



The Senate

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CHAIRMAN RAÚL M. GRIJALVA
BRUCE WESTERMAN, RANKING MEMBER
HOUSE COMMITTEE ON NATURAL RESOURCES
CONGRESS OF THE UNITED STATES, WASHINGTON, DC

RESPONSE TO QUESTIONS TO SENATOR CHRIS LEE FROM THE HOUSE OF
REPRESENTATIVES NATURAL RESOURCES COMMITTEE

WEDNESDAY, JULY 7, 2021

Chair Grijalva, Ranking Member Westerman, and distinguished members of the Committee, thank you for the opportunity to respond to an additional question regarding my testimony regarding the Oceans-Based Climate Solutions Act.

The question I received was: Sea-level rise, storm surge, and other climate impacts are of utmost concern for Pacific island communities. How do programs in the Ocean-Based Climate Solutions Act better protect communities in places like Hawaii and the Northern Mariana Islands?

My response is as follows:

Coastlines and taxpayers in the United States and throughout Pacific island communities face enormous risk, impact, and cost increases as a result of climate change.

Sea level rise has already begun causing coastal losses and is driving up cost to taxpayers around the country and across Pacific islands. In Hawaii in 2017, as homes and roads began falling into the ocean as coastal erosion accelerated, the State of Hawaii conducted the highest resolution and most comprehensive sea level rise study to date, finding that over \$19 billion of property, including thirty-eight miles of roads, sixty-five hundred structures, 25,800 acres of land, and five hundred and fifty cultural sites will be lost to sea level rise in coming decades. This study also found that twenty-thousand people will be displaced. Further analysis by the State Department of Transportation found that an additional \$15 billion in highways would also be imperiled, spurring over \$175 million in projects already underway to modify or move coastal highways.

Unfortunately, most coastal areas in the United States and throughout Pacific island communities do not have this kind of comprehensive analysis. The Ocean Based Climate Solutions Act (OBCSA) will help provide coordination and resources to assist coastal communities who do not

have the ability or expertise to analyze risk and plan to adapt, especially in rural areas. OBCSA will also allow for regional ocean partnership opportunities for states and territories to coordinate and work together and learn from one another as we analyze the full risk to taxpayers and local economies.

As human-induced greenhouse gasses continue to accumulate in the atmosphere and oceans at rates exponentially faster than would otherwise naturally occur, climate changes will continue to accelerate infinitely faster than would otherwise be naturally possible. Warming ocean waters are already helping to fuel stronger storms and hurricanes of greater intensity and frequency. This directly impacts areas such as the Gulf coast, Hawaii, and Pacific islands. A direct impact from a hurricane on a city the size of Honolulu is estimated to incur as much as \$40 billion in damage and loss of life.

Coastal barriers such as reefs and dune systems are critical tools to help prevent damage from increasing hurricanes and storm surges. Hawaii and many coastal areas have robust coral reefs. In Hawaii, coastal barriers contribute \$477 million to our local economy enabling fishing, tourism, and related industries. Most of all the presence of coral reefs blunts the impact of storm surges and coastal erosion, and this adds an estimated \$860 million in annual benefit to coastal resiliency. This is the result of reduced shoreline damage, insurance claims, loss to industry, and local economies.

However, as oceans absorb greater quantities of carbon and greenhouse gasses, water begins to acidify. In Hawaii we have already measured an 8.7% increase in the acidity of ocean water over thirty years. Together with warming ocean waters, the acidification of the ocean is causing Hawaii coral reefs to experience unprecedented bleaching which is killing entire reef ecosystems. Hawaii is expected to lose about ninety-five percent of its coral reefs by mid-century to chronic bleaching. The same is true in many coastal areas.

OBCSA will help provide for coastal community vulnerability assessments to identify risks to key coastal barriers and expand definitions to encompass bluffs and other vulnerable areas. It will allow for regional ocean partnerships between states and agencies. It will help quantify reef loss potential in vulnerable communities and make recommendations for action. It will also help the National Oceanic and Atmospheric Administration coordinate and address harmful algal blooms that threaten coral reefs and the coastal protection they provide. OBCSA will also protect consumers and property owners by requiring disclosure of risk, and limitations on the availability of federal assistance. It will provide grants to assist working waterfronts to ensure more resilient harbors and protect jobs. And it will critically exempt cost sharing requirements in communities that may not have adequate resources for disaster relief. Ultimately, assistance from OBCSA will help save coastal economies, jobs, and lives.

