Keynote Address

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4th Annual GECF Workshop on the Promotion of Natural Gas

Demand:

To cement the role of natural gas in a low-carbon future

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Your Excellencies,

It is a pleasure to participate in this 4th Annual Gas Exporting Countries Forum Workshop on the Promotion of Natural Gas Demand, a matter which is core to the economy of members of the GECF. I wish to congratulate His Excellency the Secretary General for his foresight in tabling for discussion the role of natural gas in a low carbon future.

However, before I delve into the subject matter let me provide some perspective on the importance of natural gas to the economy of Trinidad and Tobago. The upstream sector of the oil and gas industry of Trinidad and Tobago is dominated by natural gas. The industry produces approximately 600,000 barrels of oil equivalent per day with natural gas accounting for 90% of daily hydrocarbon production. Natural gas also dominates the country's industrial sector. Power generation is almost exclusively fueled by natural gas and it is the primary feedstock for our petrochemical and LNG industries.

The energy sector, through the monetization of oil and gas resources, currently contributes 30% of the country's gross domestic product and 80% of our foreign exchange earnings. Resource audits of our oil and gas sector have confirmed that we possess significant oil and gas resources. We are currently about to embark on a series of bid-rounds onshore, in shallow water and in deep-water in order to exploit these resources. We are optimistic of successful bid rounds given our track record as a proven and world class hydrocarbon province.

We are also buoyed by the improving climate in the global energy industry which has seen energy prices rebound to pre-COVID-19 pandemic levels. This is a testimony to the resilience of the global energy industry. The outlook for the industry by reputable publications and organizations is that fossil fuels will continue to be the

primary energy source for a considerable period. In the 2020 Edition of the GECF Global Gas Outlook to 2050, it is projected that fossil fuels will account for 71% of primary energy sources in 2050, with renewables accounting for 10% and the remainder being represented by nuclear, hydropower, and bioenergy. Other sources predict that renewables will continue to grow but the growth will be concentrated in the power sector, with natural gas running a close second followed by coal and nuclear. In the transportation sector oil is the dominant fuel. The limitation in the application of renewables is one of its shortcomings.

We are heartened by the positive outlook for the primary energy resources, particularly natural gas which is the fastest growing fossil fuel due to environmental concerns, air quality issues, coal-to-gas projects, economic development, and population growth. Natural gas is expected to be the only hydrocarbon resource to increase its share in the energy mix, growing from 23% in 2019 to 28% in 2050.

As a country Trinidad and Tobago recognizes the importance and the need to reduce greenhouse gas emissions. We have begun adopting measures to reduce such emissions as the world discusses transitioning to a carbon neutral planet. Decarbonization of existing energy systems is part of the active discussions which are taking place in our domestic energy sector.

Trinidad and Tobago, as a net exporter of oil and gas, is cognizant of the impact of greenhouses gases on the climate and as a Small Island Developing State, we are particularly vulnerable to the effects of climate change. As a result, we have taken a number of measures aimed at reducing our greenhouse gas emissions and we are committed to pursuing more initiatives. In the transportation sector, CNG has been actively promoted as it produces fewer harmful emissions than gasoline. We are also going to pursue and implement policies seeking to use more electric vehicles as

opposed to the traditional internal combustion engine vehicles. In the power generation sector, we have started the transition to green energy with the planned introduction of new capacity from solar energy and there are plans to utilize the excess power in the system to produce hydrogen by electrolysis.

However, as countries and corporations' trend to a carbon neutral world, the reality is that the increase in energy demand created by a growing global population and rising incomes cannot be met in the medium term by renewable technologies and energy efficiency. The key to the abatement of the negative impacts is the investment in low carbon technologies and the rebalancing of portfolios. The focus should be to look at greener and cleaner energy not the eradication of the use of natural gas.

It is estimated that the world population will increase from 7.7 billion people in 2021 to 9.7 billion people, an increase of 2 billion people, by 2050. Therefore, the supply of energy will need to increase to meet the growing world population. When you take into consideration the 759 million persons without electricity globally, it is an issue of concern. The population growth is primarily in developing countries in Oceania, Africa, Asia and Latin America. Population growth in the advanced economies level off while the increase in population is set to occur in the emerging and developing economies.

