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Statement of John Larsen
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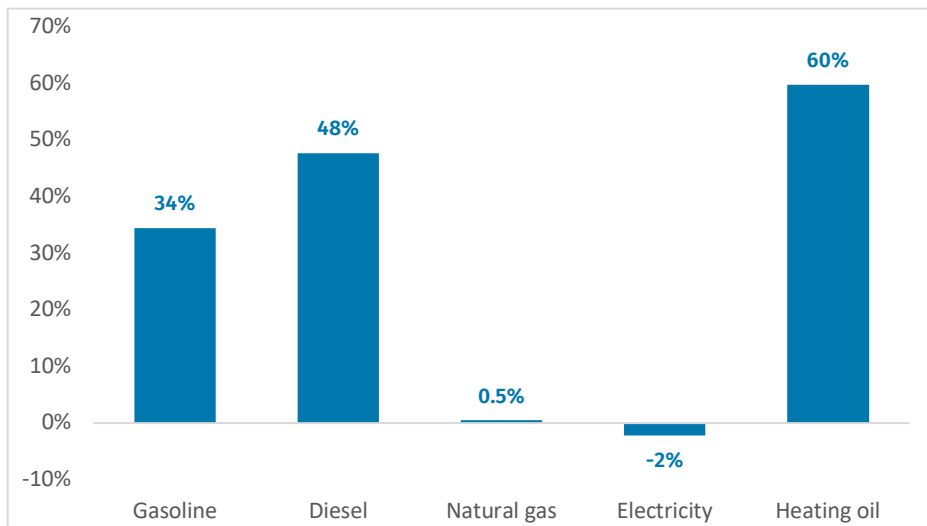
Presented to: Senate Energy and Natural Resources Committee Subcommittee on Energy hearing on
“Pathways to Lower Energy Prices”

Thank you Chair Hirono, Ranking Member Hoeven, and members of the Subcommittee for inviting me to speak today. My name is John Larsen, and I am a partner at Rhodium Group, an independent research firm whose research informs decision-makers in the public, private, and philanthropic sectors. I lead Rhodium Group’s US energy systems research, where we focus on analyzing clean energy policy, emerging clean technologies and market trends. I am also a non-resident senior associate in the energy security and climate change program at the Center for Strategic and International Studies.

I appreciate the opportunity to speak with you today about options for lowering energy costs for consumers. Along with historically high inflation for most goods and services, household energy costs have risen substantially this year. Rhodium Group estimates that national average household costs for home energy and transportation will be approximately \$5,100 this year. That’s a 23% increase compared to 2020 during the height of the pandemic, and it’s been primarily caused by the rapid rise in fossil fuel prices over the past 6 to 12 months. This is especially the case for petroleum products such as gasoline, diesel fuel and heating oil, which have increased by 34%, 48%, and 60%, respectively on a national average basis over the past 12 months (Figure 1).

Figure 1. Change in Household Energy Prices for Select Fuels

Year-on-year percent change from 2021 to 2022

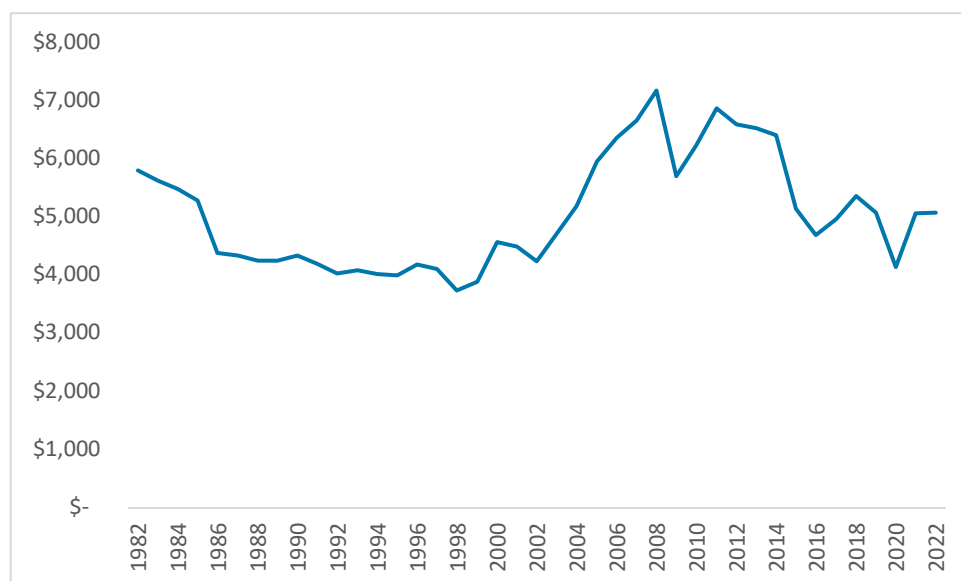


Source: Energy Information Administration and Rhodium Group analysis. Note: Values reflect the change in estimates for June 2022 prices relative to actual June 2021 prices for households.

While total household energy costs are currently elevated, they are actually roughly in line with average costs over the last 40 years (Figure 2). Why are households encountering historically average energy costs in the face of rapid increases in fuel prices? It's a testament to American policy and market developments that have steadily reduced the exposure of households to energy price shocks and made such shocks incrementally more manageable. These developments include the increasing efficiency of American vehicles, buildings, appliances, and devices, electric power market competition, the shale boom, and a relatively recent shift towards cheap renewable energy sources that have no fuel cost, unlike fossil fuels. Looking back over the past 40 years, the proportion of household energy costs to total disposable income, often referred to as energy burden steadily declined from 8% in 1982, to 3% in 2020. With recent price elevations, households on average are back to spending 4% of their disposable income on energy costs (Figure 3). Things would currently be much worse for consumers if homes, appliances, and vehicles had seen no energy efficiency improvements over the last 40 years and in turn were even more exposed to volatile energy prices.

