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A SHOCK TO THE SYSTEM

Investigating the Causes and Impacts of Soaring Electricity Prices in Trinidad &Tobago

Prepared by :
Dr Vaalmikki Arjoon, Senior Economist
Kiel Taklalsingh, Attorney at law

About the Authors

Dr Vaalmikki Arjoon

Dr Vaalmikki Arjoon is a lecturer at the University of the West Indies, where he currently lectures in Finance, Economics and Statistics at the Department of Management Studies. Prior to joining UWI, he lectured at the University of Nottingham in the UK and at their campus in China. He also received his PhD and MSc degrees in Financial Economics from the University of Nottingham.

Dr Arjoon currently serves on the council of the Institute of Banking and Finance of Trinidad and Tobago. He is also a member of several professional international bodies, including the Royal Economic Society, the Leverhulme Institute for Globalisation and Economic Policy, and the Western Economics Association. Much of his economic research is published in internationally respected peer-reviewed journals. He is currently the Vice President of the Chaguanas Industry Chamber of Commerce.

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Kiel Taklalsingh Attorney at Law

Kiel Taklalsingh is an experienced Attorney at Law who specialises in Public Law, Constitiutional Law, Employment Law and Commercial Law. Mr. Taklalsingh has appeared in matters ranging from Regulatory Tribunals to the Privy Council. He has appeared in several matters of constitutional importance and continues to represent litigants important public interest matters.

Mr. Taklalsingh is a public advocate for the preservation and promotion of the Rule of Law and has lectured, written and spoken publicy on matters which affect the Rule of Law. Pursuant to his belief in educating the public on their human and constitutional rights, Mr. Taklalsingh also hosts a television show (Section 1) where he discusses contemporary legal issues impacting on our Sovereign Democratic State.

Vision & Mission

This paper is submitted to the Regulatory Industries Commission pursuant to its request for written submissions. It is our hope that the opinions, observations, and recommendations expressed herein will be given mature consideration by the RIC in its deliberations.

Flipping the switch on public consultation

On December 22nd, 2022, the Minister of Public Utilities, as reported in the daily newspapers, made a public statement at a function held at the Trinidad and Tobago Electricity Commission (T&TEC) training facility in El Socorro that:

"By the end of the year, the Regulated Industries Commission has indicated to me that they will begin their public consultation on a draft determination for a rate review in Trinidad and Tobago and the purpose of that review is to ensure that the commission remains financially healthy so that it can provide the people of T&T but also meet the requisite quality of service standard as established by the RIC."

True to his words, the Regulated Industries Commission (RIC), which is intended to be an independent economic regulatory agency, on December 28th, 2022, publicly announced its draft determination for a rate review for electricity. On January 6th, 2023, the RIC published on its website its "Draft Determination" titled "Regulation of Electricity Transmission and Distribution 2023-2027". On the same day, the RIC issued a "Public Announcement" inviting comments on "the following document 'Draft Determination for the Electricity Transmission and Distribution Sector 2023-2027'".

Flawed Consultation Process

Firstly, it is trite and in any event a maxim of lawful consultations that sufficient and/or reasonable time should be afforded to affected parties to consider the material, which is the subject of the consultative process, in order to elicit intelligible responses. It should therefore be noted that the RIC has only provided a mere two-month period for responses to a document of approximately 300 pages, which is technical in nature, and would require research, technical advice, and mature consideration to provide a response.

Secondly, the RIC Act (Chapter 54:73) establishes the RIC as an independent collegiate regulatory agency comprising no less than five nor more than seven Commissioners "qualified by reason of training and extensive experience in economics, finance, engineering, law, business, human resource management or public administration". Further, the RIC Act empowers the RIC to exercise quasi-judicial power. It follows, therefore, that the Commissioners are the ones who exercise those powers under the Act and are the ones who should be present at every public consultation to lawfully engage with the public and participate in answering questions from the public.

Ultimately, the consultation process is not only about allowing people to gather and vent, but also a process which is imbibed with democratic spirit - it allows people to interact with the actual decision maker, as opposed to functionaries.

The presence of the Executive Director, with all due respect, answering questions on behalf of Commissioners begs the question as to the understanding by Commissioners of their role and function in this process. The Executive Director, who is appointed under Section 15 of the RIC Act, is required to simply manage the affairs and to guide the work of the Commission. This, to my mind renders the consultation process flawed.

