

A Quantitative Plan for Drawing Down Emissions to Attenuate Climate Change

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Abstract : Calculations are performed to quantify the potential contribution of each greenhouse gas emission reduction strategy. This approach facilitates the visualisation of the relative benefits of each, and it provides a potential baseline for the development of a plan of action that is rooted in quantitative evaluation. Emissions reductions are converted to potential de-escalation of global average temperature. A comprehensive plan is then presented which shows the potential benefits all the way out to year 2100. A target temperature de-escalation of 2oC was selected, but the plan shows a benefit of only 1.225oC. This latter disappointing result is in spite of new and powerful technologies introduced into the equation. These include nuclear fusion and alternative nuclear fission processes. Current technologies such as wind, solar and electric vehicles show surprisingly small contributions to the whole.

Keywords : climate change, emissions, drawdown, energy

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