

Preliminary 2011 Revenue Requirements

Tab 8

Performance Standards

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8.0 Introduction

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- 2 Performance Standards for the PBR term were agreed to as part of the 2006 and 2009
- 3 Negotiated Settlement Agreements approved by Commission Orders G-58-06 and G-
- 4 193-08. These Performance Standards are meant to provide an overall assessment of
- 5 the Company's performance for the purpose of determining its eligibility for financial
- 6 incentives should such incentives be available. Each Performance Standard has a
- target that has been set in such a manner that, if met, would represent acceptable
- 8 performance.
- 9 As has been previous practice, each year at FortisBC's Annual Review the performance
- metrics will be reviewed with stakeholders in detail with regard to actual results
- achieved and the reasons for variances from the target. In this submission, results have
- been forecast for the period October 1, 2009 to September 30, 2010 using actual results
- to July 31, 2010. Final results to September 30, 2010 will be provided on or before
- 14 November 1, 2010.
- Under the PBR mechanism, failure to meet one or more targets does not necessarily
- 16 constitute unacceptable overall performance. At the Annual Review, FortisBC will
- provide the details relating to the year's performance in each metric and expects that a
- determination will be made as to whether the Company had performed adequately in
- the past year, considering not only the overall aggregate results but also the
- 20 circumstances under which the results were achieved. The substance of the test for
- inadequate performance and, hence, consideration for disqualifying the Company from
- receiving a financial incentive is this:
- 23 "If the Company earned a financial incentive, did it do so as
- a direct result of allowing or causing its performance to
- 25 deteriorate in a material way."
- The 2010 Performance Standards are expected to meet targets, on a forecast basis, for
- 27 10 of the 13 metrics. The forecast targets for All Injury Frequency Rate ("AIFR"),
- Vehicle Incident Rate ("VIR"), and System Average Interruption Duration Index ("SAIDI")
- are not expected to be met, and are discussed further in Section 8.1.

- 1 FortisBC's target and forecast results for the 2010 Performance Standards are as
- 2 follows:

2010 Performance Standard Results

Performance Standard	Target	Forecast	Result
All Injury Frequency Rate	1.92	2.00	Х
Injury Severity Rate	17.53 ⁽¹⁾	12.88	✓
Vehicle Incident Rate	1.44	2.03	х
System Average Interruption Duration Index	2.50	2.53	х
System Average Interruption Frequency Index	2.18	1.81	✓
Generator Forced Outage Rate	0.35%	0.14%	✓
Billing Accuracy – percentage of bills rejected by system	0.072%	0.050%	✓
Meters Read as Scheduled	97%	98%	✓
Contact Center – percentage of calls answered within 30 seconds	70%	70%	✓
Emergency Response Time – percentage of calls responded to within 2 hours	85%	94%	✓
Residential Service Connections – percentage connected within 6 working days	85%	94%	✓
Residential Extensions – percentage quoted within 35 working days	94%	98%	✓
Residential Extensions – percentage connected within 30 working days	92%	99%	√

√ = target met

x = target not met

- (1) Target as per the 2010 Negotiated Settlement Agreement, Commission Order No. G-162-09.
- 3 Descriptions of each Performance Standard and the 2010 forecast results follow. Final
- 4 results to September 30, 2010 will be provided in the Annual Review materials to be
- 5 filed on or before November 1, 2010.
- 6 In addition to the preceding, FortisBC will present the results of its Customer Survey for
- 7 informational purposes. The Customer Satisfaction Index is a directional metric only.
- 8 Also, for informational purposes only, FortisBC calculates its two System Reliability
- 9 targets (System Average Interruption Duration Index and System Average Interruption
- 10 Frequency Index ("SAIFI")) before normalizing for Major Event Days.

