Government of the Republic of Trinidad and Tobago
MINISTRY OF ENERGY AND ENERGY INDUSTRIES

SPEECH

THE HONOURABLE NICOLE OLIVIERRE

MINISTER OF ENERGY AND ENERGY INDUSTRIES

ENERGY CHAMBER'S 5th Annual Conference

Energy and Development

HYATT REGENCY, PORT OF SPAIN

January 18, 2016

SALUTATIONS

Mr. Vincent Pereira, Chairman of the Energy Chamber and President of BHP Billiton Trinidad and Tobago,,

Mr. Norman Christie, Regional President BP Trinidad and Tobago,

Dr. Thackwray Driver, President and CEO of the Energy Chamber of Trinidad and Tobago,

Cabinet Colleagues

Members of the Diplomatic Corps

Specially invited guests

Members of the Media

Ladies and Gentlemen

It is my pleasure to address this distinguished audience at this, the 5th International Energy Conference of the Energy Chamber of Trinidad and Tobago. This is one of the premier energy conferences in the Western Hemisphere, bringing together local and international companies to inform the Upstream, Midstream, Downstream and Services Sector, both within and outside of Trinidad and Tobago.

The Conference is invaluable to participants as it examines potential solutions to current challenges facing the energy industry, updates participants on key developments in the global oil and gas industry, and provides major networking opportunities. This event has had a positive impact on the energy business in Trinidad and Tobago and internationally.

The success of the Conference is no mean achievement and the Energy Chamber must be congratulated for establishing the Trinidad and Tobago Energy Conference as a premier event on the national calendar.

This year's event is set against a background of uncertainty and fundamental changes in the global oil and gas industry. This uncertainty is exacerbated by the myriad of issues facing the industry such as:

- The imbalance between the supply and demand for oil and natural gas;
- The shale revolution and the impact of unconventional sources of oil & gas;
- The growth of renewable sources of energy;
- The slowdown in global economic growth and resultant lowering of demand for oil and gas; and finally
- The long-term impact of decisions emanating from the climate change conference held in France in November 2015.

As a small producer of oil and gas, Trinidad and Tobago is a price taker, affected by global developments in the oil and gas industry. The current and projected low price scenario for oil and gas in the medium to long term has significant revenue implications for our nation.

Slide 2

Gross Domestic Product

The Energy Sector continues to be the main driver for economic development. Data shows that there is a direct relationship between natural gas utilization and per capita GDP. Over the past 10 years however, the energy sector's contribution to GDP has declined from 43% in 2006 to 32% in 2015.

The reduction in GDP is in keeping with the recent fall in production of both oil and gas, as well as the decline in the prices of these commodities.

An analysis of the contributions to GDP of the key components within the energy sector for 2015 showed that E&P activities account for 23% of GDP, with refining and petrochemicals accounting for 9% and 5% respectively.

Global Outlook

The overall performance of the sector over time is partially a function of both the price of these commodities in the global market and our own lack of success in optimizing local production. While prices are determined by global markets and the actions of large producers, production is within our control. The declining production needs to be addressed.

Slide 3

The short-term outlook for oil prices is not very positive. OPEC in its December 2015 Report indicated that oil prices are unlikely to return to triple-digit territory for some time with projected slow growth in prices over the next decade. OPEC predicts a slowdown in demand resulting from lower global economic growth, declining population rates and crucially, increased energy efficiency and climate change-related efforts to reduce the rate of consumption.

The situation is compounded by the current oversupply of oil, estimated by the EIA at one (1) million barrels of oil per day or one (1%) of world demand. Given the policies of Middle East oil producers and Russia, along with the emergence of the USA as a net oil exporter, prices are likely to remain at current levels in the short to medium term.

Similar to oil, the natural gas market is facing many challenges. There has been a pronounced downward revision of future natural gas price expectations which have been reinforced by falling oil prices. All available evidence suggest that the current oversupply of gas is more than just a temporary phenomenon.

Natural Gas demand growth projections are weakening at the same time that large committed volumes of new supply are ramping up. For example, the International Gas Union in its 2015 Report indicated that 130 million tonnes per annum of natural gas are due on stream this decade. Australia is set to become the world's largest exporter of natural gas with 58 million tonnes per annum by 2018, while the USA is forecast to add a further 44 million tonnes per annum in the same period.

