry of the United States to sustainably meet the challenges of the 21st century**;

(D) to secure for all people of the United States for generations to come—

(i) clean air and water;

Fig. 9
Total 20-Year Water Infrastructure Need
by Project Type (in billions of January 2011 dollars)
Source: Environmental Protection Agency



(ii) climate and community resiliency;

(iii) healthy food;

(iv) access to nature; and

(v) a sustainable environment; and

Fig. 9

What counts
as a sustainable
environment?

(E) to promote justice and equity by stopping current, preventing future, and repairing historic oppression of indigenous peoples, communities of color, migrant communities, deindustrialized communities, depopulated rural communities, the poor, low-income workers, women, the elderly, the unhoused, people with disabilities, and youth (referred to in this resolution as “frontline and vulnerable communities”);

(2) the goals described in subparagraphs (A) through (E) of paragraph (1) (referred to in this resolution as the “Green New Deal goals”) should be accomplished through a 10-year national mobilization (referred to in this resolution as the “Green New Deal mobilization”) that will require the following goals and projects—



How can the Green New Deal justly eliminate the use of fossil fuels?

7

(A) building resiliency against climate change-related disasters, such as extreme weather, including by leveraging funding and providing investments for community-defined projects and strategies;

(B) repairing and upgrading the infrastructure in the United States, including—

(i) by eliminating pollution and greenhouse gas emissions as much as technologically feasible;

(ii) by guaranteeing universal access to clean water;

(iii) by reducing the risks posed by climate impacts; and

(iv) by ensuring that any infrastructure bill considered by Congress addresses

Fig.9

climate change;

(C) meeting 100 percent of the power demand in the United States through clean, renewable, and zero-emission energy sources, including—

(i) by dramatically expanding and upgrading renewable power sources; and

Fig. 10

Fig. 10
Sources of US Electricity Generation, 2018
Source: US Energy Information Administration



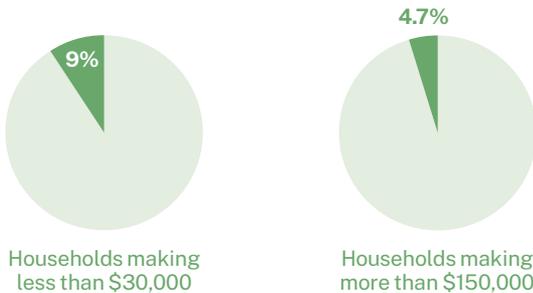
(ii) by deploying new capacity;

8

(D) building or upgrading to energy-efficient, distributed, and “smart” power grids, and ensuring affordable access to electricity;

Fig. 11

Fig. 11
Household Income Spent on Utilities, 2018
Source: US Energy Information Administration, Office of Energy Consumption and Efficiency Statistics



(E) upgrading all existing buildings in the United States and building new buildings to achieve maximum energy efficiency, water efficiency, safety, affordability, comfort, and durability, including through electrification;

(F) spurring massive growth in clean manufacturing in the United States and removing pollution and greenhouse gas emissions from manufacturing and industry as much as is technologically feasible, including by expanding renewable energy manufacturing and investing in existing manufacturing and industry;

(G) working collaboratively with farmers and ranchers in the United States to remove pollution and greenhouse gas emissions from the agricultural sector as much as is technologically feasible, including—

(i) by supporting family farming;

Figs. 12, 13, 14

Fig. 12
Number of Farms, 2017

Source:
U.S. Department of Agriculture

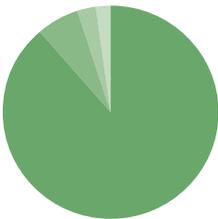


Fig. 13
Value of Production, 2017

Source:
U.S. Department of Agriculture

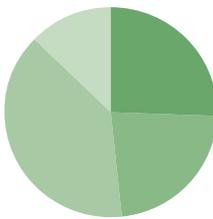
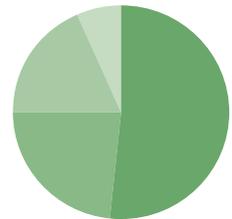


Fig. 14
Land Operated, 2017

Source:
U.S. Department of Agriculture



● Small family farms ● Midsize family farms ● Large family farms ● Nonfamily farms

(ii) by investing in sustainable farming and land use practices that increase soil health; and

(iii) by building a more sustainable food system that ensures universal access to healthy food;