8.1 Safety and Health

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8.1.1 Safety and Health Indicators

- FortisBC's safety and health metrics are normally benchmarked against the
 Company's previous three-year average. However, as a result of an increase in
 the Injury Severity Rate in 2007 and its impact on the three year average, the
 2008, 2009 and 2010 target for the Injury Severity Rate was set at the same level
 as the 2007 target in the respective NSAs.
- The FortisBC safety and health statistics are an important tool in the Company's efforts to continually improve safety, and provide useful comparative information on the health and safety performance of the Company.
 - Three indicators are used to benchmark safety performance:
 - All Injury Frequency Rate: A comprehensive safety performance indicator based on lost time injuries plus medical aid injuries per 200,000 hours worked (approximately 100 workers).
 - **Injury Severity Rate**: A measure of injury severity based on the average number of days lost due to workplace injury or illness per 200,000 hours worked (approximately 100 workers).
 - **Vehicle Incident Rate**: A measure of the number of vehicle collisions based on licensed fleet motor vehicle incidents that result in injury and/or property damage greater than \$1,000 per 1,000,000 kilometres driven.
- 21 Details on each of the metrics follow:

All Injury Frequency Rate

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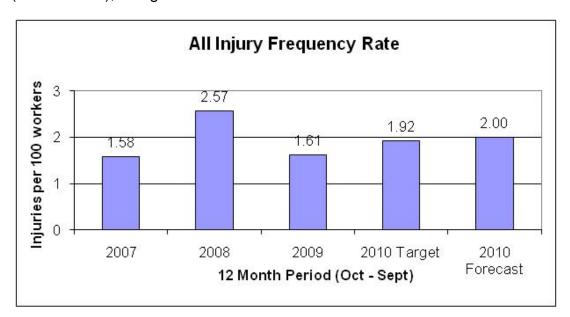
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The All Injury Frequency Rate is based on the total number of work-related Lost-Time Injuries or Illnesses ("LTI") plus Medical Aid ("MA") injuries which occurred in the 12 month period from October 1, 2009 to September 30, 2010. LTIs are injuries that result in one or more days missed from work. MAs are injuries where medical treatment was given or prescribed beyond first aid and observation and no lost time was involved. The following formula is used:

All Injury Frequency Rate = (Number of LTI + MA) x 200,000 hours

Exposure Hours

The 2010 target is the average of the actual AIFRs from the past three years (2007 – 2009), as agreed to in the 2009 NSA.



The AIFR for the period October 1, 2009 to September 30, 2010 is forecast to be 2.00. This is greater than the performance target of 1.92. To date, during the 2010 review period, there were seven recordable injuries.

Result	Missed All Injury Frequency Rate target	х
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Injury Severity Rate

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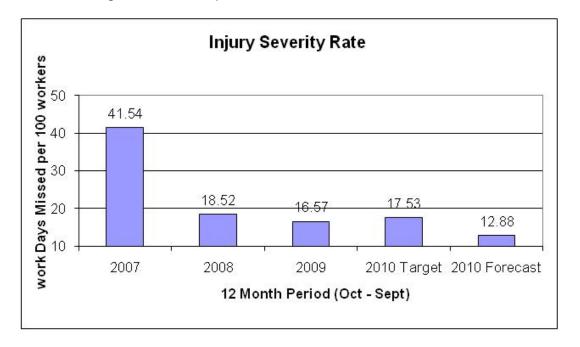
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The Injury Severity Rate ("ISR") is based on the total number of days lost from work due to work related injuries or illnesses which occurred in the 12 month period from October 1, 2009 to September 30, 2010. The following formula is used:

Injury Severity Rate = (Number of Work Days Missed) x 200,000 hours Exposure Hours

The 2010 target is 17.53 as per the 2010 NSA.



The ISR for the period October 1, 2009 to September 30, 2010 is forecast to be 12.88 as compared to the performance target of 17.53.

Result	Met Injury Severity Rate target	✓	
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Vehicle Incident Rate

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The Vehicle Incident Rate is based on licensed motor vehicle incidents (that result in injury and/or property damage greater than \$1,000). The following formula is used:

Vehicle Incident Rate = (Number of Vehicle Incidents) x 1,000,000 kilometres

Total Kilometres Driven

The 2010 target is the average of the actual VIRs from the past three years (2007 – 2009).



The VIR for the period October 1, 2009 to September 30, 2010 is forecast to be 2.03. This is greater than the performance target of 1.44 due to five vehicle collisions in 2010 and four vehicle collisions in 2009.

