

CI 35882

2009 Cutout Replacements

REDACTED

September 2, 2010

NOVA SCOTIA
POWER
An Emera Company

UARB APPROVAL SHEET

Project Title: **2009 Cutout Replacements**

CI Number: 35882

☐ Capital Project Authorization

Head Office Use:

☒ ATO

Project Number: D250

☒ Final Cost

Date: August 30, 2010

Location:

Division:

Expenditure Profile

Schedule

YEAR	Budget Estimate	Project Estimate		
2009	1,510,053	1,619,099	Start Date	2009-05
2010		23,412	In-Service Date	2009-10
			Estimated Close Date	2010-12
Total	\$1,510,053	\$1,642,511		

COMMENTS

Approved Amount	1,510,053
ATO Amount	132,458
New Approved Amount	<u>1,642,511</u>

Submitted on behalf of NOVA SCOTIA POWER INCORPORATED

Approved on behalf of NOVA SCOTIA UTILITY AND REVIEW BOARD

Authorized Signatory

DATE

DATE

Mark Savory

VP Technical and Construction

[Signature] *Aug 31/2010*

CI Number : 35882-D250 - 2009 Cutout Replacements

Project Number D250

Parent CI Number :

Cost Centre : 800 - 800-Services - Admin.

Budget Version - 2010 07/05 Forecast

	Forecast
Start :	05/01/2009
Operational :	10/31/2009
Final Cost :	12/31/2010
2009	\$1,619,099.02
2010	\$23,412.09
Total :	\$1,642,511.11
Original Cost :	\$0.00

This Unknown & Unforeseen capital item is to replace cutouts on targeted feeder. (Cutouts consist of a porcelain housing bolted onto a crossarm with a fuse inserted into the body) The targeted feeders are prioritized based on customer impact. The replacement of these cutouts will improve the reliability performance of those feeders.

This work has been completed.

Summary of Related CI's +/- 2 years;
No other projects in 2007,2008,2009,2010 or 2011

CI Number : 35882-D250 - 2009 Cutout Replacements

Project Number D250

Parent CI Number : -

Approved Date 9/30/2009

Cost Centre : 800 - 800-Services - Admin.

Budget Version 2010 07/05 Forecast

Capital Item Accounts

Acct	Actv	Account	Activity	Forecast Amount	Amount	Variance
001		001 - Regular Labour (No AO)		0	0	0
002		002 - Overtime Labour (No AO)		0	0	0
011		011 - Travel Expense		0	0	0
012		012 - Materials		2,350	0	2,350
013		013 - COPS Contracts		0	0	0
092		092-Vehicle T&D Reg. Labour AO		28,038	0	28,038
094		094 - Interest Capitalized		56,581	0	56,581
095		095-COPS Contracts AO		285,337	0	285,337
011	035	011 - Travel Expense	035 - DP - Wood Poles	394	0	394
013	035	013 - COPS Contracts	035 - DP - Wood Poles	2,613	0	2,613
013	039	013 - COPS Contracts	039 - DP - O/H Cond.	9,733	0	9,733
001	040	001 - T&D Regular Labour	040 - DP - O/H Cond.Devices	0	0	0
001	040	001 - Regular Labour (No AO)	040 - DP - O/H Cond.Devices	64,779	0	64,779
002	040	002 - Overtime Labour (No AO)	040 - DP - O/H Cond.Devices	1,605	0	1,605
012	040	012 - Materials	040 - DP - O/H Cond.Devices	75,219	0	75,219
013	040	013 - COPS Contracts	040 - DP - O/H Cond.Devices	279,868	0	279,868
001	041	001 - Regular Labour (No AO)	041 - DP - O/H Line Transf.	408	0	408
012	041	012 - Materials	041 - DP - O/H Line Transf.	190,024	0	190,024
013	041	013 - COPS Contracts	041 - DP - O/H Line Transf.	618,047	0	618,047
013	050	013 - COPS Contracts	050 - DP - Street Lights	26,067	0	26,067
013	052	013 - COPS Contracts	052 - DP - Services	1,448	0	1,448
Total Cost:				1,642,511	0	1,642,511
Original Cost:						

CI Number : 35882-D250 - 2009 Cutout Replacements Project Number D250
 Parent CI Number : - Approved Date 9/30/2009
 Cost Centre : 800 - 800-Services - Admin.

Capital Item Justification

Justification Criteria : Distribution System
 Sub-Criteria : Requirement to Serve
 Name of Report :
 Document Location :
 Person Responsible :

Why do this project?

Porcelain cutouts have been failing at a rate of approximately five per day causing customer interruptions. These fail mostly due to them being defective as a result of the manufacturing process. They develop hairline cracks and as a result of moisture, explode and may cause a pole fire. This program is expected to eliminate approximately 5000 customer interruptions and prevent pole damage resulting from cut out failure.

Why do this project now?

Cutout failures are one of the largest contributors to feeder outages. Program cutout replacement on a prioritized feeder basis is required to improve customer reliability.