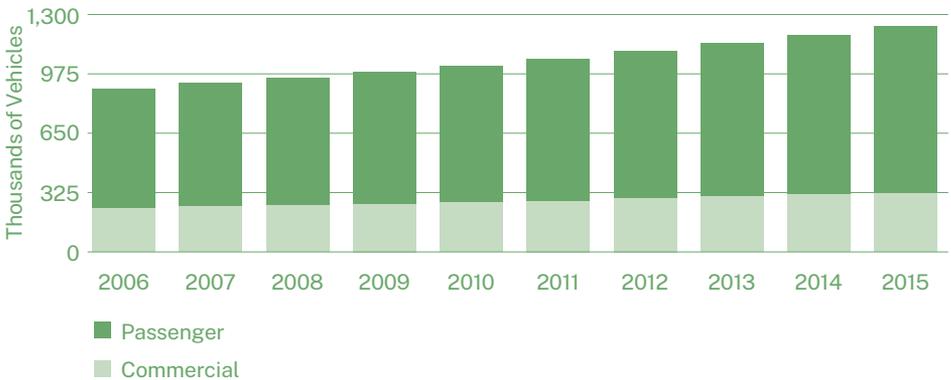
(H) overhauling transportation systems in the United States to remove pollution and greenhouse gas emissions from the transportation sector as much as is technologically feasible, including through investment in—

(i) zero-emission vehicle infrastructure and manufacturing;

(ii) clean, affordable, and accessible public transit; and

Fig. 15

Fig. 15
Car Ownership Globally, 2006–2015
Source: International Organization of Motor Vehicle Manufacturers



(iii) high-speed rail;

(I) mitigating and managing the long-term adverse health, economic, and other effects of pollution and climate change, including by providing funding for community-defined projects and strategies;

How can the Green New Deal meaningfully avoid green gentrification?

(J) removing greenhouse gases from the atmosphere and reducing pollution by restoring natural ecosystems through proven low-tech solutions that increase soil carbon storage, such as land preservation and afforestation;

(K) restoring and protecting threatened, endangered, and fragile ecosystems through locally appropriate and science-based projects that enhance biodiversity and support climate resiliency;

(L) cleaning up existing hazardous waste and abandoned sites, ensuring economic development and sustainability on those sites;



This applies not only to places with visible problems like coal plants and contaminated drinking water but also to places with less visible ones, such as longer term nuclear or pipeline site cleanup.

(M) identifying other emission and pollution sources and creating solutions to remove them; and

(N) promoting the international exchange of technology, expertise, products, funding, and services, with the aim of making the United States the international leader on climate action, and to help other countries achieve a Green New Deal;

Fig. 16

Fig. 16
C40 Affiliated Cities
Source: C40



Around the world, C40 Cities connects 94 of the world's cities to take bold climate action, leading the way towards a healthier and more sustainable future. Representing 700+ million citizens and one quarter of the global economy, mayors of the C40 cities are committed to delivering on the most ambitious goals of the Paris Agreement at the local level, as well as to cleaning the air we breathe.

(3) a Green New Deal must be developed through transparent and inclusive consultation, collaboration, and partnership with frontline and vulnerable communities, labor unions, worker cooperatives, civil society groups, academia, and businesses; and

(4) to achieve the Green New Deal goals and mobilization, a Green New Deal will require the following goals and projects—

(A) providing and leveraging, in a way that ensures that the public receives appropriate ownership stakes and returns on investment, adequate capital (including through community grants, public banks, and other public financing), technical expertise, supporting policies, and other forms of assistance to communities, organizations, Federal, State, and local government agencies, and businesses working on the Green New Deal mobilization;

(B) ensuring that the Federal Government takes into account the complete environmental and social costs and impacts of emissions through—

- (i) existing laws;
- (ii) new policies and programs; and
- (iii) ensuring that frontline and vulnerable communities shall not be adversely affected;

(C) providing resources, training, and high-quality education, including higher education, to all people of the United States, with a focus on frontline and vulnerable communities, so that all people of the United States may be full and equal participants in the Green New Deal mobilization;

