

## **Global Warming is a Manufactured Scare Story**

### **30-Minute Talk Global Warming**

Thank you for inviting me tonight. I was a businessman before I retired. I think its wonderful to discover a group of businessmen that think seriously about the big questions in life.

### **Climate History**

I'm going to start by talking a little bit about the climate history of the earth. You might wonder how we know anything about the climate before there were thermometers and government agencies to keep records. Mostly scientists look at layers of deposits on the bottom of lakes or layers of ice in ice sheets. By looking at chemicals, isotopes or the remains of living things like pollen they can get a rough reading of the climate.

It's not news that the earth is warming. It's been warming for 20,000 years since the end of the last ice age. If we were here 20,000 years ago we'd be sitting under a mile of ice.

During the last 20,000 years there have been various periods when it got colder or warmer. About 6,000 years ago the earth was quite warm, perhaps 3 degrees Fahrenheit on average warmer than it is now. During that time the Arctic ocean was probably ice free during the summer. The global warming alarmists say that if the Arctic is summer ice free the polar bears will starve. They say that polar bears can't survive without sea ice. That's because the bears sit by the breathing holes that the seals make in the ice and when a seal sticks it nose up to breath the bear grabs it and dismembers it for a delicious snack.

But, somehow the bears survived that time 6,000 years ago when there was in all probability no sea ice in the Arctic summer.

800 or 900 years ago the earth was warmer than now. The Vikings lived in Greenland and they had dairy cows. A few hundred years later the vikings were all gone because the climate got colder. A long cooling trend started about 1300 and continued until about 1700. This was called the little ice age. By 1700 it was so cold that Eskimos were known to have arrived in Scotland by kayak.

In the 20th century there was a warming trend in the early century, a slight cooling trend in mid century and then a warming trend again from 1970 to 1998. For the last 10 years the warming seems to have stopped.

## **Alarmism**

Who are global warming alarmists?

They are people who think global warming will be a terrible disaster and that man is responsible for the climate warming.

Sometimes I think that their number one worry is that the polar bears will die. But they also think that people will die in heat waves. Bjorn Lomborg, the Danish writer, pointed out that far more people die in cold waves than heat waves. The alarmists predict more hurricanes, more droughts, more floods, and they think the oceans will rise dangerously. They worry a lot.

The alarmists think we are responsible for the future disaster they predict because we are adding carbon dioxide to the atmosphere.

When you burn something that contains carbon, for example coal, oil or gas, a combustion product is carbon dioxide. Carbon dioxide is in the air we exhale because we are burning carbohydrates. Plants breath in carbon dioxide and with the help of sunlight - photosynthesis -manufacture new compounds containing carbon, such as wood or apples. Carbon dioxide is not pollution and not poison but essential to life on earth.

Because our industrial civilization is burning so much oil and coal the amount of carbon dioxide in the atmosphere is increasing. At the current rate of increase it might double in 100 years, from around 250 parts per million to 500 parts per million or to 1 molecule of carbon dioxide for 2000 molecules of air.

Carbon dioxide is called a greenhouse gas. Why it has that name is a long story, but a greenhouse gas is a gas that absorbs infrared radiation. The earth's temperature is determined by a balance between incoming sunlight and outgoing infrared radiation. Infrared radiation is a form of light but it is invisible to the human eye. If the infrared radiation encounters increased resistance the temperature of the earth must rise to overcome the resistance. That is known as the greenhouse effect. So far I've given you and extremely over simplified analysis. Most of the outgoing infrared radiation originates in the very high atmosphere where the jets fly because the lower atmosphere is opaque to infrared due to its density and the large amount of water vapor. Water vapor is a

much more important greenhouse gas than carbon dioxide. The heat that must be removed from the surface of the earth is mainly removed by evaporation and condensation, a cycle that carries vast amounts of heat energy to high altitudes where infrared radiation can work to remove heat.

I have no problem in acknowledging that increased carbon dioxide will create some warming. The serious questions are how much warming and will the warming be good or bad.

### **The Environmental Movement**

The environmental movement is a new mass movement that is characterized by a different way of looking at the world. In the old days people lived close to the earth. They grew their own food. They slaughtered animals themselves. Today we live close to the supermarket and that may be responsible for the luxury of the romantic view of the earth taken by environmentalists. I think this change of viewpoint is illustrated by some comparisons of the traditional with the trendy.