Result	Missed Vehicle Incident Rate target	х
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8.2 Reliability

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2	0.2.1	Transmission and Distribution Kenability Targets
3		FortisBC continues to measure transmission and distribution system reliability
4		using the SAIDI and SAIFI indicators defined below, adjusted using the 2.5 Beta
5		normalization methodology. The 2.5 Beta method for normalizing utility reliability
6		performance is a generally accepted, statistically based methodology for
7		identifying outlying performance and classifying reliability data into "normal" and
8		"major event" days. This allows the comparison of reliability metrics with or
9		without the influence of the extreme "major event" days.
10		System Average Interruption Duration Index
11		SAIDI is the amount of time the average customer's power is off per year (i.e. the
12		total amount of time the average customer's clock would lose during a year)
13		calculated as follows:
14 15		SAIDI = <u>Total Customer Hours of Interruption</u> Total Number of Customers Served
16		Customer Hours of Interruption related to a power outage are calculated by
17		multiplying the number of customers affected by the outage by the duration of the
18		outage.
19		System Average Interruption Frequency Index
20		SAIFI is the average number of interruptions per customer served per year (i.e.
21		the number of times the average customer would have to reset their clock during
22		the year) calculated as follows:
23 24		SAIFI = <u>Total Number of Customer Interruptions</u> Total Number of Customers Served

The Number of Customer Interruptions related to a power outage is the number

29 standard for reporting.

of customers affected by the outage.

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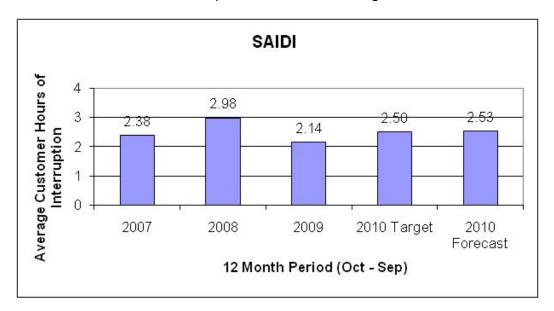
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For 2010, the SAIDI and SAIFI targets have been calculated using the average of the 2007 - 2009 normalized results.

For the period of October 2009 to July 31, 2010 there have been no outages that have exceeded the major event threshold as determined by the 2.5 Beta methodology.

The 2010 performance targets and forecast results are presented below. The 2010 targets shown are those agreed to in the 2009 NSA, based on the average of the results for 2007 to 2009 as reported at that time.

The forecast SAIDI is not expected to meet the target of 2.50 set for 2010.



During the past year there have been significant customer outages required to safely support the Capital Plan work. Most notably these include:

 Planned outages related to transmission rehabilitation on two radial transmission lines and station egress and phasing upgrades contributed about 0.27 to SAIDI.

In addition to the impact of planned outages, one significant forced outage that had the greatest impact on SAIDI is:

 On July 12th, 2010 a windstorm blew through the FortisBC service area causing multiple distribution and transmission outages. All transmission

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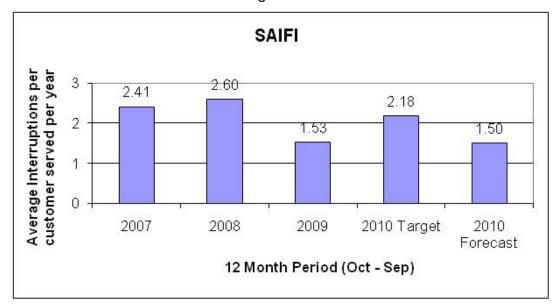
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outages were limited to momentary outages; however, distribution system outages affected 5,236 customers, contributing approximately 0.11 to SAIDI.

The forecast SAIFI is below the target of 2.18 set for 2010.



Continued efforts aim to increase system reliability and redundancy to reduce the length and number of outages in both the transmission and distribution system.

Result	Missed SAIDI reliability target	х
Result	Met SAIFI reliability target	✓

All Events

For informational purposes, FortisBC provides the SAIDI and SAIFI results without normalizing for Major Event Days, as agreed in the 2009 NSA.