12

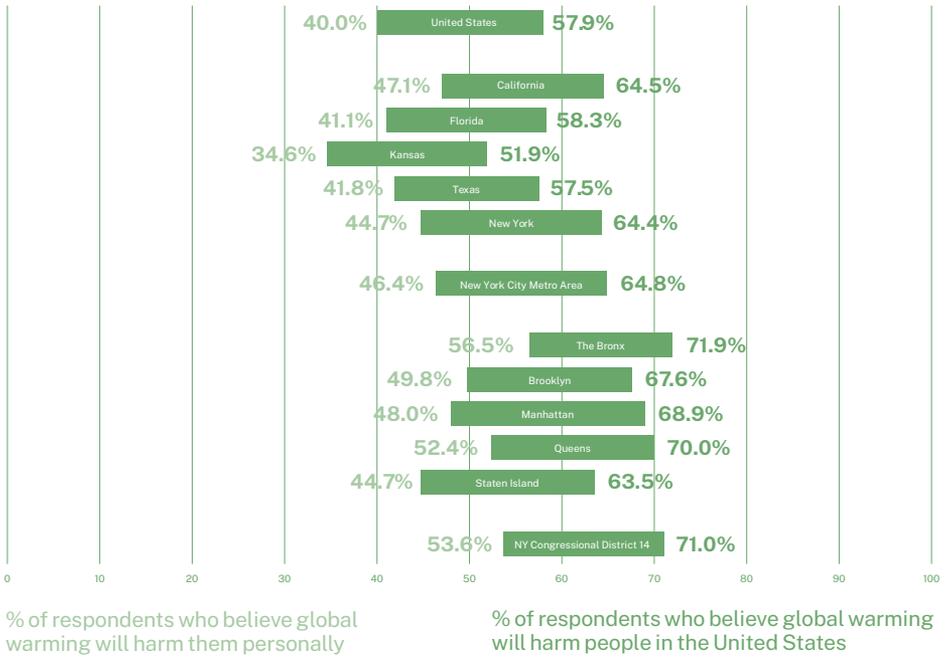
(D) making public investments in the research and development of new clean and renewable energy technologies and industries;

(E) directing investments to spur economic development, deepen and diversify industry and business in local and regional economies, and build wealth and community ownership, while prioritizing high-quality job creation and economic, social, and environmental benefits in frontline and vulnerable communities, and deindustrialized communities, that may otherwise struggle with the transition away from greenhouse gas intensive industries;

Fig. 17

Perception of Climate Change Risk in the United States

Source: "Geographic variation in opinions on climate change at state and local scales in the USA." *Nature Climate Change*.



12

(F) ensuring the use of democratic and participatory processes that are inclusive of and led by frontline and vulnerable communities and workers to plan, implement, and administer the Green New Deal mobilization at the local level;

Fig. 17

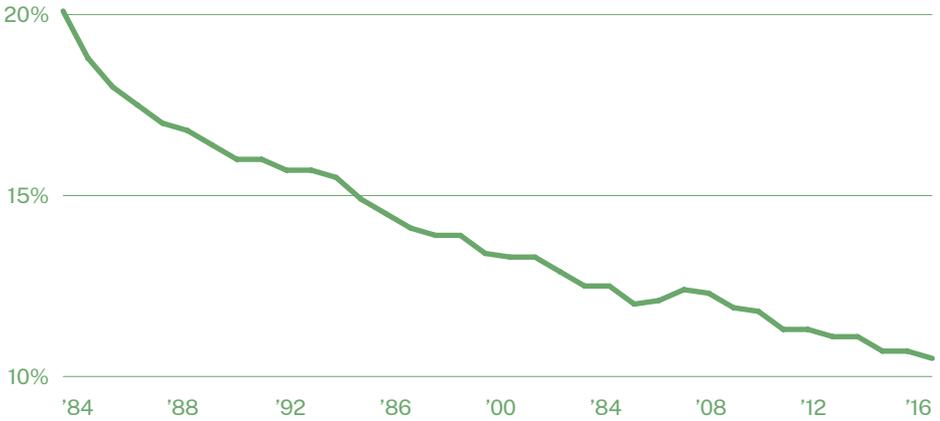
(G) ensuring that the Green New Deal mobilization creates high-quality union jobs that pay prevailing wages, hires local workers, offers training and advancement opportunities, and guarantees wage and benefit parity for workers affected by the transition;

Fig. 18

Fig. 18

Rate of Union Membership among US Workers, 1984–2016

Source: Bureau of Labor Statistics



(H) guaranteeing a job with a family-sustaining wage, adequate family and medical leave, paid vacations, and retirement security to all people of the United States;

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(I) strengthening and protecting the right of all workers to organize, unionize, and collectively bargain free of coercion, intimidation, and harassment;

(J) strengthening and enforcing labor, workplace health and safety, antidiscrimination, and wage and hour standards across all employers, industries, and sectors;

(K) enacting and enforcing trade rules, procurement standards, and border adjustments with strong labor and environmental protec-

(K) enacting and enforcing trade rules, procurement standards, and border adjustments with strong labor and environmental protections—

(i) to stop the transfer of jobs and pollution overseas; and

(ii) to grow domestic manufacturing in the United States;

