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October 27, 2011

FEDEX

RECEIVED
OCT 31 2011
PUBLIC SERVICE
COMMISSION

Mr. Jeff DeRouen
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602-0616

2011-00432

Re: Kenergy Corp.
Application for Certificate of Convenience and
Necessity – Cut-out Replacement Program

Dear Mr. DeRouen:

Enclosed are the original and 10 copies of Kenergy Corp.'s Application for Certificate of Convenience and Necessity regarding a program to replace cut-outs in Kenergy's system. In addition three (3) maps of the affected areas of the system are enclosed.

Your assistance in this matter is appreciated.

Very truly yours,

DORSEY, KING, GRAY, NORMENT & HOPGOOD

By



J. Christopher Hopgood
Attorney for Kenergy Corp.

JCH/cds
Encls.

OCT 31 2011

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**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF KENERGY CORP.)
FOR CERTIFICATE OF CONVENIENCE) CASE NO. 2011-00432
AND NECESSITY)

APPLICATION

(a) Kenergy Corp. (“Kenergy”) is a nonprofit electric cooperative organized under KRS Chapter 279 and is engaged in the business of distributing retail electric power to member consumers in the Kentucky counties of Daviess, Hancock, Henderson, Hopkins, McLean, Muhlenberg, Ohio, Webster, Breckinridge, Union, Crittenden, Caldwell, Lyon, and Livingston. This Application is submitted pursuant to KRS 278.020 and 807 KAR 5:001(9).

(b) The post office address of Kenergy is Post Office Box 18, Henderson, Kentucky 42419-018.

(c) Kenergy’s Articles of Consolidation are on file with the Commission in Case No. 99-136.

(d) Kenergy requests that it be granted a certificate of public convenience and necessity to accelerate the replacement of existing cut-outs throughout its system at a total cost of \$1,872,068.00.

(e) Kenergy relies upon the following facts to show that the proposed new improvements will be required by public convenience or necessity. Between 1989 and 1998 Kenergy installed 7,537 A.B. Chance cut-outs in Kenergy's system. 20.9% of these cutouts have failed. Problems caused by failures are mainly safety and service (i.e. outages).

In conjunction with Alcan Aluminum, Kenergy engaged a "Kaizen" study to determine whether it would be cost effective to accelerate a systematic replacement of the cutouts. By employing two (2) in-house crews to replace 61 cutouts per week, 5,962 remaining cutouts can be replaced over a 1.8 year period. The total cost under this proactive approach (including the cost of in-house man hours) is \$1,872,068.00. The direct, or out-of-pocket cost is \$441,188.00. This is compared to the "run to failure" approach of replacing the cutouts as they fail (over a longer period of time) at a total cost of \$6,020,863.00 and a direct cost of \$3,142,068.63. Thus, there is a large cost advantage over time by proactively replacing cutouts at the rate of 61 per week.

In RUS terminology, cut-outs fall within the category of "miscellaneous conductors" and miscellaneous conductor replacement is considered "minor construction units." Minor construction units fall with RUS Code 608. In the 2010 construction work plan approved in Case No. 2010-00110, the cost for minor construction units including replacing miscellaneous conductors (Code 608) is \$1,621,231.00 per year for a total of \$4,863,693.00 for the three (3) year period. Because cut-outs fall within Code 608, it was necessary for Kenergy to amend its Construction

Work Plan with RUS to re-allocate within Code 608 the cost of cut-out replacements. However, the total Code 608 budget of \$4,863,693.00 over a three (3) year period did not change because Kenergy displaced some Code 608 projects to make room for the increase in the cut-out replacements.

Because the project represents an accelerated replacement of cutouts, and due to the fact that the Construction Work Plan with RUS was amended for this project, Kenergy seeks a certificate of convenience and public necessity for the cut-out replacement project.

(f) Franchises are not required for the proposed construction. No permits will be required for either of these projects.

(g) A copy of the power point presentation on the study is submitted with this Application with Sanford Novick's testimony as "Exhibit A."

(h) The location for the project is throughout the Kenergy distribution system. A map of the affected Kenergy system is attached hereto as "Exhibit B."

(i) Kenergy will expend funds from its capital budget to finance this new construction. There is no global increase in the capital budget as other projects will be displaced to perform this work. Ultimately, the savings should reduce Kenergy's operating and capital costs and ease pressure on future rate increases.

(j) The gross cost of construction is \$1,872,068.00, with the direct, or out-of-pocket cost being \$441,188.00. The work is to be done in-house.

WHEREFORE Kenergy asks that the Public Service Commission of the Commonwealth of Kentucky make its order issuing a certificate of convenience and necessity authorizing the application to proceed with the accelerated cut-out replacement project.

Dated at Henderson, Kentucky, this 25 day of October, 2011.

DORSEY, KING, GRAY, NORMENT & HOPGOOD
318 Second Street
Henderson, Kentucky 42420
Telephone 270-826-3965
Telefax 270-826-6672
Attorneys for KENERGY CORP.

By J. Christopher Hopgood
J. Christopher Hopgood

VERIFICATION

The undersigned hereby verifies that the statements and information set forth in the foregoing Application are true and correct to the best of my knowledge and belief.

Sanford Novick
Sanford Novick, President and CEO
Kenergy Corp.

STATE OF KENTUCKY
COUNTY OF Darwin

The foregoing was signed, acknowledged and sworn to before me by **SANFORD NOVICK, President and CEO of KENERGY CORP.**, this 26th day of October, 2011.

My commission expires 5-24-2015

Debra J. Hayden
Notary Public, State of Kentucky at Large

(seal)

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**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF KENERGY CORP.)
FOR CERTIFICATE OF CONVENIENCE) CASE NO. 2011-_____
AND NECESSITY)

TESTIMONY OF SANFORD NOVICK

Q1. Please state your name, business address and position with Kenergy.