The 2010 forecast results before normalization are:

FortisBC 2010 Reliability Performance Results before Normalization

	SAIDI	SAIFI
Forecast	2.53	1.50

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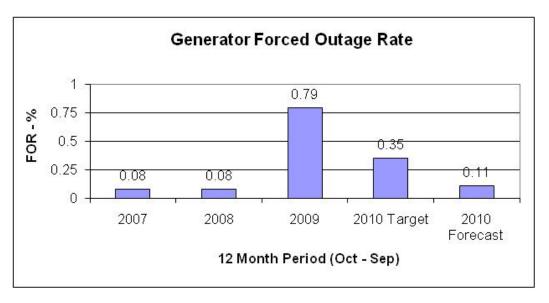
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8.2.2 Generator Reliability - Forced Outage Rate

The Generation performance standard is a Forced Outage Rate ("FOR") target value of 0.35 percent. A Forced Outage is the occurrence of a component failure or other event which requires that the generating unit be removed from service immediately or up to and including the very next weekend. The FOR is the ratio of the total Forced Outage time to Forced Outage time plus total operating time, multiplied by 100.

For the reporting period of October 1, 2009 to September 30, 2010, FOR is forecast to be 0.14 percent.

Forecast Generator performance is better than the target of 0.35 percent as illustrated in the graph below.

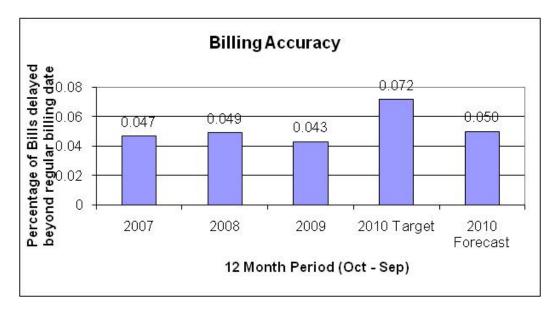


Result	Met Generator Forced Outage Rate target	✓	

1 8.3 Customer Service

2 8.3.1 Billing Accuracy

- Billing accuracy is defined as the percentage of bills stopped due to error and
- 4 delayed beyond the regular billing date. As per the 2007 NSA, the billing
- 5 accuracy target is fixed at 0.072 percent for the PBR term.
- The percentage of bills in error is forecast to be better than target for 2010 at
- 7 0.050 percent.



Result	Met Billing Accuracy target	√	
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8.3.2 Meters Read as Scheduled

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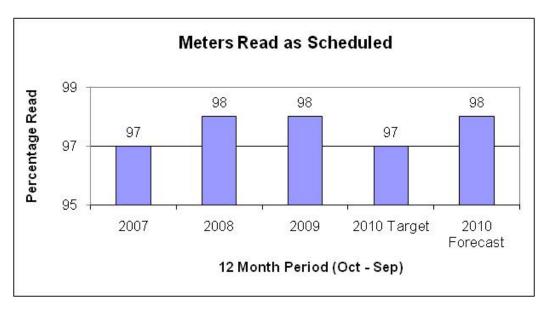
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Meters Read as Scheduled is defined as the percentage of meters read as compared to the total number scheduled to be read. Meters that are not read as part of the schedule are considered skipped and receive a system estimate based on historical consumption as well as the consumption trends for the customer's particular rate class. The target of 97 percent is fixed for the PBR term, as agreed upon in the 2007 NSA.

The percentage of meters read in 2010 is forecast to be better than target at 98 percent.

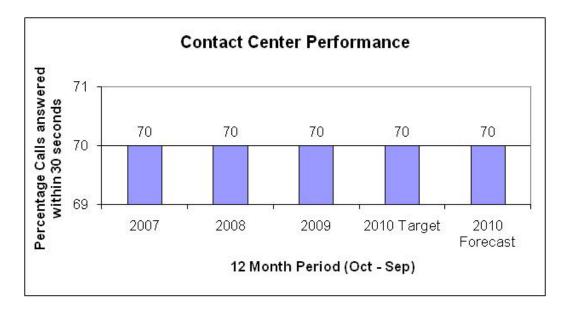


Result	Met Meters Read as Scheduled target	√	
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8.3.3 Contact Center Performance

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- Telephone Service Factor ("TSF") at FortisBC is calculated by the percentage of calls answered within 30 seconds. The target is fixed at 70 percent for the PBR term, as agreed upon in the 2007 NSA.
- The percentage of calls answered within 30 seconds or less in 2010 meets the target of 70 percent.