John Carr, is a media relations official from the United States conference of Catholic Bishops. What he said before a congressional committee studying global warming was summarized as follows:

We are not the Sierra Club at prayer or the Catholic caucus of the coal lobby. The Catholic bishops seek to help shape this debate by drawing on traditional moral principles of Catholic teaching: prudence, the common good and a priority for the poor. "He said the bishops' statements and approach were "nuanced, not alarmist; traditional, not trendy; an expression of faith, not politics. For us, this concern began with Genesis, not Earth Day."

Personally, I find this statement to be very sound.

Genesis 1:28 has this to say about environmental stewardship:

God blessed them, saying: "Be fertile and multiply; *fill* the earth and *subdue* it. Have *dominion* over the fish of the sea, the birds of the air, and all the living things that move on the earth."

Hmm - That doesn't sound like the New York Times or the Sierra Club. *They* don't talk about *subduing* the earth or *having dominion* over the animals.

They seem to take an opposite view. In a 1973 editorial the New York Times said that the existence of animals should not "have to depend on the whim or the greed of man."

In other words the animals have a superior or at least equal right to the bounty of the earth.

The Sierra Club thinks there are too many people on the earth. Genesis says be fertile and multiply and fill the earth. The Bible wants us fill the earth with people, not polar bears.

Right now this contest between people and animals for the bounty of the earth is taking place in California. The federal government and President Obama are supporting the animals.

In California's central valley the federal government has decreed that water must run out to sea rather than be used for irrigation. The water is being dumped in the ocean to protect a small fish, the Delta Minnow. Meanwhile thousands of workers and farmers are going broke.

This type of sad story has been repeated many times. The environmentalists will say that we have to protect the earth for the future. What they really mean is the fish or trees or bears are more important than people. There are big shots in the environmental movement that went to Harvard, drive Porsches, and live in expensive California neighborhoods. They firmly believe that working people in the Midwest should stop burning coal and use windmills instead. They believe that ordinary people have a carbon footprint that is too big. The only footprint I'm concerned about is the environmentalist footprint on the neck of the ordinary person.

The suffering caused by the environmental movement in the U.S. is minor in comparison to what has happened in poor countries. DDT was banned around the world in response to an unscientific campaign of fear mongering by environmentalists. As a result many tens of millions of people, especially children, became chronically ill or died from malaria. Finally, in 2006, the World Health Organization reversed itself, admitting that the environmental movement is wrong and that DDT should be used for mosquito control. This is not an innocent mistake. They didn't just figure out that DDT was needed in 2006. Many voices had been calling for the use of DDT for many years. The World Health Organization listened to the loony tune environmentalists, not the poor people dying in Africa.

If you want to realize what a blessing insecticides are consider that the famous philosopher John Locke in the 1670's recommended putting kidney bean leaves in your bed to attract the bed bugs away from the person in the bed. I doubt that this would work.

Now the environmentalists want to ban fossil fuels - coal, oil and natural gas. They say that the carbon dioxide released when these fuels are burned will cause the earth to warm up and that will have a very bad effect. They say that we can use windmills or solar power to generate electricity and that we can drive around in a new type of car called a plug in hybrid that will get 150 miles per gallon. It gets 150 miles per gallon because they don't count the fuel needed to generate electricity to recharge the battery, because, after all, electricity will come from windmills.

This relates to another damaging mistake of the environmental movement -- their attack on nuclear power. Nuclear power does not emit carbon dioxide or any significant pollution. It is extremely reliable. The fuel is cheaper than coal and is available in unlimited quantities. The environmentalists hate it. One representative of an anti-nuclear power group told me that he was against nuclear power because if it was allowed, everyone would build nuclear plants instead of windmills or solar power.

An interesting comparison is the 660 megawatt Millstone 1 reactor in Connecticut that was ordered in 1966 and built in 5 years for \$101 million. Across Long Island Sound, a few years later, they tried to build another reactor, the 820 megawatt Shoreham nuclear power plant. That plant cost 60 times as much as the nearby Millstone plant or \$6 billion. It took not 5 years to build, but 11 years from 1973 to 1984<sup>1</sup>. It never received an operating license due to political protests and was finally scrapped. The environmentalists made the difference. Scare tactics, endless lawsuits and delay drove up the cost of nuclear power so much that utilities everywhere in the U.S. were forced to give up nuclear power. 20% of our power today is nuclear because it was built before the environmentalists drove nuclear out of business in the United States. In France they plowed ahead and nearly 80% of France's electricity consumption is nuclear. As a consequence France has to import far less fuel and is able to export electricity.

### **Global Warming Science and Politics**

Now I'm going to talk a bit about the official global warming programs and the science used to justify them.