(L) ensuring that public lands, waters, and oceans are protected and that eminent domain is not abused;

power of the state to take private property for public use

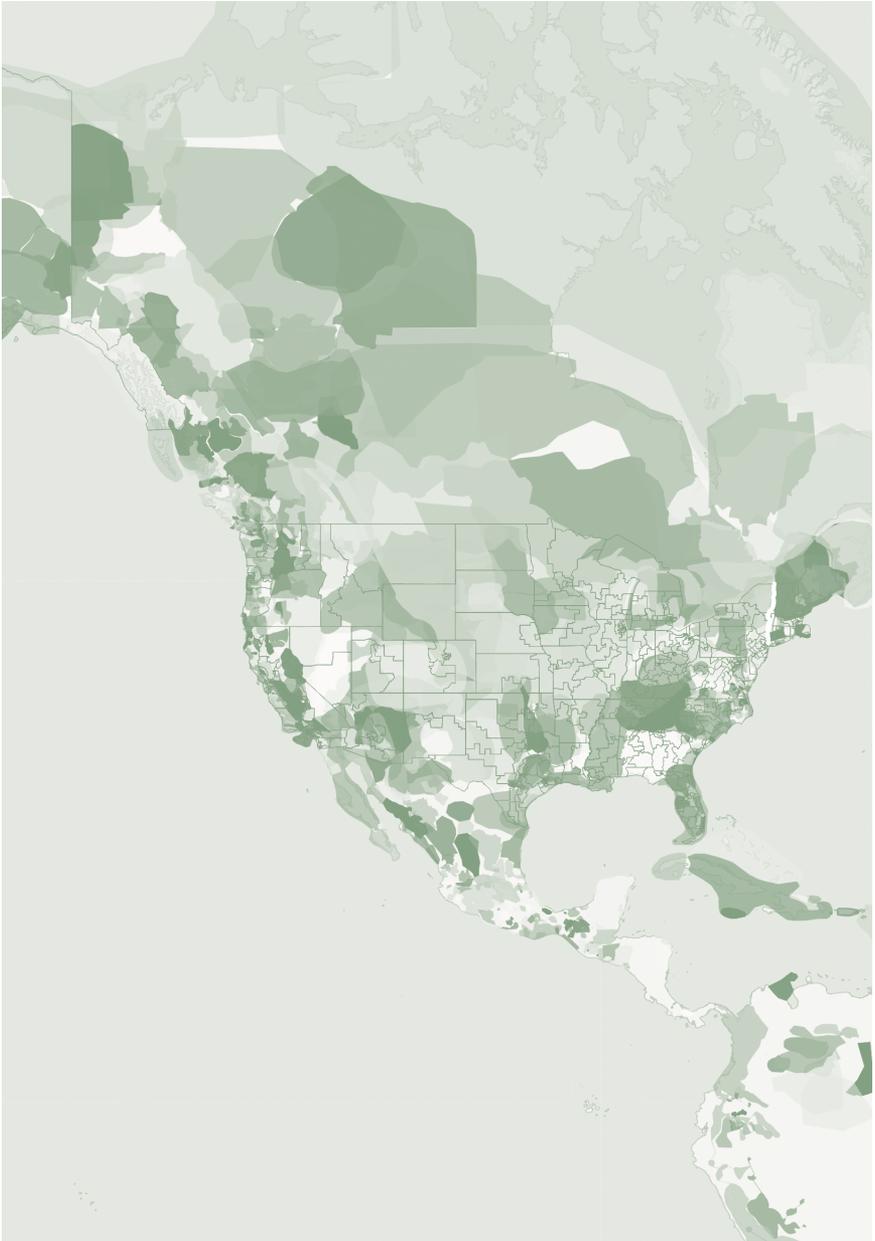
(M) obtaining the free, prior, and informed consent of indigenous peoples for all decisions that affect indigenous peoples and their traditional territories, honoring all treaties and agreements with indigenous peoples, and protecting and enforcing the sovereignty and land rights of indigenous peoples;

Fig.19

Fig. 19

Indigenous Land

Source: Native Land Digital (native-land.ca)



(N) ensuring a commercial environment where every businessperson is free from unfair competition and domination by domestic or international monopolies; and

(O) providing all people of the United States with—

(i) high-quality health care;

(ii) affordable, safe, and adequate housing;

(iii) economic security; and

(iv) clean water, clean air, healthy and affordable food, and access to nature.

How can the Green New Deal equitably include frontline communities, workers, and non-US citizens?

•HRES 109 IH

