C2ES CENTER FOR CLIMATE AND ENERGY SOLUTIONS

COMMENTS OF THE CENTER FOR CLIMATE AND ENERGY SOLUTIONS

This document constitutes the comments of the Center for Climate and Energy Solutions (C2ES) on the request for input to help guide the House Committee on Energy and Commerce's plan to achieve net-zero emissions by 2050. C2ES is an independent, nonprofit, nonpartisan organization dedicated to advancing strong policy and action to reduce greenhouse gas emissions, promote clean energy, and strengthen resilience to climate impacts. We have extensive experience on decarbonization. Through our Climate Innovation 2050 initiative, we have brought together more than 30 leading companies from key sectors to examine potential pathways towards decarbonizing the U.S. economy. To date, our project has released:

- Six sectoral background briefs examining key challenges and opportunities in decarbonization U.S. agricultural and land use, buildings, electric power, industry, oil and gas, and transportation.
- A set of near-term federal policy actions that could garner bipartisan support and strengthen the foundation for comprehensive long-term solutions.
- A report, *Pathways to 2050: Scenarios for Decarbonizing the U.S. Economy*, that presents and draws insights from three alternative scenarios for decarbonizing the U.S. economy.

Building on these efforts, C2ES is now working with companies to develop a comprehensive strategy for making the United States carbon neutral by 2050. This strategy will recommend a long-term national policy framework and other key sector-specific actions over the coming decade to put the United States firmly on the path to decarbonization. It will address many of the questions under this request. In the interim, these comments reflect information drawn from our sectoral background briefs, near-term policy recommendations and *Pathways to 2050* report, and previews some elements of our forthcoming decarbonization strategy. We would welcome an opportunity to brief the Committee on the full strategy upon its completion.

The views expressed here are those of C2ES alone and do not necessarily reflect the views of members of the C2ES Business Environmental Leadership Council (BELC) or other companies participating in the Climate Innovation 2050 initiative.

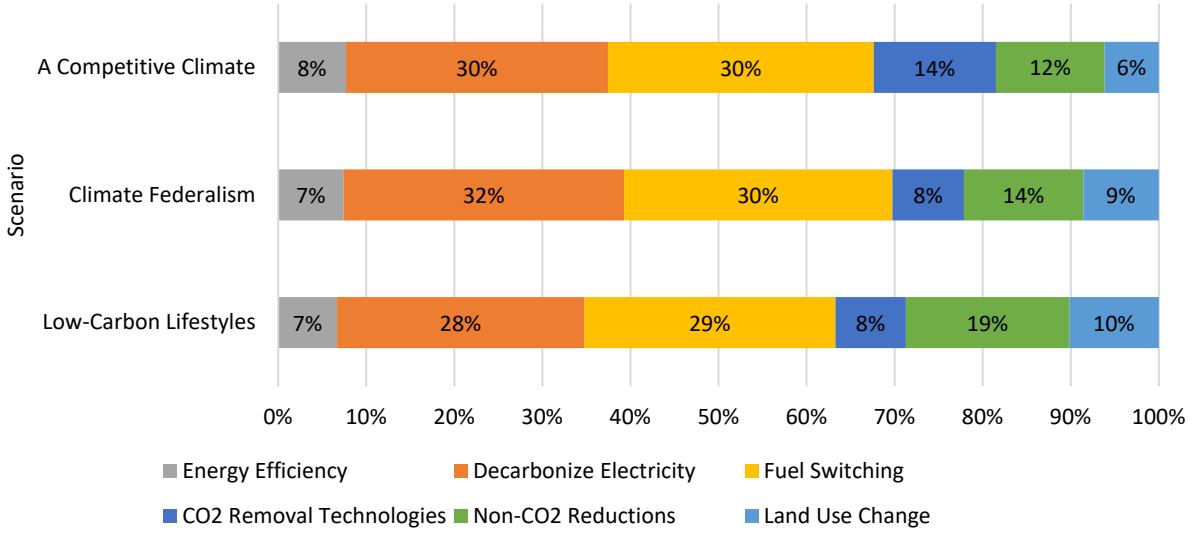
1. What are the key policy, regulatory, and market considerations that should inform the development of comprehensive climate legislation? Please provide specifics.

The *Pathways to 2050: Alternative Scenarios for Decarbonizing the U.S. Economy* presents and draws insights from three scenarios for reducing U.S. greenhouse gas emissions 80 percent below 2005 levels by 2050 (summary of the scenarios is in Table 1). The three scenarios:

- **A Competitive Climate:** Strong international pressure in the form of carbon tariffs and growing recognition of the competitive benefits of low-carbon innovation lead to a strong, early U.S. federal response, including an economy-wide price on carbon.
- **Climate Federalism:** Responding to economic opportunities and intensifying climate-related disasters, a growing number of U.S. states implement ambitious climate policies, leading to calls from business for a more harmonized national response.
- **Low-Carbon Lifestyles:** Increased urbanization, generational shifts, and technological breakthroughs lead to strong market demand for low- carbon consumption products and services, along with the emergence of innovative low-carbon business models.

