

An All-Electric Energy Policy Act

(All-Electric America)
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The time is at hand to enact a national energy policy that will put forth a combination of requirements and incentives to achieve both a low-cost energy supply and avoid climate catastrophe. The policy must be comprehensive and long term so that significant progress is made each year over a thirty- to thirty-five-year period.

The proposals now being debated won't solve the problem and keep the U.S. in accord with the 2°C temperature target. To be effective, the policy must lay out a clear path to an all-renewable electric energy system, as follows:

- 1) Outlaw the building of new fossil-fueled electric power plants.
- 2) Order a steady reduction each year in GHG emissions through these measures:
 - a) Require that emissions be reduced 3% each year for the next thirty years, the amount required to enable the U.S. to reach a nearly GHG-free energy supply by 2050.
 - b) Assess a \$300 per ton penalty on any amount of GHG emitted above the required reduction, to be enforced by the IRS. Also prohibit offenders from passing on the cost of the penalty to consumers.
 - c) This law would apply to the electric power industry as well as to the natural gas utilities and major sellers of petroleum for heating.
 - d) Require that all new homes and buildings be GHG-free and existing buildings be retrofitted to zero GHG at time of sale or within fifteen years.
 - e) The reductions can be made through a combination of incentivizing the weatherization of buildings, retrofitting of homes with electric heat pumps,

installation of solar panels and smart-grid technology, storage systems and, in the future, the production of GHG-free hydrogen.

- 3) National Portfolio Standard, requiring every electric utility—both publicly and privately owned—to meet the following requirements:
 - 30% GHG-free generation by 2025
 - 60% GHG-free generation by 2035
 - 100% GHG-free generation by 2050
- 4) Transform the transportation sector by 2050.
 - a) For the railroads:
 - i) Requiring every railroad to draft a detailed plan for converting to electricity within two years and submit it to the Department of Transportation for approval.
 - ii) Providing government loan guarantees for the financing of the implementation of approved plans.
 - iii) Requiring that the electrification of the railroads be initiated within ten years and completed within twenty years, or the railroad will be charged a \$300/ton GHG fee on all GHG emitted after that date.
 - b) For motor vehicles:
 - i) Requiring all major auto, truck, and bus manufacturers to reduce GHG emissions of vehicles by 3% each year, through a combination of improvements in mileage and lower GHG emissions.
 - ii) Requiring that they transition to zero-emission vehicles according to the same timetable as the energy suppliers—30% of all new sales by 2025, 60% by 2035, and 90% by 2050.
 - c) For airplanes and ships:
 - i) Requiring every airline and ship manufacturing company to draft a detailed plan for converting to hydrogen-powered airplanes and hydrogen-hybrid ships within twenty years and submit it to the Department of Transportation for approval.

- 5) Create a Federal Green Bank, which provides loan guarantees (not loans) for the financing of railroad electrification and for the construction of renewable electricity power plants that have long-term contracts with electric distribution utilities that are ratepayer-funded.
- 6) Institute tax credits for zero-GHG emission consumer products.
 - a) Enact a permanent 20% tax credit for electric heat pumps and investment in energy efficiency in homes and commercial businesses.
 - b) Enact a five-year 20% tax credit for zero-emission motor vehicles to speed the development of a mass market.

These proposals are designed to inject into the climate debate proposals commensurate with the danger we face both from inaction and from adopting measures that in fact just contribute to the emissions problem. Our hope is that a better-informed public will demand the leadership that presently is so woefully lacking.

A prevailing opinion is that if we could enact a tax on carbon the problem would be solved. But would it really? Even a huge tax on carbon wouldn't assure that all our power plants would be renewable and our cars, homes and other transportation would make the necessary transformation.

The only significant greenhouse gas reductions that have occurred have been when State laws required the electric utilities to increase the percent of their power generated by renewable energy and when we required more miles per gallon from our cars. These advances were not made voluntarily by private industry; they required mandates. That is why, in this chapter, we spell out an array of mandates and incentives that can achieve the emission reductions the scientists say we must.

Mandates have been enacted at the state level and we hope our book inspires the "Green States" to consider expanding mandates to those that we propose. And expectantly, in enough time, the federal government and governments throughout the world will follow.

Updates to the legislative concept, “An All-Electric Energy Policy Act,” are available on our website at: <http://www.allelectricamerica.com>