Why do this project this way?

It has been determined that the best approach to reduce outages caused by cutout failures is to focus on prioritized feeders (as opposed to targeting specific cutout replacements across a number of feeders). The contract portion of this project will be carried out by an affiliate.

CI Number : 35882-D250

Parent CI Number : 800

Cost Centre : 800

- 2009 Cutout Replacements

- 800-Services - Admin.

Project Number D250

Approved Date 9/30/2009

Reason for Variance / Over Expenditure / Final Costing

The variance between the approved amount and the current submission is due to work being done by NSPI labour as opposed to contract work, which caused an increase in overheads. A longer timeframe also led to an increase in interest. This variance is offset by a decrease in contract costs and contract overheads.

14534838

35882-D250 2009 Cutout Replacements

Account	Approved Amount	Current Submission	Variance
001 - Regular Labour (No AO)	-	14,952	14,952
001 - T&D Regular Labour	-	50,234	50,234
002 - T&D Overtime Labour	-	1,605	1,605
011 - Travel Expense	-	394	394
012 - Materials	240,000	267,593	27,593
013 - COPS Contracts	1,000,000	937,777	(62,223)
092-Vehicle T&D Reg. Labour AO	-	28,038	28,038
094 - Interest Capitalized	10,053	56,581	46,528
095 - COPS Reg. Labour AO	260,000	41,515	41,515
095-COPS Contracts AO		243,822	(16,178)
	1,510,053	1,642,511	132,458

These totals do not match Page 2 (Summary of Accounts) with in each account type due to charges being transferred within the project.

CI 35882 2009 Cutout Replacements

The following is a breakdown of costs associated with cutout replacements on the NSPI distribution system:

• Administrative Overheads and Interest	\$369,957
• Labour	\$66,791
• Materials	\$267,593
• Contracts	\$937,777
• Other	\$394
•	
• Total	\$1,642,511

The contract portion of this job is [REDACTED] / Hour.

Cutout replacements were conducted on the following feeders:

- A Forest Hills/Caldwell Road 25 kV feeder out of Dartmouth East Substation
- A Main Street/Portland Estates 25 kV feeder out of Dartmouth East Substation
- A Waverly Road 25 kV feeder out of Dartmouth East substation
- An Eskasoni 25 kV feeder out of Keltic Drive substation
- A Mt. Uniacke 25 kV feeder out of Lucasville Road substation
- An Armdale/Bayers Lake 25 kV feeder out of Lakeside substation
- A Timberlea 25 kV feeder out of Lakeside substation
- A Bay Road 25 kV feeder out of Rockingham substation
- A Bedford Highway/Main Avenue 25 kV feeder out of Rockingham substation
- A Brooklyn 25 kV feeder out of Milton substation
- An Inglis Street 25 kV feeder out of Armdale substation
- A Fall River 25 kV feeder out of Aerotech substation
- A Bedford Highway 25 kV feeder out of Cobequid Road substation
- A Sackville Drive 25 kV feeder out of Cobequid Road substation
- A Beaverbank 25 kV feeder out of Cobequid Road substation
- A Northport 25 kV feeder out of Church Street substation
- A Trenton East 25 kV feeder out of Trenton substation
- A Shubenacadie 25 kV feeder out of Elmsdale substation
- A Noel 25 kV feeder out of Elmsdale substation
- A Highfield Park 25 kV feeder out of Burnside substation
- A Herring Cove Road 12 kV feeder out of Spryfield substation
- A Scotsburn 25 kV feeder out of Haliburton substation
- A Walker Street 25 kv feeder out of Onslow substation
- A Lansdowne 25 kV feeder out of Bridge Avenue substation
- A Tantallon 25 kV feeder out of Hammonds Plains Road substation
- A Kingswood/Lucasville 25 kV feeder out of Hammonds Plains Road substation



UARB APPROVAL SHEET

Project Title: 2009 Cutout Replacements

CI Number: 35882

☒ Capital Project Authorization

Head Office Use:

☐ ATO

Project Number:

☐ Final Cost

Date: May 29, 2009

Location:			Division:	
Expenditure Profile			Schedule	
YEAR		Project Estimate		
2009		1,510,053	Estimated Start Date	2009-05
			Estimated In-Service Date	2009-10
			Estimated Close Date	2009-12
Total	\$0	\$1,510,053		

COMMENTS

"This item is submitted pursuant to section 35A(3)"

Submitted on behalf of NOVA SCOTIA POWER INCORPORATED

Approved on behalf of NOVA SCOTIA UTILITY AND REVIEW BOARD

Authorized Signatory
Mark Savory
VP Tech & Construction Services

DATE
[Signature] May 29/09

Margaret Spears, Q.C.
Vice-chair

DATE

[Signature] 14/09/09

Project Number

- 2009 Cutout Replacements

Budget Version - 2009 04/08 Forecast

CI Number : 35882

Parent CI Number :

- 800-Services - Admin.