Perhaps you have heard of the Kyoto treaty. This is a treaty that mainly operates in Europe. The United States senate made it clear that it would never approve that treaty. The treaty is designed to reduce carbon dioxide emissions by requiring emitters to purchase allowances. If you generate electricity in a carbon free way you can earn allowances that you can sell. For example a European group might build a wind farm in China to earn allowances to sell in Europe. But there are no allowances if you build a

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<sup>1</sup> Wikipedia has articles on many nuclear plants.

carbon free nuclear power plant. This is just illogical green politics and reflects the green hatred of nuclear power.

Carbon control schemes provide great opportunities for helping your political friends at the expense of the taxpayer. Fisker Automotive, backed by Al Gore got a \$529 million government loan to build an \$89,000 hybrid sports car. The car will be built in Finland. The government loaned another \$465 million to build the \$109,000 Tesla electric sports car that will be built in Britain. The hot Tesla is a worthy replacement for people who are embarrassed to drive Porsches. It can do zero to sixty in 3.7 seconds.

What will the future look like if the environmentalists are in charge. A popular goal is to reduce carbon dioxide emissions in the U.S. by 80% by 2050. There is a bill currently being considered in Congress to do this. The method is to sell carbon emission permits, selling fewer permits each year. In other words the price of fuel will increase and people will use less because it costs more. There are academic studies on how the consumption of gasoline responds to increased price. A reasonable calculation is that if you want to reduce gasoline consumption by 80% you have to raise the price from \$3 a gallon to \$40 a gallon. That is not as unreasonable as it may seem. It's technically possible to build a decent car that gets 80 miles per gallon. It would be very light weight, perhaps constructed from aluminum or carbon fiber. It would have a high compression engine with direct injection of fuel into the cylinders. Energy would be recovered from the exhaust, perhaps with a turbine and it would be a hybrid with a small battery to recover energy from braking. If you had such a car \$40 gas would look like \$10 gas with today's cars. Such a car would cost a lot more, so many people who can afford a car now wouldn't be able to in the future. If the less wealthy can't afford cars that saves gas and frees up the roads for Tesla drivers. Since transportation would be priced out of reach of working families the house in the suburbs would become impracticable. They could move into small apartments and ride on buses, just like in Europe. We all know that Europe is an example of what we should strive toward, don't we?

Cognitive dissonance is believing in contradictory things. A lot of cognitive dissonance is going around in the environmental movement. They want the developed countries to limit CO2 emissions even though countries like China, Brazil and India that emit a lot of CO2 have made it very clear that they have no intention of limiting CO2. China, for example, burns 3 times as much coal as the U.S. If we stopped burning coal tomorrow China would make up the difference in 4 years at their current rate of growth. Coal, of the fossil fuels, emits the most CO2. If these countries don't also limit CO2 emissions the whole program is useless for reducing CO2 emissions.

Global warming alarmists are intolerant. They say that there is no room for debate. They insist that the science that proves alarmism is absolutely solid and anyone who

thinks otherwise is engaging in obfuscation. According to Al Gore the people who question global warming are like the people who think the earth is flat or that the moon landing took place in a Hollywood studio. James Hansen the most famous scientist promoter of global warming alarmism says that CEO's that give money to think tanks that question global warming are criminals. He wants to put the CEO's on trial for crimes against nature and humanity. Incredibly James Hansen is a civil servant in charge of a substantial government laboratory.

U.S. Senators Snowe and Rockefeller sent a letter to the chairman of Exxon demanding that Exxon stop giving money to think tanks that raise questions about global warming. The sad part is that the money that Exxon and all of the energy industry has given to global warming skeptics is essentially nothing, especially compared to the hundreds of millions that the major environmental organizations have.

If the science is so solid why do the alarmist have to work so hard to shut up the opposition? Maybe they they suffer from insecurity because the science isn't so solid.

### **The Science**

I'm a retired business man, but I majored in physics and I've worked with computers my whole career. I've been studying the science behind global warming for the last 3 years. I go to conferences and talk to scientists. I think I have a pretty good grasp of the big picture. I can tell you that climate science is both wonderful and terrible. The scientists have learned a lot about the earth's climate in the last 50 years, but they are not close to being able to make predictions about the future. It is a disgrace for scientists to be running around saying the we have to turn industrial civilization upside down because if we don't there will be a global warming disaster. There are plenty of scientists that don't believe in global warming alarmism, but those guys don't get the publicity because saying "everything is ok" doesn't sell.