A. Sanford Novick, 6402 Old Corydon Road, Henderson, Kentucky 42420. I am President and CEO of Kenergy.

Q2. What is your educational background?

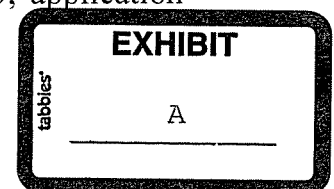
A. I received a Bachelor of Science in Mechanical Engineering from Vanderbilt University in 1970 and a Master of Business Administration in Management from Memphis State University in 1976.

Q3. What is your work experience?

A. Before coming to Kenergy in 2007 I worked for Memphis Light Gas & Water Division from which I retired as Vice President of Operations for the Electric, Gas & Water systems. In 1997, I began work with Mississippi Valley Gas as Senior Vice President of Operations and rose to the Chief Operating Officer position before the company was acquired by Atmos Energy in 2002. I then served as General Manager of the Lansing Board of Water & Light from 2003 until 2006. I am a registered professional engineer in Tennessee and Mississippi.

Q4. Have you previously submitted testimony before the Kentucky Public Service Commission?

A. Yes. I presented testimony in Kenergy's application for approval of retail riders and revised tariffs, Case No. 2008-00009; in Case No. 2008-00323, application



1 for a general adjustment in rates; and in Case No. 2011-00035, application for a
2 general adjustment in rates.
3

4 Q5. Have you previously submitted testimony before other regulatory agencies?

5 A. Yes. I submitted testimony with the Mississippi Public Service Commission.

6 Q6. What is Kenergy requesting in this case?

7 A. Kenergy is requesting a certificate of convenience and public necessity to
8 accelerate the replacement of conductors referred to as “cut-outs.”
9

10 Q7. Why is Kenergy seeking the certificate?

11 A. Between 1989 and 1998 a predecessor company to Kenergy (Green River Electric)
12 installed approximately 7537 A.B. Chance porcelain insulated fused cut-outs and/or
13 combination cut-out and lightening arrestor. Since then, Kenergy has been experiencing
14 accelerated failure rates of these devices (20.95% to date). The premature failure of this
15 vintage of these devices is attributed to a possible flaw in the manufacturing process
16 allowing the porcelain insulator to develop hairline cracks or to separate from the
17 conductive element and fault to ground causing as a minimum an outage and in a
18 growing number of cases a pole fire with the associated outage.
19

20 In conjunction with Alcan Aluminum, Kenergy engaged in a “Kaizen” study to
21 determine if it would be more cost effective to proactively replace all the cut-outs
22 as opposed to replacing them only when each individual cut-out failed. “Kaizen”
23 is a Japanese phrase for “improvement” or “change for the better”. It was
24 determined in the “Kaizen” study that replacement non-porcelain cut-outs have a
25 longer and more reliable life than the existing cut-outs.
26

27 The results of the Kaizen study (attached) showed that a systematic proactive
28 replacement of all cut-outs is cost effective. By employing two (2) in-house crews
29 to replace 61 cut-outs per week, 5,962 remaining cut-outs can be replaced over a
30 1.8 year period. The total cost under this proactive approach (including the cost of
31 in-house man hours) is \$1,872,068.00. The direct, or out-of-pocket cost is
32 \$441,188.00. This is compared to the “run to failure” approach of replacing the
33 cut-outs as they fail (over a longer period of time) at a total cost of \$6,020,863.00
34 and a direct cost of \$3,142,068.63. Thus, there is a large cost advantage over time
35 by proactively replacing cut-outs at the rate of 61 per week.
36

37 In RUS terminology, cut-outs fall within the category of “miscellaneous
38 conductors” and miscellaneous conductor replacement is considered “minor

1 construction units.” Minor construction units fall within RUS Code 608. In the
2 2010 construction work plan approved in Case No. 2010-00110, the cost for minor
3 construction units including replacing miscellaneous conductors (Code 608) is
4 \$1,621,231.00 per year for a total of \$4,863,693.00 for the three (3) year period.
5 Because cut-outs fall within Code 608, it was necessary for Kenergy to amend its
6 Construction Work Plan with RUS to re-allocate within Code 608 the cost of cut-
7 out replacements. However, the total Code 608 budget of \$4,863,693.00 over a
8 three (3) year period did not change because Kenergy displaced some Code 608
9 projects to make room for the increase in the cut-out replacements. By shifting
10 projects within Code 608, the overall capital expenditure will not increase. If
11 savings are as projected, then the potential for future rate increases is mitigated.
12

