Energy and the Environment with the API

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On April 18th, I participated in a conference call with the American Petroleum Institute. The topic of the call was Energy and the Environment. You can download a transcript here or the audio of the call here.

Here was a list of participants, pulled from the call transcript:

> Jeff McIntire-Strasburg is from Treehugger and we just went through, briefly, a blog roll. We have on the call Robert Rapier from The Oil Drum and R-Squared; Hank Green of EcoGeek; Tom Fowler of NewsWatch: Energy which is Houston Chronicle; Marc Gunther, Fortune; Mark Gongloff of The Wall Street Journal Energy Roundup; and Carter Wood of ShopFloor.org.

I think they missed mentioning John Gartner from Wired.

Having participated in one of these calls previously, I knew more or less what to expect, so I was prepared. I had solicited questions from readers, and then asked for help prioritizing the list. I had the list in hand, but I was told before the call that they would prefer the questions to remain topical. I tried to make sure that I included an environmental angle on as many questions as was possible, and then I would play the rest by ear (and keep the list until the next conference in case I was unable to ask some questions). I ultimately asked the first question, the last question, and the most questions. Some answers were surprising, and some were.... well, you will see.

Due to the length of the transcript, I will only pull out my questions and answers, and will also include some commentary. There are some typos in the transcript, so if I am saying something that doesn't seem to make sense (e.g., "can" which should have been "can't") then it is possibly a typo.

We have all heard that there are some environmental problems around the development of tar sands. The Washington Post last year painted a bleak picture in Canada Pays Environmentally for U.S. Oil Thirst. That was directly topical, and related to a couple of the questions that were submitted, so I decided to open with a question on tar sands.

> ROBERT RAPIER: Okay, this is Robert Rapier coming at you from sunny Scotland. I've got a list of 34 questions. I promise not to ask all of them, but I've solicited questions

from readers at The Oil Drum and at my blog. And they made a list and voted and so I've got a few to ask.

First one I wanted to ask about is tar sands. There was an article in the Washington Post last year and – let's see, the name of it was Canada Pays Environmentally for U.S. Oil Thirst. And it painted a very grim picture in Canada of the oil sand situation. It said, you know, rivers used to be blue are turning brown. And I realize this is the American Petroleum Institute and you guys are not responsible for what happens in Canada, but we are buying their oil and we're using their oil. So how do you respond to what's going on in Canada with the tar sands and the environmental issues there?

MR. CAVANEY: Well, I think first of all I've had an opportunity on a couple of occasions to go up there and see the operations. Obviously you can't see them all in the course of just a couple of days. But the first thing I would say is that the scale is immense beyond almost what anybody can believe. And then, number two, there's a lot of things that you'd on the job learning. You encounter things that you haven't seen before and work stops and goes forward. There's no question – I think that there are challenges out there.

The industry has committed to, and if those of you are familiar with it know that typically what we follow when we go into a new area where you're trying new technology in a new environment you're committed to sort of continuous improvement. You learn as you go forward. You go through trial and error. You tend to benefit.

And I think nobody that I know of that I've talked to from up there feels that the circumstances that you'd find today are going to be the same circumstances you'd find, you know, five, ten years from now as you tend to become more sophisticated, as you tend to learn how to operate.

You know, we're seeing, for example, more of a focus on the in situ method which is where you're underground during much of the recovery of the oil as opposed to some of the less sophisticated methods that were sort of first generation – more the open pit mine type of approach.

But I think it is something that ultimately we're always answerable to the people within the immediate environment in which we operate, and collectively we're answerable to the regulators and to the general public. So you know, we're going to meet the demands that are placed on us. We're going to, in many cases, come up with the solutions and sit down with government and get those worked out.

I think one of the big challenges that we're already hearing about is as we become concerned about carbon and so forth as you look at the discussions about climate change and the like, one of the things that has to be dealt with up there is, you know, how are we going to manage the carbon part of that equation up there as we try and continue to convert those sands to valuable products that are demanded by the American and Canadian consumers.

I can't be much more specific than that. Again, we don't write the regulatory regimes, but we do do the standards for the industry, and lot of the things that we hear come into

> that process and we're able to observe it from here in that manner.

I admit that this is not an easy question. But is that a satisfactory answer? It is true that I have not seen the tar sand operations first hand. However, if things are as bad as news reports would indicate, I am not so sure that "we will figure it out" is sufficient. Sometimes we only figure it out after the environmental cost has been too high. And sometimes we don't figure it out. Montana's Berkeley Pit sadly demonstrates that point.

