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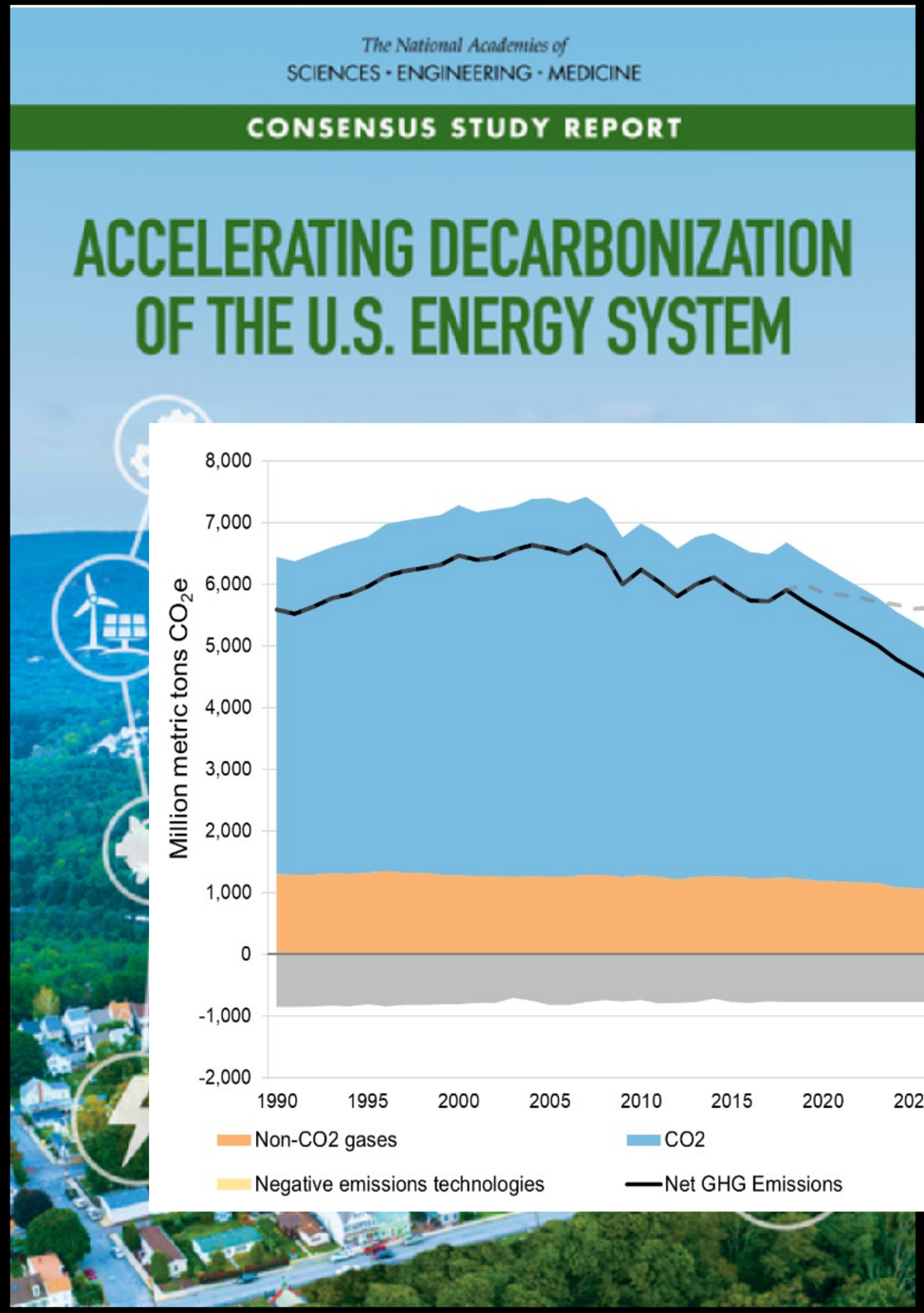
Enhancing the Social Contract for Decarbonizing the US Energy System