13 Q8. Does this conclude your testimony?

14 A. Yes.

RioTintoAlcan

Proactive cutout replacement
program Kaizen

Final Press Conference

04/15/2011



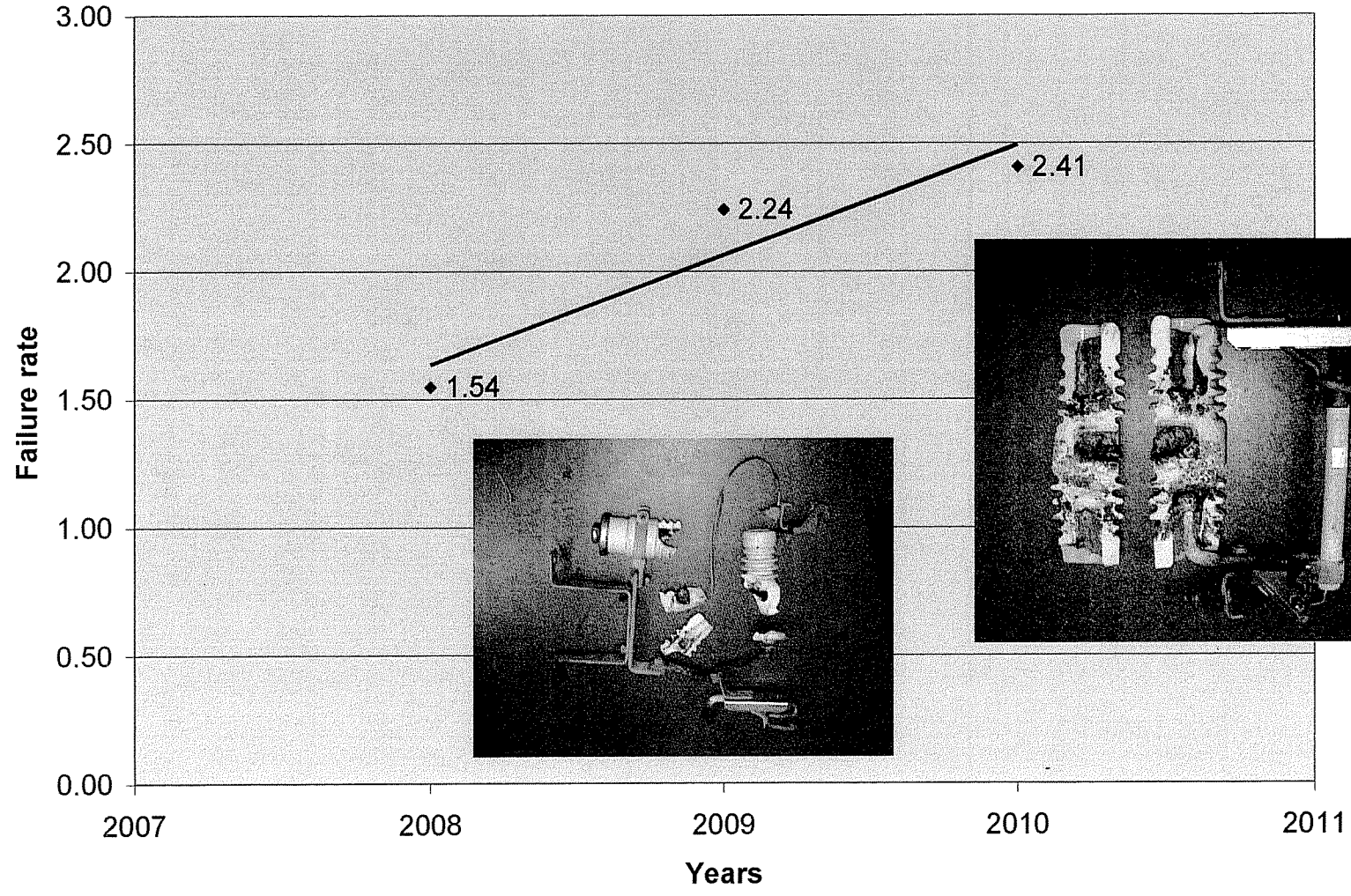
Mandate



- Problem history
 - 7537 AB Chance cutouts were installed between 1989 and 1998
 - 20.9% of these cutouts have failed on the field with negative impacts on:
 - Safety: porcelain is heavy and sharp, pole fires
 - Service: many outages
 - People: moral of employees
 - Performance: all direct and indirect costs
- Problem statement
 - Define and implement a plan to change the remaining 6000 cutouts in respect to safety, service, people and performance

Mandate (cont'd)

- Failure rate seems to increase



Kaizen Team

- Sponsor: Sandy Novick
- Team members:
 - Jeff Parks (owner of the process)
 - Mike Hagan (service tech.)
 - Randy Dukate (service tech.)
 - Kevin Hamilton (crew foreman)
 - Jerry Phillips (crew foreman)
- Facilitators: M. Perreault & DA Tremblay

Cost figure

- Since 10 years, 1575 cutouts have been changed after failure
 - Average of 50 pole fires per year
 - 66% of cutout changed on OT
 - Average total cost of \$1010 per cutout
 - Total costs estimated at \$1,6M

Cutout	Normal labor hours	100
	OT Labor	220
	Material	74
	Sub Total for cutout	394
Pole	Normal labor hours	143
	OT Labor	314
	Material	159
	Sub Total for pole	616
Total/cutout		1010

Direct costs 52%

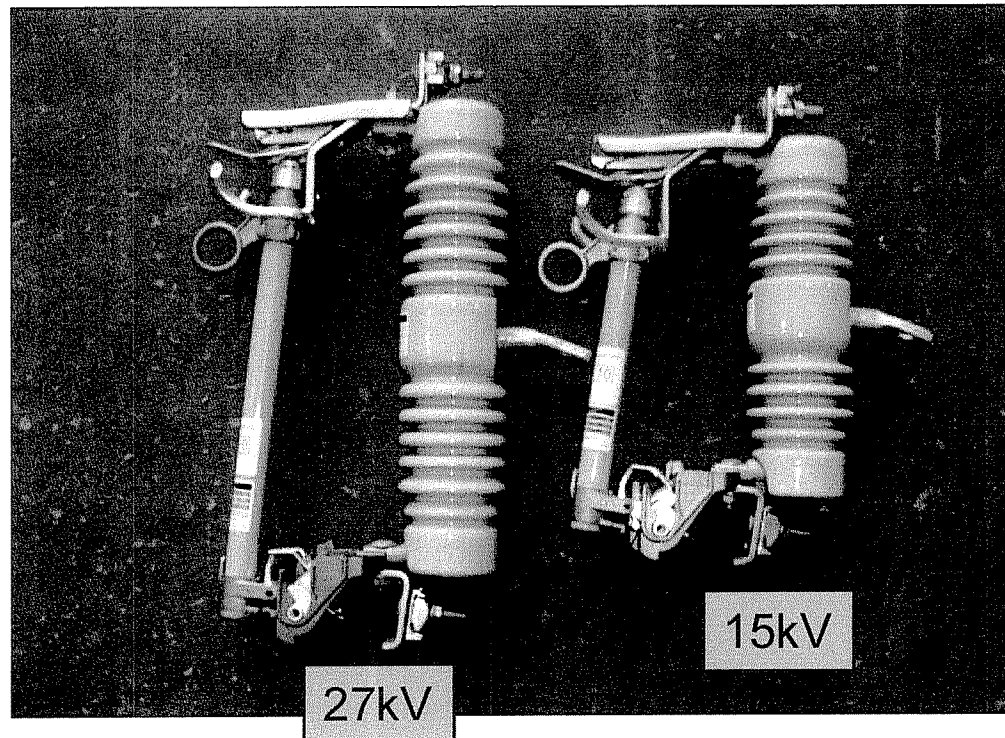
Number of cutout changed	1575
Total cost	\$ 1,590,550
<i>Direct cost</i>	\$ 830,050.00

