

Why hydrogen. Because if we have a fuel cell where we can burn it and use it at least twice as efficiently, and when you use hydrogen you get water and that is pretty clean. So it is a great candidate for a fuel cell. We are at least two decades away from a fuel cell.

The second bubble that broke is the corn ethanol bubble. I am predicting that the cellulosic ethanol bubble will break. We will get something from cellulosic ethanol, but it will not be the huge amounts people are predicting we might get.

Waste to energy, great idea. And there is a good plant here in Montgomery County, but what you are burning there is largely a waste stream, the result of profligate use of fossil fuels. For the moment it is a good idea; but long term in an energy-deficient world, you are not going to waste so much. Remember, I grew up during the Depression: Waste not, want not. That is certainly not our motto today when you look at our landfills.

Gas hydrates. I want to mention that because there is more potential energy there than all the other energy sources I have talked about. These are little, frozen modules on the bottom of the ocean. There are huge potential amounts of energy there. But let me note that there are huge potential amounts of energy in the tides. The moon lifts the whole ocean two or three feet. When I carry two 5-gallon buckets of water, they are heavy. The problem with that energy and the tides and the problem with the energy in the gas hydrates is that it is very scattered and diffuse. Energy to be useful must be concentrated. And we will get something out of all of those, but it will not be enormous amounts.

This chart looks at a very interesting reality, and that is we are very much like the young couple that had their grandparents die and left them a big inheritance and now they have established a lavish lifestyle where 85 percent of all of the money they spend comes from their inheritance and only 15 percent from their salary. And they look at the inheritance, and it is going to run out before they retire, and so obviously they have to do something. They have to spend less or make more. That is precisely where we are because 85 percent of all of the energy that we use comes from fossil fuels, coal, petroleum and natural gas; only 15 percent from renewables, a bit more than half of that from nuclear. Here are the renewables we saw on the other chart. This is 7 percent. So solar was 1 percent of 7 percent; so 0.07 percent. Big deal.

And I am a big fan of solar and it is growing at 30 percent a year, but when you use 21 million barrels of oil a day, that is an incredible amount of energy. It is a huge challenge to find alternatives that will produce that amount of energy.

The next chart shows us the U.S. electricity generated by fuel source,

and notice some of this we can use in cars. In fact, we can use a lot of the coal. Natural gas, buses run on natural gas. If you had electric cars, you could do it with nuclear. And the others are much smaller. Hydro is 6 percent a year or so depending on how much rain we have.

The next chart shows electricity generation by renewables, and this blows up the renewables part of it. The wood, wind, waste, geothermal and the solar. This is 1 percent up here. The total amount we use is 100 times higher. So you see solar down there, it is just trifling. I think it will be huge in the future. The most aggressive country in the world for solar is Germany, and they have poor sunlight compared to the United States. But they recognize that they have to do something to transition.

The next chart, and I want to spend just a moment on this chart because the reality is this should have led people to understand we weren't going to get all we could want from corn. This bottom part, this is the amount of energy that goes into producing corn. Almost half is natural gas that is used to make nitrogen fertilizer. Before we learned how to do that, the only nitrogen fertilizer came from barnyard manure and guano. Guano is the droppings of birds and bats, and if we wait another 10–20,000 years, we will have some more. But that is gone now. It was a big industry doing that.

The amount of energy that goes into producing ethanol from fossil fuels is incredible. This just looks at the energy that goes into producing. Indeed, there are some who believe that we use more energy producing ethanol than we get out of ethanol. Our Department of Energy believes it is probably 80 percent, and the National Academy of Sciences use that number, too. Probably 80 percent of the energy that you get out of ethanol was put in there with fossil fuels.

I would like to put up the chart that we began our discussion of things that could be done, and I would like to say in my closing moments that I feel very exhilarated by this. There is no exhilaration like the exhilaration of meeting and overcoming a big challenge. This is a huge challenge. The American people are the most creative, innovative people in the world. If they really understood what we needed to do, they would do what the people of my generation did, and I am 82 years old. I was born in 1926. I lived through World War II. Everybody had a victory garden. We had Daylight Savings Time so you could work another hour in the victory garden. We didn't do that because somebody told us we had to, we did it because we knew we needed to do that.

I think the American people, properly challenged, if they really understood the challenge, I think the American people would rally, and I think we could once again become a major exporting country, not just exporting ideas to other people who then do the

manufacturing. I want to do the manufacturing here and be a manufacturing and exporting country. We are the most creative, innovative society in the world.

Mr. Speaker, what we need is a program that has the total commitment of World War II. Everybody in America needs to be involved. We need to have the technology focus of putting a man on the moon, and we need to have the urgency of the Manhattan Project. We are capable of that. The American people are waiting for that.

The solutions that are now suggested to us are only partial solutions. I am kind of glad with my 10 kids and 16 grandkids and 2 great-grandkids that we didn't drill every place that we might have drilled. Now there is a little oil for them, and they will be involved in this transition.

So I hope, Mr. Speaker, with more knowledge of where we are, that the American people will rally to the challenge and the United States will be what it has been in the past, a leader in technology, and a major manufacturing and exporting country.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted to:

Ms. GINNY BROWN-WAITE of Florida (at the request of Mr. BOEHNER) for today on account of a family medical emergency.

Mr. JONES of North Carolina (at the request of Mr. BOEHNER) for today on account of business in the district.

Mr. TIAHRT (at the request of Mr. BOEHNER) for today on account of official business.

Mr. WELLER of Illinois (at the request of Mr. BOEHNER) for today on account of attending family business.

SPECIAL ORDERS GRANTED

By unanimous consent, permission to address the House, following the legislative program and any special orders heretofore entered, was granted to:

(The following Members (at the request of Ms. WOOLSEY) to revise and extend their remarks and include extraneous material:)

Ms. WOOLSEY, for 5 minutes, today.

Ms. KAPTUR, for 5 minutes, today.

Mr. DEFAZIO, for 5 minutes, today.

Mr. SCHIFF, for 5 minutes, today.

Mr. MCDERMOTT, for 5 minutes, today.

Mr. KAGEN, for 5 minutes, today.

Mr. HOLT, for 5 minutes, today.

(The following Members (at the request of Mr. CAMPBELL of California) to revise and extend their remarks and include extraneous material:)

Mr. MCCOTTER, for 5 minutes, today.

Mr. REICHERT, for 5 minutes, today.

Mr. POE, for 5 minutes, June 27.

Mr. JONES of North Carolina, for 5 minutes, June 27.

Mr. CAMPBELL of California, for 5 minutes, today.

Mr. SHIMKUS, for 5 minutes, today.