

Preliminary 2010 Revenue Requirements

Tab 8

Performance Standards

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1 8.0 Introduction

- 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. Each Performance Standard has a target that has been set in such a
- 7 manner that, if met, would represent acceptable performance.
- 8 As has been previous practice, each year at FortisBC's Annual Review the performance
- 9 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, 2008 to September 30, 2009 using actual results
- to July 31, 2009. Final results to September 30, 2009 will be provided on or before
- 13 November 2, 2009.
- 14 Under the PBR mechanism, failure to meet one or more targets does not necessarily
- 15 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
- circumstances under which the results were achieved. The substance of the test for
- inadequate performance and, hence, consideration for disqualifying the Company from
- 21 receiving a financial incentive is this:
- 22 "If the Company earned a financial incentive, did it do so as
- a direct result of allowing or causing its performance to
- 24 deteriorate in a material way."
- 25 The 2009 Performance Standards forecast meets targets, on a forecast basis, for 12 of
- the 13 metrics. The target for Generator Reliability was not met, due to the rupture of a
- cooler pipe in the Upper Bonnington Unit 3 transformer, which has been in service since
- 1907. This unit is currently being considered for replacement as part of the Upper
- 29 Bonnington Repowering project.

- 1 FortisBC did not earn its 2009 financial incentive as a direct result of allowing or causing
- 2 its performance on any of its Performance Standards metrics to deteriorate in a material
- way. Overall, the Company's performance on its metrics in 2009 improved over 2008
- 4 performance.
- 5 FortisBC's target and forecast results for the 2009 Performance Standards are as
- 6 follows:

2009 Performance Standard Results

Performance Standard	Target	Forecast	Result
All Injury Frequency Rate	2.08	1.60	✓
Injury Severity Rate	17.53 ⁽¹⁾	16.40	✓
Vehicle Incident Rate	1.77	1.76	✓
System Average Interruption Duration Index	2.54	1.85	✓
System Average Interruption Frequency Index	2.80	1.49	✓
Generator Forced Outage Rate	0.35%	0.83%	Х
Billing Accuracy – percentage of bills rejected by system	0.072%	0.043%	✓
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%	92%	✓
Residential Service Connections – percentage connected within 6 working days	85%	91%	✓
Residential Extensions – percentage quoted within 35 working days	89%	96%	✓
Residential Extensions – percentage connected within 30 working days	85%	95%	✓

^{√ =} target met

x = target not met

- (1) Target as per the 2009 Negotiated Settlement Agreement, Commission Order No. G-193-08.
- 7 Descriptions of each Performance Standard, the 2009 forecast results and the 2010
- 8 forecast targets follow. Final results to September 30, 2009 and updated 2010 targets
- 9 will be provided in the Annual Review materials to be filed on or before November 2
- 10 2009.
- In addition to the preceding, FortisBC will present the results of its Customer Survey for
- informational purposes. The Customer Satisfaction Index is a directional metric only.
- Also, for informational purposes only, FortisBC calculates its two System Reliability

- targets (System Average Interruption Duration Index ("SAIDI") and System Average
- 2 Interruption Frequency Index ("SAIFI")) before normalizing for Major Event Days.

8.1 Safety and Health

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4 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 and 2009 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 per year).
 - 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 per year).
 - **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.
- Details on each of the metrics follow:

All Injury Frequency Rate

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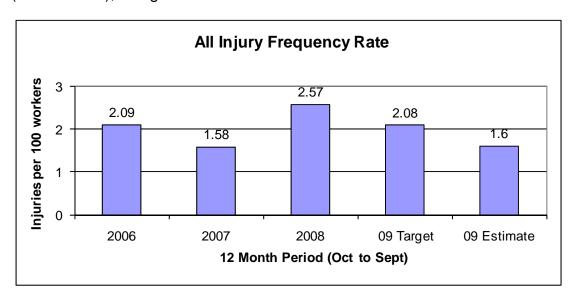
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The All Injury Frequency Rate ("AIFR") is based on the total number of work-related Lost-Time Injuries or Illnesses ("LTI") plus Medical Aid ("MA") injuries which occurred in the 12 month period from October 1, 2008 to September 30, 2009. LTIs are 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 2009 target is the average of the actual AIFRs from the past three years (2006 – 2008), as agreed to in the 2009 NSA.



The AIFR for the period October 1, 2008 to September 30, 2009 is forecast to be 1.60. This meets the performance target of 2.08. To date, during the 2009 review period, there were seven recordable injuries including two medical aid and five lost time injuries.