Other participants asked the next few questions, and then Mark Gongloff from the Wall Street Journal asked a question about ethanol. I saw an opening for another question that got a lot of votes:

> MR.RAPIER: Hi, Robert Rapier again. I'd like to ask a follow-up on ethanol, if I might.
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> MR. CAVANEY: Sure.
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> MR. RAPIER: Given that ethanol usage in the U.S. is now mandated, it's not entirely clear to me why it still needs a subsidy. But some, like Vinod Khosla have made the argument, that the ethanol subsidy is really an oil company subsidy because they're the actual recipients of the blenders credit. So how do you respond to that, and what's your stance on keeping the subsidy?
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> MR. CAVANEY: First of all, that's been in there for years and years and years, long before we got involved anywhere near the scale we're involved right now. We're agnostic about it; if you want to count the votes, I think you'll see that most people who live in the political arena think that it's virtually impossible to take that credit out. In most cases, we are the blenders, yes, so the credit comes to us, but the interesting thing is the price of ethanol without that blenders credit is about 54 or 55 cents more than the equivalent amount of gasoline, so all the blenders credit ends up doing is it makes the price of ethanol, at least currently right now, at about the same price of gasoline, and so therefore, bingo, there it goes.
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> If you took the blenders credit away, we'd have to pay the full price for the gasoline – we're certainly not going to sell it at no cost – so what happens is that gets passed along to the consumer, you know, if you look at the way the industry operates, so somewhere along the line, that thing gets introduced, but again, if it was Congress's intent and design to take that thing away, that's their prerogative. We typically, on things like tariffs and issues of this nature, we supported it, not in its passage, but we understood the need for having it early on to try and get the industry large enough scale and basically stable enough so that it could serve a national distribution chain, and that interpretation is different in anybody's eyes. We would say, today, you know, that they've pretty much gotten there, at least in terms of corn based ethanol, so –
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> MR. RAPIER: But again, with the mandate, why is the subsidy needed?
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> MR. CAVANEY: Well, as I said, we're agnostic about it. If it's in – if Congress decides that they want to take that away, you know, we're still going to use ethanol and we're going to do it, but obviously, the cost will go up. That's all. Philosophically, you're absolutely right, but that's, as I said, this was put in place before we got involved at this

> level and we just didn't deal with the issue. We weren't asked to, as a matter of fact.

Of course I already knew the answer to this question, but I wanted to be sure to get it on the record and also to have the other participants think it over. With a mandate, the only reason to also have subsidies is to hide the true costs from consumers. And that is what Mr. Cavaney alluded to (and no, I don't deny that you can make the same argument for oil, although most such subsidies are indirect). The surprising thing to me is that he said that they were agnostic about the subsidy. I know that ExxonMobil a couple of years ago came out strongly against the ethanol subsidy. And of course the ethanol and farm lobby are always arguing to keep it. So, you can be the judge of who really benefits from the subsidy.

I wanted to be sure everyone else had a chance to ask questions, so the next few times they asked for more questions, I was silent. But I also wanted to make sure the call didn't end before I had a chance to ask more questions:

> MR. RAPIER: Yeah, hi, this is Robert Rapier again. I have lots more questions, but I don't want to hog the time, so if you have a lull, just call on me, because I've got lots.
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> (Laughter.)
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> MR. LUTZ: Thanks, Robert, let's actually take – can we see if any of the other folks, John Gartner, Jeff McIntire, that have not had a chance to ask a question have one, and then we can come right back to you?

A few questions were asked by others that covered questions on the list. Someone asked about a carbon tax, which was on the list, and someone asked about greenhouse gas emissions caps. In another surprise to me, Mr. Cavaney said that the API is not against a carbon tax. Of course he also said it had little chance of passing politically, so maybe he knows he doesn't have to be against it. There was also a question about whether the API believes that global warming is human-caused, and he did not give a definitive answer. His answer was more along the lines of, "While it isn't a certainty, we agree that there is enough evidence that we should get on with mitigation."

Then there was a little lull. In answering a previous question, Mr. Cavaney had mentioned "peak oil." So, they called on me and I got to work that question in:

> MR. RAPIER: Okay. A very popular question was around peak oil. You mentioned peak oil earlier, and you know, The Oil Drum focuses a lot around peak oil discussions, when peak's going to happen, and you probably are aware that the General Accounting Office released a report, I don't know, last month maybe, and it was about the critical need to develop a strategy for addressing a peak and decline in oil production. And it went through and it talked about some of the environmental challenges, and when you look at what is in the pipeline here, it concerns me that we're probably going to accelerate our greenhouse gas emissions as we do deplete our oil supplies.
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> I see us likely moving to coal based transportation fuel - coal to liquids. You can count me among those who are not on the cellulosic bandwagon; I don't think it's going to deliver in the volumes that are needed to really contribute substantially to our

> transportation fuel. So I see some real environmental challenges here as oil production peaks, but the question is, what is your position on that? I mean, you guys think we're not going to peak for 30 or 40 years? I mean, a lot of people want to know that, what exactly you believe as far as oil production peaking and declining.

