Pathways from a Low-Road, Extractive Economy to a High-Road — Sustainable and Just — Economy

ENVIRONMENT, ECONOMY, EQUITY

Emerald Cities

DECARBONIZE THE BUILDING SECTOR

- Establish stronger green building codes and construction standards
- Increase energy efficiency and renewable energy in buildings
- Low- and zero-energy technologies in **US** buildings

DECARBONIZE THE



• Shift federal transportation funding from highways (81%) to mass transit.



DECARBONIZE THE FOOD SECTOR

Invest in local food production



CLIMATE RESILIENCE AND ADAPTATION

- Community preparedness for extreme weather
- Partner with community/anchor institutions



CONSUMER ENERGY EFFICIENCY/RESOURCE CONSERVATION



- · Carbon-free economy
- · Green infrastructure/built environment

ENVIRONMENT

- Healthy communities
- Healthy and sustainable ecosystem
- Community resilience

PATHWAY TO CLEAN ENERGY



infrastructure and built • EPA Clean Power Plan and local standards to cut

 Invest \$19.3T in renewable energy infrastructure to meet global targets

in jobs and contracting opportunities in

clean-energy sector (16.7 jobs/\$1M invested)



agreements in clean-energy sector



COMMUNITY-BASED COALITION

DECENTRALIZE clean-energy assets

NCREASE

clean-energy

ELIMINATE AIR POLLUTION | | +

- Partner with Health Institutions
- Green and Healthy Homes

PATHWAY TO ECONOMIC OPPORTUNITIES

 Build community awareness of/ engagement around environmental justice



EXPAND AWARENESS ABOUT

education and training



PATHWAY TO SOCIAL EQUITY



EQUITY

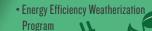
- Self-sufficient/self-reliant, resilient communities
- Public and community-owned energy assets

training and advancement opportunities

ECONOMY

- Worker rights, including collective bargaining rights and union membership
- Use proceeds of carbon tax to invest in clean energy and counter negative impacts of fossil fuels on vulnerable communities
- Communities of color are full beneficiaries in the clean-energy/high-road economy
- Resilient and sustainable communities
- Energy resilience
- Energy democracy
- Zero net energy costs for low-income households
- Community ownership of energy assets and wealth generation





- Solar



ENVIRONMENTAL IMPACT OF THE US FOSSIL FUEL ECONOMY

The U.S., with 5% of the world's population, accounts for nearly 25% of the total global carbon



 Current GhG emissions will increase US temperature by 4 to 11.5 degrees by 2100, 2x as much as the last



 253 presidential disaster leclarations and increase in \$1B extreme weather events over last four years



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PARTICIPATION IN ENVIRO/ENERGY SECTOR

• Low level of minority participation in high-wage AEC (architecture,



JOB QUALITY/JOB ACCESS/JOB CREATION

- Greater morbidity/mortality in extraction industries.
- in economic losses, and 1,286 fatalities Fossil fuel sector creates only 5.3 jobs per \$1M invested, vs. 16.7 in clean energy sector
- Only 2.2 fossil fuel jobs per \$1M invested are open to those with high school diploma or less vs. 8 in clean energy





% of world's population & \ 25% of the pollution

INCOME/WEALTH DISPARITIES



- CEOs of top 5 oil companies were paid \$96M in 2013, 400x US median family income
- 40% of oil profits were used to repurchase stock, increasing wealth of large shareholders, senior execs, board members

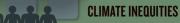


ENVIRONMENTAL DEGRADATION

TAX/EXPENSE BURDEN OF FOSSIL FUEL INDUSTRY

- US taxpayers pay an estimated \$360B-\$1T each year related to the military, climate, local environmental and health impacts of the fossil fuel industry
- Fossil fuels generally cost more (\$0.07-\$0.14/kWh) than renewables (\$0.05-\$0.20/kWh)
- Rising food costs due to climate change-induced droughts

EXTRACTIVE ECONOMY



Inerable to climate change



HEALTH INEQUITIES

- Communities of color breathe nearly 40% more polluted air than whites and live in counties with high levels of pollution
- Asthma & other health problems are common



• Low-income families use 20% less energy than non-poor families but pay 13% more of income on home energy costs (17% vs. 4%)

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ENVIRONMENT, ECONOMY, EQUITY



