Q. For each of the past five years, identify the ten worst performing circuits on Newfoundland Power's system, including the factors underlying the performance of these circuits, and any measures implemented to improve the reliability of these circuits.

A. Tables 1 to 3 list the worst performing feeders sorted by customer minutes, SAIFI and SAIDI, respectively, for each of the past five years. The rankings in each year are based on the five years ending in the years shown.

Table 1
Worst Performing Feeders By Customer Minutes

2004	2005	2006	2007	2008
BOT-01	LEW-02	LEW-02	LEW - 02	LEW-02
BCV-02	BCV-02	BOT-01	GLV – 02	BOT-01
PUL-01	BOT-01	GLV-02	BOT - 01	GLV-02
LEW-02	GLV-02	BCV-02	BCV – 02	NWB-02
GLV-02	PUL-01	GFS-06	ROB - 01	HOL-01
SMV-01	GFS-06	PUL-01	PUL - 01	DUN-01
PUL-02	SMV-01	NWB-02	DUN - 01	DOY-01
HWD-07	LET-01	ROB-01	NWB - 02	GFS-06
WES-02	HOL-01	PUL-02	DOY - 01	KEL-01
LET-01	WES-02	MIL-02	GFS - 06	MIL-02

Table 2
Worst Performing Feeders By SAIFI

2004	2005	2006	2007	2008
GBS-02	BCV-02	GBS-02	GLV-02	GLV-02
BCV-02	GBS-02	GRH-02	FER-01	NWB-02
WES-02	WES-02	WES-02	ROB-01	GBS-02
LEW-02	LEW-02	LEW-02	LEW-02	CAB-01
LOK-01	FER-01	BCV-02	MOB-01	BOT-01
FER-01	LOK-01	LOK-01	DUN-01	LEW-02
SMV-01	GRH-02	WES-01	GBS-02	GRH-02
CAB-01	GLV-02	ROB-01	CAB-01	CHA-01
PUL-02	GRH-03	GLV-02	NWB-02	MIL-02
GDL-01	ROB-01	NWB-02	BOT-01	DOY-01

Table 3
Worst Performing Feeders By SAIDI

2004	2005	2006	2007	2008
GPD-01	GPD-01	GPD-01	GPD-01	GPD-01
WES-02	LEW-02	LEW-02	GLV-02	NWB-02
WES-03	WES-02	WES-03	LEW-02	LEW-02
SMV-01	GLV-02	GBY-03	DUN-01	GLV-02
BOT-01	WES-03	GLV-02	ROB-01	DUN-01
BUC-02	BCV-02	WES-02	BOT-01	BOT-01
BCV-02	WES-01	BOT-01	NWB-02	ROB-01
GLV-02	BOT-01	NWB-02	WES-02	PJN-01
WES-01	SMV-01	WES-01	BCV-02	BUC-02
GBY-03	SUM-02	ROB-01	MOB-01	MIL-02

Details with respect to the factors underlying the reliability performance of each of the listed feeders, and the measures implemented to improve their performance, are provided in Attachment A.

The work required to address distribution reliability issues will generally be carried out, in accordance with the Company's annual capital budgets, under the Rebuild Distribution Lines project or the Distribution Reliability Rebuild Initiative project, depending on the extent of the work required.

Factors Underlying Reliability Performance and Measures Implemented to Improve Performance

Worst Performing Feeders 2004 – 2008

Feeder	Comments
GPD-01	Interruptions have been principally weather related. Work was carried out under the Rebuild Distribution Lines project in 2005.
GLV-02	Issues are related to the general condition of the line and insulator failure. A substantial amount of work was completed on this feeder under the Distribution Reliability Initiative in 2006 and 2008.
LEW-02	Issues are related to the general condition of the line and insulator failure. A substantial amount of work was completed on this feeder under the Distribution Reliability Initiative in 2006.
DUN-01	Reliability statistics were poor in both 2006 and 2007; however, the statistics were driven by a sleet storm in 2006, a broken recloser bushing in 2007 and a broken pole in 2008. No significant reliability work has been carried out in the past five years.
ROB-01	The ROB-01 feeder has displayed consistently poor reliability from 2004 to 2006; however, the issues have been primarily related to trees and lightning. Trees have been cut under the vegetation management program and lightning arrestors have been installed on distribution equipment.
BOT-01	Issues are related to the general condition of the line and insulator failure. A substantial amount of work was completed on this feeder under the Distribution Reliability Initiative in 2006 and 2008.
NWB-02	The NWB-02 feeder has displayed consistently poor reliability over the past five years. The poor reliability has been due to a variety of issues related to the age and condition of the line. Work is planned for 2009, 2010 and 2011 under the Distribution Reliability Initiative.
WES-01	Reliability statistics were poor in 2007 principally due to weather related issues. Work was carried out under the Rebuild Distribution Lines project in 2008.
BCV-02	Problems in 2003, 2004 and 2005. Issues were caused primarily by conductor and insulator failures. Weather also impacted reliability. This feeder was rebuilt under the Distribution Reliability Initiative in 2006.

