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Preparing America's Health Care Infrastructure for the Climate Crisis
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Good morning Chairman Neal, Ranking Member Brady and members of the Committee. My name is Rich Powell, and I am the CEO of ClearPath, a 501(c)(3) organization devoted to accelerating breakthrough innovations to reduce emissions in the energy and industrial sectors. To further that mission, ClearPath provides education and analysis to policymakers and collaborates with relevant partners to inform our independent research and policy development.

Given this Committee's vital role in America's health care infrastructure and the response to the global climate challenge, I will discuss three key topics today:

- First, how we can make our electric grid more reliable. Hospitals, nursing homes, and health care infrastructure are too vital to lose power at any time. Reliability requires both a 24/7/365 power supply and a resilient American electric grid. With your leadership, we can produce enough clean and reliable energy to avoid blackouts, while also maintaining the United States of America's current trajectory of carbon emissions reduction.
- Second, how limited government, free markets, and fiscally responsible clean energy and climate policies, can leverage American innovation, modernize permitting, unleash more American resources, and improve resilience to support the electric grid and reduce climate impacts.
- Third, how we can make our communities and health care infrastructure more resilient in the event of a natural disaster or extreme weather event. When it comes to natural disasters, an ounce of prevention is worth a pound of cure.

The climate is changing, and global industrial activity is contributing to it. We hear that statement from the oil and gas industry, power companies, the agriculture sector and the health care community. Everyone is clear: it's time to talk about solutions.

We can't damage the economy in our efforts. And the good news is, we can point to solutions that are good for the economy and the environment. There are exciting opportunities to develop new clean energy technologies. Rapidly scaling and diversifying American clean energy technologies can reduce emissions, foster economic growth, and provide safe and reliable energy on a global scale. If done right, solutions can meet the needs of everyday Americans while also supporting critical infrastructure that our society needs, like the health care system.

But far too often, energy and climate change policy is oversimplified to false choices. Renewables versus fossil fuels, economy versus environment, emissions reductions around the world versus inaction here at home — these false choices ultimately cloud potential solutions. We can invest in innovative emissions reduction technologies alongside improved resilience and adaptation strategies. Ultimately, we will need both.

Most studies suggest that climate change has intensified, but you don't need a study to see the impacts across the U.S., and in American communities. For example, Houston experienced three '500-year' floods in three years, and just up the road in Ellicott City, Maryland, there have been two 1,000-year floods in five years. Businesses and local governments are already adapting, mitigating and preparing for a future with more extreme weather events.

Hospitals and nursing homes are no strangers to severe weather like flooding. The Coney Island Hospital in Brooklyn, New York lost electricity and emergency power during Superstorm Sandy in 2012. It closed for three months.

Another example is Roper Hospital, which has been located on the Charleston Peninsula since 1856. Roper has been forced to leave the peninsula due to tidal flooding, and is now planning to build a new facility inland to be "technologically and structurally upgraded to better withstand natural disasters, such as floods."

Since 1980, the U.S. has had 332 weather events with damages/costs reaching or exceeding $1 billion (including CPI adjustment to 2022) – the total cost of recovery from these 332 events exceeds $2.275 trillion with hurricanes causing the most damage at $1.1 trillion total.

In 2021, the U.S. had 20 weather disasters with economic costs that totaled over $152 billion and led to 724 deaths. One-quarter of those disasters accounted for more than 70% of the year's disaster costs.

In response, hospitals have increasingly adopted advanced backup power systems to improve facility resilience beyond conventional diesel generators. Since 2000, combined heat and power systems – which burn fossil fuels or biomass to generate electricity and thermal energy – have been deployed at 176 hospitals nationwide representing over 600 MW of backup power. Over this same timeframe, microgrids – consisting of a mix of energy sources including renewables and fossil fuels – have been deployed at 76 hospitals. When push comes to shove, a hospital will choose reliability regardless of the emissions of the back-up system.