Result	Met All Injury Frequency Rate target	✓

Based on the forecast AIFR, the 2010 target is forecast to be 1.92 based on the three year historical average for years 2007 – 2009.

Injury Severity Rate

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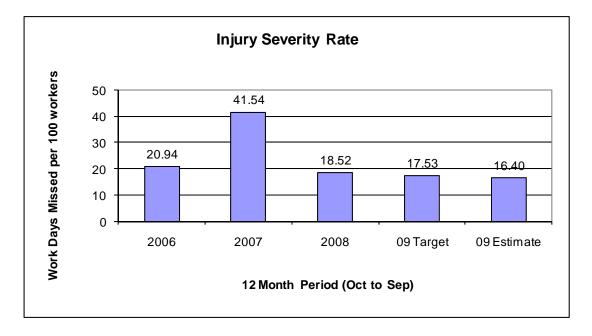
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The Injury Severity Rate ("ISR") is based on the total number of days lost from work due to work related injuries or illnesses which occurred in the 12 month period from October 1, 2008 to September 30, 2009. The following formula is used:

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

The 2009 target is 17.53 as per the 2009 NSA.



The ISR for the period October 1, 2008 to September 30, 2009 is forecast to be 16.40 as compared to the performance target of 17.53. The 2009 results are impacted by five injuries which resulted in 72 calendar days of lost time.

Result	Met Injury Severity Rate target	√
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Based on the forecast ISR, the 2010 target is forecast to be 25.49 based on the three year historical average for years 2007 – 2009.

Vehicle Incident Rate

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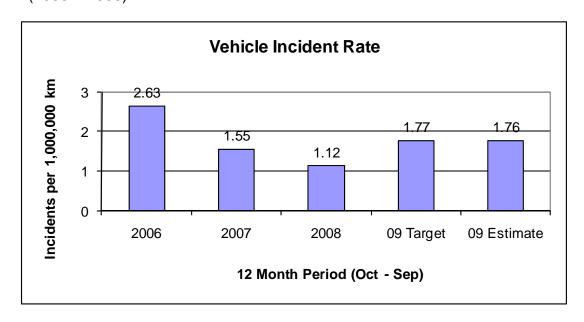
The Vehicle Incident Rate ("VIR") is based on licensed motor vehicle incidents (that result in injury and/or property damage greater than \$1,000). The following formula is used:

Vehicle Incident Rate =

(Number of Vehicle Incidents) x 1,000,000 kilometres

Total Kilometres Driven

The 2009 target is the average of the actual VIRs from the past three years (2006 – 2008).



The VIR for the period October 1, 2008 to September 30, 2009 is forecast to be 1.76. This compares with the performance target of 1.77.

Result	Met Vehicle Incident Rate target	✓

The 2010 target for VIR is forecast to be 1.48 based on the forecast three year historical average for years 2007 – 2009.

8.2 Reliability

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2	8.2.1	Transmission and Distribution Reliability 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

identifying outlying performance and classifying reliability data into "normal" and "major event" days. This allows the comparison of reliability metrics with or without the influence of the extreme "major event" days.

System Average Interruption Duration Index

SAIDI is the amount of time the average customer's power is off per year (i.e. the total amount of time the average customer's clock would lose during a year) calculated as follows:

SAIDI = <u>Total Customer Hours of Interruption</u> Total Number of Customers Served

Customer Hours of Interruption related to a power outage are calculated by multiplying the number of customers affected by the outage by the duration of the outage.

System Average Interruption Frequency Index

SAIFI is the average number of interruptions per customer served per year (i.e. the number of times the average customer would have to reset their clock during the year) calculated as follows:

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 of customers affected by the outage.

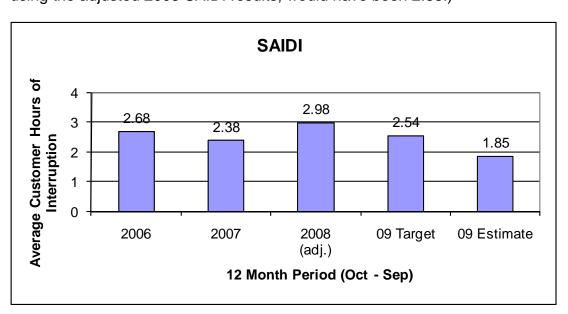
Reported outages included in these measures are of one minute duration or longer, which is consistent with the Canadian Electrical Association ("CEA") standard for reporting.