Feeder	Comments
FER-01	Reliability statistics were poor in 2005. Issues were principally caused by cutouts and insulators. Work was carried out under the Rebuild Distribution Lines project in 2005.
GBS-02	Reliability statistics were poor in 2004, primarily due to cutout and conductor failures. Work was carried out under the Rebuild Distribution Lines project in 2004. There have been no reliability issues since 2005.
CAB-01	Reliability statistics were poor in 2004, largely due to insulator failure. Work was carried out under the Rebuild Distribution Lines project in 2005. There have been no reliability issues since 2005. Poor statistics in 2008 were due to a broken cutout and a broken insulator.
DOY-01	Overall reliability statistics on this feeder have been good. The poor average statistics are driven by a single weather-related issue in 2006. No significant reliability work has been performed on this feeder in the past five years.
GFS-06	Reliability statistics were poor in 2005, principally due to poor weather. Work was carried out under the Rebuild Distribution Lines project in 2006.
MIL-02	The MIL-02 feeder displayed consistently poor reliability from 2002 to 2006, due to the poor overall condition of the line. Significant work was carried out under the Rebuild Distribution Lines project in 2006.
CHA-01	Reliability statistics were poor in 2004 and 2005, due largely to cutout and insulator failures. Work was carried out under the Rebuild Distribution Lines project in 2005.
KEL-01	Reliability statistics were poor in 2006 due to damaged conductor. Work was carried out under the Rebuild Distribution Lines project in 2006.
HWD-07	HWD-07 overall reliability statistics are good; but, due to the large number of customers on the feeder, it ranks high on the list sorted by customer minutes.
GRH-02	Reliability statistics were poor in 2004 and 2005, due to conductor issues resulting from poor weather. Work was carried out under the Rebuild Distribution Lines project in 2005.
BUC-02	Reliability problems in 2008 were due to insulator failures. Work is being carried out under the Rebuild Distribution Lines project in 2009.

Feeder	Comments
PJN-01	Reliability statistics were poor in 2005 and 2006, due to weather conditions and a recloser failure. Work was carried out under the Rebuild Distribution Lines project in 2007.
GBY-03	Reliability statistics were poor in 2003 and 2004, due to insulator and cutout failures. Work was carried out under the Rebuild Distribution Lines project in 2004.
LOK-01	Reliability statistics were poor in 2004, due to weather conditions and conductor failure. Work was carried out under the Rebuild Distribution Lines project in 2006.
MOB-01	Reliability statistics were poor in 2004, due to insulator failure and poor weather conditions. Work was carried out under the Rebuild Distribution Lines project in 2005.
WES-02	Reliability statistics were poor in 2004, due to broken insulators and poor weather conditions. Work was carried out under the Rebuild Distribution Lines project in 2005.
SUM-02	Reliability statistics were poor in 2004 and 2005. Work was carried out under the Rebuild Distribution Lines project in 2008.
SMV-01	Reliability statistics were poor in 2004, due to poor weather conditions and outages caused by animals or birds. Work was carried out under the Rebuild Distribution Lines project in 2004.
PUL-02	Reliability statistics were poor in 2004 and 2005, due to broken conductor and poor weather conditions. Work was carried out under the Rebuild Distribution Lines project in 2006.
PUL-01	Reliability statistics were poor in 2004, due to broken conductor and poor weather conditions. Work was carried out under the Rebuild Distribution Lines project in 2006.
LET-01	Reliability statistics were poor in 2004, due to broken cutouts and poor weather conditions. Work was carried out under the Rebuild Distribution Lines project in 2008.

Feeder	Comments
GDL-01	Reliability statistics were poor in 2005, due to poor weather conditions. Work was carried out under the Rebuild Distribution Lines project in 2006.
GRH-03	Reliability statistics were poor in 2004, due to poor weather conditions. No significant work has been carried out on this feeder in the past five years.
HOL-01	Reliability statistics were poor in 2004 and 2006, due to poor weather conditions. No significant work has been carried out on this feeder in the past five years.
WES-03	Reliability statistics were poor in 2004, due to poor weather conditions. No significant work has been carried out on this feeder in the past five years.