Making Our Power Grid More Reliable

Our electric grid is aging, and we are reliant on it more than ever. Calls to electrify everything from transportation to home appliances, as well as an increased load demand from data centers, industrial facilities and hospital campuses means America needs more power. This power must both be reliable and resilient to meet the U.S economy's increasing needs. Many projections call for at least doubling the size of the U.S. power grid over the next 30 years, meaning power providers need to be prepared for even more load on our grid as more industrial facilities, homes, and transportation systems electrify.

Health care facilities are some of the largest energy consumers. In the United States, health care facilities were responsible for 10.3 percent of total major fuel consumption, 8.6 percent of total electricity consumption, and 11.8 percent of total natural gas consumption in our commercial building sector according to the Energy Information Administration's most recent data.

Our hospitals need 24/7 power to meet patients' needs. Just last week, a hospital in Santa Clara lost its backup power during the extreme heat wave in California, losing power in several buildings for four hours. Batteries in ventilators only last 30 minutes – meaning if power outages last longer than that, patients must receive manual ventilation. Thankfully, in this case, patients were successfully transferred to other buildings, but it's clear how fraught the situation can be without reliable power.

Imagine if that hospital was attempting to rely on a grid powered by 100% variable energy – as a small but highly vocal group of advocates imagine – with calls on major energy consuming facilities to power down when the sun isn't shining and the wind isn't blowing. The false choice between some activists' vision of 100% variable renewable energy or climate catastrophe ignores the challenges of running a stable grid and the value of uninterrupted power, particularly in a crisis.

Home health care is equally important. Access to cooling, heating and around the clock medical devices can be a matter of life and death. In Texas, approximately 250 people died during Winter Storm Uri, which led to statewide blackouts, many of which were due to loss of electricity. At least 25 people died because their life-sustaining home health equipment failed without electricity.

Today, summer heat waves straining the energy grid in California yet again show just how important grid reliability is, causing people and policymakers to make tough compromises.

Record high temperatures increase electricity demand, while also causing power plants to trip offline. Last week, most of the state was asked not to charge their electric vehicles or to keep their home thermostat at elevated temperatures during peak hours. Imagine a world where hospitals would be forced to choose whether or not to operate significant portions of their systems. That's unacceptable and we need to prioritize solutions that support reliability.

These prolonged periods of heat and drought in the west elevate demand while reducing the availability of generators dependent on water. Additionally, recent retirements of dispatchable electricity generators have been a driving force behind reliability challenges. Retirements of generating units – typically dispatchable, baseload power sources – are outpacing the addition of new resources. These rapid retirements make it difficult for grid operators to balance record-high electricity demand. Our communities need more, not less, of baseload generation like nuclear, gas and coal with carbon capture, or geothermal energy, along with energy storage options.

Policymakers in California took significant – though perhaps long overdue – steps earlier this month to keep the Diablo Canyon nuclear plant online to provide some much-needed baseload energy. This followed the single largest call for new clean energy capacity in history by the California PUC, including 1,000 MW of new geothermal energy and 1,000 MW of long duration energy storage. Baseload sources like nuclear and geothermal that operate 24/7 with zero emissions are necessary to maintain a constant source of clean, reliable energy, even during extreme weather.

In fact, maintaining and extending America's existing nuclear power plants is not only smart, it's proving essential for clean, reliable, affordable energy. In the midst of heat waves and power shortages, California would be in a lot of pain right now without Diablo Canyon. Analysis shows that maintaining the existing fleet is one of the most affordable actions to reach goals of net-zero emissions.

Meanwhile, the grid itself requires significant modernization, as most transmission and distribution lines are decades old and are not suited for modern patterns of electricity use. The bipartisan Energy Act of 2020 authorized billions to support grid hardening and reliability improvements that are long overdue. The bipartisan Infrastructure Act of 2021 funded these programs, but improved wires alone will not matter if the power plants aren't available when we need them.