States and municipalities need federal help

States and municipalities do not have the resources to address the threats to their economies, jobs, and communities from climate change. Federal action is necessary for assistance to states and municipalities, and to mitigate financial risk to the federal government itself.

The 2021 GAO (Government Accountability Office) High Risk Report - Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks, found that, "Climate change poses risks to many environmental and economic systems and creates a significant fiscal risk to the federal government. Since our 2019 High-Risk Report, the federal government has not made measurable progress to reduce its fiscal exposure to climate change; therefore, this high-risk area warrants significant attention."

"Specifically, the federal government needs to, among other things, (1) lead the development of a national climate strategic plan; (2) establish an entity to prioritize national-scale climate resilience projects; (3) develop a national climate information system; (4) make structural changes to the flood and crop insurance programs; and (5) establish a pilot program for community climate migration."

OBCSA will take long overdue steps to responsibly limit harm and risk to taxpayers, local economies, jobs, and communities around the country and throughout the Pacific.

The United States is falling behind other countries

Other countries have already begun assessing the impacts of climate change on their coastlines and economies. Many nations are also taking action to mitigate the impact of climate change far in excess of the United States, which has the added benefit for them of surpassing the United States in technological innovation and economic development.

For example, of all new solar capacity added globally in 2018, forty-five percent was in China. China has also become the largest produce or solar panels, wind turbines, batteries, and electric vehicles. It is committed to the rollout of 800,000 electric vehicle chargers and on track to produce over eight million electric vehicles per year by 2028, while the United States is likely to produce just 1.4 million. These investments in clean technology and greenhouse gas mitigation are significantly boosting their economy today and forging a path to dominate the global economy in the future. India has already reduced emissions intensity by twenty-one percent over 2005 levels and is on track to exceed Paris Agreement Targets. It is expected to reach 175 GW of renewables by 2022.

If the United States is going to remain globally competitive it must innovate and build a clean economy that can mitigate climate emissions and compete with other nations through the rest of the 21st century. OBCSA is a complimentary and necessary step to our nation's mitigation strategies that will adapt coastlines and protect communities from climate impacts that mitigation efforts cannot prevent.

Acting on climate change does not have to be a partisan issue

Republicans, Democrats, liberals, conservatives, business, labor, and communities can all come to agreement that climate change is a critical threat to our economy, communities, and way of life, and take action that not only addresses its impacts, but benefits taxpayers, the economy, and local communities at the same time. In Hawaii our collaboration across sectors and ideologies proves it.

It was a Republican governor who began the Hawaii Clean Energy Initiative to transition Hawaii off fossil fuels and begin to address climate change. Democratic governors have continued accelerating this effort. As a Democrat, I joined together with our House Republican leader to lead a campaign that successfully blocked a \$4.2 billion buyout that would entrench fossil fuels in our electric grid at great risk to taxpayers. We were successful because it was not about party or ideology, it was about what would most benefit everyone in Hawaii.

When we passed legislation in 2018 making Hawaii the first state to commit to achieving a carbon negative economy by 2045, it was passed unanimously with all Republicans and Democrats in support. It was also supported by a coalition of environmental advocates, labor and business interests alike. The President of the Chamber of Commerce of Hawaii noted at its signing that, "Moving forward on this bill will help catalyze additional investment in local businesses while helping us reach our 100% renewable energy by 2045 goal and achieve economic, social and environmental sustainability."

Setting politics aside and working together to address climate change we have been able to successfully triple renewable energy in Hawaii over the last decade. Investment in clean energy has reduced electric bills by almost \$40/month for local residents who are now on track to save \$3 billion over the life of these projects. Hawaii is now leading nation with one in three single family homes having installed rooftop solar, whose financial benefits and cost reductions are shared by all ratepayers. Increasing the number of homes with solar panels by just ten percent will save an additional billion dollars for everyone. Hawaii has built an entirely new clean energy industry with thousands of jobs, grown innovative companies, and we are collectively on track to achieve a carbon negative economy that will help reduce climate impacts for everyone.

Taking action to address climate change benefits everyone. It is fiscally responsible to protect taxpayers and businesses. It is economically empowering for jobs and the economy. Most of all it is morally responsible to ensure a better future for our next generation. Hawaii proves that when Democrats and Republicans set partisan politics aside to act on climate, everyone can benefit.

I strongly encourage our elected representatives in the United States Congress to do the same.