

## #142 Holiday Parties and Climate Change

Conversations at holiday parties during the past week about the facts and importance of climate change are the subject of this column. Even though national polls indicate that climate change has fallen to 7<sup>th</sup> in importance for a majority in the USA despite the world conference in Copenhagen, there were plenty of people interested in sharing their ideas.

I was deeply impressed, however, by the number of people who are very confident that climate change is not a major issue; if happening, is not caused by human activity but can be solved by human inventiveness. Regulating carbon and green house gases is a sham and will further depress the economy was also a frequent opinion. A second group of comments revealed a major gap between the desire for change and a real understanding of the opportunities to make change quickly and on a large scale.

To those who deny the importance and urgency of the climate change crisis, may it suffice to say that the great majority of scientists and humankind share the consensus that the 2 generations that began life in the 1950's have lived in a period of unprecedented wealth creation which obscured until recently, the reality that the way we use energy has consumed a tremendous amount of energy capital that took hundreds of millions of years to accumulate and has from the date of our birth begun systemic destruction of all life support systems on planet earth.

We have specific numbers. We live in a 390 world and no form of life can long prosper unless it lives in a world with less than 350 parts per million of CO<sub>2</sub>. The Polar Cap may disappear completely for the entire summer months in less than 10 years. Several island nations will cease to exist in the same period. The US life style is a primary cause. Usually we accept responsibility for mitigating the harm we have caused. Denial of both is not available without avoiding worse consequences..

To those who want to make a difference but do not see the opportunities, here are a few examples of what is possible. Today, compared with 1975, a period in which the US economy doubled, we consume 50% less energy and oil, 2/3 less water and natural gas, and 18% less electricity to make a dollar of GDP. Wind power now receives more annual investment than any other source of energy. We are making progress but not enough and far too slowly.

Denmark just grew its economy by 56% without using any more energy. Japan gets 3 times the GDP from its energy than the US does. China, which now leads the world in 4 of the 5 major sources of energy generation has just completed a decade in which energy efficiency produced 70% of economic growth. China projects a doubling of its economy in less than 10 years while proposing cuts in ghg emissions several times greater and faster than the US.

Every 70 minutes the sun supplies Earth with enough energy to run current world society for a year. The US, the most intense energy user, uses 4000 times less electricity than it receives solar energy. Today, anyone can buy solar panels and put them on their roof as costs have fallen dramatically and subsidies are more widespread. Using just 1/3 of currently existing buildings for solar electricity panels rated at 20% efficient, would provide 20 times over current world electricity consumption.

Solar power never runs out and is very clean and affordable. Combined with the vast power of energy efficiency that offers opportunities for every citizen, we can build a more safe, fair and cool world. We can also create millions of new jobs and great wealth

without increasing the destruction of life support systems. The river of denial can be replaced with a river of available local opportunities.