Rates - A Brief History

The last rate review exercise was held in 2006. Prior to 2006, the Public Utilities Commission (PUC) used a rate of return pricing mechanism, which had a fuel adjustment clause to keep T&TEC whole to the price of fuel – rates adjusted to the cost of fuel so that T&TEC would be able to continue to repay their liabilities to the NGC. In 2006, when the RIC replaced the PUC, this was changed to a price cap mechanism, which theoretically was supposed to help them better cover all of their costs and not just fuel. However, there were substantial delays in implementing the new tariffs, more so for the residential customers.

Further, in 2008/2009, the RIC proposed that residential customers receive a marginal reduction in their tariffs, where, for instance, customers using as much as 400 kWh experienced a fall in their energy charge from 27 cents to 25 cents per kWh. In 2009 residential, B2 commercial and industrial customers received a $0.01 increase in their energy charge per kWh, while B1 commercial customers saw a $0.02 increase per kWh. Since then, the rates have not changed and are still being applied today.

Admittedly, these rates are nowhere near able to allow T&TEC to sufficiently cover their costs, let alone their cost of fuel which is their main input cost – around 25%. However, the RIC is supposed to conduct a rate review every 5 years, and therefore a subsequent tariff review was due in 2011. This however did not materialise, and therefore, the last time changes were proposed was 17 years ago! In this time, the cost of operations for T&TEC would have naturally increased, such as the cost of equipment, repairs, salaries etc., which also put T&TEC in a more precarious financial position.

Had the rate reviews been done when they were due in shorter intervals – every 5 years, then perhaps the electricity prices would have increased marginally and incrementally each year, and there would be no need to have these drastic increases which are being proposed now, as the price of electricity would have placed T&TEC in a better position to cover their costs.

Naturally, if lengthy periods (e.g. 17 years) pass before rates increase, then there is a serious risk of having to implement a large tariff increase, which is what is happening now, instead of small incremental increases that the 5-year rate reviews were supposed to achieve! Given that these rate reviews didn't happen, as usual, citizens and the business community have to bear the brunt of this mistake, and it is astonishing that the RIC did not anticipate this years ago!

Economic Implications

For decades, we enjoyed lower electricity prices relative to many – while our average residential price for 2022 was approximately US$0.05 per kWh, our Caribbean counterparts such as Jamaica, Belize and the Bahamas incurred prices per kWh of approximately US$0.30, US$0.19, and US$0.21 respectively. While lowest of these is 280% more than what we pay, our low electricity charges is one reason we attracted significant private sector investments by both local and foreign investors for decades, despite a litany of obstacles existing in our business environment.

It is also useful to compare our prices to other economies with a similar GDP per capita to ours – Bulgaria's, Uruguay's and Chile's prices per kWh are approximately US$0.13, US$0.17 and US$0.16 – again, all substantially higher than what we pay.

However, our economy centers around natural gas and this forms the basis for our electricity generation – 2021 data would show that some other natural gas-producing economies charge cheaper or almost equivalent residential prices to us, including Angola (US$0.02), Algeria (US$0.04), Argentina (US$0.05) and Oman (US$0.05) to name a few

Other gas producers like the United States (US$0.16), Canada (US$0.107) and Denmark ($0.45) charge higher prices. However, they offer higher minimum wages – the US, Canada and Demark pay an average of US$12.57, US$14.57 and US$15.97 respectively, while we pay $2.58. They also provide more advanced health care and social services, schooling, infrastructure, access to potable water, housing etc., suggesting better value for money and quality of life.

These countries are ranked higher than T&T in the UN's Human Development Index, an indicator provided by the UN which reflects quality of life – we are ranked 57th while the US, Canada and Denmark are ranked 21st, 15th and 6th respectively. Like these countries, we would be more justified in charging higher electricity prices if we implemented measures to establish better living conditions. In Europe however, electricity prices surged almost 10-fold in one year due to the limited gas supply from Russia – we are lucky that our electricity concerns are not nearly as devastating as theirs!

