

ORDER

1. THIS ORDER is issued by the Regulatory Authority of Bermuda (“RA”) in accordance with the Regulatory Authority (Service Standards Indicators for Electricity Licensees) General Determination 2019.
2. Annex 1 has effect.
3. This Order shall become effective on the date of its publication.
4. So ordered this 29 day of December 2022.

ANNEX 1



Service Standards Indicators – Performance Targets

**Administrative Determination issued pursuant to the Regulatory
Authority (Service Standards Indicators for Electricity Licensees)
General Determination 2019**

Matter: 20221229

Date: 29 Dec 2022

Table of contents

1	Introduction.....	4
1.1	Background	4
1.2	Purpose	4
1.3	Reporting process	4
1.4	Updates to targets	4
1.5	Allowances made for Force Majeure events	5
1.6	Tolerance ranges	5
2	Reliability of electricity supplied to customers.....	6
2.1	Introduction.....	6
2.2	System Average Interruption Frequency Index (“SAIFI”).....	6
2.3	System Average Interruption Duration Index (“SAIDI”).....	7
3	Efficiency of electricity supplied to customers.....	8
3.1	Introduction.....	8
3.2	Heat Rate	8

Acronyms

AMI	Advanced metering infrastructure
HR	Heat Rate
IEEE	Institute of Electrical and Electronics Engineers
NPS	North Power Station
RA	Regulatory Authority of Bermuda
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
TD&R	Transmission, Distribution and Retail

1 Introduction

1.1 Background

This Administrative Determination (“AD”) has been prepared by the Regulatory Authority of Bermuda (“the RA”) in accordance with the publication of the *Regulatory Authority (Service Standards Indicators for Electricity Licensees) General Determination 2019* (“the Service Standards”) dated 4 April 2019. It is intended to update the Service Standards Indicators – Performance Targets for 2021 and 2022 issued 16 September 2021 through Order #20210916. The following AD lists the target levels of performance that the RA expects BELCO to achieve as the sole Transmission, Distribution and Retail (“TD&R”) licensee and as a Bulk Generation (“BG”) licensee for 2023 and 2024.

The Service Standards have initially been set to measure and incentivise licensees’ performance in the following areas:

1. Customer service levels;
2. Reliability of electricity supplied to customers;
3. Quality of electricity supplied to customers;
4. Efficiency of electricity supplied to customers; and
5. Meeting safety and environmental goals.

The determination of performance targets, at this stage, focuses on an initial list of Service Standards across two of those areas: the reliability of electricity supplied to customers (2), and the efficiency of electricity supplied to customers (4). In due course, performance targets will be set for the remaining of the Service Standards across all areas.

In line with provisions made in the Service Standards, the targets set in this AD will be used in the context of the Retail Tariff Methodology, which was established by general determination of the RA in October 2018.

1.2 Purpose

The main purpose of this AD is to describe the targets to be set for BELCO for a selection of indicators, and to provide further instructions in relation to their calculation.

1.3 Reporting process

As outlined in the Service Standards, the detailed reporting process is defined by the Service Standards Indicators - Minimum Filing Requirements Administrative Determination.

1.4 Updates to targets

This AD sets targets for 2023 and 2024, it is expected that targets will remain in place for the set period unless otherwise revised by a subsequent Administrative Determination.

1.5 Allowances made for Force Majeure events

The performance of the TD&R licensee can be expected to reduce during Force Majeure events. The definition of Force Majeure events adopted is as follows – in line with that currently used in the TD&R License.

“acts of God, war, warlike operations, civil commotion, major strikes or any other significant or protracted industrial action, fire, tempest or any other causes beyond the Licensee’s reasonable control”

The following provides further guidance on the qualification of Force Majeure events and on when Force Majeure events are deemed to start / end.

- A weather event should be deemed a Force Majeure event when the intensity of the weather event is such that Government officials advise citizens to shelter in their homes or non-essential business are advised to close. In determining the start of such weather force majeure event, the starting point will be the point at which the Government states that sheltering in place ought to begin and/or non-essential businesses ought to be closed, whichever is the earliest. The end point will be the point at which the TD&R Licensee declares that all customers impacted by such an event have had their electricity service restored. Information pertaining to events occurring at any point between the start and the end of Force Majeure events should not impact calculations of Service Standards.
- For other Force Majeure events (whether or not weather-related), the starting point of the Force Majeure event will be the point at which the TD&R Licensee has declared that the first customer is off supply due to an incident directly caused by such event. The end point will be the point at which the TD&R Licensee declares that all customers impacted by such an event have had their electricity service restored. Information pertaining to events occurring at any point between the start and the end of Force Majeure events should not impact calculations of Service Standards.

1.6 Tolerance ranges

In this AD, tolerance ranges are defined in relation to specific targets – this is to reflect that:

- targets have been established on the basis of the Performance Targets and relative performance during 2021 and 2022.

