

[This is the ninth post in a series expressing my view of why California's actions on climate change are so important and how they will change the world. The [introductory post](#) provides an overview and some general context.]

I said at the outset of these blog posts that political will and the issue of scale are bigger hurdles to our GHG reduction goals than technology and finance. I do not discount the technological and financial challenges, but we can already see pathways for those. We know how to achieve 90 to 100 percent renewable energy. That technology already exists, and will continue to improve. We also know how to produce zero emission vehicles. That technology exists and will improve. Those two sectors represent about 70% of GHG emissions. So, right now, if we were so inclined, we could mandate very substantial emission reductions from electricity and transportation. That is why technology is not the limiting factor.

It has been estimated that worldwide [costs](#) to get to a net zero GHG emission economy will be in the range of \$40 to 60 trillion over the next three to four decades. While that is a large number, and certainly not one that will be covered by government spending, it is relatively modest when compared to the cost of finding new sources of fossil fuel or the costs of the worst impacts of climate change or the cost of refugee crises. Just as importantly, that investment also represents the potential for profits – new businesses, new jobs, a new economy. And, of course, the health benefits of the end of fossil fuels provide very substantial economic benefit as well. Private capital along with government incentives and policies could achieve this level of investment.

Even in California, where the public supports action on climate change, political will is not always easy to come by. Last year, after a concerted and deceptive campaign by oil companies, the California legislature [abandoned efforts](#) to require a 50% reduction in oil usage by 2030. “Moderate” Democrats killed the bill. This year, after Chad Mayes, the Republican leader in the State Assembly voted in favor of extending the State's cap and trade law, Republicans summarily [stripped](#) him of his leadership position. And now, after the legislature managed to pass [SB1](#) to fund transportation infrastructure with a 12 cent increase in the gas tax, a ballot initiative will be on June's ballot to revoke the tax. And we have not yet begun the more difficult actions that will move us to 40% GHG emission reduction by 2030, some of which will cost money and cause disruption.

The Republican party denies climate change science. The President calls it a Chinese hoax. Oil companies and their allies continue to fund opposition to action and attempts to undercut science. In Florida and elsewhere, utilities continue their [attacks on renewables](#). These dynamics are replicated throughout the world. The old regime will not leave quietly.

So, how do we combat the lack of political will? First, we need continued economic success of the new order - renewables, zero emission vehicles, battery and other forms of storage, return on investment for sustainability. That is happening, and the old order, like coal, is losing profitability. New industries and technologies need to provide jobs and promise as the old order is disrupted. Second, we need to show health benefits from the new order - less air pollution, better working conditions, improved safety. Third, we need to ensure that disadvantaged communities benefit from the new order - greater opportunity, more mobility, less pollution, more investment, more jobs. Fourth, we need to tie climate impacts and the costs of those impacts to the old order, to fossil fuels and pollution. And fifth, there needs to be election consequences for climate denial and inaction. In the [elections of 1970](#), the environmental movement, in its early stages, took on the “dirty dozen” congressmen. When some of them lost their seats, Congress took notice and suddenly every member was an “environmentalist.” This led to the passage of the Clean Air Act and other notable environmental legislation. So far, there have been no consequences for climate deniers and their allies in office. That needs to change.

Next blog: Scale

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