

Interview: Lane Sloan

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LANE SLOAN is Vice Chairman of the Greater Houston Partnership's Energy Collaborative and was Chairman the past 2 years during its critical organization and early actions phases. He is also Special Assistant to the Provost and Director of the University of Houston's Strategic Energy Alliance. He has been involved in the Houston Technology Center's energy sector and sits on its Board, its Executive Committee, and the Energy Screening Committee, which evaluates energy start-ups. He is active with Legacy Energy Solutions, an outsourced energy management service provider. Sloan also sits on the Petroleum Advisory Board of the Cullen College of Engineering at the University of Houston as well as on the Board of the Sam Houston Area Boy Scouts, Davidson Instruments, and the Texas Alliance of Energy Producers. He is a Silver Fox Adviser and is coauthor, with Chris Ross, of the book *Terra Incognita: A Navigation Aid for Energy Leaders* published in 2007.

Sloan joined Shell Oil Company in 1970 and had a 29-year career in a number of executive management positions, including Vice President Corporate Planning in 1987 and Chief Financial Officer for Shell Oil Company in 1989. In 1993, he undertook an assignment with Royal Dutch Shell as Regional Coordinator for the Far East, followed by Director of the East Zone in Oil Products. In 1997, he was appointed President of Shell Chemical Company. After retiring from Shell, he joined Science Applications International Corporation (SAIC) in 2000 where he was Executive Vice President for its energy sector, and later became Chief Executive Officer of GrandBasin, a joint venture between SAIC and Halliburton. Sloan has spent the last 5 years as an Executive Professor at the University of Houston's Bauer College of Business teaching corporate strategy, strategic leadership, and energy strategy/leadership courses.

Sloan received a BS degree in business and an MS degree in management science from the University of Colorado, and an MS degree in accountancy and an MBA in finance from the University of Houston. He was the Distinguished Alumnus from the Alumni Association of the University of Houston's Bauer College of Business in 1999.

What is the central theme of *Terra Incognita: A Navigation Aid for Energy Leaders*?

Rather than writing a textbook, we thought it would be more beneficial to write a book for energy professionals. There are a lot of strategy books, and there are even more leadership books, but the problem was that none of those books focused on energy—they are not in an energy context at all. We wanted to combine strategy, leadership, and energy in a way that brought all of those together and, rather than an outside view looking into the industry, we wanted to have a book that was from the inside looking out.

The central theme is that we are entering an "energy phase change." It is a time of great turbulence and a time when people have to rethink their business models and how they are going to be opportunistic. Periods of

great change require great leadership. During stable periods, you can keep doing the same thing. But when there is dramatic change like today, you have to be much more capable from a leadership perspective. That is what the book is really about, trying to teach people how to be strong energy leaders.

What are the causes of this phase change?

The last time the oil and gas industry had an up cycle it was due to perceptions of supply tightening. This was the period between 1973 and 1985. Then, from 1986 to 2002, you had a down cycle. Now we are in a new cycle, but it is not just an up cycle but a phase change. The biggest difference is demand. The population of China and India together is 2.4 billion, compared to the population of Organization for Economic Cooperation

and Development (OECD) countries at 1.2 billion. Here are two giant-sized nations going through the industrialization process that the OECD countries went through last century. That drives huge amounts of energy growth, with some estimates that the world will need 50% more between now and 2030. The US and Europe are no longer setting the pace; this century the pace will be driven by China and India.

On the supply side, whether it is peak oil or not, it is more expensive oil. The real question is not how much oil is available, but at what price is it available. There is also the question of unconventional sources of energy, which are expensive. There are also geopolitical ramifications of where the oil is located.

On top of those issues are environmental concerns, such as global warming. You put all of those things together and you have a lot of change going on. There is a much broader array of uncertainty, and uncertainty and risk bring on change and transformation. That is where leadership comes in. Leadership is about change; management, on the other hand, is about control and budgeting and organizing.

Why the term “terra incognita”?

Terra Incognita means it is not firm land any more. It is not even terra nova—new land—it is uncertain land. There is a real significant shift going on.

Do these changes call for different leadership styles or approaches?

Leadership evolves, in my opinion, a lot with the technology of the day. The industrialization revolution was built around assembly lines and sequential flow and that required a lot of control and hierarchies and led to autocratic management styles. Change was the exception.

With the information revolution, data is floating everywhere so a leader has to be action-oriented instead of entirely reaction-oriented. We have rebuilt the way organizations work—there are virtual organizations, de-layered organizations, and more participative organizations.

Change is accelerating and things are becoming more chaotic and less predictable. So you have that layered on top as well. What that means in the energy world is that you are going to end up finding new solutions to what the future looks like. In the past, for example, wood was everything. Then with the industrial revolution, coal replaced wood because it was used for steam. Around the time of World War I, it became very clear that crude was driving everything strategically. Oil and gas come together in the hydrocarbon phase, which lasted through the century, and the question now is what is next.