These electricity price increases will yet again compound overall cost of doing business locally. So far, a myriad of factors has exacerbated business costs, including higher fuel prices and transport costs, increased prices from international suppliers and concomitant higher taxes paid on these imports due to higher prices, customs overtime and inefficiencies at our ports causing higher rent and demurrage charges for businesses, among a host of other obstacles in the business environment. Higher electricity prices will certainly exacerbate these costs. Some operations such as manufacturing activities may sometimes run for 24/7. For instance, if an energy intensive manufacturer has four plants which use a total of over 2 million kWh, their monthly electricity expense will increase by over $686,000. Indeed, the magnitude of these exacerbated costs will place even more financial burdens on manufacturers and can potentially cause them to downsize their operations.

Using the most recent data from the Central Bank of Trinidad and Tobago, the manufacturing sector is underutilised by almost 40%, and this capacity underutilisation can worsen with these increased rates. Moreover, these costs can jeopardise the performance of this sector – since the first quarter of 2021, the non-petrochemical manufacturers substantially increased their production levels, enhanced their exports and foreign exchange earnings. The CSO data shows that production in this sector grew by 20% since the second quarter of 2019, with the food and beverage sector alone increasing by over 35%. This performance, however, will be hampered given the dramatic rise in their cost burden from the new electricity prices.

Naturally, not only manufacturers, but all businesses will pass on this added cost to consumers in the form of higher prices. This will compound the cost of living for all households, as consumers will face these increased prices plus their own higher residential electricity charges. In the short term, inflation will worsen. CBTT data shows that overall prices have increased by 14% from Jan 2020 to Dec 2022, with prices of food – the most consumed item daily, increasing by 28% in the same period. Bread increased by 27%, meat increased by 24% and milk, cheese and eggs increased by 17%. Prices of these and other food items will further compound with the rate increase, a key reason being that supermarkets will have to pay higher electricity charges, especially since their refrigerated and frozen sections are in constant use.

Higher electricity costs will also put pressure on business profitability, compounding their financial stress from the pandemic. The rising prices will encourage more workers to clamour for higher wages – over 220 thousand employees in the registered labour force earn less than $6,000 per month and these higher electricity prices will lower their purchasing power further and contribute to exacerbated poverty levels.

These rate increases could also suggest that the consumer is paying the price for the inefficiencies of T&TEC. Going forward it is integral that T&TEC mitigate their inefficient practices and lower their cost structure, as this has exacerbated their operating costs and contributed to restricting their profitability for years, leaving the state with little choice but to spend hundreds of millions each year to subsidise them.

Lower costs could have meant reduced subsidies to be paid and less need for these higher rates. It also necessities that they be more reliable with their power supply to the country and avoid periodic cuts in their service which seems to be happening regularly in several parts of the country. Moreover, this could cause us to lose some investors, both local and foreign – with the deepening of energy sector in Guyana and Suriname, higher electricity prices locally together with the other problematic factors in doing business could encourage some businesses especially those in the industrial sector to relocate to these countries, in the very likely event they lower their electricity prices.

Pay of Take Contractual Agreements

The RIC stated in its Draft Determination -

"Under the terms of the Power Purchase Agreements (PPAs), T&TEC has to pay for the fuel that is converted into electricity by the generators. T&TEC buys fuel from the National Gas Company (NGC) at a pre-determined price that is influenced by the Government. The RIC has used a fuel price in keeping with T&TEC's assumption in its Business Plan (T&TEC has indicated it is based on guidance it has confirmed it has received from the Government) and an escalation factor of 3% per annum in its revenue calculation."
and, "T&TEC has contractual arrangements to purchase electricity from generators based on take-or-pay contract."

It follows that under these Power Purchase Agreements (PPAs) T&TEC purchases natural gas for all IPPs for their use to generate electricity. T&TEC thereafter is required to either take all of the electricity produced by these IPPs or pay for all of the electricity produced by these IPPs, even if demand is less than supply. This therefore means that PPAs assume that the IPPs operate at full capacity and therefore T&TEC is required to purchase gas from NGC at IPPs full generation capacity irrespective of the IPPs actual output. It further suggests that T&TEC purchases electricity at IPPs full capacity and not actual output.