For 2009, the SAIDI and SAIFI targets have been calculated using the average of the 2006 - 2008 normalized results.

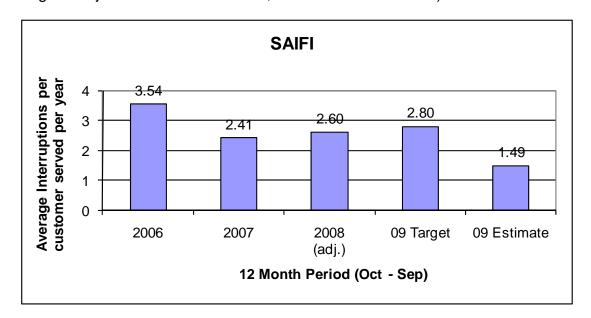
In January 2009 an incident occurred that exceeded the major event threshold as determined by the 2.5 Beta methodology and has been removed from the normalized results. On January 7 and 8, 2009 the Kootenay area experienced wet and heavy snowfalls, resulting in significant transmission outages, with restoration efforts delayed due to severe avalanche conditions and road closures. These outages affected a total of 17,852 customers, with some customers out for up to 43 hours.

The 2009 performance targets and forecast results are presented below. The 2009 targets shown are those agreed to in the 2009 NSA, based on the average of the results for 2006 – 2008 as reported at that time. However 2008 actual results have since been adjusted due to outage database corrections related to the implementation of FortisBC's Automated Mapping/ Facilities Management/ Geographic Information Systems. The corrected 2008 values are used to calculate the 2010 targets. FortisBC also notes that its 2008 performance in relation to 2008 targets is not affected by the correction.

The forecast SAIDI is below the target of 2.54 set for 2009. (The 2009 target, using the adjusted 2008 SAIDI results, would have been 2.68.)



The forecast SAIFI is below the target of 2.80 set for 2009. (The 2009 target, using the adjusted 2008 SAIFI result, would have been 2.85.)



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	Met SAIDI reliability target	✓
Nesuit	Met SAIFI reliability target	✓

Reliability targets for 2010 have been derived from the normalized three-year historical averages (October 1, 2007 – forecast September 30, 2009) as per the Negotiated Settlement Agreement. FortisBC forecasts SAIDI and SAIFI targets for 2010 of 2.40 and 2.17 respectively.

All Events

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

The 2009 forecast results before normalization are:

FortisBC 2009 Reliability Performance Results before Normalization

	SAIDI	SAIFI
Target	3.59	3.19
Forecast	2.98	1.65

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Result

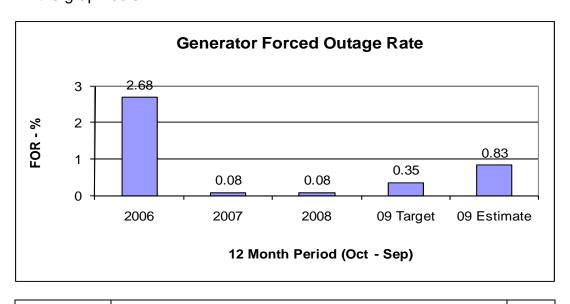
8.2.2 Generator Reliability - Forced Outage Rate

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, 2008 to September 30, 2009, FOR is forecast to be 0.83 percent.

FOR is forecast to be higher than the target of 0.35 percent due to the rupture of a cooler pipe in the Upper Bonnington Unit 3 transformer. This transformer has been in service since 1907 and extensive work was required to remove water from the insulating oil and transformer windings prior to returning the unit to service. This unit is currently being considered for replacement as part of the Upper Bonnington Repowering Project. The Company intends to file a CPCN for this project with the BCUC in late 2009 or early 2010.

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



Missed Generator Forced Outage Rate target

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- FortisBC notes that the comparable Forced Outage Rate for similar generating units participating in the Canadian Electricity Association survey are 2.39 for 2006, 2.43 for 2007 and 2.83 for 2008.
- The 2010 target for the FOR is to remain fixed at 0.35 percent.

5 8.3 Customer Service

8.3.1 Billing Accuracy

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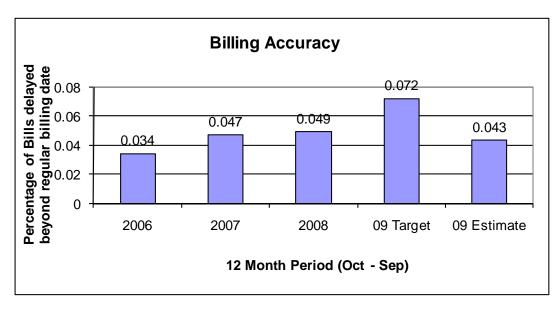
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Billing accuracy is defined as the percentage of bills stopped due to error and delayed beyond the regular billing date. As per the 2007 NSA, the billing accuracy target is fixed at 0.072 percent for the PBR term.