Result	Met Telephone Service Factor target	✓

8.3.4 Emergency Response Time

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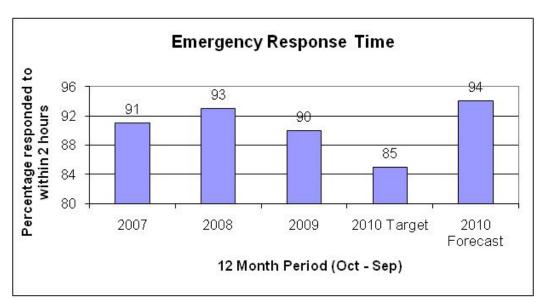
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This is the time elapsed from the initial identification of a loss of electrical power (via a customer call or internal notification) to the arrival of FortisBC personnel on site at the trouble location. This will provide ongoing information to assess FortisBC crew sizes and crew locations in response to system trouble. The target measures the percentage of Emergency calls responded to within 2 hours. Emergency Response Time results at or above the target indicate that trouble

calls and/or unplanned system interruptions are addressed in a prompt and timely manner. The 2010 forecast of 94 percent exceeds the fixed target of 85 percent.



Result Met Emergency Response Time target

8.3.5 Residential Service Connections

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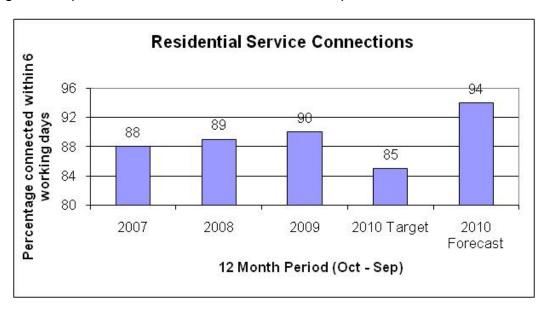
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Residential Service Connections are new customer connections that do not require design or field permitting requirements. Services typically include: meter installs, overhead drops, underground pull-ins and temporary construction services. The performance target measures the percentage of time these services are connected within 6 business days.

Residential Service Connections at or above target indicate that residential service connections are being completed within a reasonable time frame. The target of 85 percent is fixed over the PBR term as per the 2007 NSA.



Result	Met Residential Service Connections target	✓	

8.3.6 Residential Extension Quoting Time

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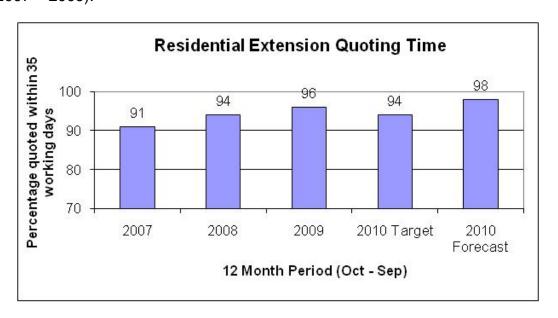
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Residential extensions are new customer connections that require multiple pole installations to extend the power line from the existing primary distribution line to the customer's take-off point. This metric measures the time taken for FortisBC to prepare an initial design and to provide a customer quotation. FortisBC's target for 2010 is to provide 94 percent of these quotations within 35 working days of the initial request.

Residential Extension Quoting results at or above target indicates that customers are receiving residential extension quotes in a reasonable and timely manner. The 2010 target is the rolling average of the actual results of the past three years (2007 – 2009).



Result Met Residential Extension Quoting Time target

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8.3.7 Residential Extension Completion Time

This is the time taken from the customer's acceptance of their quote to construction completion of the electrical hook up. The performance target for 2010 is to complete 92 percent of these extensions within 30 working days.

Residential Extension Completion results at or above target indicate that electrical hook-up for residential customer extensions are being completed within a reasonable time frame. The target is comprised of the average of the results of the previous three years as agreed in the 2007 NSA.



Result Met Residential Extension Completion Time target

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8.3.8 Directional Metric – Customer Satisfaction Survey

The Customer Satisfaction Index ("CSI") is designed to measure satisfaction with contact center services, field services, meter reading, energy conservation information and overall satisfaction. Satisfaction is measured on a ten point scale, with higher numbers representing higher satisfaction.

The CSI results have averaged 8.7 on a ten point scale in the first three quarters (October 2009 to June 2010). Survey scores slightly increase from the average of 8.6 last year.

To obtain the customer satisfaction scores, 350 randomly selected telephone interviews are conducted by a third-party polling firm. 300 interview results are from the residential customer segment, and 50 from the commercial customer segment.

Quarterly Customer Satisfaction Index