And what is next is a network of different energy solutions. The difference is thinking about primary energy sources and consumable energy sources. Consumables are things like electricity and gasoline,

things that people actually use. Primary energy sources are wood, natural gas, oil, coal, and nuclear. But in this new world we are starting to face, what we see is there are all kinds of options to consider at these high oil prices. You can have biofuels, for example, substituting for transportation fuels. You can turn natural gas into liquid and coal into liquid. You have hybrids. All of a sudden, the solution is not just one energy source but a whole network. So your ability to understand the network creates lots of business models and possibilities. As an energy leader, you have to figure out which model you can win with and why. For instance, if you are focusing on transportation, you need to understand that biofuels will play a role and that electricity and hydrogen may be competitors.

Companies will go in all different directions so it is important to think through the elements of the strategic cycle. You should try to think about it logically and consider a strategic assessment. What change is happening around me? What does that look like? What opportunities has it thrown off? What skills do I have? What is my competency? What are other people's competencies? What are the trends? Once I understand those things, I have to set the direction of the company. And to do that I have to figure out exactly what business I am in. If a company says it is basically a petroleum and chemical company, you would not expect them to get heavily into renewables. On the other hand, some companies call themselves energy companies. And if you are an energy company, you may be involved in a lot of things.

You must be able to respond to the whole network. Is that really where you want to be? If it is, then what are the arbitrages and the different interfaces and the opportunities? So that ultimately is going to give you your strategy. Then you have to get people committed to it. You have to deploy your resources in the most effective way, and you have to understand your shareholders.

All of that implementation comes through leadership. Whenever you are in a period of change, the one thing you cannot do too much of is communicate. So you really have to be out there conveying to all of your stakeholders your purpose, the values that you are operating under, and how decisions are going to be made in this new world.

Are the challenges different for larger companies?

If you are a big company, you are probably global. So you must ask, How are you going to be attractive in different countries? What does that look like? What are the cultural implications? These questions do not have simple answers. And the higher the oil price, the more you are probably going to get involved in nontraditional resources. You are going to have to be more oriented toward technologically challenging resources.

International oil companies (IOCs) have always deployed a solution model as their business model.

That means they have said, I have the money, I have the management, I have the people resources with the skills, and I have the technology and I can bring you a whole package. So I can come into your country, turnkey, and you get the royalties. For a developing country, this was magic, particularly when the oil price was not very high. It was a very efficient way to do things. But with oil prices at USD 120/bbl and the market place having evolved, it is not just IOCs around, but service companies and sometimes national oil companies (NOCs) that can provide similar skill sets.

So if you think you are going to be an IOC like you were in the last century, that is not likely. You are going to have to differentiate yourselves from other types of companies. You could say, If demand is doubling by 2050 and prices are going to be high, where might I make more money? I would rather be in a high-priced world. So if you start expanding your mindset and assess where the needs are going to be and start to focus on the consumable energy side, you are going to find lots of opportunities. You are not going to have excess money around, giving it back to your shareholders, and saying that you cannot find any opportunities to spend money.

Do the large operators need to reinvent themselves?

I would be surprised if you find too many IOCs looking like they did in the last century. Every organization goes through a tremendous amount of change over time. There are two things that are happening now. The lifespans of organizations are shortening and the cycle time on things—even though this is a long-cycle industry—are starting to shorten as well. Everything is starting to speed up and people are just going to have to get used to a different pace. When I went through Shell it was very rigorous—you had to do this job and then you had to do that job and then develop these skill sets—and it was all plotted out what your career ought to look like. But no one has time for that today.

How well are IOCs managing the current demographic shift?

Some would say there is not a problem, but that is a little like looking at the price of crude. You could say, everything is OK, but when the price of crude is USD 130/bbl, people are going to react. And when you are paying USD 90,000 for a starting petroleum engineer, you know the industry has some issues. That has to be telling you something about the resource base.

The industry was very efficient in the 1990s. The US oil and gas industry, for instance, went from a little more than 800,000 people to about 300,000 people from 1982 to the early 2000s. That was one of the biggest “crew changes” that any industry has gone through, probably the biggest. It was caused by consolidations and cost cutting and the rise of information technology. It was like a game of musical chairs in those days—the music played and when it stopped, there was one less

chair. Now, they are playing the music and when it stops there is a new chair available. Why are there new chairs? Because there are new projects and new opportunities and companies have things that they can go do at these price levels. When you look at the average age in the industry and the estimates that, in just a few years, half of the workforce may retire, you have to be thinking about what the industry may look like in the future. And what looked true yesterday may not be true in the future. A few years ago, I may have said that my company needs to be active in Venezuela but now I may not have access to that country. So companies will need a much more options-oriented resource model than in the past.

What are the most successful NOCs doing right?

Many NOCs are actually becoming what I call international national oil companies, or INOCs. They are expanding beyond their own borders, companies such as Petrobras and Statoil, and are showing the skill and adeptness of IOCs.

Some of the real successes have been companies that have focused on a particular niche and decided that their business model is to focus on one thing and do it very well, such as Petrobras in deep water. The companies that get challenged are the ones that are in some kind of in-between state—they don't have a big or broad enough model to carry out the big game but they are not so focused that they do well at a small game and they are just in this sort of unsettled territory.