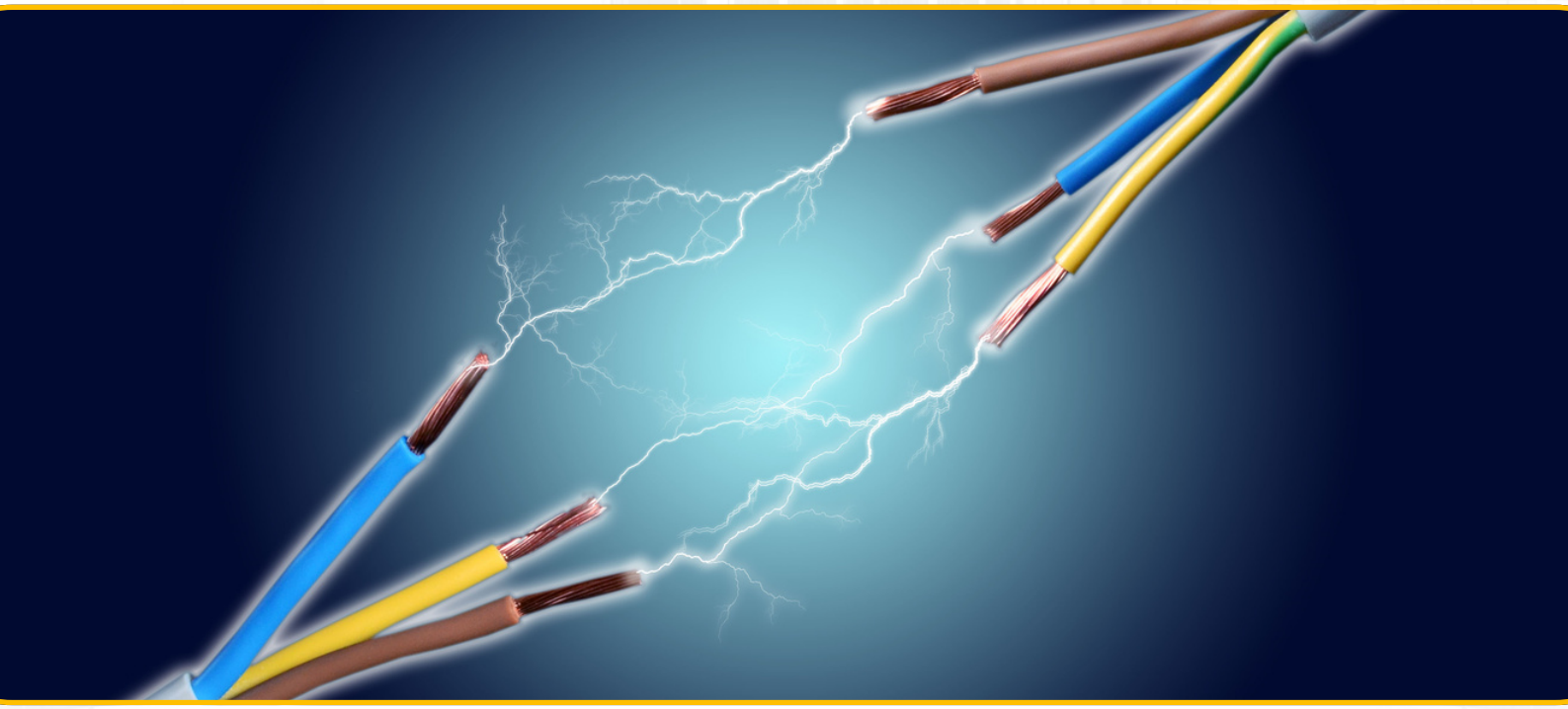
The flaw is that the RIC failed to utilize the regulatory principle of use and useful that it discussed in the Draft Determination. In other words, it may be useful for power generators to have excess capacity but only the cost associated with that which is used should be allowed to be recovered. Further, the RIC's Draft Determination established that installed supply capacity exceeds current demand. Consumers are therefore also paying for that capacity which exceeds demand (for both natural gas and electricity not generated).

The RIC argument that taxpayers pay for gas and rate payers pay for electricity does not hold true under the present arrangements. Either way, consumers are paying twice for an inflated cost of electricity. Further, the RIC omitting the currency of the monies owed to NGC is concerning as it is generally accepted in the industry, and as confirmed by the use of a PPA by IPPs, that NGC is paid in United States Dollars.

