



**Government of the Republic of Trinidad and Tobago**

**FEATURE ADDRESS**

**BY**

**DR. THE HONOURABLE KEITH ROWLEY**

**PRIME MINISTER OF TRINIDAD AND TOBAGO**

**AT**

**TRINIDAD AND TOBAGO ENERGY CHAMBER'S**

**ENERGY CONFERENCE**

**ON**

**June 7<sup>th</sup> 2021**

## **Salutations:**

His Excellency Chandrikapersad Santokhi, President of Suriname

His Excellency President, Irfan Ali, President of Guyana

The Most Honourable Andrew Holness, Prime Minister of Jamaica;

The Honourable Stuart Young, Minister of Energy and Energy Industries and Minister in the Office of the Prime Minister;

Mr. Dwight Mahabir, Chairman of the Energy Chamber;

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

Executives of energy companies and industry leaders;

Specially invited guests;

Ladies and gentlemen,

Good morning.

I am once again honoured to deliver the feature address at the Trinidad and Tobago Energy Chamber's annual Energy Conference. I must express my congratulations to the Energy Chamber for adapting to the current situation so well over the past year, and for persevering to bring us all together for yet another year of healthy discourse on the energy sector, in a safe way. Allow me to extend a warm and special welcome to my CARICOM colleagues, the Honourable Andrew Holness, Prime Minister of Jamaica and President Irfan Ali of Guyana, as we discuss the Caribbean's energy transition.

This conference is a hallmark event for the energy sector and I am sure that the late Minister of Energy and Energy Industries, the Honourable Franklin Khan, would have been impressed by the calibre of speakers and panellists that have been assembled for this year's event. Minister Khan was a true patriot and champion of the energy sector, who has left an indelible mark on our energy landscape, and on many of the people who work within the industry. There is no better way of honouring his memory than by continuing to work towards a brighter future for the energy sector.

Allow me to take this opportunity now to welcome Minister Khan's successor, the Honourable Stuart Young, to this prestigious conference in his new capacity as the Minister of Energy and Energy Industries. As many of you may well be aware, Minister Young, who as is expected, has hit the ground running to ensure that the energy sector continues to function in this critical time. He is no stranger to the energy industry, having been deeply involved in high level energy matters and negotiations for several years

now, alongside the late Minister Khan and myself. I have every confidence that Minister Young will discharge his duty with the utmost diligence and urgency, and I wish him the best as he takes the helm of our energy sector.

Ladies and gentlemen, the year 2020 has been an unprecedented one, which has set us on a completely different path than anyone could have expected, in many aspects including in the energy sector. The year 2020 was characterized by two unforgettable events, namely the COVID-19 pandemic and the historic collapse of energy prices. At this time last year, we would have hoped that the dust would have settled by now, but that was not to be. While oil prices have since recovered, I don't think that I need to labour on reminding anyone here of the current status of the pandemic.

The International Energy Agency's World Energy Outlook 2020 noted that, with respect to the energy transition, it was too soon to say whether the pandemic represents a setback for the efforts to bring about a sustainable energy future, or whether it would catalyse the energy transition. While we have seen many international energy companies and jurisdictions such as the EU announce ambitious energy transition plans and targets, the IEA World Energy Outlook also notes that, with the pandemic still ongoing, many uncertainties remain and there are crucial energy policy decisions to be made yet. For some countries, like ours, the focus is to be on economic recovery, and the economic slowdown resulting from the pandemic has caught us making our first significant, deliberate steps towards clean energy. On another hand, the pandemic may have allowed some countries to accelerate the transition during a time when demand for fossil fuels fell dramatically, and presented an opportunity for energy

transition incentives. For example, the EU dedicated €225 billion of its pandemic recovery fund to the energy transition.

Key questions include how long the pandemic will last, the shape that recovery will take, especially in light of the varied pace of vaccination rollouts, and the extent to which energy and sustainability policies are built into government strategies to restart their economies. These remaining questions have significantly increased the range of pathways that the local and global energy sector could follow.

Despite these uncertainties, some things remain relatively unchanged. The energy transition is one of them, driven by technological advances, stakeholder pressure, changing regulatory environments, and increasing focus on Environmental, Social and Governance (ESG) issues. While the pace of the transition may vary for different countries and organizations, the fact is that it is happening. However, it is important to note that there is no “one size fits all” solution. The strategy for each region and each country would vary, as each country is at a different starting point, depending on the available resources and the practices currently in place.