Collecting data for proactive program option

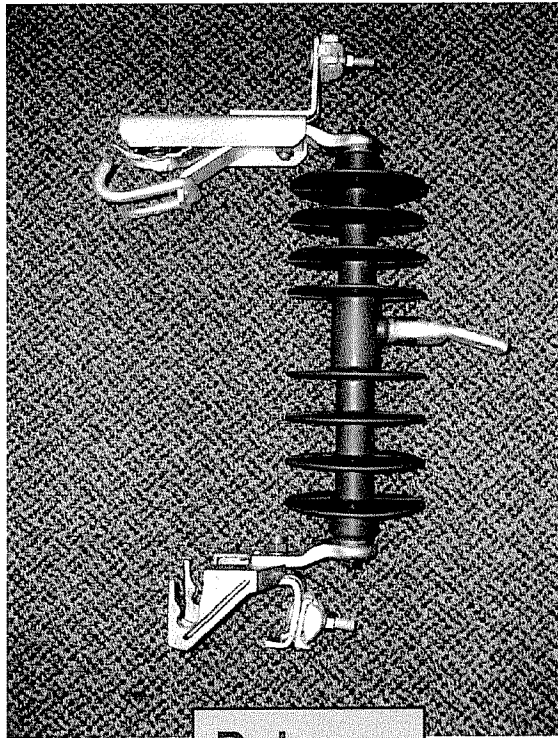
- Demonstration done on Monday with good conditions
 - Time to change a cutout: 19 minutes
- Number of cutouts to be changed in a normal day
 - 3 different teams evaluated the same (randomly selected) area on Monday pm
 - Team #1: 14 cutouts per day
 - Team #2: 12.4 cutouts per day
 - Team #3: 15.7 cutouts per day
 - A team evaluated two (2) other areas Tuesday am
 - Confirmed the previous evaluation

Cutout type: 15kV vs 27 kV

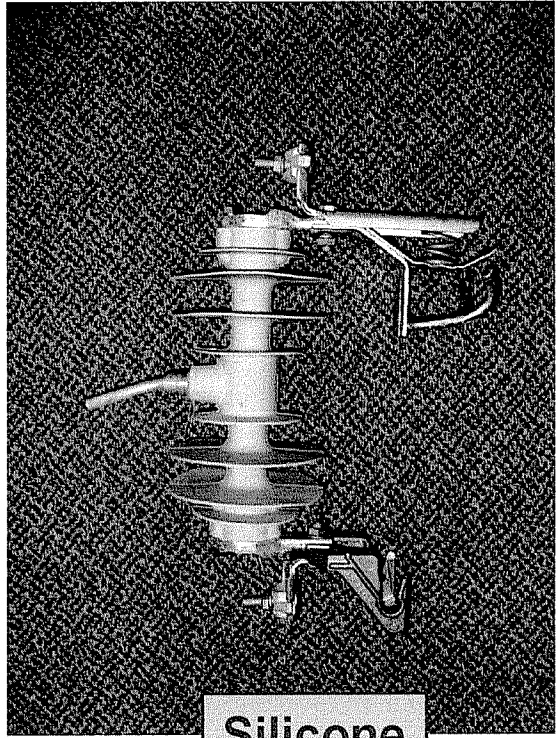
- After discussion with engineering group, the 27kV cutouts have to be selected to replace the 15kV cutouts
 - Better BIL
 - Standardize cutout for whole system



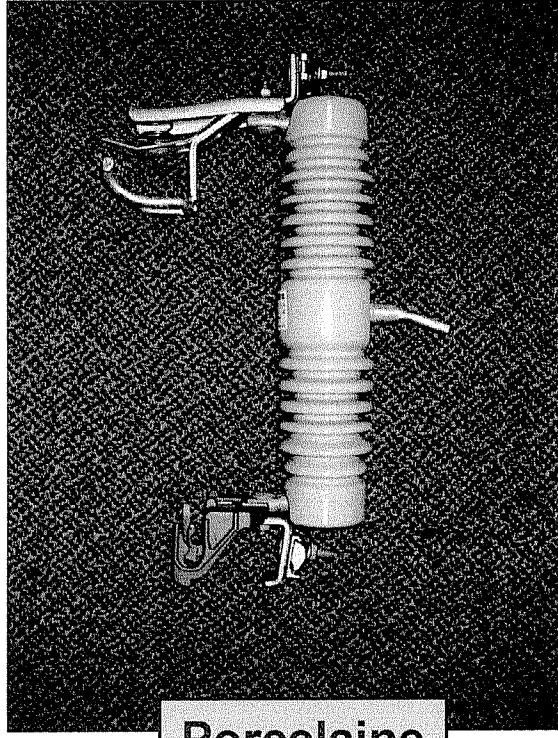
Cutout type: Polymer, Silicon or Porcelaine