The existing arrangements provide no incentives for the IPPS to be efficient. In fact, the inefficiencies of the IPPs are included in the proposed rate structure. This is not in keeping with the roles and function of the RIC which is required to conduct studies of efficiency and economies of operation of IPPs and establish principles and methodologies by which IPPs transfer prices are determined.
The RIC has stated that it seeks to encourage T&TEC to acquire electricity from the most efficient unlicenced producer of electricity (TGU). Nothing is said as to whether this transfer is efficient.

Yet, the RIC Act states that the RIC is required to facilitate competition between service providers, where competition is possible and desirable, and to ensure that services are reliable and provided at the lowest possible cost. The RIC has therefore failed by its own methodology articulated in this Draft Determination to derive the efficiency rate that is offered to consumers and has failed to adhere to the requirements of the RIC Act.

In the consultation Draft Determination, the RIC computed the transfer price for electricity from generators as the cost of natural gas plus the cost of conversion. Nothing is stated as to the other operational, administrative, and capital costs incurred by generators. Are there no such costs and how are these costs recovered? Is it not the RIC's role to ensure that service providers operate under prudent and efficient management and to earn sufficient returns to finance necessary investment?



THE RIC's Tunnel Vision

The RIC's Draft Determination is as best a discussion on theory of approaches used for a rate review exercise. The RIC did not articulate its own Cost Model for determining Cost-of-Service as other Regulatory Agencies in the Caribbean. At the end of all the discussions in the document, the RIC appears to rely on T&TEC's Fully Distributed Cost (FDC) Model for the assessment of its own cost-of-service. This is clearly not the conduct of an independent regulatory body nor is it the approach that was intended by the RIC Act.

The Draft Determination is silent on how T&TEC's FDC Model incorporates the RIC preferred approach to cost determination. The RIC simply states that it reduces T&TEC's costs in specific areas without providing any information on what cost items are reduced or omitted and how these new costs impact on outcomes. The approach suggested by the RIC utilizes T&TEC's historical cost to determine future rates. It is therefore important that approved costs and revenue streams can be independently assessed and verified, given that an FDC Model allows T&TEC to inflate its cost and know that it will be adjusted downwards by the RIC. It is therefore concerning that T&TEC's Financial Statements are not available for public scrutiny during this rate review exercise.

Throughout the Draft Determination the RIC appears to suggest that it is unable to fulfill its role and functions due to the T&TEC being a state-owned public utility and that Government involvement makes economic regulations difficult to implement. This is very disturbing as the Public Utilities Commission which the RIC replaced was established in 1966 and effectively regulated T&TEC, the Trinidad Telephone Company and the Water and Sewerage Company, all of which were state owned public utilities. Across the Caribbean, the various regulatory agencies regulate state owned electricity companies.

The Telecommunications Authority of Trinidad and Tobago regulates the Telecommunications Services of Trinidad and Tobago (TSTT). Nothing in the RIC Act inhibits the RIC from performing its regulatory role and function. The Act indeed states mandates the RIC to "do all such things as may be necessary or expedient for the proper performance of its functions". Is it that the RIC is unable to perform its role and functions as stated in its Act? What has the RIC done for the past 23 years of its existence?

The RIC repeatedly states in its various documents on its website that it is an independent economic regulator, with the power to impose fines, set standards for quality of service, establish rates and tariffs and recommend licences. Despite such power, it seems powerless to fulfil its critical functions due to state involvement. This flies in the face of its self-proclaimed independence. In the Draft Determination, the RIC openly admits that:

"T&TEC spent approximately $1,944.04 million on capital works/projects over the period, of which, $738.60 million was spent on projects under the Government's Public Sector Investment Programme (PSIP), and for ring-fenced projects. These capital works should not have been funded by tariff revenues, but by the Government. It is noteworthy that of the $738.60 million spent by T&TEC on these capital works/projects, only $33.70 million in funding was provided by the Government. The quantum of expenditure on these projects for which funding was neither allowed by the RIC, nor fully provided by Government, undoubtedly affected T&TEC's ability to carry-out the allowed Capex programme for PRE1.

