The maturation of Matt Simmons, energy-industry investment banker and peak oil guru

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"Maybe the enemy is us... Grow food at home." - Matthew R. Simmons, June 20, 2006, at the Pentagon-sponsored seminar series Energy: A Conversation About Our National Addiction

It does not take long for people who study peak oil to see some heavy implications of the end of abundant oil. After a while some of the more realistic probabilities become clear and often become one's main topic of conversation. The possibilities, dangers and opportunities start motivating one to change his or her life.

But it takes more than the few years that most students of peak oil today have under their belts for the stark picture to come into clear focus. It helps if one has grounding in the petroleum industry, but it's all too rare; people in extractive industries seldom seem to show they care for the greater welfare of the world. And those who don't want to believe there is now - or soon will be - an historic crisis regarding the peaking of world oil extraction are often 100% wedded to the status quo. It is left, then, for many a non petroleum professional to hold forth and help lead us.

However, Matthew R. Simmons, Chairman of the energy-industry investment banking firm Simmons & Company International, stepped forward and has recently become a phenomenon for our times. He is sufficiently independent to add up and share what he has been observing and learning over decades. His firm has completed for its clients' investment-banking projects that have valued over $65 billion. He has given 75 speeches since publishing his book on Saudi Oil, Twilight in the Desert (2005). "As I study the oil situation, the problems get worse... [but] the peak oil movement has grown from being a pimple to a pandemic," Simmons told Culture Change.

It is pleasant to be surprised by the maturation and radicalization of a major figure in the energy industry and the field of peak oil. Simmons brings his audiences to almost all his conclusions by starting with a simple, logical rundown of terms, history and data that bolster his conclusion that cheap and abundant petroleum is gone or going fast. He reminds us that the word "guru" only means leader or guide, not expert. From his lecture on June 20 across the Potomac River from Washington, Matt Simmons qualifies as an expert leader, to this reporter.

Simmons' alarm over the lack of a "Plan B" to replace our status-quo petroleum dependence has lately turned him into something more like an Ecotopian than a soldier for nonstop industrialization of the entire world; that global pursuit seems nearing its end soon in Simmons' view, due to the "inability to grow" thanks to the energy crisis he says is already here. Such an analysis is close to that of Culture Change, which, like Simmons, urgently offers a picture of the future without oil and natural gas to spare. Like this reporter, a former petroleum industry analyst and supporter of truly renewable energy, Simmons does not see alternative fuels as able to rush in and maintain the economy as we know it.

As an energy investment-banking firm, Simmons & Company covers a wide spectrum of energy beyond fossil fuels. At his Pentagon-sponsored Energy Conversation appearance on June 20 in Crystal City, Virginia, he was asked in the audience-participation period what an investor should invest in, Simmons does not recommend the petroleum industries - this, despite his stating that we could see "$500 a barrel for crude" as "any energy shortage rapidly morphs into PANIC." (emphasis in Simmons' printouts and slides.)

Matt Simmons is a man who has reflected on the waste of energy that ordinarily would be delightful for any businessman in energy. But he wryly complains of "blueberries in Maine imported from Chile even during blueberry season." Likewise for the nation's infrastructure: "You can tear up the roads," he said, to stop the wasteful trucking and start barging on water, to save 35 times as much energy. He mentions rail also as a major replacement for our highways, as freight by rail saves 8 times the energy. He would know, however, that today's volume of trade cannot fit on existing railcars and barges, and that there's little likelihood that the nation's infrastructure can change quickly enough for the peak oil timetable.

And when is peak? "Realistically, we're probably at peak now. If not, production will fall faster later" as a result of rising demand. This definitive conclusion is from a data specialist on the main assets of the petroleum industry: reserves and the whole industry's ability to extract, refine and distribute at a profit. He is not surprised that peak is here, nor that we are caught unprepared. He offers his audiences instances of the public and leaders ignoring past warnings, such as M. King Hubbert's on the peaking of domestic and global oil extraction.

How did oil analysts and the government get caught with their pants down? "Price volatility masked price signals." People were and are expected to trust samples for oil reserves, but he has seen "no proof that reserves still grow." There has been "only a theoretical 1.5 million barrel a day production cushion" to last three years. But the spare refining capacity is not there: if there is, it's only for light, sweet crude that's dwindling fastest. "The best Saudi oil is gone… Middle East production will go down by one third by 2012." He reported that an Occidental Petroleum official told him that they're in the business of producing "brine stained with oil." Saudi Arabia has been depleting its precious fresh water by pumping it into its aging oil fields, and this has meant using more and more salt water to the detriment of the fields and the equipment.

Simmons said that if any of the larger Saudi fields pumping up to six million barrels a day went off line, as he seems to anticipate will happen, then we can hit $500 a barrel: "A lights out issue."

Given what Simmons knows, and speaking to a largely Pentagon audience sprinkled with Republicans from Capitol Hill, it was surprising to hear him confidently inform us that "A call to arms may be wrong. We may not even know who the enemy is. And maybe the enemy is us." In Simmons' PowerPoint presentation he refers to "phony wars."