**Polymer
27kV**



**Silicone
15kV**



**Porcelaine
27kV**

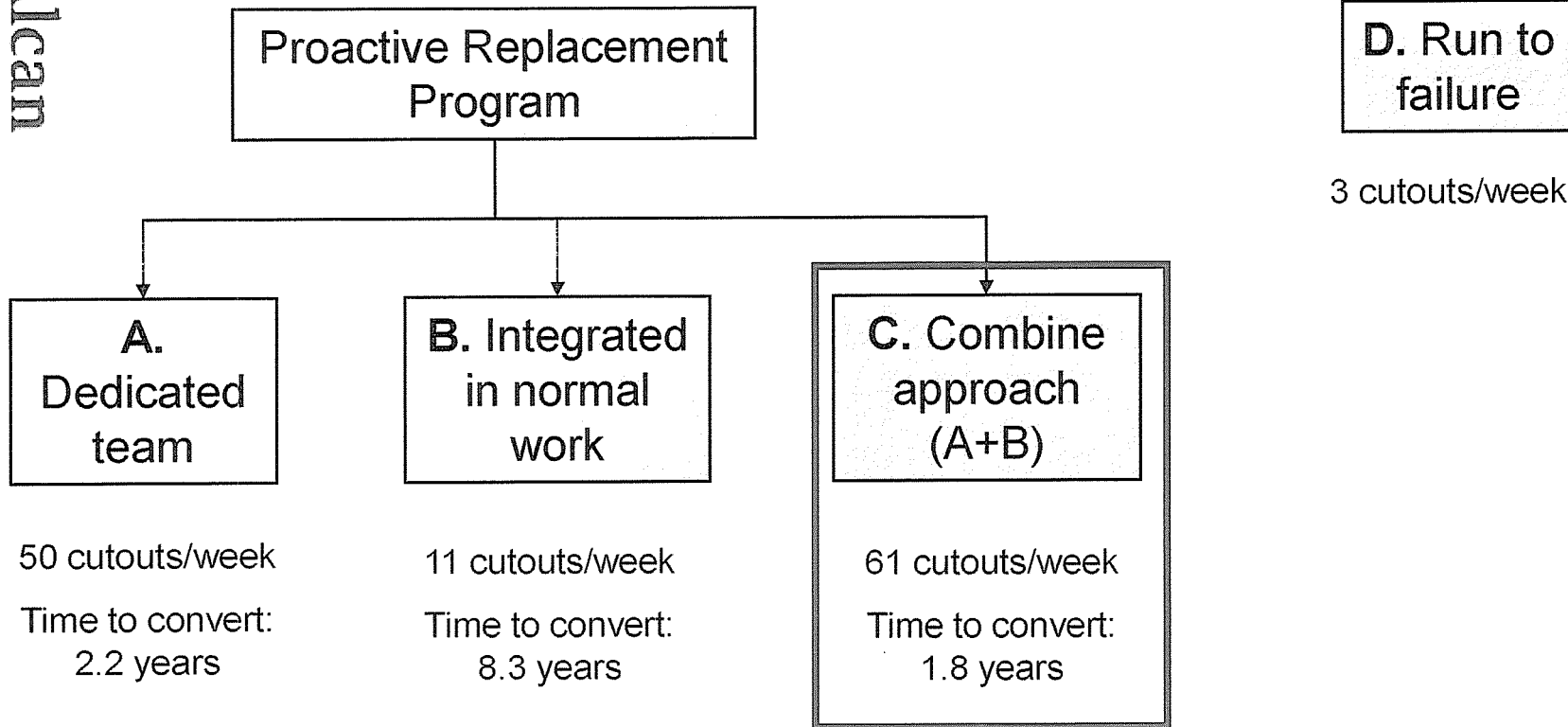
Cutout type: Polymer, Silicon or Porcelain

	Polymer 27kV	Silicone 27kV	Porcelain 27kV
Manufacturers	Chance/ABB/S&C	Chance/P&L/S&C	Chance/ABB/S&C
Costs (for 6000)	\$73.84 - \$97.98	\$64.90	\$58.20
Users	CPL/OMU/Warren	Hydro Sherbrooke	Kenergy
Number in the field	1,000,000	400,000	Many
Years being used	+15 years	10 years	+30 years
Failure rate	0.004%	0%	+0.2%
Weight	9.2 lbs	8.4 lbs (15kV)	15.2 lbs
BIL	125	+125	125
Hydrophobic	48h to dry	24h to dry	
Handling/storage	Easy	Easy	Fragile
Safety	Safe	Safe	Not safe (breaks in multiple sharp pieces)
Sealing (water)	Good	Very good	Fair
Availability	OK	9 weeks	OK

Pilot Solution

- A area has been randomly selected Tuesday pm with a list of 8 suspicious cutouts
- Wednesday morning, 2 technicians did the pilot during a total of 2h15:
 - Changed five (5) 15kV cutouts with 27kV polymer cutouts
 - All AB Chance 15kV made between 1989 and 1998
 - Ideal conditions (no climbing, no off road,...)
 - Did not change three (3) 15kV cutouts because different type
- Conclusions
 - Confirmation of previous evaluation: 10 cutouts/day can be changed by a dedicated team
 - The polymer 27kV cutouts doesn't cause problem