Providing Policy Solutions for Reliable, Clean, and Abundant Electricity

While our American power sector is becoming cleaner, we still have a long way to go. Members of this Committee are working on concrete solutions which will globally impact emissions reductions and boost America's economy. These solutions deal with the two great challenges before us: ensuring access to clean electricity to combat climate change, and making sure it's reliable.

There is a suite of 24/7 reliable energy technologies available to help us solve this challenge, including nuclear energy, fossil energy with carbon capture, and renewables like hydropower and geothermal. Energy storage is another crucial suite of technologies that can be deployed both at grid-scale and behind-the-meter directly at health care facilities. In fact, in California last week, energy storage reached a peak generation of over 3,000 megawatts, setting a new record and helping prevent blackouts on the grid.

Some of your colleagues put together the House Republican Energy, Climate and Conservation Task Force and have been rolling out a suite of solutions that will help scale up these clean energy technologies to provide more American energy while also reducing global carbon dioxide emissions.

The Task Force includes several areas that directly address our grid's reliability challenges. These include leveraging American innovation, modernizing permitting on new energy projects, unlocking the development of American resources, and investing in resilience.

Innovation is crucial to a reliable electric grid. We need to support the development of better energy efficiency options to smartly reduce energy use; technology to increase the capacity of existing and new transmission lines; methods of improved energy storage, including long duration energy storage; and distributed energy resources.

We need to find ways to modernize permitting if we are to meet the goals and targets set at both the state and federal levels. If we are to build clean energy projects faster, we need to ensure that we can fast track projects with minimal impacts, expedite the reviews of major projects in the national interest, and ensure projects receive legal certainty in under a years' time. These approaches are necessary for everything from new energy resources to the transmission lines that will connect them. All in all, we need to build cleaner, faster.

Making our communities and health care infrastructure more resilient

Communities with the right preparation and mindset can avoid some of the worst public health risks associated with flooding, but it's also the fiscally responsible approach.

There have been some significant bipartisan wins including critical resiliency provisions in major legislation, such as the Disaster Recovery Reform Act and the Water Resources Development Act. Those bipartisan policies are fiscally responsible efforts to protect our local communities in a way that saves lives and money while ensuring access to basic modern needs like electricity.

For some policy solutions, communities and leaders can turn to existing resources from organizations like the American Flood Coalition and its partners. The Task Force has also developed a policy framework for how to build more resilient communities.

The American Flood Coalition, a leading nonpartisan coalition of local, state, and federal government officials working on flooding solutions, has several clear recommendations for improving resilience to flooding related natural disasters. These include supporting communities investing in adaptation through federal funding and incentives, as well as providing innovation grants for research into flood mitigation technology.

Additionally, the Task Force has developed policy solutions to help ensure Americans are prepared to respond to and quickly recover from natural disasters. They have also proposed solutions to improve weather forecasting techniques to prepare for natural disasters earlier.

Conclusion

The story of America is one of innovation, and that's especially relevant as we improve America's health care infrastructure for the climate challenge. Today, we're in the middle of a true energy revolution. America has reduced its total carbon dioxide emissions more than any other country in the last 20 years. We are producing higher performing, lower emissions technology to provide power for our communities.

America and the world are going to need more energy, and our vision is that it can all be made clean and reliable. We look forward to working with you to develop and advance policies that accelerate breakthrough innovations to reduce emissions in the energy and industrial sectors. By leveraging innovation, unlocking American resource independence and modernizing permitting, we can build this cleaner energy faster.

America's economy is the strongest on the planet, and if we allow our free-market advantage to work, we can lower emissions, lower costs, and make sure our health care infrastructure has reliable power.

Thank you again for the opportunity to testify today. ClearPath is eager to assist the Committee in developing innovative solutions to ensure our electricity grid is reliable and our communities are resilient. We applaud the Committee for taking on this important task to help ensure the appropriate action, including tax policies that will help advance innovative technologies to provide clean, reliable, and necessary energy to our nation's health care infrastructure.