Kicking the oil habit, to Simmons, means primarily using less transportation energy. How to do this? "Liberate the work force" from commuting. He even used the word village to describe the new environment for work. He urged "reduction of globalization" that makes products as cheaply as possible somewhere to be shipped via oil somewhere else.

"The Energy Crisis has arrived." - his talk's title. He concluded, "Grow food at home." What? That sounds like "doom and gloom" eco-speakers like me! I have often inhabited the radical fringe when it comes to the news media's preference to serve up my old firm Lundberg Survey's typical reports on minor price changes in gasoline rather than my critique of energy consumption and land use. Simmons also said we need to "walk and bike" - so he'd certainly applaud Culture Change's long-time project Pedal Power Produce that extends the home food-garden potential.

As for natural gas, he says there is no plan when one country imagines its supply will come from another country that in turn has other plans. As natural gas is crucial for instant heating and cooling for industry and people's homes, he pointed out the vulnerability of the elderly to natural gas supply shortage. He said that if a cold winter had materialized in 2005-2006, we would have experienced huge price spikes and a major energy and economic shock. "If the U.S. had had a winter that Europe had, there would have been a massive blackout - in winter." This instance of petroleum vulnerability is one of "too many flashpoints and no spare capacity."

Culture Change has reported on the likelihood of a shock triggering collapse that aggravates the tight supply situation already existing due to peaking extraction in the face of rising demand. In my speeches and interviews I mention most often a possible trigger in the guise of hurricanes or revolution in Saudi Arabia. But Simmons had one for us: MEND, the Nigerian organization of tribes opposing foreign oil companies: "The tribes will win in their effort to get rid of oil companies."

Regarding unconventional oil sources, he disabuses us of the hype that oil shale, heavy oil and/or tar sands will be any so-called next Saudi Arabia. He explains that these substances are too energy-draining to produce on the scale some hope for: they cannot be mined and processed in sufficient quantity efficiently enough as high-quality resources for them to have a major effect on mitigating the energy crisis that has already started. For example, Canada's tar sands production is estimated at best to reach the level of 2 million barrels a day in a few years, but Simmons doubts it. He pointed out that this expectation would involve using 20% of Canada's natural gas (which is dwindling fast). And, Canada is already "failing on Kyoto due to tar sands," he said.

Here is the relatively recent but "old" Matt Simmons and his oft-quoted "there is no Plan B." In the Institute for the Analysis of Global Security's March 31, 2004 online report, he said:

"The entire world assumes Saudi Arabia can carry everyone's energy needs on its back cheaply. If this turns out not to work there is no 'plan B.' Global spare capacity is now 'all Saudi Arabia.' This is the world's insurance policy and no third party inspector has examined it for years. Conventional wisdom says 'don't worry. trust today,' but if conventional wisdom is wrong, the world faces a giant energy crisis." Calling for large-scale research into new energy sources, [Simmons] said: "If all these worries are wrong, it is like our preoccupation with nuclear war or future global warming. But even if part of it becomes true and not expected, the results are awful." Coming from someone who has advised the secretary of energy and the 2000 Bush campaign, this is a warning worth heeding.

With over 260 billion barrels of proven oil reserves, a quarter of the world's total, Saudi Arabia is not only the top foreign supplier to the United States - the world's largest energy consumer - but also essentially the sole source of liquidity in the oil market. According to the Department of Energy's Energy Information Administration (EIA), the world will become more dependent on Arabian oil in the next two decades. To meet global demand for oil, Saudi Arabia will need to produce 13.6 million barrels a day (mbd) by 2010 and 19.5 mbd by 2020. Both the International Energy Agency and EIA assume Saudi oil output will double over the next 15 to 20 years. In a new study soon to be released, Matthew R. Simmons, president of Simmons and Company International, a specialized energy investment banking firm, contends that this is not likely to happen. He argues that Saudi Arabia's oil fields now are in decline, that the country will not be able to satisfy the world's thirst for oil in coming years and that its capacity will not climb much higher than its current capacity of 10mbd. Considering the growth in demand, this could easily spark a global energy crisis.

Simmons analyzed 200 technical papers on Saudi reserves by the Society of Petroleum Engineers and his work was peer reviewed by a dozen senior technical experts. What he discovered tells a different story than the conventional wisdom.

Saudi Arabia has over 300 recognized reservoirs but 90% of its oil comes from the five super giant fields discovered between 1940 and 1965. Since the 1970s there haven't been new discoveries of giant fields. The most significant of the oil fields is Ghawar. Found in 1948, the 300-mile-long sliver near the Persian Gulf is the world's largest oil field and accounts for 55%-60% of all Saudi oil produced. Ghawar's current proven reserves are 12% of the world's total. The field produces 5 mbd, which is 6.25% of the world's oil production. According to Simmons, Ghawar's northern regions are almost depleted. Two other giant fields, Abqaiq and Berri, also seem to have peaked in the 1970s.

