



# A CALL TO ACTION FOR ENERGY EFFICIENCY

## OUR VISION

ACEEE's vision is to scale up energy efficiency to rapidly and equitably reduce greenhouse gas (GHG) emissions and combat climate change, and to do so in a way that benefits the economically insecure. Given the worldwide reach of the U.S. economy, we must use our nation's economic leverage, energy technology leadership, and imagination to strengthen global decarbonization efforts, particularly in large developing countries. We seek a vibrant and equitable economy that uses energy more productively, and promotes the health, safety, and well-being of all.

ACEEE was founded 40 years ago on the principle that efficient energy use was critical to our nation's well-being and security. We set a goal to reduce the United States' overall energy use and waste and to end our dependence on foreign oil. Since then, energy efficiency has helped reduce energy imports, doubled energy productivity, and led to economic savings. We have cut U.S. energy use in half relative to the size of the economy and are annually saving more than \$2,000 per capita in energy bills. Efficiency now saves more energy each year than America uses from any other single energy resource, including oil, natural gas, and coal.

Climate change, equity, and economic issues demand urgent action. The pace of climate change due to global energy use threatens our world's well-being and compromises the global economy, our health and safety, and the ecosystems on which we depend. Inequality and uneven economic growth have worsened, exacerbated by the climate crisis, high energy costs, and energy production, and are disproportionately harming developing nations, low-income communities, and communities of color.

Energy efficiency and reduced energy use are vital to slow the rate of climate change and mitigate its impacts. ACEEE has demonstrated that America can reduce domestic energy use and GHG emissions by 50% by 2050 while improving our nation's economy and equity. ACEEE is eager to lead the way.

ACEEE will work toward a future where well before 2050, due to energy efficiency, America has halved domestic energy use and associated GHG and pollutant emissions. In our vision for 2050:

- ▶ Industry will be decarbonized, economically vital, and globally competitive.
- ▶ Transportation energy use will be cut in half, and emissions cut more than 60%, with the resulting advances accessible to all.
- ▶ Total building and end-use energy consumption and emissions will be cut in half, new buildings will be zero-energy and carbon neutral, and buildings will be resilient, providing a healthy and safe environment for everyone.
- ▶ The power sector will be optimized and secure, with energy efficiency complementing diverse, clean supply and demand resources to deliver energy affordably, efficiently, and reliably.
- ▶ America will have made a just transition to a cleaner, low-carbon economy supporting many clean energy jobs, with reduced energy burdens and benefits accruing to all citizens.
- ▶ Many high-impact, energy-related, carbon-reducing solutions will be implemented globally.

## OUR PATH FORWARD

ACEEE commits our analytical research and policy advocacy skills to work more intensively and boldly to solve these urgent challenges. We will imagine, shape, explain, and advance transformative efficiency ideas and behaviors, and we will do so at the maximum possible speed and scale in order to double the rate of annual efficiency improvements and slow the rate of climate change. We will work collaboratively with diverse partners so that by 2030:

- ▶ Transformation of industrial processes and products will have reduced industrial GHG emissions by a third from 2019, and half of U.S. manufacturing facilities will use strategic energy management.
- ▶ The fuel efficiency of new freight and passenger vehicles will have increased by at least 50% relative to 2020 and electric vehicle sales achieve 50% penetration. Passenger and freight vehicle miles will have declined by 20% and 30%, respectively, from 2019.
- ▶ One-quarter of new construction will be zero-net-energy and carbon neutral, and one-quarter of existing homes and buildings will be retrofitted using scalable models and techniques. High-efficiency technologies and integrated solutions will be available for all types of new and existing buildings.
- ▶ The electric power sector will use energy efficiency and demand flexibility as first-line resources to achieve at least 20% electric efficiency savings, supporting a reliable clean power grid that delivers affordable 80%, carbon-free electricity in at least 30 states.
- ▶ Investments in efficiency for buildings occupied by low-income households (those at or below 200% of the federal poverty level) will reach one-third of eligible low-income households with a whole-home energy efficiency program. Efficiency jobs created will reflect the demographics of the communities they serve.

We must grow the national political will, commitment, and funds to implement new and existing efficiency technologies at a massive scale to maximize greenhouse gas emission reductions, increase resilience in the face of climate change, and realize the economic and equity benefits of greater energy productivity. These solutions will require ACEEE and our partners to take risks, pursue unproven initiatives, and at times fail. But the urgency of the climate change threat defies caution.

ACEEE is uniquely positioned to collaborate with businesses, governments, academia, and philanthropy, as well as public interest, health, and environmental justice groups, to generate the solutions we seek. By convening conversations, conducting policy analyses, sharing our research, advising policymakers, and educating consumers and businesses, ACEEE commits to serve as a catalyst and agent for the systemic transformation necessary to mitigate climate change.

