Dr. Judith Curry's verbal testimony.
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I thank the Chairman, the Ranking Member and the Committee for the opportunity to offer testimony today.

Climate scientists have made a forceful argument for a future threat from manmade climate change. Manmade climate change is a theory whose basic mechanism is well understood, but the potential magnitude is highly uncertain.

If climate change was a simple, tame problem, everyone would agree on the solution. Because of the complexities of the climate system and its societal impacts, solutions may have surprising unintended consequences that generate new vulnerabilities. In short, the cure could be worse than the disease. Given these complexities, there is plenty of scope for reasonable and intelligent people to disagree.

Based on current assessments of the science, manmade climate change is not an existential threat on the time scale of the 21st century, even in its most alarming incarnation. However, the perception of a near-term apocalypse and alignment with range of other social objectives has narrowed the policy options that we're willing to consider.

In evaluating the urgency of emissions reductions, we need to be realistic about what this will actually accomplish. Global CO_2 concentrations will not be reduced if emissions in China and India continue to increase. If we believe the climate models, any changes in extreme weather events would not be evident until late in the 21st century. And the greatest impacts will be felt in the 22nd century and beyond.

People prefer 'clean' over 'dirty' energy – provided that the energy source is reliable, secure and economical. However, it's misguided to assume that current wind and solar technologies are adequate for powering an advanced economy. The recent record-breaking cold outbreak in the Midwest is a stark reminder of the challenges of providing a reliable power supply in the face of extreme weather events.

With regards to energy policy and its role in reducing emissions – there are currently two options in play:

1. Option # 1: Do nothing, continue with the status quo
2. Option #2: Rapidly deploy wind and solar power plants, with the goal of eliminating fossil fuels in 1-2 decades

Apart from the gridlock engendered by considering only these two options, in my opinion, neither option gets us to where we want to go. A third option is to re-imagine the 21st century electric power systems, with new technologies that improve energy security, reliability and cost while at the same time minimizing environmental impacts. However, this strategy requires

substantial research, development and experimentation. Acting urgently on emissions reduction by deploying 20th century technologies could turn out to be the enemy of a better long-term solution.

Given that reducing emissions is not expected to change the climate in a meaningful way until late in the 21st century, adaptation strategies are receiving increasing attention.

The extreme damages from recent hurricanes plus the billion dollar losses from floods, droughts and wildfires, emphasize the vulnerability of the U.S. to extreme events. It's easy to forget that U.S. extreme weather events were actually worse in the 1930's and 1950's. Regions that find solutions to current impacts of extreme weather and climate events will be better prepared to cope with any additional stresses from climate change, and to address near-term social justice objectives.

The industry leaders that I engage with seem hungry for a bipartisan, pragmatic approach to climate policy. I see a window of opportunity to change the framework for how we approach this.

Bipartisan support seems feasible for pragmatic efforts to accelerate energy innovation, build resilience to extreme weather events, and pursue no regrets pollution reduction measures. Each of these three efforts has justifications independent of their benefits for climate mitigation and adaptation. These three efforts provide the basis of a climate policy that addresses both near-term economic and social justice concerns, and also the longer-term goals of mitigation.

This ends my testimony.