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A Policy Maker's Guide to Climate Change

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Thanks to the ingenuity of U.S. businesses, but also to the Republican rollback of the prior administration's anti-energy policies, America is positioned to be a world energy leader for many years to come. The energy sector is making substantial contributions to GDP growth, job creation, consumer savings, manufacturing competitiveness, and geopolitical influence. However, that all shrivels and dies if the next administration and Congress embrace the climate movement's de-carbonization agenda. Even a modest carbon tax could kill American energy dominance by subjecting producers to a new and highly expandable type of political risk.

The stakes are high, and with corporate welfare lobbyists courting the new Democratic majority in the House, you will be tested as never before.

Here are five things you need to know:

1. Climate change is not a "planetary emergency."
2. The climate catastrophe narrative is concocted out of overheated climate models, inflated emission scenarios, political hype, and unmerited pessimism about human adaptive capabilities.
3. All metrics of human well-being show the state of the world is improving; sustaining such progress requires greater access to affordable energy.
4. The very real costs of climate "solutions" hugely exceed their hypothetical benefits.
5. Citizens have more to fear from the climate policy agenda than from climate change itself.

This memo provides supporting evidence for those conclusions.

Models vs. Data. Much of what passes for climate science today is model-based speculation about future climate impacts. The United Nations Intergovernmental Panel on Climate Change (IPCC) runs an ensemble of 32 model groups called CMIP5.¹ The models on average projected twice as much warming over the past 40 years as actually occurred in the lower global atmosphere.²

A reasonable explanation for the models' lack of realism is that they overestimate climate sensitivity—the long-term change in average global temperature after a doubling of

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atmospheric carbon dioxide concentration. The average climate sensitivity estimated in two dozen recent studies is 40 percent lower than the average estimated by the U.N. models.³

National Assessment’s Bogus Headline Grabber. The National Climate Assessment, a product of the U.S. Global Change Research Program, generated lots of press when it claimed global warming could reach 8°C (14°F) and lop 10 percent off U.S. GDP by century’s end. To get that alarming result, the Assessment ran the overheated U.N. climate models with an inflated “baseline” emissions scenario called RCP8.5, which assumes, contrary to reasonable expectation, that coal increasingly dominates the global energy mix in the 21st century.⁴

Even with that biased combo, warming hits 8°C in only 1 percent of model projections—a detail the Assessment neglects to mention.⁵ The Assessment also does not mention that even if warming cuts U.S. GDP by 10 percent in the 2090s, the U.S. economy should still be several times larger than it is today.⁶

Official Climate Assessments Need a Reset. Consensus climatology is addicted to overheated models and inflated emission baselines. It is time for a reset. Meteorologists do not use the average of all models, regardless of how lacking in predictive skill, to forecast the weather. Rather, they use the most accurate model or models. Climate scientists should use a similar approach.

Only one model in the CMIP ensemble has accurately tracked temperature trends in the bulk atmosphere over the past 40 years—the Russian INM-CM4. When INM-CM4 is run with a realistic emission scenario in which natural gas increasingly displaces coal as an electricity fuel, the world achieves the Paris climate treaty’s 1.5°C warming limit with no new climate policies.⁷

Improving State of the World. If climate change were a global ecological crisis, we would expect to find evidence of declining human health and well-being. Instead, we find dramatic improvement in life expectancy, per capita income, food security, and various health related metrics.⁸

- During 1950-2015, global life expectancy increased by 48 percent, from 48 years to 71.4 years, including a 68 percent increase in Africa, the world’s poorest continent.
- Just since 2000, a period said to encompass 10 of the warmest years in the instrumental record, per capita GDP increased by 54 percent in Latin America, 62 percent in Africa, and much higher percentages in Asia.
- U.S. and global yields of corn, wheat, rice, and soybeans have increased every decade since 1960.
- Thanks to increasing yields and rising per capita income, the prevalence of undernourishment in developing countries has decreased from 34.7 percent of population in 1970 to 12.9 percent in 2015.
- During 2000-2015, global malaria infections and death rates fell by 37 percent and 60 percent, respectively.⁹

- The global burden of disease, measured in disability adjusted life years (DALYs), declined across all age categories since 1990.

The economic and technological progress responsible for those gains would not have occurred absent mankind's consumption of fossil fuels.

