

Quality of Service Scheme for Electricity Generating Entities in Trinidad and Tobago

August 2018

**Summary Document** 

**Background** 

The Regulated Industries Commission (RIC) is the economic regulator for the electricity and water

sectors in Trinidad and Tobago. In the conduct of its regulatory functions, the RIC is guided by

the legislative and regulatory framework set out in the RIC Act No. 26 of 1998. Section 6(1) of

the RIC Act expressly empowers the RIC to prescribe standards of service; to monitor service

providers to assess performance with the established standards; and to impose sanctions for non-

compliance. Accordingly, the RIC is publishing this Quality of Service Standards (QSS) Scheme

for Electricity Generating Entities in Trinidad and Tobago with focus on the efficiency of

generating plants. Section 6(2) of the Act also mandates the RIC to consult with all parties it

considers as having an interest in matters before it.

**Purpose of this Document** 

The purpose of this document is to engage in consultation with key stakeholders to develop an

appropriate Quality of Service Scheme for the Generation Sector in Trinidad and Tobago that can

be used to promote the economic and operational efficiencies of non-renewable electricity

generation. A previous version was issued for pre-consultation, and consideration was given to the

feedback obtained, in preparing this document.

**Responding to the Consultative Document** 

As part of the consultative process, the RIC invites feedback from stakeholders on the proposals

in the consultative document. Responses, and any other issues which respondents believe should

be considered by the RIC in developing quality of service standards for electricity generating

entities, should be sent in writing by **September 10, 2018** to:

**Executive Director** 

**Regulated Industries Commission** 

37 Wrightson Rd

P. O. Box 1001

Port of Spain, Trinidad, W.I.

Fax: (868) 624-2027

E-mail: ricconsultation@ric.org.tt

A copy of the full consultative document is available from the RIC Information Centre or on our

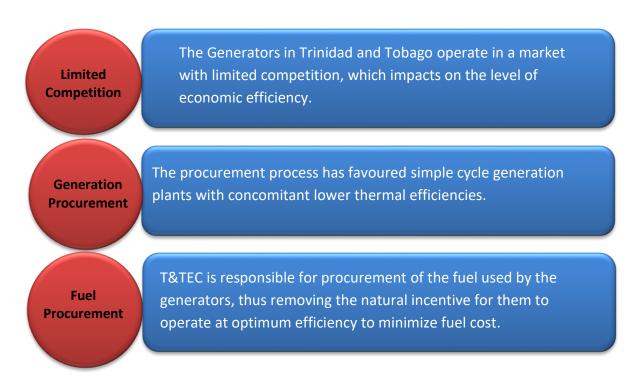
website at www.ric.org.tt/consultations.

1

#### Overview of the Electricity Sector in Trinidad and Tobago

The electricity sector consists of a government-owned monopoly electricity transmission and distribution utility, the Trinidad and Tobago Electricity Commission (T&TEC), and three independent power producers (IPPs) – Power Generation Company of Trinidad and Tobago Limited (PowerGen), Trinity Power Limited and Trinidad Generation Unlimited (TGU). T&TEC purchases electricity from the IPPs and sells it to its 470,000 customers. T&TEC procures natural gas from the National Gas Company of Trinidad and Tobago (NGC), which is supplied directly to the IPPs to generate electricity. Total nameplate installed capacity of the generating entities is 2,104 MW, as at December 2017. T&TEC falls under the purview of the Ministry of Public Utilities, while the IPPs fall under the purview of the Ministry of Energy and Energy Industries. The economic regulator of the sector is the Regulated Industries Commission (RIC). TGU does not fall under the RIC's remit at this time.

#### **Rationale for the QSS Scheme**



**Transparency** 

Generation costs accounts for a very significant portion of the final price charged to customers for electricity but the agreements covering these arrangements are not available for public information. Public reporting on key operational parameters allows for scrutiny on what is a significant contributor to final electricity rates.

Reliability of Power Generation In many jurisdictions, there are independent bodies with explicit responsibility for ensuring reliability of electricity generation and supply. This is not the case in Trinidad and Tobago.

Tightening Natural Gas Supply Trinidad and Tobago is experiencing a curtailment of natural gas from local production to meet current demand. There is a need to optimize the use of this resource to maximize the benefit from the value chain.

**Environmental Impact** 

Improvement in the thermal efficiency of natural gas powered electricity generation will reduce the amount of greenhouse gas emissions from the sector.

The RIC is proposing to implement a performance monitoring scheme, which is intended to promote economic efficiency, reliability, energy security and transparency within the sector. The service providers will be required to collect information on specific performance parameters and report data to the RIC on a quarterly basis. The RIC will publish an annual performance report on the electricity generation sector for public information.

### **Proposed Performance Parameters**

# **Heat rate:** The amount of fuel energy used to produce one kWh of electricity **Capacity factor:** The ratio of the actual kilowatt-hours of electricity produced in a given period, to the maximum possible, running full time at rated power **Mean Time between Failure (MTBF):** A measure of the arithmetic mean (average) time between failures of a system Mean Time to Recovery (MTTR): The arithmetic mean (average) time taken to restore a system to operational status after failure **Availability:** The fraction of the total time that a plant is able to produce **Equivalent Forced Outage Factor:** The fraction of a given period in which a generating unit is not available due to forced outages and forced deratings

## **Consultation Questions**

1. Do you agree with the rationale for quality of service standards for electricity generation in Trinidad and Tobago? If not, please indicate why.
2. On balance the RIC considers Performance Reporting mechanism as the most appropriate scheme for power generation at this time. Do you agree with this position? If not, what would you suggest.
3. Do you agree with the choice of the proposed performance indicators for electricity generation in Trinidad and Tobago?
4. Do you agree with the list of parameters that are identified for performance monitoring and reporting?
5. Are there other parameters that you believe should be monitored and reported?
6. Do you agree with the frequency with which the information should be reported to the regulator?
7. Do you agree that performance reports should be published annually for public information?