The Oil Drum
DISCUSSIONS ABOUT ENERGY AND OUR FUTURE

Gloom and Doom - with a smile - the ASPO-USA 4 meeting in Sacramento

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The ASPO conference in Sacramento began here Sunday, September 21, just after lunch – with a set of three concurrent sessions. Unfortunately I could only be in one place, and that was tied by structure, so my report on this afternoon is thus a little constrained.

The first track dealt with Reporting the Oil Story, and while the speaker list was strong, including Rob Collier, Bart Anderson of the Energy Bulletin, and Neil King of the WSJ, in the first session – having to sneak through the back of a mass to get to the room may have limited attendance a little. The second part of that track included presentations by Stuart Leavenworth of the Sacramento Bee; Lisa Margonelli of the New America foundation; Tom Whipple, who gives us the Peak Oil Daily News, and Review.

The largest room was set aside for the second track which dealt with Investing in the New Energy Economy. Jim Hansen; Atticus Lowe and Jim Puplava talked in the first session, while Brian Davidson; Dan Bednarz; Rep. Terry Backer; John Kaufmann and Dick Lawrence of ASPO, were in the second.

The "Oil Drum" track was the third, and upstairs in the hotel. While both sessions were full, by the second we were out of even standing room, but despite the crowding the sessions went well. Unfortunately there were some circumstances that led to a slight change in program, and thus instead of hiding in the back and quietly scribbling, I was out at the front to moderate the first "Analyses from the Oil Drum" session of track three.

Gail the Actuary led off the three presentations. Given the grim news out of Washington this past week, her talk on "Peak Oil and the Economy" was given in an attentive silence. Others have since commented on how cheerful she was presenting what had to be one of the more pessimistic of her presentations, beginning her presentation with her definition of an actuary as "an accountant without a sense of humor." She noted that as oil supply drops, so will likely GDP, based on (among other things) an analysis of Robert Hirsch's showing that there is approximately a one to one correlation between the change in oil supply and change in GDP. She went on to point out that our society is built around the concept of continuous growth and prosperity, so that we anticipate paying for our debts with money when we are older, and have a more prosperous condition. If oil supply is tight, the higher price of food and fuels robs families of their discretionary incomes and that prosperity. This in turn makes it more difficult to repay debt. Because of these forces, she considers that either a recession or depression is highly likely.

Once the economy levels off, or starts to decline, societal priorities change. One cannot pay off debts if one is laid off, and while oil prices may not be the total cause of current crises, certainly it is a contributor. Default rates of all kinds are likely to increase. This will lead to it becoming harder to borrow money (including for things such as new oil drilling rigs). Thus smaller oil and gas companies may be hurt, as the economy transitions. The drop in the value of the dollar will lead to a drop in the standard of living and a lower contribution from Social Security.

The gloom of Gail's talk, was not relieved by Charles Watson who talked about how the contribution that he makes to the Oil Drum came about. His talk was on "The Vulnerability of the Oil and Gas Industry to Hurricanes and other Hazards." He talked about the power of hurricanes, and that, through time, modeling of their behavior and damage potential has become more accurate. After having begun with the impact of Ivan, his work has concentrated on the impact on the oil infrastructure, with the loss of platforms that may not be replaced, because the return does not justify the investment.

Hurricanes may not come more frequently, but his models suggest that when they do come, they will be of greater intensity, and will not lose that strength as quickly as they have in the past. He noted that his results usually predict a little lower damage than those of the National Hurricane Center, but that this is due to a difference in mission. As a consequence his usually end up as being the more accurate.

Dave Summers then gave a talk on "The Other Resource Lack – Time and Technology," in which he first explained why (due to well geometry changing), he is more pessimistic than many about current depletion rates, which he equated to around 5.2%. He then went on to talk about the problems of peaking and then falling supplies of oil and natural gas. He was a little skeptical of the Pickens Plan to allow a switch to natural gas for driving vehicles, due to a shortage of natural gas, and then slid into a discussion of in-situ combustion, where he showed a tool that could drill laterals out from vertical well bores, based on jet drilling. Pointing out that while there is a critical need for engineering as part of the solution to the growing oil shortage, he noted that there was a major drop in the interest in high school children in science and engineering, and that at the same time the number of faculty in fossil fuel industries were dropping with very few qualified people available to replace them. This will limit the ability to find new solutions and apply new technology if we don't have the background or personnel to either generate the new ideas that are needed, or to implement it. He also mentioned the potentials for coal:water slurries to replace diesel fuel, and of growing algae underground as having advantages over the only surface economic growth plan, which involves using "racetracks."

After the break Prof. Goose moderated the second Oil Drum session, with Robert Rapier freshly arrived from Europe, discussing the reliability of information from the major sources available. He talked of the credible and dubious parts of the information that is available from the EIA, the IEA and CERA. The EIA is where he goes first to get data, especially concentrating on This week in Petroleum. But he felt that the EIA was terrible at forecasting either the price of fuel, or the supply quantities that would be available at future times.

He goes to the IEA site second to get information on statistics, and for the most current information on oil supply.

And finally he commented on CERA and the BP Statistical Review.

Jeff Vail then talked about the geopolitical situation and the impact of societal and political events on production. Just as the easiest oil to extract was the first out, so also, he pointed out that this was in areas where the political climate was most stable. Pipelines, he felt, have become a step in

inducing fixture into the fungibility of oil, and that the vulnerability of this infrastructure is increasingly being taken advantage of by agents of insurrection. Because of the global internet, knowledge of the vulnerability of the infrastructure is rapidly spreading and we are starting to see the global impact. The problem has arisen through the growth of feedback loops which inflate the effect of certain terrorist actions. He felt that we were passed the point where the rate of change in supply had turned negative, and that this is a flag showing the approach of peak oil.

The final speaker of the afternoon was JoulesBurn, who wrote about the way in which he has been able, by tracking from satellite images, to work out the location and condition of oil and gas wells in the Kingdom of Saudi Arabia. This led to his own blog, and to us. He talked, with evidence, of the approaching collapse of the Northern section of Ghawar in the Kingdom of Saudi Arabia. As a result of his study he has some questions on future productivity of Haradh III.

After a reception the meeting then re-convened with Peter Wells giving a talk on why his view of the coming oil production rates was much higher than the estimates that we have come up with. He had used extensive data files available from IHS, but pointed out that these were not his only source of information. His predictions did not see a peak until out beyond 2020, and at that point the world would be at around 105 mbd. In making the assessment he divided the world into OPEC and non-OPEC groups, with the non-OPEC community having already peaked. Saudi Arabia, Iran and Iraq have not yet, and he was looking, in this time frame, to see perhaps 5 mbd from Iraq. He foresaw Saudi Arabia maintaining and increasing production with Enhanced Oil Recovery techniques being introduced before long. It was certainly a brave presentation--given the audience he was presenting it to-–and he faced the resulting questions with equanimity.

Oh, and if you want a different view of the conference you might drop in on one of Charles Hall's students who is also blogging the conference and may have attended other sessions. And since I missed some of the sessions, and was involved in part of those described, please provide your own information and views in the comments. Thanks!