



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

January
2019

Final Decision
Summary

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 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 empowers the RIC to prescribe standards for services; monitor service providers to assess performance with the established standards; and impose sanctions for non-compliance. 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. In keeping with this mandate, the RIC developed a draft *Quality of Service Standards (QSS) Scheme for Electricity Generating Entities in Trinidad and Tobago*¹, and invited comments from key stakeholders through a pre-consultation exercise that was conducted in January 2018. After review of the feedback received, the RIC revised the document and published it for public consultation in August 2018. The consultation document is available on the RIC's website at www.ric.org.tt/consultations.

Purpose of this Document

This document is a summary of the RIC's final decisions on the QSS Scheme for Electricity Generating Entities in Trinidad and Tobago. The full Final Decision document, as well as a copy of this document, is available on the RIC's web site at <http://www.ric.org.tt/publications>.

Quality of Service Scheme for Power Generation in Trinidad and Tobago

The RIC will implement a performance monitoring and reporting scheme for the power generation sector in Trinidad and Tobago. The scheme is intended to bring public awareness and scrutiny to the performance of the sector, and thereby incentivize the service providers to maintain acceptable standards of services. The long-term objective is to promote economic efficiency, reliability, energy security and transparency within the sector. Under the scheme, the electricity generators are required to collect specific baseline and performance data, shown below in the *Table of Performance Indicators & Baseline Data*. These are to be reported quarterly, using standardized

¹ This QSS Scheme applies to non-renewable energy power generators only.

templates. The RIC will use the information to publish annual performance reports on the electricity generation sector.

Table of Performance Indicators & Baseline Data

No.	Metric	Description	Unit of Measure
1	Number of generating units	The total number of generating units that are operated by the power producer for supply to the electricity grid	Number
2	Type of power plant	For each power plant indicate the type of prime mover, whether combustion gas turbine (GT), combined cycle power plant (CC), or internal combustion engine (IC); and indicate the main use, whether baseload, load following, or peaking power	-
3	Capacity of Unit	Indicate the nameplate and derated generating capacity of each unit	MW
4	kWh generated by each unit and operating mode	Indicate the amount of kWh generated and the mode of operation, whether GT, CC or IC	kWh
5	Fuel type and consumption for each generating unit	Indicate whether natural gas or diesel, and the amount consumed for the reporting period	-
6	Peak power output	Highest instantaneous power generated during the reporting period	MW
7	Unit heat rate	Net heat rate for the generating unit during the reporting period. Formula: <i>(Fuel Flowrate * Higher Heating Value of Fuel) / Net Power Output of unit</i>	kJ/kWh
8	Station Heat Rate	Net heat rate for the station during the reporting period	kJ/kWh
9	System heat rate	Overall net heat rate for the generation system of the service provider	kJ/kWh
10	Capacity factor	The ratio of the actual kilowatt-hours of electricity produced	%

No.	Metric	Description	Unit of Measure
		during the reporting period to the maximum possible running full time at rated power. Formula: <i>kWh produced in the period/(Capacity of unit x period hours)</i>	
11	Availability Factor	The fraction of the total time that a generating unit is able to produce. It is calculated using the formula: <i>(Available hours/Period hours) x 100</i>	%
12	Equivalent Availability Factor (EAF)	The fraction of maximum generation that could be provided if limited only by outages and deratings. Formula: <i>{Available hours – (Equivalent derated hours + Equivalent seasonal hours)/Period hours} x 100</i>	%
13	Equivalent Unplanned Outage Factor (EUOF)	The unplanned outage period, including forced outage and derating, and maintenance outage and derating, as a fraction of the total period. Formula: <i>{(Forced outage hours + equivalent forced derated hours + maintenance outage hours + equivalent maintenance derated hours)/Period hours} x 100</i>	%
14	Equivalent Forced Outage Factor	The fraction of the reporting period in which a generating unit is not available due to forced outages and forced deratings. Formula: <i>{(Forced outage hours + Equivalent forced derated hours)/Period hours} x 100</i>	%