Clark A. Miller

UT Energy Week, 2021 - Energy Transition: Agents of Change, Changing Agents



http://nap.edu/decarbonization

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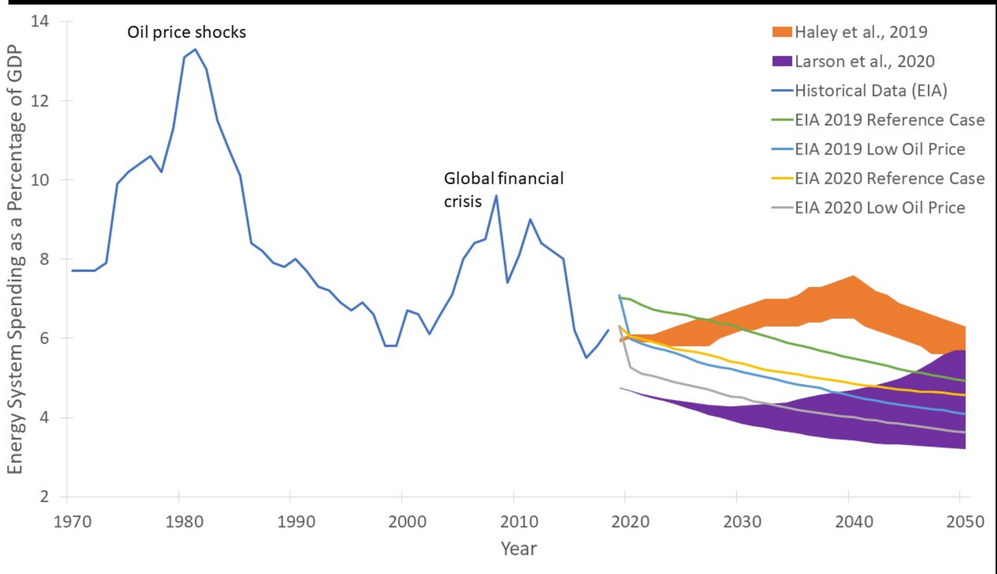
Decarbonization of the US energy system by 2050 is feasible and affordable



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The committee finds that a **robust social contract** is essential if the U.S. is to accelerate the technological and economic transformation necessary to achieve carbon neutrality by 2050.

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The committee recommends that **all participants in the energy transition**—including the energy sector, local, state, and federal governments, and civil society organizations—**systematically engage the public** and take action to strengthen public support for U.S. decarbonization.

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Critical to the success of that effort is the development of **a comprehensive approach to ensure a just transition** to carbon neutrality

- Create national analysis, standards, and communication of **measures of transition impacts** on communities and workers
- Provide coordinated, **long-term support for communities and workers** making the transition
- Establish programs to **redress historical energy injustices** to BIPOC, indigenous, low-income, and other disadvantaged communities
- Offer support for **improved local, state, tribal, and regional planning**

https://www.nap.edu/resource/25932/RH-decarbonization-equity.pdf

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Thank you.

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https://energy-and-society.org

Technology Goals

Electrify energy services in transportation, buildings, and industry

Examples include moving half of vehicle sales (all classes combined) to EV's by 2030, and deploying heat pumps in one quarter of residences.

Improve energy efficiency and productivity

Examples include accelerating the rate of increase of industrial energy productivity (dollars of economic output per energy consumed) from the historic 1% per year to 3% per year.

Produce carbon-free electricity

Roughly double the share of electricity generated by carbon-free sources from 37% to 75%.

Expand the innovation toolkit

Triple federal support for net-zero RD&D.

Plan, permit, and build critical infrastructure

Examples include new transmission lines, an EV charging network, and a CO_2 pipeline network.

Socio-Economic Goals

Strengthen the U.S. economy

Use the energy transition to accelerate US innovation, reestablish US manufacturing, increase the nation's global economic competitiveness, and increase the availability of high-quality jobs.

Support communities, businesses, and workers

Proactively support those directly and adversely affected by the transition

Promote equity and inclusion

Ensure equitable distribution of benefits, risks and costs of the transition to net-zero.

Integrate historically marginalized groups into decision-making by ensuring adherence to best practice public participation laws.

