

Fleeley, Roger Blanchard, Richard Duncan, Albert Bartlett, no relative of mine. But if you put Albert Bartlett, do a Google search for Albert Bartlett and Energy, and you will put out the most fascinating 1-hour lecture I have ever listened to. He has given it more than 1,600 times. I will tell you, there will be no thriller on television that will be as interesting as Albert Bartlett's 1-hour lecture on energy. You will be captivated by it. They have all estimated that a peak in conventional oil production will occur at around 2005. This is now 2007.

By the way, the world oil production has been roughly 84 million, 85 million barrels a day for the last several years. That may or may not mean we have reached peak, but at least there has been a plateau. And if it weren't for a fact that there has been a 40 percent reduction of gasoline use in many South American countries, for instance, because it has just gotten too expensive, the price of oil would be far greater than roughly \$55 a barrel today.

This has been what they call demand destruction. If you can destroy demand, you can reduce the price. And when it got too expensive to use, they just quit using it, so the price of oil has dropped because there is less pressure.

The next chart shows a number of experts and what they have predicted, and here are some of them there, Campbell and Goldstein and Deffeyes, Skrebowski, Simmons. Matt Simmons is an investment banker, a personal energy adviser to the President. They all believe that it is going to occur very shortly. The previous list had it in roughly 2005, these in the next decade and these further down. Now, CERA is one here that says it is going to be after 2020.

I want to show you the next chart here, and this is a CERA chart; and CERA believes that we will find maybe several times as much more energy as all the energy that now is known, all the oil that we now know is out there. They think we will find two or three times that much more oil.

Now, if we find only 5 percent more oil, then this will be when it peaks. If we find as much more oil as all that exist out there, this will be when it peaks. It still is not forever, it still is about 2040. And if we now are able to get enormous amounts of oil from these unconventional sources, the Canadian tar sands; and don't call it oil, please, it is tar, and the oil sands out in our west, and I don't know that we will ever achieve this, by the way. The Canadians are getting 1 million barrels a day, just a little over 1 percent of production, using incredible amounts of energy, incredible amounts of water, producing a big lake that they call tailing water; it is really toxic water, and they know that what they are doing is not sustainable because they don't have enough natural gas to produce the energy.

They are thinking about putting in a power plant. The vein, I understand,

dips under an overlay so they will have to develop in situ, and they don't know how to do that. Enormous reserves, more than all the oil in the world potentially, are out in our West. Shell Oil Company had a little experiment out there. They said it would be 2013, I think, before they said they could even make a decision as to whether it was economically feasible to get that. So this is a huge "if" here.

The next chart is an interesting one. One of the world's experts in this, Jean Laherrare, made an assessment of the USGS report. What I was looking at was not a USGS report, but they were basing their prognosis on USGS data, so this comment is appropriate to that chart as well. The USGS estimate implies a fivefold increase in discovery rate and reserve addition through which no evidence is presented.

Such an improvement in performance is, in fact, utterly implausible given the great technical achievements of the industry over the past 20 years, the worldwide search, and the deliberate efforts to find the largest remaining prospect. We have computer modeling in 3-D seismic and enormously improved techniques for finding oil, and still every year we find on the average less oil than we found the year before.

This is a very heartening chart. As we face an energy-deficient world, I often think of this chart and the promise that it gives us. On the abscissa here we have energy consumption per capita here, and on the ordinate we have perception of how good life is. Now, it is not perfect for anybody, but there are a whole bunch of people who think that it is about 85 to 95 percent as good as paradise can be.

And notice where we are. We are the biggest users of energy. Little Switzerland is close behind us. But what this chart tells me is that you can use far less energy and be pretty happy with where you are. These many people, by the way, use less energy than we and are happier with their lives than we are, everybody above this imaginary line.

And notice that if you have very little energy, it is tough to feel good about life. As soon as you reach 25 percent, as much as we use, then you can feel pretty good, 80 percent compared to 90 percent, not much improvement for an incredibly large increase in energy. So this gives us hope.

Europe uses per capita about half as much energy as we use, and if you have traveled to Europe, nobody who has traveled to Europe believes that they live less well or are less content with their life than we are.

The next chart shows an interesting, and this is one of many, many, opportunities for efficiency, but this is such a dramatic one. This is the efficiency of getting light. And this is the old incandescent bulb, a red hot hairpin hung up in a bottle is the way one old farmer described it. And this is the amount of heat you produce, which is why you use it as a brooder for fish and to keep

them warm, and baby chickens, and this is the light you get, 90 percent heat, 10 percent light.

This is fluorescence, which is why you have the little screw in fluorescence. A great Time magazine article that showed that each one of those bulbs saved a quarter of a ton of coal. And here is the light-emitting diode. I have a light-emitting diode flashlight; I have forgotten when I put the batteries in. They just last and last.

I have a couple of charts here, and we have only a few minutes remaining, and I just want to show a couple of them to refer you to very big studies paid for by our government, ignored by our government. One is the Corps of Engineers, and this is the Corps of Engineers study, and the other is the big Hirsch Report. You can find all of those on the Web. In fact, you can go to our Web site and either find these or find the link to it.

In general, all nonrenewable resources follow a natural supply curve. Production increases rapidly, slows, reaches a peak, and then declines at a rapid pace, remember, to its initial increase.

The major question for petroleum is not whether production will peak but when. There are many estimates of recoverable petroleum reserves giving rise to many estimates of when peak oil will occur and how high the peak will be. A careful review of all the estimates leads to the conclusion that world oil production may peak within a few short years.

This was paid for by the Army, essentially ignored by everybody.

The next one, a bigger study, paid for by our Department of Energy, SAIC, a big, prestigious organization: We cannot conceive of any affordable government-sponsored crash program to accelerate the normal replacement schedules to fill the gap created by a decline in oil production.

I won't use any more of these charts because the others, I have a dozen or so more, simply say the same thing, that one way or the other, in different words, we are either at or shortly will be at peak oil with potentially devastating consequences.

There is hope with leadership. We are an enormously creative society. I think that we can meet the challenge, but it is going to require a program I believe that has a total commitment of World War II, I lived through that, that has the technology challenge of putting a man on the moon and the urgency of the Manhattan Project. We can do that. It needs the help of every American, and leadership; our children and grandchildren are counting on it.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted to:

Mr. WOLF (at the request of Mr. BOEHNER) for today on account of testifying before the Virginia State Corporation Commission on the proposed tolling for the Dulles Greenway.