In Q1, 2016 Cheniere Energy Inc. of the USA is scheduled to begin production at what will become the first terminal to export natural gas as LNG from America's shale formations. While the company is initially targeting the European and Asian Markets (with output from their first train fully booked) the possibility of the company eventually targeting markets in the Atlantic basin cannot be discounted. We therefore must recalibrate our LNG Business Model in Trinidad and Tobago with emphasis on reducing costs, increasing productivity and optimizing revenue to the country. This will require the accommodation and cooperation of all the stakeholders in the local LNG Value Chain.

slide 4

Marketing of LNG

With LNG accounting for 55% of our natural gas utilization, the state of the industry is of critical importance to Trinidad and Tobago. Over the past 10 years, our LNG export market has shifted from 72% of our LNG going to North America in 2006 to an estimated mere 16% in 2015. Our dominant market for LNG is now South America with an estimated 62% of exports as of 2015. Europe/Eurasia received 12% with 6% to the Middle East and 4% to the Asia/Pacific region.

The USA, once our former client, is now poised to become a major competitor and has already secured a market for LNG in one of our fellow CARICOM countries.

With many of our commercial pricing arrangements tied to a US destination, this country is realizing netbacks well below the actual market price applicable to the true destination of our cargoes. The only conclusion that can be drawn is that the contractual arrangements for the marketing of LNG are not now working in the best interest of Trinidad and Tobago.

I am therefore forced to enquire - What has happened to the previous arrangement where the upside was to be shared 50/50 between the LNG partners and the government of Trinidad & Tobago for cargo diversion? Is it that the LNG partners are now diverting cargoes to the South American market in a transfer pricing arrangement to avoid sharing the upside?

As a consequence, all existing LNG marketing agreements are to be reviewed and new negotiated agreements structured to ensure that the commercial arrangements are equitable. The 2018 expiration of the Train 1 LNG contracts is certainly an opportunity for us to begin to recalibrate the domestic LNG industry into one that brings greater benefit to the State. The State also has the option of entering into its own marketing arrangements for the Minister's share of gas under the existing Production Sharing Contracts. This is an option that the Ministry of Energy and Energy Industries intends to vigorously pursue along with the NGC.

Petrochemicals

When compared with the LNG Industry, revenue received from the petrochemical sector provides a better netback gas price. The available data for 2015 shows that the average netback gas price for petrochemicals is US$2.87 per mcf, compared to US$1.93 per mcf for LNG with current netback prices projected to be substantially lower.

In the short term, the outlook for methanol and ammonia indicates a continuation of the downward trend in prices. The methanol market remains negatively impacted by strong supply levels resulting from expansion of US domestic capacity, weak global demand and general softness in energy prices as a whole. Ammonia prices in the Black Sea and US Gulf fell by nearly $200/tonne in 2015 and short-term indications suggest that the downward trend in prices will continue in the short to medium term. As in the case of oil and natural gas, the advent of shale in the USA has changed the market dynamics for these commodities.

North America is a current net importer of methanol, but this is expected to change within the next 2 years, as new methanol capacity comes onstream between 2016 and 2018. Within the last year, Methanex successfully brought onstream two methanol plants, each with one million tonnes of capacity which were relocated from Chile to Louisiana. As a consequence Methanol production in the United States is projected to increase four-fold from its 2014 levels by 2017.

The situation with ammonia is not much different. Relatively cheap natural gas has fueled the construction of new ammonia plants in the US. These plants are expected to add 2.4 million metric tonnes of ammonia to the market by 2018.

The industry in Trinidad and Tobago has to prepare for a challenging future by improving its energy efficiency and productivity while ensuring greater value added and ensuring optimal returns to the state. We **must** optimize the utilization of the country’s natural gas resources.

Natural Gas Production/Utilization

Natural Gas Production continues to be less than the required 4.2 bcf per day, with production in 2015 averaging 3.8 billion cubic feet per day. Gas Curtailments, unfortunately, will continue to plague the downstream in 2016 as no major gas developments are scheduled to come on-stream during the year. By late 2017, Juniper is due to come on stream with a capacity to produce up to a maximum of 590 mmcf per day.

The other major development for the medium term is the Loran-Manatee cross-border field. In this regard, the Unitization and Unit Operating Agreement (UUOA) for the field is currently being finalized. On approval of the UUOA, the operator will be required to submit a Development Plan for the field within 90 days. This plan will provide an indication as to the projected date for first gas. We are actively pursuing the development of this field with all of the parties.