For example, across the Caribbean, the sources of energy vary widely by country. Many Caribbean countries are still reliant on imported oil to support their primary energy demand. Trinidad and Tobago has been using natural gas for power generation since the 1950s, and has begun the process of including renewables in the energy mix. By contrast, there are countries within the Caribbean that are still utilizing coal—fired power generation, such as the 752MW Punta Catalina plant in the Dominican Republic, which became fully operational in 2020 and represents

a third of the country's energy demand. So, you can clearly see the contrast in the abilities of different countries to meet their energy demand.

For the Government of Trinidad and Tobago, one of the underpinnings of any transition strategy that we adopt is that we must be able to continue to provide stability for the citizens of the country, both in terms of the supply of energy, and revenue to the country. The past year has underscored the importance of a secure and reliable supply of electricity throughout the country as large sections of the population worked and studied remotely.

In terms of revenue, the Government has a responsibility to the citizens to ensure that the country has a steady stream of revenue so that we can continue to meet their needs and to provide for those who need it the most, and so that we are well-positioned to provide economic stability in times of crisis, as we have been doing over the past year.

One of the ways through which we currently earn a steady stream of revenue is through the maximization of our natural energy resources. As is to be expected Trinidad and Tobago still has considerable resources in the ground to be utilized, and it is imperative that we continue to develop these resources or face their sterilization.

The Year End 2018 Oil Audit put our Proved Oil Reserves at just over 220 million barrels, and Unrisked Prospective Resources at 3.2 billion barrels. Similarly, the Year End 2019 Ryder Scott Gas Audit indicates that our P1 + C1 Resources, formerly known as Proven Resources, stands at 10.7 trillion cubic feet. While oil may

be up against a clock with less time on it, there is still significant potential for natural gas.

As transition strategies begin to take shape around the world, it is becoming more and more evident that natural gas has an instrumental role to play in helping countries and organizations achieve their ambitious transition targets, and for the world as a whole to achieve our sustainable development goals using clean energy.

According to the Gas Exporting Countries Forum (GECF) Global Gas Outlook to 2050, energy demand is expected to grow by 24% by 2050. Natural gas is expected to be the only hydrocarbon resource to increase its share of the global energy mix, increasing from 23% to 28% in 2050.

The GECF Global Gas Outlook projects that natural gas demand is projected to rise by 50%, from 3,950 billion cubic metres in 2019, to 5,920 billion cubic metres in 2050. Demand for natural gas is expected to be boosted by cumulative economic and population drivers, environmental concerns, positive policy support in many countries, and increasing availability of supply.

Significant demand growth is expected in the Asia-Pacific region, as a result of coal to gas switching to comply with stricter regulations on emissions and air quality, as well as low natural gas prices and improved gas turbine technology. It is estimated that switching from coal to natural gas reduces carbon dioxide emissions by roughly 40% for each unit of energy output. The emergence of shorter-term LNG contracts, with more flexibility to divert cargoes to alternative destinations and the inclusion of smaller buyers have also helped to reduce some of the formerly

perceived risks that would have previously deterred countries in the Asian region from relying on LNG.

In the coming years, the International Gas Union expects that natural gas will continue to play central roles in global energy supply and de-carbonization. This is due to its many favourable attributes, which include versatility for heating and power and use as a chemical feedstock, price competitiveness, energy density, availability and clean burning properties.

In addition to its own environmental merits, natural gas is well suited to complement renewable energy, given its flexibility to ramp up or down as necessary to counteract the intermittency of renewable power sources. In a Carbon Mitigation Scenario developed by the GECF which assesses the future role of natural gas in reducing emissions, it is projected that there is the potential to mitigate emissions by 6.8 gigatons of CO<sub>2</sub> in 2050, with an increasing penetration of natural gas and renewables.

So, ladies and gentlemen, the natural gas produced in Trinidad and Tobago not only benefits the citizens of Trinidad and Tobago by providing energy and a source of income to the country but our natural gas, which reaches destinations as varied as Spain, Puerto Rico and Canada via LNG shipments, is already playing a role in the energy transition by providing clean energy to these countries, and will continue to do so in the coming years.