The predictions of global warming disaster are based on computer models of the earth's climate. These models are very large and complicated computer programs. Modeling the earth's climate with a computer has turned out to be very hard. Kevin Trenberth, a prominent climate scientist said that: "none of the climate models correspond even remotely to the current observed climate. In particular, the state of the oceans, sea ice, and soil moisture has no relationship to the observed state at any recent time..."

Think about the dilemma the scientists have. They've been spending billions of government dollars for 20 years constructing these climate models. After all that effort the models still don't work very well. They could say to the government we haven't done too well, but give us more billions for the next 20 years and we'll try to do better. Only a mad scientist would put that in a grant proposal. A much better story is: we scientists

have these great computer models and we are predicting a global warming disaster. With that story they get funding. It's not a conspiracy, it's not dishonest, it's the survival of the fittest, the fittest being those scientists who think they really can predict the future climate with giant computer models and that they have seen the future and it doesn't work.

The climate scientists and model designers have a difficult time explaining the climate changes during the 20th century. The warming in the early century remains mysterious. It clearly wasn't caused by carbon dioxide because emissions back then were very small. The warming in the late 20th century is too little according to the estimates published by the the Intergovernmental Panel on Climate Change, abbreviated as the *IPCC*.

I don't want you to think that global warming activist scientists aren't ready and willing to explain - or explain away - all the problems with the models. They have total faith in the models and when nature disagrees with the models, it must be that nature is wrong or at least we don't understand what nature is saying. They also don't seem to be disturbed that the models don't agree with each other.

The global warming scientists usually blame the early century warming that can't be blamed on carbon dioxide on an increasing output of energy from the sun. The trouble is that accurate measurements of solar output only started in the satellite era. So this remains a theory without much evidence.

The alarmist scientists explain the insufficient warming in the late 20th century by postulating a countering cooling effect. They suggest the cooling is caused either by increasing aerosols or the absorption of heat by the ocean. Aerosols are small airborne particles generally put into the air by the burning of coal or other fuels that contain sulfur. The evidence against aerosols is that due to pollution controls to prevent acid rain, sulfate aerosols, the most important type, have not been increasing during the late 20th century.

The absorption of heat by the ocean has been measured since the 1950's, but enough heat has not been absorbed by the ocean to account for the shortfall in global warming. In fact, recently the ocean has not been warming at all, as it should be if the models are correct. The alarmists can't explain in a scientific way why the earth is not warming, but they think there must be some reason, because the models can't be wrong. The models can't be wrong because if the models were wrong the entire alarmist movement would collapse.

The IPCC uses 23 different climate models. These models don't agree with each other. The climate sensitivity of a model is the amount of warming the model projects for a

doubling of CO<sub>2</sub>. The range in the IPCC models is from about 2 degrees to 4-1/2 degrees celsius. Why should we believe the predictions of these climate models when the models don't believe each other? The IPCC deals with this dilemma by averaging together the results from the different models. They call that a multi model ensemble. That's French for we have no idea what we are doing.

It would be more logical to pick out the best model and use that to make their predictions. But, wait, they have 23 models from 23 scientific groups. If they pick out the best they will make one friend and 22 enemies. That would be bad politics and if the IPCC is about anything it is about politics.

Since the alarmists are averaging the output of many models they decided to treat the results from the individual models like individual measurements that cluster about a mean. That way they can compute probabilities of various temperature increases. This makes no sense. The individual estimates of climate change from the models probably cluster around the shared mistakes of the model makers. Mark Twain said: "There are three kinds of lies: lies, damned lies, and statistics." The IPCC seems to be pioneering a new category: lying by using fantasy statistics. Perhaps next they will be building ice cream castles in the sky.

### **Alternative Theories**

A number of scientists have come up with alternative theories, not based on climate models, but based on the analysis of observations. For example Richard Lindzen of MIT and Roy Spencer of the University of Alabama. Their theories suggest that the warming caused by CO<sub>2</sub> will be very small, perhaps 20% of what the IPCC is suggesting.

Even if the predictions of the IPCC turned out to be true it is not convincing that it would be bad. The IPCC is predicting a 3 degree Celsius temperature rise for doubling of CO<sub>2</sub>, that is the difference in average temperature between Chicago and St. Louis. Between International Falls, Minnesota and Key west Florida the average temperature differs by 23 degrees celsius, 7 times the IPCC predicted warming for doubling CO<sub>2</sub>.

Global warming is a manufactured scare story. It is not supported by good science. It is strongly supported by self interested parties, including scientists and environmental organizations. Unfortunately many in the media and political representatives have bought into the scare or are going along for political reasons.

Thank you very much and please ask me any questions that you may have. Or , if you want, you can denounce me as a tool of the fossil fuel industry.

