

Ministry of Energy and Energy Affairs

Trinidad and Tobago Energy Conference

2013 Ryder Scott Gas Reserve Audit

Friday, August 29th 2014

HYATT Regency Trinidad, Regency V

**Feature address: Sen. The Hon. Kevin Ramnarine, Minister of Energy and
Energy Affairs**

The Minister of Energy and Energy Affairs (Mr. Kevin Ramnarine): Thank you very much Francesca. Good morning everybody; Permanent Secretary, Mr. Selwyn Lashley; Chief Technical Officer; Mr. Richard Jeremie; distinguished ladies and gentlemen; Chairmen of State Boards; Presidents of Oil and Gas Companies; members of the Financial and Banking fraternity who are here, good morning.

First of all, you may be wondering why it is we are starting at 9:30 a.m. I want to apologize for that. I thought that we may have had a sitting of Parliament this morning, starting at 11:00 a.m., so that's why we had this function a bit early, which would have allowed me to speak, and then go to Parliament, but we finished that debate very late last night. There's no more sitting of Parliament until, I think, the Budget is read, eight or nine days from now. So this morning I actually don't have a crystallized prepared text, so I will be speaking a bit from the slides and speaking a bit to what Herman has said.

First of all, of course, we know Ryder Scott. Ryder Scott, as I told Herman last year, is a household name in Trinidad and Tobago. It's one of the world's most prestigious petroleum consultancies. And they have been doing, as the PS mentioned, our audit of the non-associated natural gas reserves of this country since 2011, with the exception, I think, of one year, 2005.

The Company comes to Trinidad in the first quarter of every year, and they work with our staff at the Ministry to complete this audit. There is a process of course. The results have to be approved by the Cabinet of Trinidad and Tobago, and usually around July or August we present these findings. So it's an annual ritual, as I told Herman, every year, on the energy calendar.

The primary objective of these audits is to prepare a certified statement of the country's non-associated natural gas reserves in four categories: the proven category, the probable category, the possible category, and, of course, the exploration resources. That may sound like something you've heard many times before, because many of you in this room are familiar with this industry. But we are speaking to the public of Trinidad and Tobago, and we are going live on the Internet actually, and many people are looking at what we are saying here on Facebook.

So it's important that the public understand that there are four categories of reserves: proven, probable, possible and exploration resources. And Ryder Scott operates using the standards that have been put out by the Society of Petroleum Engineers, the World Petroleum Council, the AAPG, which is the American Association of Petroleum Geologists, and the Society of Evaluation Engineers.

So I'll just have a look at the numbers. [*Gesticulates to the PowerPoint presentation*] This waterfall chart—and that's what that type of chart is called, a waterfall chart—shows the movement in proven reserves from the year 2002 to the year 2013. And it shows that, by and large, every year that we've had a downward revision of the proven reserves, as a consequence of the country not being able to replace the gas that has been produced. For the years 2011—as you would see on the slide there—[*Gesticulates to the PowerPoint presentation*]*—the year's 2011 and 2012, the incremental downward movement has been relatively small—0.203 and 0.151—and this year, of course, we've had a downward revision of 7 per cent, or 0.866. And this is what that actually looks like. We have used 1.45 trillion cubic feet of natural gas and we have replaced approximately 0.58 TCF of natural gas. So the net effect is a downward movement of 0.87 trillion cubic feet of natural gas. And, of course, as Herman mentioned, there are other categories of reserves and there are, of course, exploration resources. And this is simply a graph showing the 2p number, and how that number has moved.*

I think one of the good pieces of information coming out this morning is the exploration resources, for which there has been an increase of over eight TCF of gas in the exploration resources category. And that is primarily because of the consideration given by Ryder Scott to the Blocks 2, NCMA 2, NCMA 3 and Block 4(b), all of which were signed in and around 2011. So consideration has now been given to those blocks in the Ryder Scott audit.

Consideration has not yet been given to the deepwater blocks. And they are what I call seven—there are seven deepwater production sharing contracts right now, and there are two more that will be signed before the end of the year. And the collective—the Ministry estimates that for those nine blocks, that's the seven plus two, the natural gas potential in those nine blocks range

from 9.6 trillion cubic feet of natural gas to 30.8 trillion—30.8 TCF, or trillion cubic feet of natural gas in those nine deepwater blocks. So that potential has not yet crept in to the Ryder Scott numbers. And that's the point I want to make.

Another major point to make about the year 2013, is that we've had one contractor defer a number of exploration wells, which were part of the contractual obligation, and they are still part of the contractual obligation of that contractor. But the wells that were supposed to have been drilled in 2013, have now been deferred into 2014 and 2015. One well, in particular, was of great interest to the Ministry. And that is a well that would have been drilled in MCA 2. And we look forward to the drilling of that well, by that contractor.

So looking forward, I will also mention in speaking to Mr. Christie this morning and in speaking to Richard Jeremie, the OBC's seismic results of BP's OBC's seismic—that's the ocean bottom cable seismic—have not yet been fully processed. The data has been acquired, and they are in the process of processing that seismic data. So what Ryder Scott would have seen in 2013 would not have been the final picture of that OBC's seismic; in addition to which there was a second phase of that OBC's seismic to be conducted by BP. So there is more information to be had with regard to BP's, what we call, the yellow acreage for Ryder Scott.