The amount spent by T&TEC on RIC-allowed Capex projects for PRE1 exceeded the quantum allowed by the RIC for the period. More specifically, while the RIC allowed a total of $800.00 million for Capex over PRE1, T&TEC reportedly spent $1,205.44 million, approximately $405 million over the allowed amount. It is important to note that while T&TEC spent less than the allowed Capex for each of the first four years of the regulatory control period, it reported expenditure totaling $758.94 million on RIC allowed projects in the fifth year even though the allowance was $148.20 million."

The RIC is silent on what measures it has implemented to ensure that this does not happen again during this period. Ideally, the assets funded by the government should not be allowed into the regulatory rate base and the government should be required to obtain a licence to own and operate the distribution network that it funds. Should this not be standard industry practice? Nothing in the RIC Act permits the government to adopt such an approach as it bypasses the RIC regulatory remit.

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The RIC Act states that licenses issued by the RIC may contain "rules concerning interconnection with other entities". While there are no Licences issued by the RIC, one would expect that such rules are established to inform the way and means by which power generators connect to T&TEC's national grid. Nothing in the RIC's Draft Determination speaks to the network topology of T&TEC's national grid and whether the topology is an efficient one. No topology is presented to inform areas not served by T&TEC and areas underserved by T&TEC or areas with excess network capacity.

Nothing is presented on where the points of interconnection exist and whether those interconnection points are efficient. One expects a direct linkage between an efficient network design and the efficient cost used to determine rates. The document is silent on this matter, and one is left wondering whether the rates proposed by the RIC are the least cost rates as stipulated by the RIC's Act.

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The Draft Determination further states that the rate charged by T&TE obtained from pole rental are unregulated charges. It further states that "The RIC has found that pole rentals and installation..... are not incidental to T&TEC's core business and therefore, the RIC's decision is that these services will remain unregulated." Is it not that poles are necessary to the build out of T&TEC distribution network and the 'first mile' from the consumer premises to the substation? Are poles not an integral part of T&TEC's network infrastructure and the costs of their installation and maintenance included in the regulatory access base? Does T&TEC rent its poles to communications network companies, such as, TSTT, FLOW and Digicel? What part of the total cost for pole installation and maintenance is included in the regulatory access base? Should the full cost be allocated to the regulatory access base? It seems that the RIC has permitted T&TEC to recover its pole installation cost twice, once from consumers and secondly through rental.

In the Draft Determination the RIC stated "T&TEC's financial performance has been weak as it maintained an average annual deficit of $1,132 million over the period. T&TEC's receivables position was also very weak, with $1,624 million owed to the utility company at the end of 2021; 81.8% of which is attributable to the Government and Government agencies.", and "One indicator that is typically used to measure the relative efficiency of a utility's commercial practices is the "Collection Period" (i.e. Accounts Receivable in days). Delayed collections can lead to significant cash flow problems. Table 6.7 reveals consistently high levels of receivables including receivables from the Government and Government agencies."

Clearly T&TEC's financial performance can be reversed from an effective collection strategy. Is it not the RIC's role to ensure that T&TEC operates under prudent and efficient management and to minimize receivables? What regulatory measures has the RIC given effect to ensure that T&TEC minimizes receivables and especially from the Government and Government agencies? Did the Commissioners who are qualified and possess extensive experience in finance advise the Commission on strategies for minimizing receivables, especially from the Government and Government agencies?

Concluding Remarks

In 2022, the Minister with responsibility for the RIC stated prior to any announcement that the RIC, an independent economic regulatory body was going to give notice by the close of the week of its impending rate review exercise for T&TEC. That is very troubling and more so as the RIC has failed in this rate review exercise to establish its credibility as an independent economic regulator. After 23 years of existence, it has failed to perform its roles and functions as stipulated in the RIC Act. The electricity sector in Trinidad and Tobago has remained stagnated while similar regulated electricity sectors across the globe have moved forward from a single-buyer wholesale market to a pay-as-clear liberalized market. The electricity sector in Trinidad and Tobago continues to be stuck in Fully Distributed Cost Models based on historical cost while more progressive countries are utilizing more forward-looking Capacity Expansion Models and Production Cost Models.

Thank You

We wish to thank all those who provided feedback and comments