Returning to the Caribbean, many of the countries have already begun their transition to sustainable forms of energy, by incorporating renewables into their energy mix. We have seen Barbados and Jamaica set ambitious national targets for the utilization of renewable energy. Barbados is aiming for 100%



renewable energy by 2030, and Jamaica's target set at 50% by 2030. The collective targets of the CARICOM States set at 28% renewable energy penetration by 2022 and 47% by 2027.

There is an opportunity to increase the penetration of natural gas within the Caribbean, which will aid in providing a clean, secure supply of energy to Caribbean countries as they transition away from sources such as coal and heavy fuel oil. Historically, the challenges in bringing natural gas to these markets include the relatively small size of the markets and the need for the development of infrastructure for regasification, transportation and distribution. In a report entitled "Unveiling the Natural Gas Opportunity in the Caribbean", the Inter-American Development Bank identifies LNG delivery innovations in small-scale shipping and floating regasification units as avenues through which natural gas may be economically delivered to Caribbean countries with small markets.

Jamaica's Floating Storage and Regasification Terminal which is the first of its kind in the Caribbean is a promising sign, and proof that there is room for natural gas in the Caribbean energy markets. This represents an area in which regional cooperation can be increased and countries such as Trinidad and Tobago, Jamaica and Guyana can lead the energy transition by harnessing our expertise among ourselves, as well as sharing experiences and learnings with other Caribbean countries.

It is no secret that the Caribbean region, as a collection of Small Island Developing States, stands to be significantly impacted by the adverse effects of climate change. We have already witnessed some instances of these adverse effects, such as the devastation on Dominica by Hurricane Maria in 2017. Despite our

relatively minute contribution to global emissions, the Caribbean region has a vested interest in and support for global efforts to mitigate the effects of climate change, due to our vulnerability to the impacts of climate change.

Here in Trinidad and Tobago, even though we currently use the cleanest burning fossil fuel for our power generation, we are aware that there is room for improvement. One of these areas which is a near-term priority is the minimization of emissions all along the value chain, from production of natural gas to its consumption.

Our very own National Gas Company has embarked on a proactive campaign to reduce the carbon impact of its operations. Just last month the NGC announced that it has become a member of the United Nations Environmental Programme Oil and Gas Methane Partnership. The OGMP is a comprehensive, measurement-based methane reporting framework with standardized, rigorous and transparent emissions accounting practices. As a member of the Partnership, the NGC will voluntarily report transparently on its methane emissions, with an aim to reduce these emissions by utilizing global standards for methane emissions reporting, measurement and control.

The NGC has also taken other steps to track and reduce its methane emissions, by utilizing technology and leveraging collaborative partnerships. Thus far, some of the initiatives included the purchase of an infrared camera to detect fugitive emissions along pipelines and gas handling infrastructure. The NGC has also partnered with a service provider based in the Netherlands called Orbital Eye that will allow the company to use

satellite data and algorithms to measure GHG and methane emissions from its industrial offshore and onshore assets.

I must commend the NGC for taking such definitive and proactive steps that will allow the company to generate tangible data sets, which can then be used in generating data-driven solutions to achieve our climate change targets.

Initiatives such as these by the NGC and by other companies within the sector will become increasingly important if Trinidad and Tobago is to produce premium, differentiated products like “lower-carbon LNG”, where the process is made as clean as possible by reducing emissions along the LNG value chain, or offsetting the associated GHG emissions.

As carbon accounting becomes a reality and continues to grow in importance, we are finding ourselves in a position where low-carbon products are becoming the order of the day. We must therefore position ourselves, through a collaborative effort amongst all stakeholders along the natural gas value chain, to reduce the carbon intensity of the LNG that is produced locally.

Another area that appears to be a forerunner in many transition strategies across the world is the hydrogen economy. DNV, formerly known as DNVGL, forecasts that hydrogen, along with carbon capture and storage, will be catalysts for deep decarbonization in hard-to-abate sectors such as heavy industry. The Government is currently exploring the feasibility and regulatory aspects of a hydrogen economy in Trinidad and Tobago. The MEEI has established a Multidisciplinary Committee to develop a hydrogen economy framework for Trinidad and

Tobago and the Committee should be presenting its preliminary report for the consideration of the Minister in the very near future.

Additionally, the Government, through the MEEI and the Ministry of Planning and Development, has provided support to the National Energy Corporation in securing funding from the Inter-American Development Bank (IDB) for feasibility studies relating to hydrogen. The funding was secured under an IDB-executed non-reimbursable Technical Cooperation Promotion of the Green Hydrogen Market in Latin America and Caribbean (LAC) Countries. This cooperation will facilitate feasibility studies in 2021 that contribute to understanding the economical parameters of producing green hydrogen locally. The results will add to the work of National Energy and the MEEI to provide insight into hydrogen growth for the country.