No Planetary Emergency

Extreme Weather

- Our energy-rich civilization has made the climate more livable and less lethal. Since the 1920s, the individual risk of dying from extreme weather globally has decreased by 99 percent.¹⁰
- Since 1900, there has been no trend in the strength or frequency of U.S. land-falling hurricanes, and none in hurricane-related damages once losses are adjusted for changes in population, wealth, and the consumer price index.¹¹
- Since the early 1970s, there has been considerable inter-decadal variability but no trend in global Accumulated Cyclone Energy, a measure of total hurricane and typhoon strength.¹²
- Since the 1920s, there has been no increase in flood magnitudes in any region of the United States,¹³ and since 1900, there has been no nationwide increase in drought as measured by the Palmer Drought Severity Index.¹⁴
- In the United States, urban summer heat-related mortality rates have declined, decade-by-decade, from the 1960s through the mid-2000s.¹⁵ Similar reductions in heat-related mortality have occurred since 1985 in other countries as well.¹⁶

Wildfires

- Globally, the total area burned by wildfires in the 2000s was smaller than in every previous decade of the past hundred years.¹⁷
- The annual number of U.S. forests fires has not increased since 1985.¹⁸ Total area burned has increased, particularly in the Western U.S.¹⁹
- However, the main factors appear to be internal climate variability,²⁰ decades of forest management,²¹ and rapid population growth in the areas where houses and wildland vegetation intermix or come into proximity.²²

Sea Level Rise

- Since 1880, global average sea levels have risen about eight inches, with no known impact on any major economic or political development.²³
- Evidence of a recent acceleration in sea level rise is mixed. Satellite data suggest sea levels rose by 3.2 mm/year during 1993-2010—significantly faster than the long-term (1901-2010) rate of 1.7 mm/year.²⁴ However, 57 U.S. tide gauge records going back 60 to 156 years show no recent acceleration in sea level rise.²⁵

- The IPCC projects 21st century sea-level rise to range from about 10 inches to 2.5 feet, depending on which emission scenario modelers use.²⁶
- Recent research finds that, during 2007-2016, the mean rate of sea-level rise in IPCC model projections exceeds the mean rate in 19 globally distributed tide gauge records by 1.2-1.4 mm/year. Even when run with RCP2.6, the low-end emission scenario, the model mean exceeds the observed rates in 15 of the 19 records.²⁷ Evidently, IPCC models overestimate both the current warming rate and the current sea-level rise rate.
- Case studies of Japanese, Philippine, and Indonesian coastal communities experiencing one to five meters of rapid relative sea level rise due to earthquake- or human-induced land subsidence “found no evidence that these areas will be abandoned.” This suggests coastal and island populations will be able to adapt to rising sea levels “given that even the highest sea-level rise scenarios are projected to happen at much slower rates than the case studies outlined.”²⁸

Notwithstanding its reliance on oversensitive models, the IPCC’s Fifth Assessment Report pours cold water on the big three climate change disaster scenarios.²⁹ During the 21st century:

- Atlantic Ocean circulation shutdown is “very unlikely;”
- Ice sheet collapse is “exceptionally unlikely;” and
- Catastrophic release of methane from melting permafrost is “very unlikely.”

All Pain and No Gain. All regulatory climate policies—whether carbon taxes, cap-and-trade, renewable energy quota, or fuel economy mandates—cost consumers and the economy billions of dollars to achieve vanishingly small hypothetical reductions in global temperature.³⁰ For example, a carbon tax steep enough to eliminate all U.S. CO₂ emissions would avert only 0.034°C-0.062°C of global warming by 2050.³¹ Those potential impacts are smaller than the National Oceanic and Atmospheric Administration’s 0.08°C margin of error for estimating changes in inter-annual global temperature.³²

Perils of Climate Policy. The risks of climate policy are substantial and include higher energy costs, slower GDP growth, and lower household incomes;³³ higher taxes,³⁴ more regulation,³⁵ and more deficit-spending;³⁶ more litigation to grow government, punish enemies, and enforce groupthink;³⁷ more “Clean Power” Plan-style imposition of high-cost electricity on unwilling states;³⁸ and more treaty-like arrangements to make U.S. energy policy less accountable to voters and more responsive to foreign leaders, multilateral bureaucrats, and international NGOs.³⁹

Even with respect to climate-related risks, carbon taxes or regulation can do more harm than good. Affordable energy supports the economic and technological progress responsible for dramatic declines in extreme weather mortality risk.⁴⁰ Chilling economic growth will not help societies adapt to a changing climate.

Worst of all, assuming “consensus” climatology (the U.N. climate models + RCP8.5), the Paris climate treaty’s warming mitigation goals are unattainable unless developing countries

reduce their *current* consumption of fossil fuels.⁴¹ Imposing such restrictions on nations where 1 billion people still lack access to electricity would be a humanitarian disaster.

Conclusion. Perceptions of a “planetary emergency” arise from overheated climate models, inflated emission scenarios, disregard of basic data on human health and well-being, and relentless exaggeration by political interests claiming to speak for “the science.” The very real costs of coercive de-carbonization outweigh the hypothetical benefits. The more “ambitious” the climate policy, the more likely it is to damage economic growth, consumer welfare, and our institutions of self-government.⁴²

Notes

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