Tolerance ranges may not be defined for all targets and may be revised or removed in administrative determinations of Performance Targets for subsequent years.

Tolerance ranges are inclusive – meaning that for a tolerance range of $[a ; b]$ ($a < b$), any value comprised between a and b (including a and b) are deemed to fall into this tolerance range.

If BELCO’s performance against a specific indicator fails to achieve (or exceeds) the target set forth in this AD but falls within the tolerance range set forth for this indicator, then there would not be any penalty (or incentive) issued to (or awarded to) BELCO.

If BELCO’s performance against a specific indicator falls outside of the tolerance range set forth in this AD, then there would be a penalty (or incentive) issued to (or awarded to) BELCO. Penalty and incentive mechanisms have already been clarified to BELCO in the context of the 2022 Retail Tariff Review.

2 Reliability of electricity supplied to customers

2.1 Introduction

This section sets targets for two of the Service Standards covered under this theme – they both relate to the performance of the TD&R Licensee:

- The System Average Interruption Frequency Index (“SAIFI”); and
- The System Average Interruption Duration Index (“SAIDI”).

As described in the Service Standards, the performance indicators and definitions are derived from *IEEE Standard 1366-2012: IEEE Guide for Electric Power Distribution Reliability Indices*.

For both indicators, data pertaining to Force Majeure events should be excluded from the calculations.

2.2 System Average Interruption Frequency Index (“SAIFI”)

Indicator description:	System Average Interruption Frequency Index.										
Further instructions for calculation:	<ul style="list-style-type: none"> • Calculation should only consider “sustained interruptions”, as defined in IEEE 1366. A “sustained interruption” lasts more than five minutes, whereas the maximum duration of a “momentary interruption event” is less than or equal to five minutes. • Force Majeure events should be excluded from the calculations 										
Specific performance targets and tolerance range:	<table border="1"> <thead> <tr> <th>Year</th> <th>Specific target*</th> <th>Tolerance range*</th> </tr> </thead> <tbody> <tr> <td>2023</td> <td>2.0</td> <td>[1.5 ; 2.2]</td> </tr> <tr> <td>2024</td> <td>1.9</td> <td>[1.5 ; 2.1]</td> </tr> </tbody> </table>		Year	Specific target*	Tolerance range*	2023	2.0	[1.5 ; 2.2]	2024	1.9	[1.5 ; 2.1]
Year	Specific target*	Tolerance range*									
2023	2.0	[1.5 ; 2.2]									
2024	1.9	[1.5 ; 2.1]									

*Units are in number of occurrences per year and per customer

2.3 System Average Interruption Duration Index (“SAIDI”)

Indicator description: System Average Interruption Duration Index

Further instructions for calculation:

- Calculation should only consider “sustained interruptions”, as defined in IEEE 1366. A “sustained interruption” lasts more than five minutes, whereas the maximum duration of a “momentary interruption event” is less than or equal to five minutes.
- Force Majeure events should be excluded from the calculations

Specific performance targets and tolerance range:

Year	Specific target*	Tolerance range*
2023	140	[120 ; 160]
2024	120	[100 ; 150]

*Units are in minutes

3 Efficiency of electricity supplied to customers

3.1 Introduction

This section sets a target for one of the Service Standards covered under this theme – the Standard selected relates to the performance of the BG Licensee: the Heat Rate (“HR”).

3.2 Heat Rate

Indicator description:	Heat rate, expressed in kJ/kWh, is a measure of the efficiency of conversion of fuel to electricity. It is calculated in line with the formula provided in the Service Standards.		
Further instructions for calculation:	<ul style="list-style-type: none"> • Heat rates can typically be reported for individual power units or for multiple units – in which case the metric is generally referred to as an “aggregate” heat rate. • Heat Rate should be calculated for each month for: <ul style="list-style-type: none"> ○ Each individual unit in service (“unit heat rate”); ○ Each group of units (“aggregate unit group heat rate”); and ○ All units (“aggregate system heat rate”). • This Service Standard Indicator refers to the aggregate system heat rate, other metrics listed above are to be reported to provide contextual historical information only. • The aggregate system heat rate is impacted by several factors including, but not limited to, the efficiency of individual power units, the dispatch and maintenance schedules, and the calorific value of fuels purchased by BELCO. • Periods of engine test runs should be excluded from the calculation, but BELCO should provide all data necessary to remove test run periods from the data. • Periods of unplanned outage(s) attributed to Force Majeure events should be excluded from the calculation. • Whenever possible, the calculation should rely on physical measurements realised by BELCO on individual units. When this is not practical, approximations may be done by BELCO when computing the results (e.g. in relation to calorific values), provided that all assumptions are thoroughly justified by BELCO along with the submission of performance results. 		
Specific performance targets and tolerance range:	Year	Specific target*	Tolerance range*
	2023	8,400	[8,200 ; 8,450]
	2024	8,400	[8,200 ; 8,450]

*Units are in kJ/kWh