By region, the majority of energy demand is in Asia with the result that demand outstrips supply. In all other regions except Africa where supply and demand is in equilibrium, supply exceeds demand.

Given the supply and demand scenario, particularly in emerging/developing economies, it is clear that fossils will be relevant for a considerable period. As the fossil fuel with least harmful effect on the environment, natural gas is the appropriate energy source to meet the growing global energy demand. Natural gas is also hard

to replace. It is used in a variety of applications in the chemical and industrial sectors as feedstock and as fuel, in power generation and as a transportation fuel. The use of natural gas in petchems should not be underestimated, for example ammonia and methanol.

Post the COVID-19 pandemic, the Global GDP is expected to grow, with the majority of the growth in emerging and developing economies. The U.S. Energy Information Administration projects that world energy consumption will grow by nearly 50% between 2018 and 2050. Most of this growth comes from countries that are not in the Organization for Economic Cooperation and Development and this growth is focused in regions where strong economic growth is driving demand, particularly in Asia. The industrial sector, which includes refining, mining, manufacturing, agriculture, and construction, accounts for the largest share of energy consumption of any end-use sector—more than half of end-use energy consumption throughout the projection period. World industrial sector energy use increases by more than 30% by 2050 as consumption of goods increases and transportation energy consumption increases by nearly 40%. Rising incomes, urbanization, and increased access to electricity lead to a rising demand for energy.

There is not sufficient renewable energy capacity to fuel this growth in global GDP. For this reason fossil fuels will continue to be a major source of energy in 2050. The consumption of natural gas, which is the most resilient of the fossil fuels, is projected to increase by more than 40% by 2050.

There are also geographical and other reasons where some forms of renewable energy may not be practicable. Renewable energy resources vary across the globe. In the high altitude countries solar resources are scarce and wind resources are not evenly distributed across the globe.

Further, at high variable energy penetration rates, system integration costs related to power storage, output curtailment and grid extension rapidly increase. In the case of hydropower, seasonal conditions can negatively impact its power deliverability.

More importantly, the progress to a carbon neutral world has been slow as the developed countries have not met their commitments made at COP16 to mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries in the pursuit of renewable energy.

The ability by countries to implement climate change strategies has been negatively impacted COVID-19 pandemic which has been particularly severe on emerging markets and developing economies. The pandemic has also exacerbated the debt pressures on many low to middle-income countries. For these countries, the challenge of putting in place ambitious and sustainable recovery packages is daunting. The upfront cost of renewables as an energy source can be prohibitive. The alternative is a fossil fuel energy source which has the least greenhouse gas emissions.

Natural gas is the logical choice as it is a cleaner fuel and less harmful to the environment than coal, petrol or diesel as it has less carbon dioxide emissions. It can be easily stored and transferred through pipelines. It is relatively more abundant than other fossil fuels i.e. coal and petroleum. It is versatile with multiple applications as feedstock in industrial operations, as fuel in power generation and in transportation. It is more resilient as evidenced in 2020 where natural gas consumption declined less than the other fossils. It is for this reason most industry analysts have predicted an incremental growth path in the medium term for natural gas before it levels off by 2050.

For the multitude of reasons listed above, as well as its economic importance to the country, natural gas is important to Trinidad and Tobago, and will continue to be for the decades ahead as we navigate the energy transition. We firmly believe that the role of natural gas is a critical one, both for Trinidad and Tobago and the world as a whole, as we aim to ensure that growing energy demands are met in a clean and sustainable manner. I take this opportunity to reaffirm Trinidad and Tobago's commitment to the GECF and the continued co-operation with member countries in the promotion of natural gas in a low carbon future, to the benefit of our citizens.

I look forward to the rest of today's workshop and to hearing your ideas on the expansion of natural gas global demand across the spectrum of applications and to collaborative strategies to reduce carbon dioxide and other greenhouse gas emissions.

I thank you for your attention and assure you of our commitment.

Minister