Stabilizing CO2 in Atmosphere at Current Levels
to
Stop Global Warming.

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Stabilizing CO2 in Atmosphere at Current Levels.

It is generally accepted that to stabilize CO2 in the atmosphere at current levels it will be necessary to reduce worldwide CO2 emissions by 60%.

Climate alarmists have repeatedly said the treaty following Kyoto should require that CO2 emissions be reduced by 60% so as to stop global warming. These admonitions lack any indication of what a 60% reduction in CO2 emissions actually requires.

This paper examines the impact of reducing CO2 emissions by 60% from current levels of emissions.

United States:

In 2003, anthropogenic CO2 emissions were 5,802 million metric tons (MMT) of CO2.

Of this amount, generation of electricity produced 2,279 MMT of CO2 and vehicles using gasoline produced 1,141 MMT of CO2.

Table I shows the various sources of CO2 emissions.

Table I

Source	MMT	% of Total
Electric Generation	2,279	39%
Gasoline	1,141	20%
Residential	381	7%
Commercial	237	4%
Industrial	1027	18%
Transportation (Excluding Gasoline)	738	13%
United States, Total	5,802	100%

Total greater than 100% due to rounding and some overlap of gasoline usage by industry and commercial

Source: *Emission of Greenhouse Gasses in the United States 2005* by DOE Energy Information Administration

To reduce its CO2 emissions by 60% (see table) the United Sates would have to stop generating electricity, other than from nuclear, and also eliminate the use of gasoline.

Without belaboring the point, reducing CO2 emissions by 60% would mean; no more refrigeration of food, no more air conditioning, no more TV, no more light after sunset, and no more driving of cars. (Those few people who would get electricity from nuclear plants might fare somewhat better.)

Promoting the idea that people should measure their carbon foot print and then reduce their usage of products and services (that produce carbon emissions) to stop global warming is hypocritical. Small changes in personal consumption will not stop global warming if global warming is caused by CO2 emissions. Table I shows that achieving a 60% reduction in CO2 emissions requires massive, not incremental reductions.

Carbon Equivalents rather than CO2 emissions:

The rejoinder to the above is likely to be that it is necessary to reduce Greenhouse gasses not just CO2. In other words, if methane, nitrous oxide, HFCs etc. are included in the effort to reduce Greenhouse gasses by 60% the disastrous impact shown above will be alleviated.

This however doesn't affect the need to stop generating electricity or using gasoline.

Table II shows the carbon equivalents of all Greenhouse gasses, including CO2.

Table II

Gas	MMT Carbon Gas Equivalent	% of Total
CO2	5872	84%
Methane	634	9%
Nitrous Oxide	335	5%
HFCs, PFCs, and SF6	143	2%
United States Total	6983	100%

Note: The total in Table II for CO2 is slightly different due to revisions made by the EIA.

Source: *Emission of Greenhouse Gasses in the United States 2005* by DOE Energy Information Administration

Eliminating emissions from electricity and gasoline (see Table I) represents a 49% reduction in Carbon Gas Equivalents (CGE's). Since 40% (256 MMT) of methane emissions are related to energy (coal mining etc.) eliminating the generation of electricity will bring emission reductions, as measured by CGE's, to around 52%.

This leaves 8% to be obtained from other sources. Since the remaining emissions represent 12% of the total, it would require reducing these other sources by two-thirds.

Undeveloped World:

Developed countries produce the largest amount of CO2 emissions.

Greenpeace has said that developed countries should reduce their emissions by 90% so that poor countries can have the benefit of electricity and economic development.

Conclusion:

Stopping Global Warming by stabilizing CO2 emissions is an illusion.

Even if these reductions were accomplished gradually over the next fifty years there would be a need for reductions greater than 60% because CO2 in the atmosphere would continue to increase during this period.

The idea that the United States or any other developed country could reduce its CO2 emissions by 60% (90% to accommodate developing countries) is pure demagoguery. Any such reductions would have a disastrous effect on the economy and society.

Kyoto only required a 5.2% reduction below 1990 levels of CO2 emissions from industrialized countries and most have been unable to achieve this very modest goal.