Options for the 5962 remaining cutouts



Options for the 5962 remaining cutouts

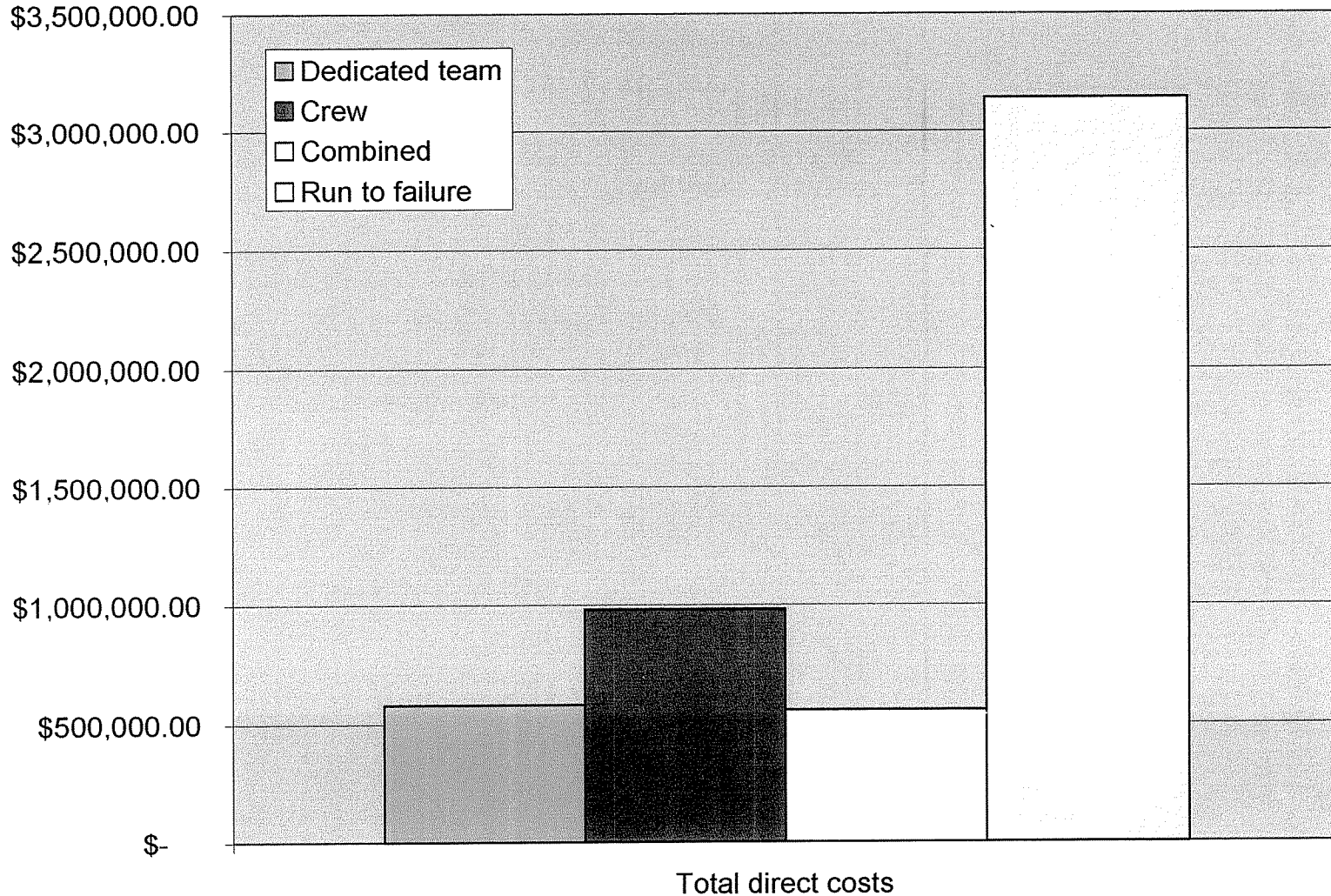


		Run to failure costs	Proactive replacement costs
Cutout	Normal labor hours	100	240
	OT Labor	220	0
	Material	74	74
	Sub Total for cutout	394	314
Pole	Normal labor hours	143	
	OT Labor	314	
	Material	159	
	Sub Total for pole	616	
Total/cutout		1010	314
<i>Direct costs</i>		<i>52%</i>	<i>24%</i>

Number of cutout changed	1575	
Total cost	\$ 1,590,550	\$ -
<i>Direct cost</i>	\$ 830,050.00	

Number of cutout to be changed	5962	5962
Total cost	\$ 6,020,863	\$ 1,872,068
<i>Direct cost</i>	\$ 3,142,068.63	\$ 441,188.00