The percentage of bills in error is forecast to be better than target for 2009 at 0.043 percent.



Result	Met Billing Accuracy target	✓
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The 2010 target for billing accuracy is to remain fixed at 0.072 percent.

8.3.2 Meters Read as Scheduled

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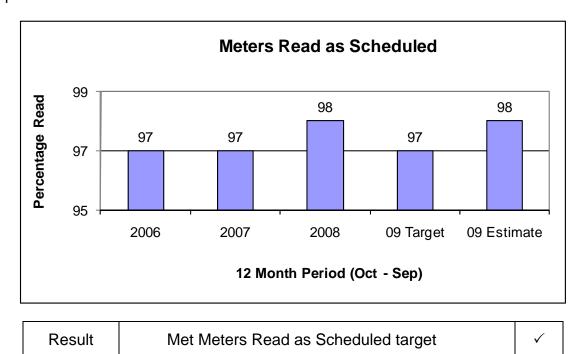
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Meters Read as Scheduled is defined as the percentage of meters read as compared to the total number scheduled to be read. Meters that are not read as part of the schedule are considered skipped and receive a system estimate based on historical consumption 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 2009 is forecast to be better than target at 98 percent.



The 2010 target for percent of meters read is to remain fixed at 97 percent.

8.3.3 Contact Center Performance

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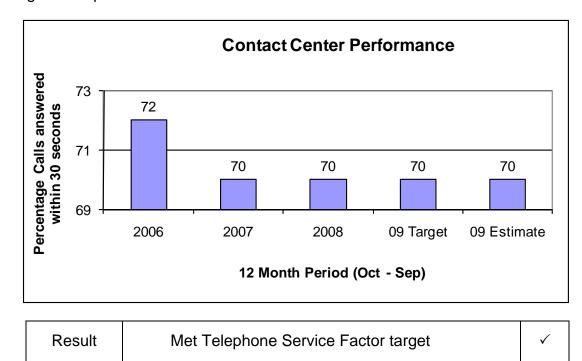
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Telephone Service Factor ("TSF") at FortisBC is calculated by the percentage of calls answered within 30 seconds. The target is fixed at 70 percent for the PBR term, as agreed upon in the 2007 NSA.

The percentage of calls answered within 30 seconds or less in 2009 meets the target of 70 percent.



7 The 2010 TSF target is to remain fixed at 70 percent.

8.3.4 Emergency Response Time

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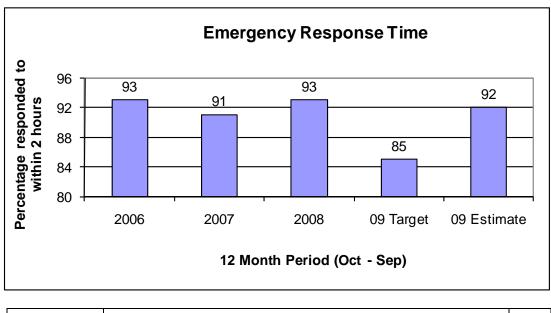
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This is the time elapsed from the initial identification of a loss of electrical power (via a customer call or internal notification) to the arrival of FortisBC personnel on site at the trouble location. This will provide ongoing information to assess 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 2009 forecast of 92 percent compares to the fixed target of 85 percent.



Result Met Emergency Response Time target

The 2010 target for Emergency Response Time is to remain fixed at 85 percent.

8.3.5 Residential Service Connections

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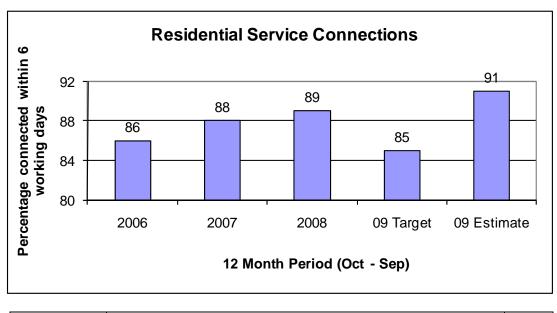
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Residential Service Connections are new customer connections that do not require design or field permitting requirements. Services typically include: meter installs, overhead drops, underground pull-ins and temporary construction services. The performance 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