Cost Centre : 800

Forecast

Start :	05/01/2009
Operational :	10/31/2009
Final Cost :	12/31/2009
2009	\$1,510,052.94
Total :	\$1,510,052.94
Original Cost	\$655,000.00

This Unknown & Unforeseen capital item is to replace cutouts on targeted feeder. (Cutouts consist of a porcelain housing bolted onto a crossarm with a fuse inserted into the body) The targeted feeders are prioritized based on customer impact. The replacement of these cutouts will improve the reliability performance of those feeders.

Summary of Related CI's +/- 2 years;
No other projects in 2007,2008,2009,2010 or 2011

CI Number : 35882
 Parent CI Number :
 Cost Centre : 800
 - 2009 Cutout Replacements
 -
 - 800-Services - Admin.
 Project Number
 Approved Date
 Budget Version 2009 04/08 Forecast

Capital Item Accounts

Acct	Actv	Account	Activity	Forecast Amount	Amount	Variance
094		094 - Interest Capitalized		10,053	0	10,053
095	005	095-COPS Contracts AO	005 Indirect Costs	260,000	0	260,000
001	040	001 - T&D Regular Labour	040 - DP - O/H Cond.Devices	0	0	0
002	040	002 - T&D Overtime Labour	040 - DP - O/H Cond.Devices	0	0	0
012	040	012 - Materials	040 - DP - O/H Cond.Devices	240,000	0	240,000
013	040	013 - COPS Contracts	040 - DP - O/H Cond.Devices	1,000,000	0	1,000,000
Total Cost:				1,510,053	0	1,510,053
Original Cost:				655,000		

CI Number : 35882 Project Number
 Parent CI Number : Approved Date
 Cost Centre : 800 - 2009 Cutout Replacements
 - -
 - 800-Services - Admin.

Capital Item Justification

Justification Criteria : DISTRIBUTION SYSTEM
 Sub-Criteria : REQUIREMENT TO SERVE
 Name of Report :
 Document Location :
 Person Responsible :

Why do this project?

Porcelain cutouts have been failing at a rate of approximately five per day causing customer interruptions. These fail mostly due to them being defective as a result of the manufacturing process. They develop hairline cracks and as a result of moisture, explode and may cause a pole fire. This program is expected to eliminate approximately 5000 customer interruptions and prevent pole damage resulting from cut out failure.

Why do this project now?

Cutout failures are one of the largest contributors to feeder outages. Program cutout replacement on a prioritized feeder basis is required to improve customer reliability.

Why do this project this way?

It has been determined that the best approach to reduce outages caused by cutout failures is to focus on prioritized feeders (as opposed to targeting specific cutout replacements across a number of feeders). The contract portion of this project will be carried out by an affiliate.

CI 35882 2009 Cutout Replacements

The following is a breakdown of costs associated with cutout replacements on the NSPI distribution system:

• Administrative Overheads and Interest	\$270,053
• Materials	\$240,000
• Contracts	\$1,000,000
• Total	\$1,510,053

The contract portion of this job is estimated to be [REDACTED] / Hour.

The targeted feeders for cutout replacements are as follows:

- A Forest Hills/Caldwell Road 25 kV feeder out of Dartmouth East Substation
- A Main Street/Portland Estates 25 kV feeder out of Dartmouth East Substation
- A Waverly Road 25 kV feeder out of Dartmouth East substation
- An Eskasoni 25 kV feeder out of Keltic Drive substation
- A Mt. Uniacke 25 kV feeder out of Lucasville Road substation
- An Armdale/Bayers Lake 25 kV feeder out of Lakeside substation
- A Timberlea 25 kV feeder out of Lakeside substation
- A Bay Road 25 kV feeder out of Rockingham substation
- A Bedford Highway/Main Avenue 25 kV feeder out of Rockingham substation
- A Brooklyn 25 kV feeder out of Milton substation
- An Inglis Street 25 kV feeder out of Armdale substation
- A Fall River 25 kV feeder out of Aerotech substation
- A Bedford Highway 25 kV feeder out of Cobequid Road substation
- A Sackville Drive 25 kV feeder out of Cobequid Road substation
- A Beaverbank 25 kV feeder out of Cobequid Road substation
- A Northport 25 kV feeder out of Church Street substation
- A Trenton East 25 kV feeder out of Trenton substation
- A Shubenacadie 25 kV feeder out of Elmsdale substation
- A Noel 25 kV feeder out of Elmsdale substation
- A Highfield Park 25 kV feeder out of Burnside substation
- A Herring Cove Road 12 kV feeder out of Spryfield substation
- A Scotsburn 25 kV feeder out of Haliburton substation
- A Walker Street 25 kv feeder out of Onslow substation
- A Lansdowne 25 kV feeder out of Bridge Avenue substation
- A Tantallon 25 kV feeder out of Hammonds Plains Road substation
- A Kingswood/Lucasville 25 kV feeder out of Hammonds Plains Road substation