



## **ASPO Houston - a comment**

Posted by Heading Out on October 23, 2007 - 2:00pm Topic: Miscellaneous Tags: biofuel, electricity demand, natural gas, peak oil, remedial action [list all tags]

I went to my usual Rotary Club meeting this morning, and one of my co-members asked where I was last week. "At a Peak Oil meeting in Houston," I said. "What's that?" this well-educated and generally well-informed lady asked me. To me this encapsulates the problem, not the problem we have, the problem that the general public has. They have no idea of either the size, or the immediacy of the problems that are now almost upon us. Debbie Cook and others this past week talked about the need to get administrative and legislative attention, but to tie it to some coming energy event. We talked with some dispassion about when this event might occur, and were encouraged to dream of some bucolic Houston, having survived the deluge. I don't think that this is the way it is going to be.

It is the scale of the problem that defeats most imaginations, including mine. When we talk about the difference between the conservative estimate of oilwell depletion, say the 4% that Chris Skrebowski uses, this is 400,000 bd less per year than the 4.5% that the "optimistic" CERA has employed. The more modern wells are horizontal, and, when these start to water out, the decline in production has, in a number of places, already passed 10%. As the control of the majority of the world oil production has passed from the one-time Major Oil Companies, into the hands of National Oil Companies the investments to maintain and grow production are not being made and thus one can anticipate that decline rates will get worse, not better. Further the costs of doing business are getting higher, reducing the return on investment. One of the sponsors of the meeting, the World Oil magazine, had an article in their August issue questioning the potential return on investment for the current spate of wells being drilled in the Fayette Shale. And while this was partially rebutted in the current issue , the underlying point is increasingly becoming true. The energy and capital costs of development in the more marginal deposits that are the remaining reserve will not justify the cost of finding and exploiting them. No wonder that companies are buying back their own stock, instead of investing in other "opportunities."

But where does that leave the world, and particularly those of us who have become accustomed to having the gas and fuel oil that we need, even though it is a bit more expensive? We are, as Congressman Bartlett's aide said, the frog, still hopping around in the pot as the water is beginning to get uncomfortably warm. The heat will only get worse, prices are going to continue to rise, and those that think that the oil-supplying countries will, out of altruism, provide enough oil that we won't have problems, need to stop smoking those funny-smelling cigarettes. It may well be that the Kingdom of Saudi Arabia, the country with the possible potential to do so will increase flows next year to play a political game through the election period. But if it does, that is about all it is going to be likely able to do. It seems appropriate to remind you of a quote from Dickens' Mr

'My other piece of advice, Copperfield,' said Mr. Micawber, 'you know. Annual income twenty pounds, annual expenditure nineteen nineteen and six, result happiness. Annual income twenty pounds, annual expenditure twenty pounds ought and six, result misery. The blossom is blighted, the leaf is withered, the god of day goes down upon the dreary scene, and - and in short you are for ever floored. As I am!'.

As are we all! Our oil "income," will no longer meet our desired "oil expenditures." The exact timing of this switch is about now. It may well be that the current price of oil will, for the future, appear quite cheap. The exact timing is, of course, difficult to predict, given geological, geographical and political influences, yet some of the reserve production that the KSA has lies in the Manifa field, and the refinery that this will flow to is not going to be ready until after 2009. With that and the output from the Khurais project Saudi Arabia may well be able to hold or slightly increase production through the end of the decade, and perhaps to as distant a time as 2011, but this will not offset the declining production that is occurring in too many other countries.

The realization that the world has otherwise run out of surplus production will not incline those that have the potential to increase production to do so. If, by merely restraining production to current levels, prices will continue to rise, as they will, where is the incentive to increase production? And further where is the incentive to restrain the internal growth of their own economies? This will further reduce the volumes available on the world market. China and India have growing economies, and the funds to purchase additional fuel, and so they will. In some cases they have already locked in future supplies, through a number of different approaches. And this will leave the world short of that needed by other customers. Oil will become less fungible. Spot market prices are going to become quite expensive, and long-term contracts can be abrogated.

Contemplating this coming scenario, the question only becomes when does this unfolding event reach the "panic" point that the general public takes notice. Until the public notices, I doubt that any voice that we raise will make much of a difference, so short a time do we have to create remedial activity. And once it hits, for many measures it will be too late.

The prevailing recommendation that increasingly became common as presentations continued was that there is no alternative to conservation. We must reduce demand, and this rationing will come about through price controls as, at least in the beginning, the market rules. But how long Governments can accept this, giving the increasing pain that this will impose on their citizens, is hard to estimate. We have already seen the well-connected cellulosic ethanol industry acquire funding and recognition that the state of the technology does not justify. The \$87/ton harvesting, transportation, storage and processing costs that I quoted from the meeting in Dubuque are a factor that doesn't even enter the economic balance that is used to justify the program. (I remember from a meeting last year hearing a proponent of the technology suggesting that "with a little investment agricultural engineers can get that cost down to \$2 a ton", the number they needed to have to pay, neglecting the maturity of the harvesting industry, and the efforts that have already made it as efficient as it is). We can therefore anticipate increased funding for those well connected, as the crisis unfolds, will it be wisely spent? It wasn't in the beginning the last time around, and I doubt, in the beginning, that it will be this time either.

If I have a gripe about a conference that was well organized, provided us with good food, and a copious amount of information from reliable sources, it relates to the paper on biofuels. As you may have noted I have been to a number of ethanol related meetings over the past couple of

years. The work that is being done by companies such as Monsanto in developing corn yields in excess of 300 bushel/acre suggests that the criticism of EROI figures is somewhat out of date, and that perhaps a more even evaluation of potential future yields might be a more useful presentation next year.

That, however, is a quibble. I am glad that I attended, though the message is unpalatable because there are incentives that will help in the future. The use of electricity in transport is an obvious example, and it is encouraging that there are some steps being taken to provide alternatives, late though they will be to the table. It would be nice to know that there are alternatives being pursued. Dave Rutledge talked about some of the work he knows about, later in the evening, and some of his numbers were encouraging. Perhaps we could be fed those little bits of hope to go with the grimness of the rest of the news.

But for now, thank you for reading, and for those that helped contribute the information that I forgot, missed or got wrong, thank you too. (And if you disagree with my assessment feel free to comment).

Let's hope that the situation hasn't got so bad that we can't meet again, in California, next year. (And yes Debbie, I'm going, I'm going. I have already got two service club type presentations scheduled for as soon as I can change my notes to your recommended presentation style).

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