The above focus on reserves is crucial, but at Simmons' June 20 presentation he did not dwell so much on reserves as one might have expected. Instead, with so much to impart, he offered more wisdom and big-picture background than mere statistics. What he has replaced his original reserves-emphasis with - e.g., growing food at home and ending commuting - comprise a so-called radical agenda that is purely realistic. However, how this is to be pulled off and by whom is a question that Simmons did not have time to deal with. Maybe he believes government policy can somehow fit the challenge, or he sees people just reacting to petrocollapse.

Simmons' remarks and slide show could easily have fit thematically into an Auto-Free Times magazine (precursor to Culture Change), especially when he lamented the new freeway system in India that will help the country catch up to China's oil consumption level of 2 barrels per person per year. India is now at 1 bbl/year per capita. He asked us to picture China and India both stopping population growth and catching up to Mexico's 6 barrels per person per year: this would mean the world would have to come up with 44 million barrels more per day in oil extraction (it is 85 million today).

Perhaps the conservation efforts in the 1990s by our Alliance for a Paving Moratorium would go over better today, but that modest proposal to just fix the existing roads may be too late and too ambitious for an infrastructure in need of suddenly slashing energy waste.

Simmons' "Energy war" sounds like Jimmy Carter's "moral equivalent of war." Carter, however, was more technofix oriented, although three decades to prepare for world peak oil gives a lot of leeway. The main feature of Simmons' energy war would be "a new conservation plan that would create a non-energy-intensive society before it's too late." Simmons clarified his prescription for "Energy war" when I asked him: "Energy attacked with the intensity of war." To further explain, he expanded upon his "Liberate the work force": "80% of people now here need to be over there." To help make travel and trade meet the challenge, he wants to see railroad tracks be more than single track. They could be changed and rebuilt in five years perhaps, following the example of "Eisenhower's Interstate Highway system." Culture Change has always questioned the alleged need for much energy and transportation, casting suspicion upon the major environmental groups' obsessive and unproven initiatives for the technofix's salvation of the consumer economy.

In the past Culture Change has identified Simmons and Robert Hirsch of SAIC as interested in maintaining economic growth and seeing the economy somehow bridge the supply gap that is about to get bad due to peak oil. (Hirsch, a former oilman, can be described as less daring than Simmons at the podium, but Hirsch is another of the few courageous analysts.) Simmons all but states that growth and business-as-usual are no longer possible or appropriate. Simmons addressed the meaning of peak and the certainty of tightness by saying "Running out is really the inability to grow." For an economy and a culture conditioned to endless growth, this is really the end. What replaces growth and the ability of petroleum to feed and provide us with almost everything is the unknown, but Simmons would probably agree it involves

culture change.

Simmons answered a question from the audience on nuclear energy that was hardly dealt with in his presentation. He marveled at how little space the whole amount of nuclear waste would take up, "part of a football field." Like Congressman Roscoe Bartlett, Matthew Simmons wins respect from some energy advocates when supporting nuclear. However, since Bartlett and Simmons know nuclear cannot remotely solve the energy crisis, they may as well advocate something - nuclear - that probably isn't going to be attempted anyway due to the problems the nuclear industry has. Yet, supposedly, new nukes can be constructed a lot quicker than ever. Nevertheless, Simmons' and Bartlett's nuclear advocacy - hardly a main component of their message - places them toward the center when one considers a spectrum ranging from Julia Butterfly at one end and Richard Cheney at the other. I would suspect that Simmons and Barlett, radical and courageous men they are, would be over toward Julia's side in one other respect not yet mentioned here or at Simmons' talk: We must all start honoring the Earth.

Days later as I write this, ever since experiencing Simmons' shocking presentation, I feel so vindicated about my many years promoting conservation - mainly energy-use curtailment - as the main course of action for petroleum dependence and to protect the climate. I actually don't like being right, because oil crash and climate distortion are scary and the picture is getting uglier while policies are frozen in old thinking and greed. Despite whatever good will come from the eventual transition to a sustainable, ecological culture, those who understand "energy PANIC" and "the inability to grow" realize we do not have waiting for us a "slowing down" phase to endure and enact changes.

Despite the irrefutable bombshell of a message from a most credible energy supply expert, Matt Simmons, no doubt there will continue to be well funded, green fantasy-promoters of the technofix who claim that "renewable" energy along with replacing George Bush will take care of every problem in energy and the environment, regardless of our petroleum infrastructure, overpopulation, and "no Plan B."

I asked Simmons as we left the hall about uranium mining's net-energy yield that is unacceptably low, as a way of questioning the so-called solution of nuclear power for a petroleum crisis that cannot be cured by nukes. His answer was to tell me that in Utah prospectors used to be able to easily detect large deposits of uranium, but nowadays deposits are very hard to find. I asked, "So, this means the dwindling resource offers insufficient capacity to bridge the gap?" Simmons nodded pleasantly and that was that.

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Simmons & Company International:

www.simmonsco-intl.com

Simmons' "study raises doubts about Saudi oil reserves" – IAGS's Energy Security website:

www.iags.org

News re "fossil-fuels assisted weather:" "Global warming surpassed natural cycles in fueling 2005 hurricane season"

www.physorg.com