Ensure entities receiving public funds report on leadership diversity to ensure non-discrimination.

Maximize cost-effectiveness

1. Strengthen US Capacity to Ensure a Just Transition

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Assess the social and economic impacts of the transition

Provide transparent information to communities, workers, businesses, and leaders

Hold U.S. policy accountable for fair and equitable outcomes

- Establish a **2-year National Transition Task Force** of appropriate experts and stakeholders to identify, plan, and carry out **comprehensive analyses of the vulnerabilities of U.S. workers and communities** to losses of employment, economic base, and public revenues in the transition away from fossil fuels
- Establish **metrics and standards** for an equitable transition and create a **White House Office of Equitable Transitions** to oversee and collect, analyze, and report data on the performance of poli- cies, agencies, and companies in meeting those metrics.
- Fund **social science research** on the dynamics of industry, workforce, and community transitions and effectiveness of strategies for improving economic transition outcomes
- Strengthen the **research capacity and screening tools** supporting federal environmental and energy justice decision-making at EPA.

2. Proactively Support Communities and Workers Impacted by the Transition

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Invest in clean energy jobs and manufacturing, education, economic development

Direct support for those that need it the most

- Establish a **National Transition Corporation** to provide assistance funding to communities and workers, invest in renewable energy infrastructure and manufacturing, coordinate federal economic development assistance, and remediate abandoned legacy infrastructures.
- Establish a **Green Bank**, initially capitalized at $30 Billion, and prioritize financing for investments in low-carbon infrastructure, manufacturing, and business creation in communities impacted by the transition.
- Establish **appropriate labor standards** to ensure creation of high-quality jobs and **procurement standards** to encourage U.S. clean energy manufacturing growth
- Invest in **comprehensive education and training** opportunities, including a $5 Billion GI-Bill type program to support college education and significant investments in educational programs focused on energy transitions. These programs should proactively enable workers to pursue career alterna- tives while also raising educational attainment across the board in resource-dependent communities.

3. Leverage the Opportunity Afforded by the Transition to Confront and Redress Injustice

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Address the needs of Black, indigenous, people of color, low-income, and other disadvantaged communities

- Establish strong rules and practices to support **inclusive participation in energy transition decision-making** and invest in community-based organizations to build and strengthen the capacity of communities to participate effectively.
- Increase **funding for investments** in energy efficiency, renewable generation, and other improvements to buildings and equipment via weatherization and low-income home energy assistance programs to **reduce energy poverty** and ensure these families are not left behind by the transition.
- Invest in **electrification on tribal lands and broadband access** for low-income communities.
- Encourage philanthropic organizations to **address racial justice and equity disparities** in their funding of NGOs and improve the diversity of their board and staff.
- Set and enforce rules for **inclusive public participation in siting of decarbonization infrastructure**, including but not limited to low-carbon electricity generation, transmission lines, EV charging networks, and CO2 pipelines.

4. Support and coordinate action by local, state, tribal, and regional policy-makers

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Navigating the transition will be complex and decision-makers will need help.

- Invest in **community block grants that support local transition planning**, community-based action, and community-benefiting economic and technological change.
- Incentivize states to **establish state energy transition offices** to provide statewide, cross-sectoral coordination.
- Establish **regional centers** to enable mayors, governors, and industry leaders to identify, deliberate, and solve cross-border problems and address regional infrastructure needs and coordination.
- Invest in robust new **data, modeling, and knowledge infrastructure** to support local, state, and regional decision-making for transition planning and ensuring that knowledge is responsive to data needs, timely, and delivered effectively to decision makers.

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Links to the Report

National Academies Report: ***Accelerating Decarbonization of the US Energy System***: https://www.nap.edu/decarbonization

4-page Report Highlights: https://www.nap.edu/resource/25932/RH-decarbonization.pdf

4-page Just Transition Policy Framework: https://www.nap.edu/resource/25932/RH-decarbonization-equity.pdf

Interactive Table of Policy Recommendations: https://www.nap.edu/resource/25932/interactive/table/index.html