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The Factual Context for Climate and Energy Policy

Based on the work of Steven E. Koonin

"The Factual Context for Climate and Energy Policy," an essay by Steven E. Koonin, reviews scientific, economic, and societal facts that should inform climate and energy policy decisions. Koonin argues that large and rapid reductions in emissions are unnecessary and potentially more damaging than climate change itself. He proposes a measured approach that moderates human influences on climate while responding to growing energy demands.

Key Points on Climate Impacts

1. Current climate models are not reliable for regional predictions, which are crucial for adaptation measures. They can give only a "hazy picture" at the global scale.

2. Since 1900, the globe has warmed by 1.3°C. During this period, humanity has prospered significantly, with global average lifespan increasing from 32 to 72 years and economic activity per capita growing sevenfold.

3. Intergovernmental Panel on Climate Change reports show it's difficult to find long-term global trends in most types of extreme weather events, including storms, droughts, and floods.

4. Climate change is expected to be a minor hindrance to economic growth. A few degrees of warming by century's end would reduce by only a few percentage points the growing economy—making us still a lot better off than we are today.

Economic Realities

Energy system changes: Energy systems involve massive investments in long-lasting assets and require time to refine hardware and operating procedures. Changes should be implemented slowly and steadily over decades.

Renewable energy challenges: While wind and solar are currently the cheapest ways to produce electricity, they are unreliable and require backup systems. The most expensive part of a renewables-heavy grid is ensuring reliability.

Land and material use: Renewable energy technologies require significantly more land and high-value materials compared with conventional energy sources.

Supply chain concerns: Critical minerals and manufacturing for renewable technologies are concentrated in a few countries, including China, Russia, and the Democratic Republic of the Congo, raising geopolitical and economic concerns.

Recommendations

1. **Sustain and improve climate science.**

   Our knowledge of the climate system needs enhancement. Focus on paleoclimate studies, improvement of current observations, and more focused modeling efforts to reduce uncertainties.

2. **Improve public communications.**

   Cancel the alleged climate crisis while acknowledging the growing human influences on climate. Provide the public with an accurate view of both climate and energy issues, moving beyond alarmist or hoax sound bites that can be counterproductive.

3. **Prioritize energy reliability and affordability.**

   Acknowledge that these factors take precedence over emissions reductions. Recent events in Europe demonstrate how abandoning fossil fuel investments and domestic production in favor of unreliable international partners and intermittent renewables can lead to energy crises.

4. **Pursue thoughtful decarbonization.**

   Embark on programs that aim to reduce emissions by coordinating technology development, private-sector activity, regulation, and behavior change. Focus on research, development, and demonstration of emissions-lite technologies to reduce the "green premium." Prioritize technologies like small fission reactors, grid storage and management, batteries, noncarbon chemical fuels, and carbon capture and storage.

5. **Acknowledge developing world energy needs.**

   Recognize that most of the world is energy starved and that fossil fuels are currently the most convenient and reliable way to meet that demand. Without costly backup systems, weather-dependent wind and solar generation cannot provide appropriate energy access for developing countries.

6. **Focus on adaptation.**

   Place greater emphasis on strategies for dealing with a changing climate, particularly adaptation measures. Adaptation is autonomous, effective, proportional, and locally achievable. Governments should work to facilitate adaptation efforts.

Based on "The Factual Context for Climate and Energy Policy," by Steven E. Koonin, at www.hoover.org/fact-based-policy-program.

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