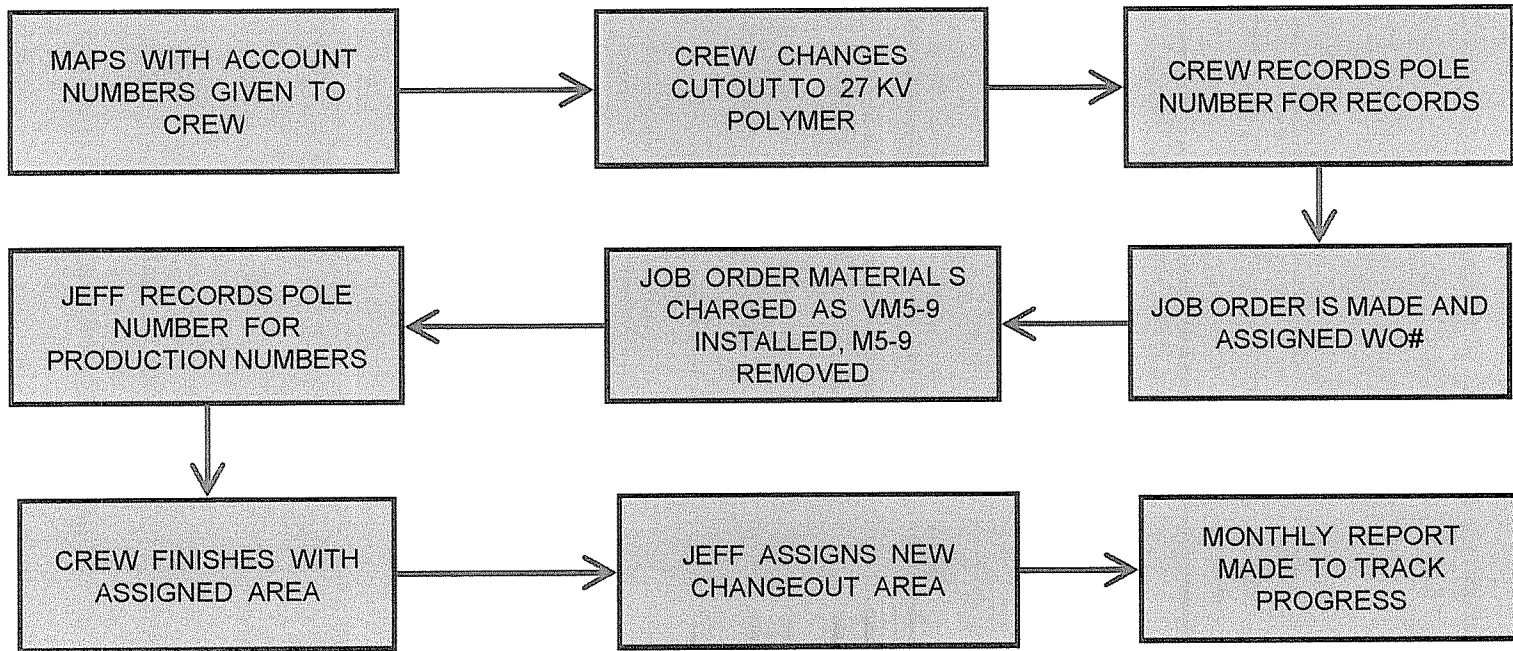
Options for the 5962 remaining cutouts



Solution details: logistic

- **Proactive program coordinator: Jeff Parks**
 - Dedicated team
 - Two trucks: 530 and 480
 - Primary team members
 - Chris Bennett
 - Donnie Stevens
 - Help from regular construction crews and service technicians

Solution details: process

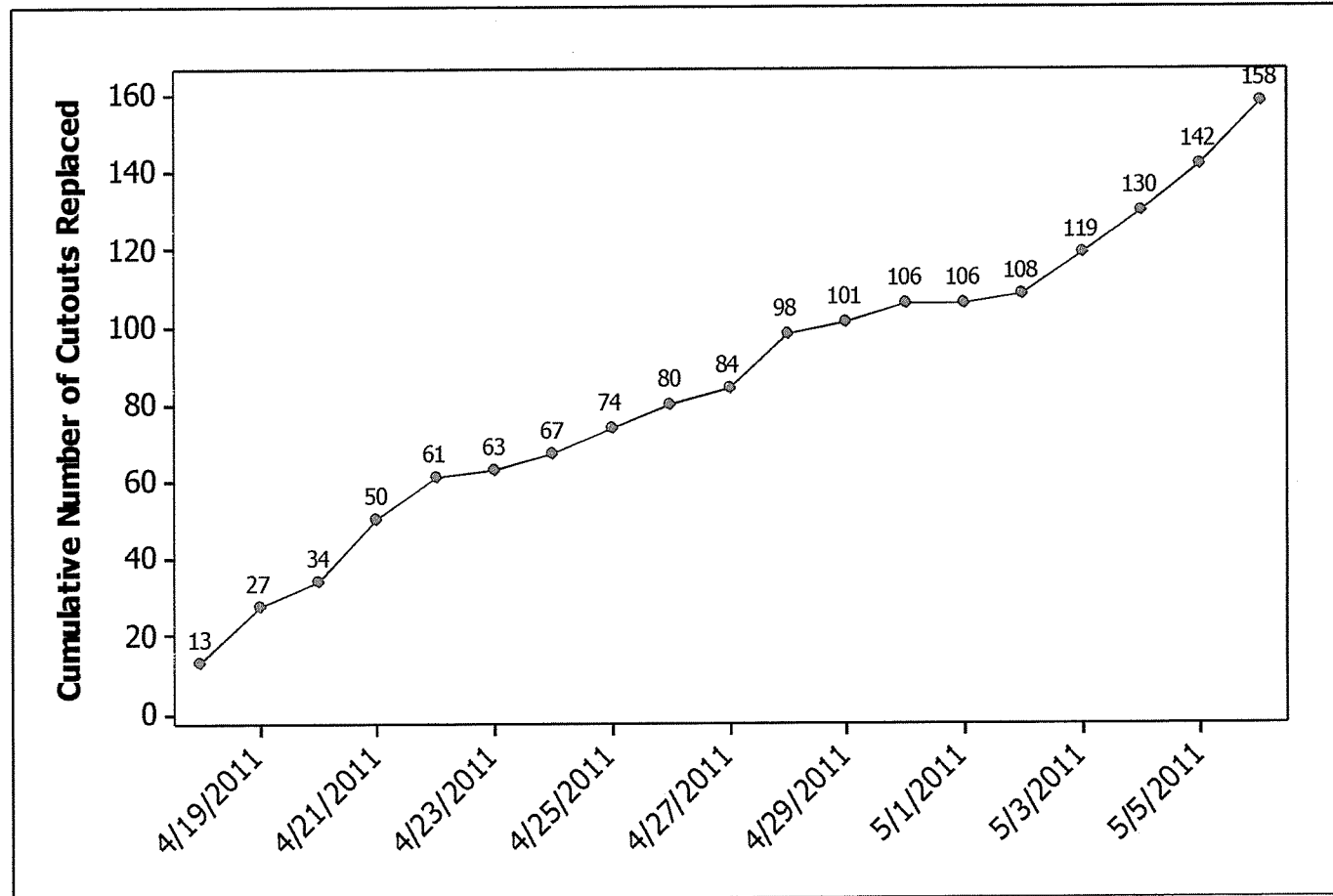


Solution details: progress tracking



- Monthly target: 244 AB Chance 1989-1998 cutouts changed
 - Results discussed during monthly operation staff meeting
 - If below 80% (195), contact VP of operations for:
 - Help from construction crews
 - Help from contractors