Pending the development of new gas fields, priority will have to be given to the most productive and financially rewarding utilization of our natural gas resources. Towards this end a new gas allocation policy is to be developed to treat with the current gas situation.

We need to review consumption of natural gas for electricity generation in light of our need to move towards greater energy efficiency. Emphasis will also need to be placed on creating greater value added through further downstream investment in the petrochemical sector.

For the medium to long term, the development of the domestic gas industry will be guided by the policies articulated in the Government's manifesto which has been approved as Government's policy and this will be supplemented by the recommendations within the Natural Gas Master Plan. The Natural Gas Master Plan has been reviewed and an action plan is being prepared for the implementation of the salient recommendations.

Slide 5

Upstream Work Programmes (2016)

In its 2014 report, Ryder Scott reiterated that Trinidad and Tobago needs to continue to encourage exploration as well as appraisal and development drilling so that resources can be moved from the categories of higher risk to the lowest risk proven reserves.

New oil decline rates are high. Unless deeper horizons are exploited or new fields discovered, the task of offsetting declining production becomes increasingly more difficult.

A review of the Work Programmes of energy companies indicate that a number of companies have deferred drilling activity to 2017. Several companies, including EOG Resources, bpTT and BHP Billiton have however stated their commitment to carrying out drilling programmes in 2016. You will be appraised of these programmes via the presentations from the respective companies. I will however state that we are all eagerly anticipating the commencement of BHP's deepwater exploration programme.

In the area of onshore oil production, the Ministry expects Petrotrin to take the lead in increasing production. Petrotrin is vitally important to the national interest and **Petrotrin will not, cannot and must not be allowed to fail**.

I have mandated the Board of Petrotrin to arrest the decline and aggressively pursue increased production.

In spite of budgetary constraints, Petrotrin is expected to drill 20 wells on its land acreage in addition to undertaking approximately 50 workovers. The company is also expected to drill three wells in its Trinmar acreage in the South West Soldado field. Additionally, from the Lease Operators, Farm-Out and IPSC programme, an additional 32 wells are scheduled to be drilled and an estimated 74 workovers.

In the short term we must seek to arrest the decline in our onshore production. Operators must look at innovative and proven ways to maximize production using low cost strategies and technologies. Greater co-operation between oil companies may be required in these times of low oil price to help minimize cost. Sharing data and technologies may be strategies that need to be adopted to optimize costs of drilling and production. We must also ensure that we are using all the means at our disposal to improve worker safety, drilling, completion and workover practices.

There is also the need to do more Enhanced Oil Recovery (EOR) studies in order to increase recoverable reserves percentages. The low cost environment should allow us to come up with innovative ways for Operators and the Services Sectors to work together for the benefit of all Stakeholders. We look forward to the support of all parties to be able to address this decline in production as a matter of urgency.

Activation of new acreage

In this regards, the Ministry notes with some concern that there are a number of blocks where the agreed Work Programmes have either been deferred or remain unfulfilled. In the current circumstance, this country can **ill** afford to have recoverable resources remaining in the ground. Therefore, wherever contractual arrangements permit, idle resources **will** be returned to the State and re-tendered for exploration and/or development purposes. To this end these blocks, subject to contract, will be reclaimed by the State for failure by the contractor to adhere to the stipulated obligations.

Additionally, it is our intention to work with the industry in formulating appropriate measures to optimize the production of hydrocarbons from prospective acreages on land and marine areas, which currently are not economical. In this regard, we will be appointing a fiscal review committee which will be mandated to elicit and evaluate proposals for further stimulation of development and exploration activity.

The Ministry is currently reviewing prospective blocks within the southern basin in Trinidad for offer in a competitive Onshore Bid Round. Further information on this will be available in due course.

Facilities Audit Update

In April you can look forward to the completion of the National Facilities Audit, which will provide information on the current state of mechanical integrity of energy–related facilities, with reference to established Asset Integrity Management (AIM) and HSE standards. Thirty companies (30) operating in the Upstream, Midstream and Downstream were selected to participate in the audit, with 23 having been completed thus far.