Figure 2. National Average Annual Household Energy Costs, 1982-2022

2021 dollars



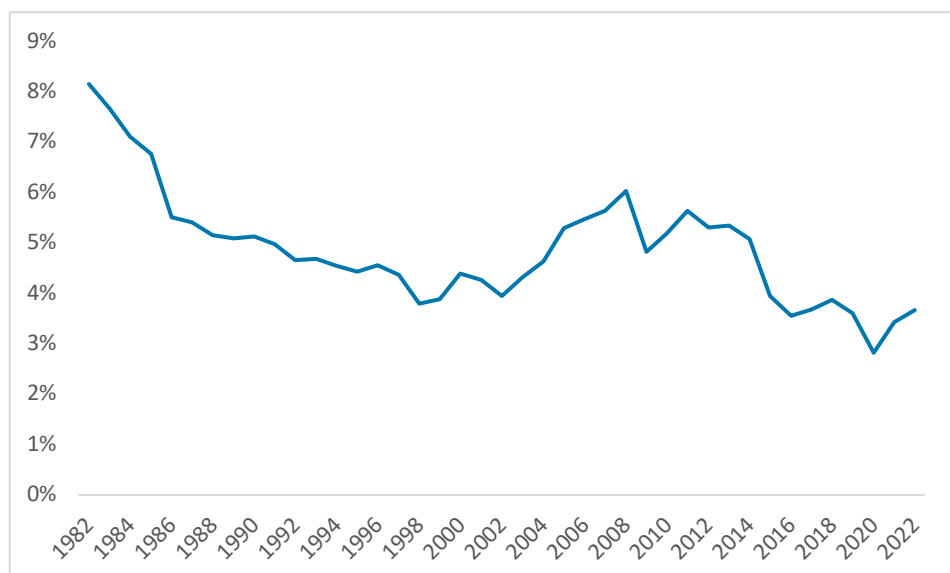
Source: Rhodium Group analysis of Census, Bureau of Economic Analysis and Energy Information Administration data. Note: Costs include expenditures for residential home energy consumption and road transportation. 2022 values are estimates.

Looking forward, new forthcoming estimates from Rhodium Group as part of our annual projections of US energy and emissions trends show that household energy costs will slowly decline back to near 2020 levels, but it will take at least seven years to do so. The trend reflects renewable energy deployment, increasingly efficient energy consumption, increases in conventional energy production, and diversification away from the most volatile fossil fuels such as gasoline towards electric vehicles. While this is good news, it is not necessarily a cause for celebration. Higher energy costs on households add to the massive financial challenges that Americans are currently facing due to inflation. The 50 million low-income households in the US face energy burdens that are three times higher than that of non-low-income households.¹ These same households are also more vulnerable to price spikes.

¹ (Department of Energy Office of Energy Efficiency and Renewable Energy, Low-income Community Energy Solutions. <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>)

Figure 3. Household Energy Costs as a Share of Disposable Income (Energy Burden), 1982-2022

Percent share



Source: Rhodium Group analysis of Census, Bureau of Economic Analysis and Energy Information Administration data. Note: Costs include expenditures for residential home energy consumption and road transportation. 2022 values are estimates.

Congress can do more now to accelerate energy cost reductions for American households above and beyond what current policy and markets will deliver. And they can do so while also contributing to tackling the challenge of climate change. The clean energy tax credit package and other clean energy investments outlined in Senate [legislative text](#) in December² can serve as a strong foundation for cutting energy costs further and faster than market trends alone. Federal incentives and investments can cut energy waste from buildings, diversify energy demand from light-duty vehicles, and will have a meaningfully positive impact on household finances. Clean electricity tax credits can expand the amount of electricity that comes from fuel-free, zero-price volatility resources like wind and solar.³ Carbon capture tax credits can improve the environmental performance of energy producers and manufacturers.⁴ Tax credits for clean fuels and clean hydrogen can diversify America’s fuel mix beyond petroleum and build on the Infrastructure Investment and Jobs Act’s historic investments in scaling up these new technologies. Previous Rhodium analysis found that legislation like that under consideration in the Senate, coupled with new policy actions taken by executive agencies and states, can cut household energy costs by 12-14% on average in 2030 relative to current policy while also putting US climate targets within reach.⁵ Importantly, most of these savings come from lower gasoline expenditures—a fuel with some of the highest price volatility and vulnerability to global supply disruptions. These benefits do not come at the expense of the oil and gas industry. We found that petroleum

² (Senate Democrats, Senate Committee CBO Scores for Build Back Better, 2022.

<https://www.democrats.senate.gov/senate-committee-cbo-scores-for-build-back-better>)

³ (Larsen, King, Kolus, Dasari and Herndon, Pathways to Build Back Better: Maximizing Clean Energy Tax Credits, 2021. <https://rhg.com/research/build-back-better-clean-energy-tax-credits/>)

⁴ (Larsen, King, Hiltbrand and Herndon, Capturing the Moment: Carbon Capture in the American Jobs Plan, 2021. <https://rhg.com/research/carbon-capture-american-jobs-plan/>)

⁵ (Larsen, et al. Pathways to Paris: A Policy Assessment of the 2030 US Climate Target, 2021.

<https://rhg.com/research/us-climate-policy-2030/>.)

production would be roughly unchanged compared to current policy in 2030 and natural gas would increase from today's levels, enhancing America's energy security.

Families in the US are feeling the heat from elevated energy costs. Congress has concrete legislative options before it that can make a real difference in cutting these costs and reducing exposure to future price shocks. Thank you again for the opportunity to testify today. I look forward to your questions about our research and findings.