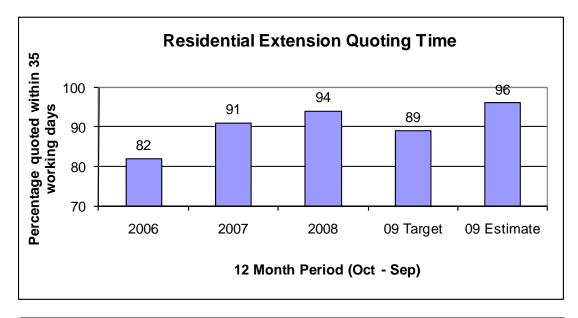
The 2010 target for Residential Service Connects is to remain fixed at 85 percent.

8.3.6 Residential Extension Quoting Time

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 2009 was to provide 89 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 2009 target is the rolling average of the actual results of the past three years (2006 – 2008).

Results have steadily improved for this metric due to ongoing process improvements, departmental reorganization, increased training, low staff turnover and an improved quoting system.



Result Met Residential Extension Quoting Time target

The 2010 target for Residential Extension Quoting Time is forecast to be 94 percent percent based on the forecast three year historical average for years 2007 – 2009.

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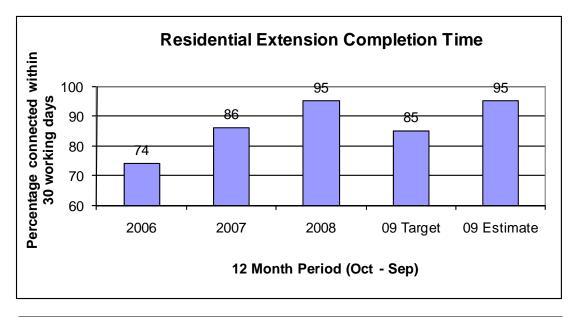
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8.3.7 Residential Extension Completion Time

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 2009 is to complete 85 percent of these extensions completed 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 on in the 2007 NSA.

The results for this metric have improved over 2006 results, due largely to improved communication and coordination of construction resources.



Result Met Residential Extension Completion Time target

The 2010 target for Residential Extension Completion Time is forecast to be 92 percent based on the forecast three year historical average for years 2007 – 2009.

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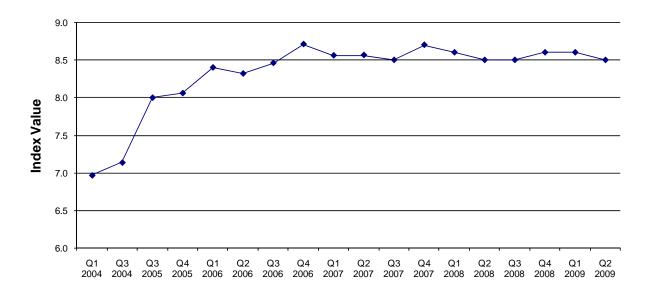
8.3.8 Directional Metric – Customer Satisfaction Survey

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 8.6 on a ten point scale in the first three quarters (October 2008 to June 2009). Survey scores remain consistent with 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



As the CSI index score is a directional metric only, no target is set for 2009.

1 8.4 2010 Targets

- The 2010 Performance Standards agreed upon as part of the 2006 and 2009
- 3 Negotiated Settlement Process are (using forecast 2009 results where
- 4 applicable):

2010 Targets

Performance Standard	Forecast Target Sept 30/09
All Injury Frequency Rate	1.92 ⁽¹⁾
Injury Severity Rate	25.49 ⁽¹⁾
Vehicle Incident Rate	1.48 ⁽¹⁾
System Average Interruption Duration Index	2.40 ⁽¹⁾
System Average Interruption Frequency Index	2.17 ⁽¹⁾
Generator Forced Outage Rate	0.35%
Billing Accuracy – percentage of bills delayed beyond the regular bill schedule	0.072%
Meters Read as Scheduled	97%
Contact Center – percentage of calls answered within 30 seconds	70%
Emergency Response Time – percentage of calls responded to within 2 hours	85%
Residential Service Connections – percentage connected within 6 working days	85%
Residential Extensions – percentage quoted within 35 working days	94% ⁽¹⁾
Residential Extensions – percentage connected within 30 working days	92% ⁽¹⁾

⁽¹⁾ These targets are based on the average of the past three year historical results from October 1, 2006 – September 30, 2009 with forecast results where applicable.