Climate Note #6: Can't we just make our infrastructure green?

Thomas Lord February 13, 2019, Berkeley, CA

To recap:

- Global emissions must fall to net 0 by 2050, better if sooner. Global emissions must fall by about 50% by 2030, better if sooner
- Global emissions must fall at at least 6% per year beginning NOW. In the U.S. and other developed countries, emissions must fall at a faster rate.
- Every year of delay *significantly* diminishes humanity's prospects.
- No infrastructure or new systems can be built fast enough to make the necesserary reductions in the time remaining.

Current climate policies generally center around economic stimulus. For example, in California, the major push is to expand population, expand roads, expand transit systems, densify cities, and generally increase economic expansion.

Can we have both? Both those current climate policies and the immediate reductions in emissions that are a matter of life and death? Probably not - and we probably wouldn't want to.

For example, suppose that in the U.S. we aim for 12% per year reduction. In 10 years, that is a cumulative 73% reduction (12% the first year, 12% of what remains the second year, and so on).

Such a reduction can certainly come, *in part*, from critical projects such as removing fossil fuels from electricity production, but much will have to come from simply refraining from travel and refraining from non-vital production. That will require intense social adjustments and adaptations.

For example, to keep up such a pace of reductions for 10 years and beyond requires retrofitting nearly every building.¹ If we are simultaneously drastically reducing overall emissions and nevertheless *still* emitting CO_2 in the process of retrofitting buildings, what carbon budget is left for widening highways, expanding transit, or building even "Leed GOLD" structures that, themselves, will still need retrofitting!

And if we make it through that process of emergency reductions: what will the world and national and local economy look like? How could we even begin to claim to know, today? And if we lack certainty today: for what long-term economy do we propose to plan? Our existing regional and local planning aims for a world which can't, and therefore will not, ever exist.

 $^{^1\}mathrm{Alexandria}$ Occasio-Cortez is being praised by scientists for elements such as recognizing the need to retrofit buildings so rapidly. Occasio-Cortez calls for 10% of all buildings per year. Imagine that.

About this series

This is the first in a series of very short discussions of climate change, meant to be easily understood by a wide audience.

Please let me know if you spot errors, or have suggestions or questions. I will do my best to improve the notes and to issue corrections as necessary. I can be contacted at lord@basiscraft.com. Please put "climate:" at the beginning of the subject line.

Planned topics

- Climate note #1: "The push for zero" The *gravity* of the situation.
- Climate note #2: "The carbon budget" The *scarcity* of resources to solve the problem.
- Climate note #3: "How soon until zero?" The *urgency* of successful action.
- Climate note #4: "Mass die-offs? Extinction? Really?!?" The *importance* of acting.
- Climate note #5: "Your lifestyle or your life physical and economic limits" The *sacrifice* required (no sugar-coating).
- Climate note #6: "Can't we just make our infrastructure green?"

The *denialism* popularized by progressive politics.

- Climate note #7: "What is to be done?" How to act wisely, together, in *solidarity*.
- Climate note #8: "The genocide problem." Are we *monsters*?
- Climate note #9: "Simple plans of action." A little *courage* is all we need to act.
- Climate note #10: "Rejoice." A personal reflection.