Distribution Reliability Initiative (Other), p. 52 of 96, $447,000

Q. According to the report found at Tab 2010 Capital Plan, page 16 "Newfoundland Power considers current levels of service reliability to be satisfactory. This reflects the current condition of Newfoundland Power's distribution assets. As a result, capital expenditures in the *Distribution Reliability Initiative* project will be reduced compared to previous years." Please provide a report on the Distribution Reliability Initiative that compares the performance of the feeders that have been upgraded under this program, showing both before and after levels of performance, including the costs that have been incurred for each feeder upgraded.

A. A report showing the "before and after levels of performance" of the feeders upgraded under the Distribution Reliability Initiative is included as Attachment A.

Distribution Reliability Initiative
Post Refurbishment Performance Levels

July 2009

Distribution Reliability Initiative

Post Refurbishment Performance Levels

July 2009

Distribution Reliability Initiative
Post Refurbishment Performance Levels

Introduction

The Distribution Reliability Initiative (DRI) is a capital project that focuses on the reconstruction of the worst performing distribution feeders. Customers on these feeders experience more frequent and longer duration outages than the majority of customers.

Newfoundland Power manages system reliability through capital investment, maintenance practices and operational deployment. On an ongoing basis Newfoundland Power examines its actual distribution reliability performance to assess where targeted capital investment is warranted to improve service reliability. Through this process the Company identifies the worst performing feeders in the power system based upon reliability measures. Engineering assessments are completed for each of the worst performing feeders and, where appropriate, the Company makes capital investment to improve the reliability of these feeders.

DRI Project Cost

The DRI started in 1998 and 28 feeders have been upgraded under the program since that time. The feeders that have been included in the program since it began and the associated cost for each year is detailed in Table 1. Prior to 2003 costs were not consistently tracked by feeder.

Table 1
Distribution Reliability Initiative
($ 000's)

Year	Feeders Included in Project							Cost
1998	DUN-01	OPL-01						613
1999	DUN-01	RVH-01	OPL-01	FRN-01	FRN-02			2,870
2000	BLK-02	OPL-02	BLA-01	LAU-02	ROB-01	DOY-01	ABC-02	1,776
2001	HOL-01	TRP-01	OPL-02	BLA-01	ROB-01	DOY-01	IND-01	3.442
2002	VIC-02	TRP-01	GLV-02					1,092
2003	LGL-02	MIL-02	GLV-02					1,546
2004	WES-02	PUL-01						763
2005	GBY-02	WES-02	BRB-04					1,260
2006	BCV-02	BOT-01	LEW-02	SMV-01	GLV-02	GPD-01	GBY02	3,365
2007	(DRI Project not included in 2007 Capital Budget)							0
2008	BOT-01	GLV-02						1,411
2009F	NWB-02							541
2010F	NWB-02							447

Reliability Performance

The average SAIDI for *all* of the feeders upgraded has improved over the average for the 5 years preceding the upgrade. On average SAIDI has improved by 78% .The average SAIDI for the 5 years preceding a feeder being upgraded was 9.98 hours. The average SAIDI since the completion of the upgrade is 2.15 hours. The Company average is 1.74 hours.

Table 2
Distribution Reliability Initiative
Improvement in SAIDI

	SAIDI		
Feeder	**5 Years Before[1]**	**After Upgrade[2]**	**Year**
ABC-02	5.04	2.92	2000
BCV-02	9.27	1.23	2006
BLA-01	12.91	3.60	2000
BLK-02	16.02	1.53	2000
BOT-01	5.40	1.27	2006/2008
BRB-04[3]	1.92	0.35	2005
DOY-01	4.75	4.00	2000/2001
DUN-01	20.61	5.42	1998
FRN-01	3.19	0.79	1999
FRN-02	9.89	1.54	1999
GBY-02	5.96	1.59	2005/2006
GLV-02	8.39	1.59	2002/2008
GPD-01	11.62	1.59	2006
HOL-01	8.35	3.44	2001
IND-01[4]	7.3	n/a	2001
LAU-02	23.69	5.55	2000
LEW-02	10.97	1.77	2006
LGL-02	6.62	2.01	2003
MIL-02	5.93	2.01	2003
OPL-01	31.80	1.94	1998
OPL-02	15.26	1.13	2001
PUL-01	6.44	0.43	2004
ROB-01	13.56	6.43	2000/2001
RVH-01	9.63	0.91	1999
SMV-01	5.71	1.23	2006
TRP-01	3.80	2.70	2001/2002
VIC-02	3.55	0.57	2002
WES-02	9.27	0.42	2004
Average	**9.89**	**2.15**	

1 Average SAIDI for the 5 years immediately preceding the DRI project.
2 Average SAIDI for all years since the DRI project, up to and including 2008.
3 Project involved an isolated section of feeder that was experiencing poor reliability.
4 Now part of SUM-01.