In terms again of development activity, you would know that BP has now completed its drilling activity on the Savonette Field using the Rowan EXL II rig. And the company has recently announced the Juniper project which has received sanction from the board of BP. And with the permission of Norm—I didn't ask him for this permission—but with the permission of Norm, I would announce that BP is expecting to sign their contract with Technip next week in Trinidad and Tobago. And that's a very positive development for the country, because it means that for the first time since 2011, there would be a platform being fabricated in La Brea. We expect work to commence on that platform in 2014, in the fourth quarter. And that is a very positive development for the country.

And there is, coming out of that OBC's seismic, possible conveyor belt of developments in what we call the yellow acreage moving forward. So that's positive news coming out of the country's largest taxpayer, and the country's largest investor.

The second major gas producer in the country BG, as you know, they are in the process of finalizing or bringing to an end the Starfish development programme, which is a three-well programme being drilled in their Starfish field. And we expect first gas from Starfish by November, 2014, at a plateau rate of about 220 million standard cubic feet of natural gas per day.

And, of course, the third largest natural gas supplier in the country EOG Resources; their future plan includes the Oilbird development programme, which will continue to provide natural gas to their domestic customers, and the EOG supplies gas almost exclusively to domestic customers.

And the fourth largest natural gas supplier in the country, BHP Billiton, will expect to start work, I think, in 2015, on the Angostura Phase III development which is another gas development.

One of the important points I want to make about the Ryder Scott audit is that one of the limiting factors of booking natural gas reserves, as I would know, is contractual obligation. So if a Company, for example, has a contract that ends at a certain time, you can only book reserves up to that point. So our reserves are circumscribed by contracts. So as contracts get extended—and there are major contracts that would be expiring in 2015 and 2018—you will expect more natural gas to be booked, and therefore, that will impact positively on the Ryder Scott numbers.

Looking a bit at investment. [*Gesticulates to the PowerPoint presentation*] And this is a graph showing foreign direct investment for the country and not just the energy sector. The very large bar you see there in the year 2008 represents an anomaly in that graph which was the year that RBC acquired RBTT. But, by and large, the last three bars there in 2011 to 2013 demonstrates a resurgence in investments in the upstream side of the energy sector, and those three years are collectively around \$5.3 billion; that's 2011 to 2013.

The preceding three years, which is the years 2008 to 2010 for energy—and this graph is not only for energy—was approximately \$1.7 billion. So that means that we've had a threefold increase in FTI, energy-related FTI, in the last three years. And data collected by the Ministry

indicates that we expect that trend to continue into the future with BP spending around US \$1 billion per year, and other companies making significant investments including BHP Billiton in the deepwater and Petrotrin in their Soldado acreage.

One of the things that the Ministry has also been pursuing is the procurement of a consultant for a gas master plan. I'm pleased to announce that the Central Tenders Board has completed the exercise and they have selected a preferred consultant and the Ministry will now enter into talks with that consultant. So I'm advised by the PS I can't yet reveal the name, least those talks don't go positively. I'm pretty sure they will. But out of an abundance of caution, I will not mention the name of the contractor, until we have finalized that agreement with the contractor—the consultant—but it is a company that is very well-known and very reputable.

And finally I want to talk a bit about drilling. This is a graph of rig days for the years 2001 to 2014. It shows, of course, a very sharp decline in drilling that took place between the years 2007 and 2011. And then it shows a very significant recovery in drilling that continues to this day.

At present we have eight rigs working in the country. And that sometimes sounds like that's a pretty good thing, but it could also mean a lot of disruption in the upstream. Because every time a rig has to move from one platform to another platform, a platform has to be shutdown. So that comes with good and bad. But I think it's more good than bad because it brings on more reserves into the future.

We expect that this year will surpass 2013—knock on wood—because weather is something you can't predict in terms of drilling activity. We expect too that BP will be bringing in a third rig to add to their two rigs: the Rowan EXL II and the West Jaya, currently drilling for them in 2015 to commence work on the Juniper development. So the rig count would even go above eight. We may have one rig leaving the country pretty soon having completed its work for Repsol, so the rig count may stay at eight, but drilling activity is very high. Drilling activity is used as a proxy by those agencies that measure economic growth and development in Trinidad and Tobago for activities in the services sector. That is the main metric used by the Central Bank and the CSO to

have an idea of growth in services. So, therefore, the feedback coming from the services sector should be that they are pretty busy right now given all the drilling activity that is taking place.

So to summarize the presentation, I want to thank Herman for coming into Trinidad and Tobago on very short notice. We are always grateful to have his very positive view on Trinidad and Tobago. He has done this not only for Trinidad, but for many countries. I would also say that no other country in the world to my knowledge does this exercise. Herman, and I'm subject to correction from you. But I don't know of any other country in the world that publicly presents its natural gas reserves on an annual basis. So it's something that we're very proud of and it's something we'll continue to do at the Ministry.

With regard to the future, there are a lot of activities planned in the upstream and in the shallow and average acreage around Trinidad and Tobago. Shortly we'll be finalizing three licences for land exploration. So exploration towards the end of the decade should begin to migrate resources into reserves and we should start to see a stabilization of numbers that we have for these audits. I would say that it was unfortunate that some of the wells that were supposed to have been drilled in 2013—exploration wells—were not drilled and were deferred. Had they been drilled, these numbers may have been different here today. But by and large, there's a lot of work that is coming in the near future. Those numbers should start to improve in the years to come. But in the energy sector things don't happen today for tomorrow, as we all know. It takes a number of years for things to have effect. So patience is always a virtue in the energy sector and things take time. Thank you very much.