OK, so I made a speech. And he gave a very long reply, which you aren't going to like:

> MR. CAVANEY: Well from our standpoint, if there is to be a peak, the first thing that's I think not much understood, Robert, by many people, is the idea that peak to them, they think of a sharp-topped mountain, where once you're off the peak, swoosh, you just slide down very, very quick, and you have to deal with the precipitive thing. Most everybody who understands, at least visits the peak oil issue, understands that once you hit that peak, you end up on sort of an undulating plateau, if you will, with a very slow downward curve, and part of that is it's a result of the fact that technology keeps kicking in and your yield, you know, from existing fields, keeps increasing.
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> That's one of the things that people who are peak oil theorists I don't feel have sufficiently factored in is, two things – the amount of what we would call current-day technology exploration and production, and I'll give you a couple data points here in a minute, and then the second is the extent to which we apply some of these enhanced oil recovery efforts to some of these fields. We've found some fields that have gone up three and four hundred fold in terms of their output as a result of some of the new technology. So we feel pretty comfortable that the government data talks about, that if you took the median point – median or mean, I can't remember; whichever it is – that they would say, gee, peak oil might be around 2044, but then factor in things like what happens if the tar sands really do become effective? What happens if shale gets developed out in the Rockies area? It could be extended beyond. But whatever that period of time is, I think hydrocarbons are going to continue to play an important role in many of these, many of these areas, and we think we're going to be able to get them.
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> Now, one thing that people have to square with, we think, there's a concern that the price goes up; well, the price of these products goes up in part because so much of the domestic production areas are off-limits to us. For example, in most of the OCS area, particularly all of the areas outside Gulf of Mexico, we don't even really have a good read on how much of the resource is out there. The government puts out, you know, its own data, but that's an estimate, so again, I think the way we look at it is, you see, interestingly enough, a lot of the big majors have come back and are starting to do more operations.
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> Here in the U.S., each of them would have their own reason why they're doing that, and I think the American public is going to pretty soon, if they continue to be serious about this idea of relying less on imported oil, we've got plenty of oil and gas opportunities out there, and we've certainly got the technology, as we proved in the Gulf of Mexico, to do it in an environmentally sound way, so that will add another piece to this, is when we start to find out, I think the Chevron and Devon finding last September out in the ultra deep water and what they've seen out there was a real eye opener.
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> And the other thing I would point to is to the surprise of virtually everyone in Washington and many people in the industry, last fall, right before Congress adjourned,

> there was a bill put forth by a very unusual coalition that ended up opening some more OCS acreage to exploration production, and it was done principally by, not the producers; it was done by the users, and I think increasingly the user community and people are going to see some value, so I think peak oil is an interesting thing to discuss, I think people who raise it, they do it in all earnestness; I just don't know that there's a really crisp answer.
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> I think one little phrase I use, sort of half jokingly, but man left the Stone Age not because he ran out of stones, and someday we will leave the Age of Oil, but it won't be because we ran out of oil; it will be because some other technologies have come in that have proven to be more cost-effective, more reliable and in various applications they will. So we plan to be around, think we'll be active, and technology has always ended up, from 1854 I think when the first peak oil theories were propounded, but having this technology has been the tool that's brought it in.
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> The other point I would say is if you look at most of the rest of the world where oil is forecast to be, they are so underexplored that it's not even (laughable–?). For example, only three percent of the exploration that's taken place in the Middle East, even though they've got, you know 70 percent of the proven reserves, in Saudi Arabia alone, which most people would argue has probably got a fair amount of oil there, they had fewer than 300 new exploratory wells that have drilled, and less than 30 of them were drilled since 1995. And so you think of the technology that was around in '95 and what's available now, so I think there's more to come in this area rather than less to come here in the immediate term, in near term.

I don't even know where to start. I guess I could start with the first sentence: "*if there is to be a peak*". **If there is to be a peak?** I don't even understand that phrase. It does not parse.