Beyond just NOCs, there are going to be a multitude of models that are going to be winnable models in the future. What is going to win is leadership insight about understanding core competencies—something that gives you an advantage—and how to deliver that.

You interviewed numerous chief executive officers (CEOs) for your book. How are they—or are they—planning for the apparent transition from a hydrocarbon-based global economy to one that relies more on alternative energy sources?

I do not think that is the issue. Hydrocarbons are going to play a huge role. The issue is that one needs to focus on the total portfolio. Hydrocarbons and conventional energy sources are going to require broader thinking to satisfy societal needs, including carbon issues. So you are really dealing with a bigger, broader portfolio and what is driving that broader portfolio is price. It is not a question of whether oil is going to be around, it is a question of at what price. Everybody talks about natural gas being wonderful, but at a certain price, there are alternatives. Price is going to drive business opportunities. There is research going on like you have never seen before because companies know that there will be huge economic incentives available.

From an IOC perspective, I would be very surprised if some companies do not get more engaged in the whole chain, power included. When energy was cheap,

you could have regulated power and you did not need the market innovations and the business enterprise. But when you get prices like you have today, consumers start challenging things and want to know if they can get things cheaper or reduce the uncertainty, and that creates business opportunities.

Do successful leaders in the energy industry share common traits?

What strikes me most is I think there is a lot of character in the really good leaders, and included in that is a deep sense of responsibility to their people and to the public at large and to their shareholders. There is a general lack of understanding in the public of the sophistication of these leaders. You find when you talk with these folks that there are some very talented, thoughtful people running the energy industry and it gives you some comfort that they have the skills sets they do.

In addition to the integrity and the capability, you also have some people who are very insightful about what to do next. If you look at the period from 1985 to 2002, for example, the winner of the game was Exxon because it really knew operational excellence and efficiency and cost optimization. Looking to the future, the real strong leaders will recognize when it is time to change and do something different and will have a long-term vision that is ahead of the game. This is a risky industry in terms of exploring for oil but it is often risk-averse when it comes to management. But we are entering into a period where leaders are going to have to be more flexible and more insightful.

You talk about leaders learning from the past to develop foresight for the future. Looking back at the last couple of decades in the industry, what are the most instructive lessons?

Even though the future is not going to be anything like a duplicate of the past, you need some sort of map to help you on the way. So any semblance of the past can be instructive. One thing you do not want to do is say that the future is going to be the past. On the other hand, if you can kind of raise yourself up a little and look not at the details but the broader implications of what has happened, it is much more instructive.

There have been transitions in the industry before so it is not as if we are entering a new energy phase for the very first time. The industry has been through a series of energy phases and every time that happens, there is a lot of industry change; a lot of consolidation and acquisitions and new companies evolving.

One big lesson is that it is guaranteed that when prices go way up, the consumer is going to be agitated and you will have legislators all over you and you are going to enter a period that, if you are not well-prepared, is going to cause you to backpedal quite a bit, which may be what is happening now. The intertwining of national security and energy security will always be

there so these are not things that are new.

Why has the oil industry done a poor job of communicating its importance and its high technical expertise to the public?

That is an important aspect—how to deal with the public at large. If you look at a model called Maslow’s hierarchy of needs, energy itself satisfies lower-level needs, such as survival, security, and safety, which could be translated into jobs and standard of living. That is what energy provides. Higher up is the need for belonging and communication and energy provides that, too, through transportation, energy for the internet, and other things. The next level is the ego level and energy does not do much for the “me generation.” And most people in the Western world are at that level. So when the price of energy is cheap, you do not think much of it, but when the price goes way up and you are forced to drop down to a lower need level, you get very angry and frustrated. That is what is happening today.

The industry has been very naïve in dealing with the public, partly because it has been largely on the wholesale side rather than the retail side. It feels it is much more in the background. Oil industry leaders are never out front talking to the public unless there is a problem, whether it is an oil spill or high prices or some sort of major issue. If the only time the public sees you is when there is a problem, what are they going to think about you? You are going to have one huge negative reputation. The industry never gets out and has a dialogue or conversation with the public unless and until something bad happens.

But industry leaders need to develop a value bank. They need to treat the public as equals—that is what the ego generation expects. You do not talk down to them or just explain things to them, you have to have a conversation. A leader in the energy industry can no longer say, I am technically competent and know how things work. That is not going to solve the problem. You have to be understandable, and empathetic, and sympathetic, and by doing that in advance of a problem, you build up some credit. The industry has relied too much on politics and not the public. It is going to have to establish a relationship with the public in whatever formats that are effective and there are new technologies available now and new ways of communicating. Some companies have gotten smarter and are doing these things but it has to be part of your strategy.

I have a lot of friends who run energy companies who are involved with the Boy Scouts and many themselves were Eagle scouts. The mentality of that is that you do good things and don’t go bragging about yourself. This is an industry that has thought that if it did good things, the public would recognize that. Well, that is naïve because this is a world about sound bites and snapshots and all of that. The public does not know about the good things the industry has done. The industry in general is very dedicated and is a great industry. But you cannot keep it to yourself, you have to get engaged with people. ❖