Launch of the HESS Project at Gasparillo

Senator the Honourable Kevin C Ramnarine

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Islamic Home for Children

SALUTATIONS

The Ministry Of Energy (and Energy Affairs) is here to officially launch the completion of the installation of renewable energy technologies at this the Islamic Home for Children in Gasparillo. These technologies include a 2kW solar photovoltaic grid-tied grid integrated system and a wind turbine of similar capacity. This project is of great significance in that it has provided this home with the opportunity to reduce their energy bills by generating their own electricity with renewable energy technologies.

This is the first time that both PV (photovoltaic) panels and a wind turbine generating electricity have been tied into the grid – to the national grid. What this means is that we are able to use the Sun's energy and wind energy to produce electricity .Usually our electricity in Trinidad is of course is generated by burning Natural Gas but not in this instance.

From a practical point of view, what this means if for example, during the day the Home switched off all its lights, AC units and computers, then the electricity from the PV panels and wind turbine would actually move out from the Home and is used by other consumers in the area- that what is meant by being tied to the grid. So what this home is actually doing is generating power very much like a power generation facility in Trinidad and Tobago.

Ladies and Gentlemen, as we are all aware oil and natural gas represent a very significant portion of this country's wealth.

In Brazil in the early 1970s, that country took the decision to invest heavily in ethanol production for use in its vehicles. That decision spawned an entire industry and allowed Brazil to export their oil that would normally be consumed domestically. Today 40 years later, Brazil is a world leader in ethanol production and in the exploration and production of oil. That country can now use its ethanol domestically and export its massive reserves of oil. This leads to a virtuous economic cycle. We can achieve this here in Trinidad and Tobago through energy efficiency at home and the implementation of renewable energy technologies –like the one we are unveiling today.

As Minister of Energy and Energy Affairs, my main intention and indeed my priority since I entered office has been to increase oil production. What this has to do with renewable energy one might ask? Well twenty percent of the oil refined not far from here at Point-a-Pierre oil refinery is used domestically and what is not used domestically is exported and earns foreign exchange for this country. If

therefore, we use less at home we would have more to export and thus we earn more foreign exchange as a country. In addition, less than ten percent of our natural gas used on a daily basis is used to generate power. If we reduce that number through conservation and through the implementation of renewable energy technologies. We would have more gas to export or use in methanol and ammonia manufacture, thus again earning more foreign exchange. We are aware therefore of the need to align domestic energy policy with the needs of a world that is facing challenges of climate change, energy security and water security. In light of the severe consequences to the global climate, we must find ways to incorporate a diversity of energy sources in our national energy mix. Our Caricom colleagues out of necessity are looking for alternatives to burning oil for power generation. In Guyana, they are looking at harnessing massive hydroelectric potential in that country. In Jamaica there is the Wigton wind farm and in Barbados they have been using solar water heaters for many years. The threat of climate change is very real for all small island economies like those here in the Caribbean where our relatively small land masses with high climate exposure and limited capacity makes us particularly vulnerable to potential climate change events. In addition, renewable energy development provides an opportunity for the country to increase the diversification of its energy mix and with continued development, ultimately lead to the establishment of a new industry in Trinidad and Tobago. In fact, we have been already told that there are companies that are willing to set up business in Trinidad to manufacture “wind mills”(wind turbines), photovoltaic cells and so on.

Collaboration among all the key stakeholders is key to promoting plans and programmes and therefore a Renewable Energy Committee (REC) comprising all stakeholders was established to develop renewable energy policy and this Committee continues to play a key role in the local RE sector.

Local conditions dictate the types of RE sources that can contribute to the energy mix on a viable basis. In the current scenario, in Trinidad we are advised that wind technology is the most competitive for power generation for integration with the national power grid. I have however been told upon coming this afternoon that the solar technology in this building here has outperformed the wind technology, so it varies according to where you are in Trinidad. A target of 5% of existing peak demand (60MW) is considered a realistic and achievable target by 2022 (i.e. 5% coming from RE technologies). Opportunities are being created over the short-term to utilize readily implementable RE technologies for example solar water heaters and steps will be taken to facilitate the development of other technologies where feasible.

The inter-relationship between RE and energy efficiency cannot be ignored and therefore local RE development is being complemented by measures to increase energy efficiency and conservation. It's a statistical fact - though unfortunate that we are one of the most energy inefficient countries in the world. That must change. It's noteworthy too, that the most energy efficient countries in the world

are the world's richest countries and by that of course we mean the Scandinavian countries.