I will let others discuss the specifics of his answer. But I will give you my thoughts as he was giving the answer. I was thinking "How on earth can we be so far apart on this issue?" It seemed that he was suggesting that peak might be "as soon as" 2044, while I am thinking 90% probability within 10 years. There are a number of people who have analyzed this issue and believe we are right at or near peak. So the question in my mind became "Why is there such a divide, and how do we address it?" Because I don't believe we can just afford to write off people who think peak is a long way off. We have to look at our position and their position and figure out what the problem is. If they believe they have credible information that we don't have, they should share it. And where we have challenges to this data, or other criticisms (I meant to mention Cantarell, and the fact that the North Sea peaked prior to expectations) then they should be addressed and incorporated.

I also spent some time thinking "Is it possible that I could be so wrong on this issue?" This is probably something we all wonder from time to time. I personally question and challenge my own positions on a frequent basis. One thing that has influenced my thinking on this issue is Chris Skrebowski's mega-projects list. Skrebowski knows a great deal about world-wide projects that are planned and underway, and he thinks peak inside of 10 years is likely. But is the very nature of it such that peak will always be implied to be 3-5 years away, even if it is 20 years away? After all, there are probably many projects that will come online in more than 5 years that haven't been announced yet. But then I think 1). There aren't many truly big projects that are coming online; and 2). I still think demand is growing fast enough that we simply will not see any excess capacity in any case.

Like the rest of you, I want to know what the heck is going on. I try not to jump to conclusions, but I also don't want to be standing around in a house as it burns down. Peak still looks to me like it is 90% probable within 10 years. But it is deeply troublesome to me that such a great divide exists on this issue. I am trying to get my head around a way to close it.

Anyway, the answer to that question eliminated the need to ask several other questions. Yes, the API considers "Peak Oil theory" to be bunk. Yes, they believe that Yergin is more credible than Simmons. As far as dealing with potential supply shortfalls? They don't believe that we are facing any potential supply shortfalls.

I had one more question to go:

> MR. LUTZ: Great. Any final questions, then, from whoever's on the call?
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> MR. RAPIER: Yeah, Robert Rapier, one final question from me, and then I won't ask any more.
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> MR. CAVANEY: That's okay, Robert.
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> MR. RAPIER: I'll save them for next time.
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> MR. CAVANEY: Okay.
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> MR. RAPIER: There was a study released today, just came out, I got it in my email just a little while ago. Professor Mark Jacobson at Stanford, he's a civil environmental engineering professor, he's described in the news release as one of the top atmospheric chemists in the nation, and he's saying that if we go to more ethanol in the gasoline, it is going to result in more deaths from smog. He said he's done the studies, that we will kill people from smog as we increase our ethanol usage, especially in the big cities. Comments on that?
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> MR. CAVANEY: I saw that too, and I've asked our folks if we can try to get a copy of the study and take a look at it and see where it is. Since the very beginning, when we had our experience with MTBE as a blending agent in gasoline, we agree with the EPA blue ribbon panel that was commissioned by President Clinton back in the late 1990s that came out, and one of their key recommendations was that we ought to look extensively at the environmental and health effects of any fuel or fuel additive before widespread adoption, and we have gone to EPA and gone to everybody, and we said, we're not here an alarmist, but we really do think that if you're going to embrace something this big, you need to take a look at it, because the last time Congress did this, when they put in the Clean Air Act amendments in the early 1990s, it was clear to everybody, and we've seen the Congressional record with people's quotes in there, that the additive that was going to be used was going to be MTBE, but yet, what ended up happening was the industry got sued for these things and a lot of class actions and a lot of liability followed from that, and we don't want that to happen again, and so I think maybe what this Mark Jacobson study may well do is help serve as a bit of catalyst to make sure that we do take a good look at this so we fully understand what the results are going to be, regardless of whether he's correct or not.
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> So that's kind of where we are, and we've said that publicly and will continue to say it. We ought to make sure that we know all the potential impacts before we do anything in

> the fuel system that's going to be this widespread.

I thought that was a good answer, even if it did involve a 244-word sentence. I have said the same thing before. It is well-known that ethanol raises the vapor pressure of gasoline blends. Since a waiver is granted for ethanol blends, ethanol blends will absolutely have higher evaporation rates. It is not surprising that we have seen some issues with ethanol (e.g., problems with fiberglass tanks on boats) because we are making a pretty significant change throughout the fuel supply chain. That doesn't mean that I think the results of the study are definitive, or that this closes the book on the issue. It just points out that things can crop up and bite you that you weren't expecting.

With that, I will close. But, I would like an honest answer to a question. Was that worthwhile? Was it disappointing? Mark Gongloff indicated to me that he thought it was worthwhile, and I felt like I got a lot out of it. But I am not doing this for my benefit. I need to know if readers got enough value out of it to warrant future participation.

Also, feel free to extract any of the other questions and answers and discuss them. There was a lot of informative discussion on other issues that I didn't mention.