Following the audit, there will be consultation with the industry on the adoption of measures to ensure the mechanical integrity of existing facilities within our domestic energy sector. It is expected that the audit will provide recommendations to improve the regulation of asset integrity and HSE practices in the domestic energy sector.

Local content

Let me take the opportunity to update this conference on what is happening with local content. As you may recall, Government's policy on local content has been clearly and precisely articulated as follows:

- Facilitate and encourage the growth of locally owned energy sector companies through appropriate fiscal and monetary incentives and concessions:
- Maximize local content and local value added through appropriate guidelines and legislation:
- Ensure that the local private sector obtains a larger share of the activity generated by the energy sector.

Cabinet approval is being sought for the formal reconstitution of the Permanent Local Content Committee (PLCC). The committee will be constructed in much the same way as the previous committee however the key differences are that the Chairman will be independent of the Ministry and a dedicated secretariat will be provided to advance the work of the committee. It is anticipated that this approach will lead to greater efficiency in the operations of the committee.

Climate Change

The current environment of low oil and gas prices has slowed investment by energy companies and this has hampered growth in the industry. Trinidad and Tobago can ill afford any substantial reduction in activity in the energy sector, particularly at this time when there is need to shore up production and to unlock potential resources in our deepwater province. As a Government we are mindful of the economic challenges with which companies are faced and we are prepared to work with them towards mitigating these challenges.

One such challenge is the lowering of greenhouse gas emissions. At the **2015 United Nations Climate Change Conference**, COP 21, there was agreement by participating countries including Trinidad and Tobago, on reducing global warming. The main outcome was an agreement to set a goal of limiting global warming to less than 2 degrees Celsius (°C) compared to pre-industrial levels, with countries pursuing additional efforts to limit the temperature increase to 1.5 °**C.** The agreement calls for zero net anthropogenic greenhouse gas emissions to be reached during the second half of the 21st century.

Pursuant to that agreement, and in consultation with the relevant stakeholders, Government will be developing targets and a plan to lower the overall greenhouse gas emissions of Trinidad and Tobago.

To this end, consideration will be given to developing a policy on transportation fuels to reduced greenhouse gas emissions from the transportation sector.

Energy from Renewable Resources

In keeping with its commitment to the environment and to the promotion of renewable resources to increase energy security and reduce our dependence on fossil fuels, Government has set a target of 10% of electricity generation by renewable resources by 2021. This equates to 177 megawatts of generation capacity. To facilitate this objective, the Ministry is seeking access to funding from the Green Fund to finance studies on Waste to Energy and on the country's wind resources. The results of these studies will inform the next steps that we take in this initiative.

Conclusion

In closing I wish to state that the importance of the energy sector to Trinidad and Tobago's economic development is undeniable. Transfers from this sector have been instrumental in facilitating the development of other sectors of the economy however the current global energy crisis has exposed our over dependence on this sector.

Our oil and gas sector is an integral part of the global marketplace and as such, it is not immune to the global downturn in the industry. Decisions made by global corporations have had knock-on effects on our economy. These effects include the deferral of projects and reduction in budgeted work programmes. Companies have made radical downward adjustments to operations to ensure sustainability. Unfortunately, in some cases, these adjustments include a reduction in labour force.

We need to ensure that the workforce from those companies are absorbed elsewhere. We must assure that our social safety net catches those unable to gain employment elsewhere. That said, the Ministry's mandate as custodian of the sector means that we will continue to engage companies to find creative solutions to mitigating the impact of the downturn in the sector. Where possible, these will ensure the continuation of operating activity and the retention of jobs.

While, to some extent, we will always remain an oil and gas economy, given the cyclical boom-and-bust nature of the energy sector and the hard lessons we relearn every downward cycle, it is imperative that **as a matter of urgency** we explore options for the restructuring of the economy.

This current downturn has brought us at a crossroad of our economic development and brings into fore the question of diversification and the delinking of energy from other sectors of the economy. We must however recognize that economic diversification is a process that (for Trinidad and Tobago) takes a generation to show its results. Our move towards natural gas began in the 1970s and only achieved success in the 1990s. Any economic diversification effort that is adopted today will only show its initial results after a decade at the earliest. So we must keep that in mind.

I wish to thank the Energy Chamber for the opportunity to address this esteemed audience and as a government we look forward to the support of the entire national community as we navigate this current economic turbulence and sail towards a diversified economy.

I thank you.