So what are we doing? Well first of all there is capacity building and awareness creation which is being promoted through facilitation of training and education programs. Secondly, standards are being developed and those standards will soon be published for solar water heaters and national electric code has been amended to include renewable energy. As we speak, the National Energy Corporation the NEC has been mandated to issue requests for proposals (RFPs) for installation of solar stills and indoor photovoltaic lighting for 25 schools as well external photovoltaic lighting for 15 community centers and in all this Tobago has not been left out. We have also included Tobago. Another RFP was recently issued for the conduct of a wind resource assessment program (warp) on the East coast of Trinidad with the view of establishing a wind farm for power generation in that area. Those of you who have been to the East coast know that the wind doesn't stop blowing in the east coast especially in the areas of Manzanilla to Mayaro. Recognizing that there is a need to sensitize the population on the role of energy in their daily lives as well as considering using energy efficiently and explain what RE means. We about to launch at the ministry a renewable energy and energy efficiency communication campaign using all various forms of media. Does the average citizen know that his electricity comes from a natural gas reservoir buried 8000 feet below the seafloor? I don't know if the population appreciates that. The

population needs to appreciative of the fact that we have here in Trinidad and Tobago a standard of living that is underwritten by the energy sector. When you buy a Doubles, that Doubles is cooked using LPG. That LPG is supplied by Petrotrin – these days by Phoenix Park and that LPG is 8 times lower than the international price. The main source of your LPG comes from across the road from the Point-a-Pierre refinery -one of the main organs in the economic anatomy in Trinidad and Tobago.

So we have a lot to be grateful for in Trinidad and Tobago with regards to the cheap price of energy. When you buy diesel, for example at the gas station. You pay $1.50 per liter (TT) for diesel .That translates to $1.00 (US) per gallon, which is way below the price of diesel in the US right now which is around $3.80 per gallon. So you are paying 4 times less for diesel in and eight times less for LPG. The electricity you enjoy at home also eight to ten times cheaper than what people in other Caribbean countries have to pay for it. This year alone the government has subsidized for the first 9 months of the year fuel is $3.2 billion (TT) and the government and the ministry of energy will be looking at different strategies to reduce that fuel subsidy including CNG in the near future. With regards to the thief of diesel (illegal bunkering), we have generated at the Ministry of Energy terms of reference for a committee to advise the minister of energy on implementation of the introduction of a dye to subsidized diesel. The committee would be required to report to the minister within one month after the date of appointment, that date being Monday.

I am very proud to announce (as minister of energy) for the first time in the history of the country, there are ongoing training programmes held in collaboration with the Ministry of Education, where just on Monday we have commenced intensive training of over 100 teachers in Trinidad and Tobago to deliver specialized lessons in Renewable Energy and Energy Efficiency. This is indeed a clear commitment of this Government to introduce RE and energy efficiency in the education curriculum. At the community level the plan is to introduce the technologies in community centers which are considered strategic venues for engaging the population.

In addition, there is ongoing dialogue between Trinidad and Tobago (MEEA) and the United States Department of Energy (DOE) to establish a regional Renewable Energy Research Centre in Trinidad and Tobago. I have received a draft MOU signed by Dr. Stephen Chu, the Secretary of Energy of US in that regard.

We have recently gained the consultancy services of an IDB appointed specialist in the fields of Renewable Energy and Energy Efficiency who works closely with our officials and technocrats at the MEEA to develop a comprehensive programme for the implementation of RE and EE across the country.

These efforts would put Trinidad and Tobago as a world leader in the region and the world as regards to energy. We are already a leader in conventional energy. This year, we also have 5 citizens of Trinidad and Tobago being selected by the Government of India out of a possible 30 to attend the Indian Government's

prestigious ITEC training scheme and we now have 5 employees who have achieved certificate level studies in solar energy technologies at Solar Research Institute at Gurgaon, India. Mrs. Hankey is one of those five.

So ladies and gentlemen, in closing, I would wish to highlight the role of PowerGen played in building and commissioning this facility. I also wish to thank those persons who were directly involved, the Chairman of Powergen, Mr. Indarjit Singh and Mr. Ian Boone of DC Power systems who has been behind the solar and renewable energy thrust in Trinidad and Tobago for a very long time. I know him way back from my days at the Energy Chamber and Mr. Boone was the contractor on this project. We also like to recognize the role played by Petrotrin as mentioned by Chairman of the home, Imram in providing support for the refurbishment of the library. The role that Petrotrin plays in Trinidad and Tobago is sometimes not appreciated as it should be, but Petrotrin has a tremendous Corporate Social Responsibility heart and it sees Gasparillo as one of its fenceline communities and therefore of course it’s no surprise for me to hear the glowing contribution from the councilor as the role played by the company in Gasparillo.

So Ladies and Gentlemen, I thank you for your attention and I wish you all the best in the future. Thank you very much.