ENVIRONMENT			ECONOMY			EQUITY		
ENVIRONMENTAL DEGRADATION	PATHWAY TO CLEAN ENERGY	HIGH-ROAD, SUSTAINABLE, JUST ECONOMY	EXTRACTIVE ECONOMY	PATHWAY TO ECONOMIC OPPORTUNITIES	HIGH-ROAD, SUSTAINABLE, JUST ECONOMY	SOCIAL INEQUALITY	PATHWAY TO SOCIAL EQUITY	HIGH-ROAD, SUSTAINABLE, JUST ECONOMY
Environmental impact of the U.S. fossil fuel economy Pollution The U.S., with 5% of the world's population, accounts for nearly 25% of global carbon emissions.	 Decarbonize the power sector Divest public subsidies (\$548B in 2013) and private pension investments (\$5T). EPA Clean Power Plan and local standards to cut carbon emissions. Invest \$19.3T in renewable energy infrastructure to meet global targets. 	Carbon-free economy. Healthy and sustain- able ecosystem. Green infrastructure/ built environment.	Tax/expense burden of fossil fuel industry U.S. taxpayers pay an estimated \$360B-\$1T each year related to the military, climate, local environmental and health impacts. A 2009 report by the National Academy of Sciences claims that burning fossil fuels results in about \$120B per year in health-related costs. Fossil fuels generally cost more (\$.07-\$.14kWh) than renewables (\$.05-\$.20 kWh). Rising food costs due to climate change-induced	Tax carbon. Increase affordable, clean-energy investments.	Use proceeds of carbon tax to invest in clean energy and counter negative impacts of fossil fuels on vulnerable communities.	Energy inequities Low-income families use 20% less energy than non-poor families, but pay 13% more of income on home energy costs (17% vs. 4%). Households with income of more than \$76,000 emit four times more than those making less than \$10,000. Health inequities	Increase funding for weatherization assistance. Increase investments in low-income home energy assistance program. Increase low-income solar assistance funding. Increase community solar. Expand community-owned energy. Eliminate carbons and particulate matter to improve environmental health.	Energy resilience. Energy democracy. Zero net energy costs for low-income households. Community ownership of energy assets and wealth generation. Healthy communities.
Environmental degradation Greenhouse Gas (GhG) emissions increase localized health-damaging pollutants, including sulfur dioxide, nitrogen oxides and particulate matters + 20 toxic chemicals. Areas of the southern and southwestern U.S. are projected to go from an average of 60 days a year above 90 degrees to 150 days by 2099. Extreme weather events, including heat waves, droughts and floods, have become more frequent and	Install low- and zero-carbon technologies to zero net energy standards in 5.6M commercial buildings, 124K schools and 128M residential buildings to eliminate 39% of U.S. carbon emissions. Establish stronger green building codes and construction standards. Increase energy efficiency and renewable energy in buildings. Low- and zero-energy technologies in U.S. buildings. Triple global low-carbon technology investments		 droughts. Income/wealth disparities Concentrated wealth – Top 5 oil companies made \$93B in profits in 2013. CEOs of top 5 oil companies were paid \$96M in 2013, 400x U.S. median family income. 40% of oil profits were used to repurchase stock, increasing wealth of large shareholders, senior execs, board members. In 2015, the top 5 oil companies rejected increasing worker pay by 6.5% over three years, citing lower profits. In March 2015, BP's CEO received a 25% raise and \$9.8M in stock and froze the pay of 84,000 global work- 	Decentralize clean-energy assets. Establish renewable energy producer and consumer coops.	Public and community-owned energy assets.	 Communities of color experience high levels of pollutants, including 38% higher levels of nitrogen oxides, sulphur dioxide, particulate matter, etc. Asthma and other health problems are more prevalent among persons below poverty level. Health problems such as high blood pressure, diabetes and chronic heart disease increase the vulnerability of low-income families to heat waves and urban heat islands. Communities of color breathe nearly 40% more polluted air than whites and live in counties with high levels of pollution. Climate inequities	Partner with health Institutions to invest in community/environmental health. Green and healthy homes. EPA's Clean Power Plan, which restricts polluting emissions from exiting power plants, could avoid an average of 3,500 deaths a year from respiratory and other illnesses. Community-driven resilience (social,	Resilient and
intense. More than 25,000 new record highs were set in 2012 alone across the U.S.	from \$255B in 2014 to \$730B in 2035, three-quarters for renewables. Decarbonize the transportation sector • Shift federal transportation funding from highways (81%) to mass transit. Decarbonize the food sector • Invest in local food production.		ers while profits fell by \$1.3B (to \$12.1B). Economic/property loss 42 extreme weather events exceeding \$1B in the past four years for total of \$227B in economic losses in 44 states, as well as 1,286 fatalities. Since 1990, total government exposure to losses in hurricane-exposed states has risen more than 15-fold to \$885B in 2014.	Strengthen & green infrastructure & built environment Create national and state infrastructure investment/banks. Increase local/community resilience capacities, including social, physical and economic infrastructure of vulnerable communities.	Urban and community resilience.	Low-income communities are the most vulnerable to climate change. A June 2014 White House report, "The Health Impacts of Climate Change on Americans," states: Heat waves and other extreme weather events can disproportionately affect low-income communities and some communities of color, raising environmental justice concerns.	physical and economic) investments.	sustainable communities
Climate Change By 2100, the average U.S. temperature is projected to increase by about 4°F - 11°F, depending on the level of future GhG emissions. By 2100, the global average temperature is expected to warm at least twice as much as it has during the last 100 years. Extreme Weather	Climate resilience and adaptation	Resilient and sustainable communities.		in clean-energy sector; replace fossil-fuel jobs with green/clean-energy jobs • Increase participation of communities of	Worker rights, including collective bargaining rights and union membership. High-road jobs: family-sustaining jobs with benefits, training and advancement opportunities. A disproportionate percentage of moderately well-paying "green collar" jobs in the clean-energy economy are staffed by workers with relatively little formal education.	Participation in enviro/energy sector People of color have not broken the 16% "green ceiling" at nearly 300 environmental organizations surveyed by Green 2.0. Low level of minority participation in high wage AEC (architecture, engineering, construction) jobs. An estimated 60% of energy-sector job growth will occur in skilled and technical jobs requiring up to two years post-high school training.	Expand outreach to and career awareness/participation of minority communities about clean energy/ climate justice. Increase technical and STEM preparation and training. Increase inclusion of people of color in environmental organizations' leadership and staff. Increase participation by women and people of color in construction labor unions via community workforce agreements. Increase access to contracting/ business opportunities in the clean-energy economy for communities of color. Increase participation by communities of color in climate, community and environmental planning.	
 253 presidential disaster declarations and increase in \$1B extreme weather events over last four years. Diminished Biodiversity & Resource Depletion It would take 5x the Earth's natural resources if everyone in the world lived like we do in the U.S. With 5% of world population, we use 23% of global bio-capacity. 	Community preparedness for extreme weather. Partner with community/anchor institutions. Expand consumer energy efficiency/resource conservation awareness and practices	Sustainable communities.						