As we meet here now new investments are being readied to use renewable energy electricity to run through state owned TTEC, to manufacture hydrogen, by a process of water electrolysis, to provide this product to ammonia plants in Pt Lisas. This major green investment has the potential generate significant tax revenues, temporary and permanent jobs as we green the economy.

Upon completion, this \$300 million USD will be the first green hydrogen project of its scale in the world. Not for the first time Trinidad and Tobago, in the energy sector is prepared to go where others have not gone before.

Carbon capture and storage represents another lucrative area and one of several keys to delivering on energy transition and climate change targets. According to the IEA, approximately

2,300 million tonnes per annum (Mtpa) of carbon dioxide must be reduced or captured by 2040 to meet a scenario where the global temperature rise is limited to 2 degrees Celsius. The current global storage capacity is 40 million tonnes per annum, according to the 2020 Global CCS Status Report published by the Global CCS Institute.

In the area of carbon capture and storage, the Ministry of Energy and Energy Industries in collaboration with the University of the West Indies, the University of Trinidad and Tobago and Heritage Petroleum Company Limited has been pursuing a project aimed at the management of carbon dioxide emissions. The aim of the project was to identify reservoirs with the potential for storage of carbon dioxide and for the stimulation of oil production.

For our petrochemicals, decarbonization of the production processes is a prospect to be explored, whether it is done using CCS, green hydrogen from renewable energy for the production of ammonia, or renewable power. According to a study by DNV, in addition to their traditional uses, these low or zero carbon petrochemicals are also being considered as future shipping fuels and methanol and ammonia appear to be prospective candidates for future deep-sea shipping. In fact, I believe later on in these proceedings we may hear from Proman's Shipping arm, which is already in the process of adding vessels with methanol-ready, dual-fuel engines to its fleet.

Ladies and gentlemen, as I conclude, allow me to remind you of some of the key points that I want you to take away today.

Firstly, the Government of Trinidad and Tobago remains committed to achieving the sustainability targets that we have set

for ourselves. We are acutely aware of our vulnerability as a Small Island Developing State, and the potential for adverse effects on our economy and our people if we fail to take the necessary steps. We hope to meet and exceed those targets, for the wellbeing of our citizens, both current and future generations.

Secondly, as we work towards achieving these targets and realizing our ambitions, a main tenet of any strategy that we adopt or measures that we take is that providing stability to our citizens is of paramount importance. While we will make every effort to secure a sustainable future for the generations that follow, it is a balancing act. Some behavioural change will be expected of the citizenry who will play their part by using energy more efficiently and adopting energy conservation practices.

As a Government, we will seek to implement our changes in a way that does not cause undue economic distress to our populace.

Thirdly, the Government of Trinidad and Tobago recognises the important role that natural gas has to play in the energy transition, in both a local and global context. We remain committed to the development and the maximization of the value of our natural resources, which will continue to provide a revenue stream to our country in the short to medium term. This revenue stream is critical, not only for the well-being of our citizens, but may also serve as a supplementary source of funding for some of the very projects required to meet our targets. Furthermore, our natural gas is partly enabling the energy transition by providing clean fuel for other countries, and there is an opportunity for natural gas to play a greater role in the Caribbean's energy transition.

Finally, the Government is cognizant that there is more to be done within the natural gas industry to reduce the associated emissions and to increase the sustainability of the industry. We will endeavour to work with all stakeholders, both public and private, to design the appropriate solutions for issues such as the decarbonization of our natural gas and the greater inclusion of renewables in our local energy mix. Any future inclusion of renewables must be well-timed to ensure that our citizens are not unduly burdened by the cost of excess generation capacity.

Ladies and gentlemen, in closing my address here today, I congratulate the Energy Chamber once more for its efforts in organizing and hosting this year's Energy Conference. I know that at the beginning of the year, there were hopes that this conference could have been held in person. While that turned out not to be the case, there is a silver lining in that the virtual means by which this year's conference is being hosted has allowed for great geographical diversity in the group of speakers and panellists that have been assembled. I extend my best wishes to all of you for an enlightening and productive conference.

Thank you very much, stay safe and may God bless you all.