Our modeling of these three scenarios shows, like many previous analyses, that decarbonization requires certain fundamental shifts across the energy system and the economy: decarbonizing the power supply; switching to electricity and other low-carbon fuels in the transportation, industry and buildings sectors; increasing energy efficiency across the economy; increasing carbon sequestration; and reducing emissions of non-CO_2 climate pollutants. Figure 1 shows that their relative contributions are roughly similar across all three scenarios.

Figure 1: Key elements of decarbonization



Note: The figure shows that the relative contributions of these strategies toward an 80 percent emissions reduction are roughly similar across all three scenarios.

The report draws the following takeaways from this collaborative scenario exercise:

- Achieving our decarbonization goals requires fundamental shifts in the ways we generate energy, produce goods, deliver services, and manage lands.
- These fundamental shifts can be achieved through a host of alternative pathways reflecting different drivers, different contingencies, and different societal choices.
- Decarbonization requires that action accelerates quickly and that everyone plays their part—policymakers at all levels, investors, entrepreneurs, consumers, voters, and companies across key sectors of the economy.
- The success of any pathway hinges on high levels of public support, expressed through stronger demand for effective policies and/or low-carbon goods and services.
- Decarbonization requires a broad suite of policies that drive investment and action by setting goals, targeting resources, providing incentives, and ensuring a level playing field.
- Technological innovation can greatly facilitate decarbonization but, without adequate policy drivers, is not sufficient to achieve it.
- The private sector is an essential partner in any decarbonization pathway, and timely business leadership can help ensure choices that are beneficial for both companies and society as a whole.
- Sectoral responses are highly interdependent—the pathway chosen by one sector may enhance or constrain the decarbonization options of others.

2. Please describe any innovative concepts for climate policy design, including both sector-specific and economywide measures, that you believe the Committee should consider.

The breadth and scale of the decarbonization challenge necessitate an all-in effort. We must look to government at all levels to set goals and standards, provide market signals and incentives, invest public resources, and maintain a level playing field. We must look to the private sector to mobilize capital, apply its expertise and entrepreneurial energies, accelerate innovation, and support enabling policies. We must look to investors to steer finance toward low- and zero-carbon technologies and business models. And we must look to the public at large to express, as citizens and consumers, a preference for the policies and products that can deliver a decarbonized future.

As the foundation for a successful decarbonization strategy, Congress should enact an overarching statutory framework that: 1) sets a long-term goal and interim milestones; 2) charges the White House with driving and coordinating cost-effective action across the federal government; 3) establishes a market-based system that incentivizes carbon reduction across the economy; and 4) provides for periodic review of progress and policies. Our forthcoming decarbonization strategy will elaborate this recommended framework as well as policies aimed at driving low-carbon innovation, mobilizing climate finance and ensuring a just transition.

3. If you work in, advise, or are familiar with sectors that are particularly challenging to decarbonize, have you identified any effective (and scalable) solutions that should be included in comprehensive climate legislation?

The sectoral briefs outline key opportunities and challenges towards decarbonizing the power, transportation, industry, buildings, oil and gas, and land use sectors. The forthcoming strategy outlines priority actions in these sectors and highlights technology pathways with significant potential across multiple sectors (e.g., carbon capture, digitalization, hydrogen and bioenergy).

C2ES President Bob Perciasepe will testify on September 18 before the Subcommittee on Environment and Climate Change on the particular challenges of decarbonizing the industrial sector. We plan to submit his testimony as an addendum to these comments.

4. If your organization has adopted carbon pollution reduction goals, how have those goals – or your plans to meet those goals – evolved over the last decade?

N/A

5. If applicable, what actions has your organization already taken, or do you plan to take, to reduce carbon pollution?

N/A

6. What have been the challenges or barriers to making meaningful carbon pollution reductions, and how have you responded to those challenges or barriers?

N/A

7. How can the Federal Government assist you in reducing carbon pollution?

N/A

8. Are there any additional comments or feedback you would like to add?

Deep decarbonization will ultimately require a comprehensive federal approach providing critical policy intervention to steer investment towards building a clean energy economy. This transformation requires strong business leadership. Business input is essential in identifying the technology pathways to decarbonization, the obstacles to those pathways, strategies to unleash the necessary innovation and finance, and the policies needed to promote cost-effective solutions.

Later this year, C2ES will release a U.S. decarbonization strategy developed in close consultation with leading companies across key sectors. We would welcome an opportunity to brief the Committee on the strategy upon its completion.