Program Update

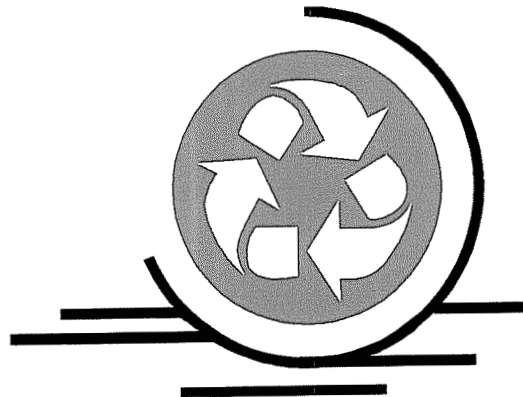


- As of 05/06, 158 cutouts have been proactively replaced
 - Average of 53/week (target 61)
- Proactively change 158 cutouts represents \$ 72k saving compared to replace those after failure

Solution details: cutout recycling



- Dahl & Groezinger Inc
 - \$0,22/lb
 - Around 12 lbs per 15kV cutout
 - Estimated \$15,800 for the program
- Dahl & Groezinger Inc
 - They are going to supply hoppers in Owensboro and Henderson
 - Start Monday April 18th



Information



- Request AB Chance to take back the porcelain cutouts for 75% of the price as they did for OMU
- AB Chance or other brand?
- Silicone still an interesting product

Conclusion



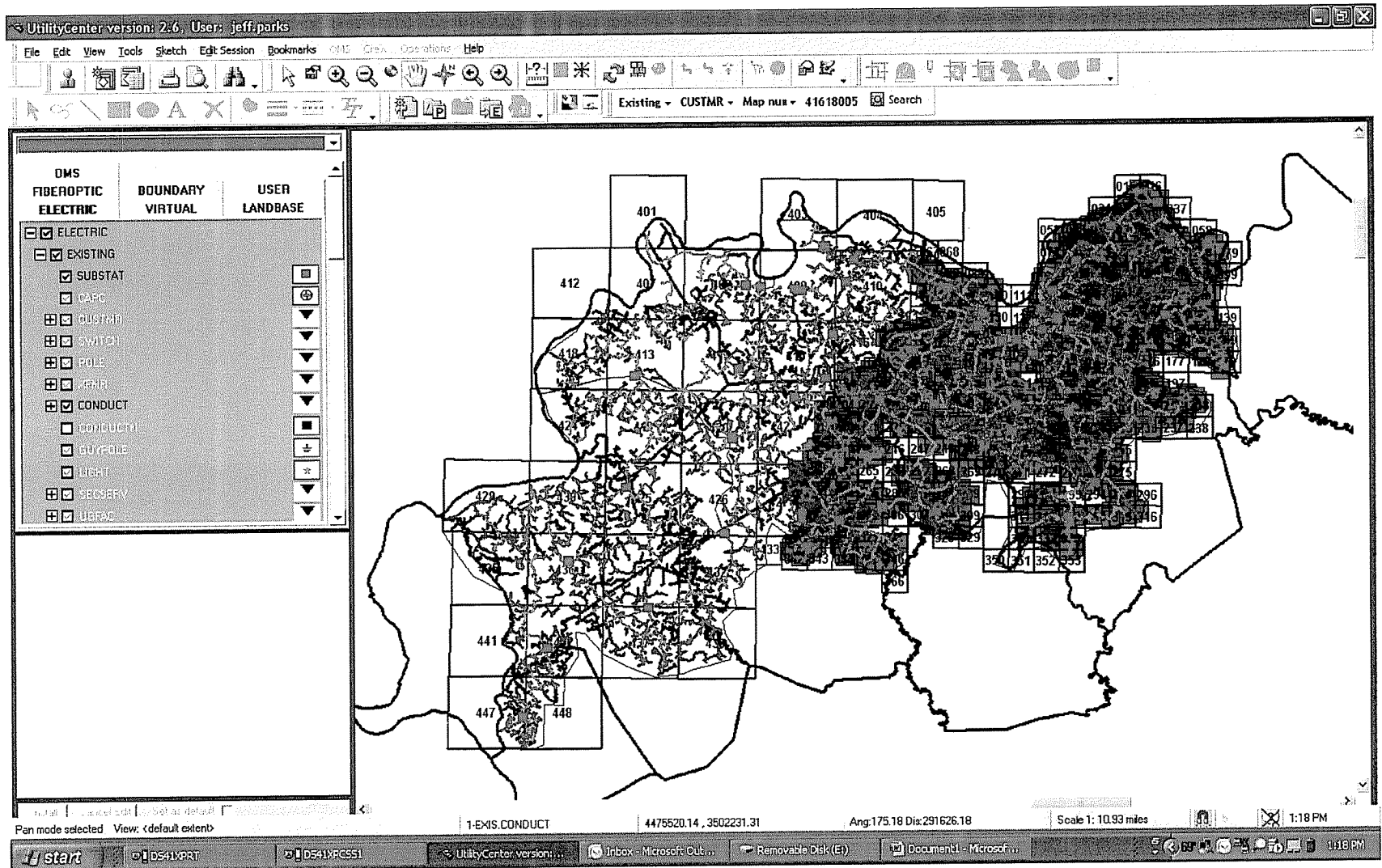
- The proactive approach is the only option
 - Safety for line technician and public
 - Protect liability of the company
 - Less costs: Quicker we act, more we save
 - System reliability
 - Customer satisfaction
 - Environmental concerns
 - Moral of the troops
- Kaizen follow up in a month

Thanks

- Thanks to the team



- Special thanks for all departments for their great support



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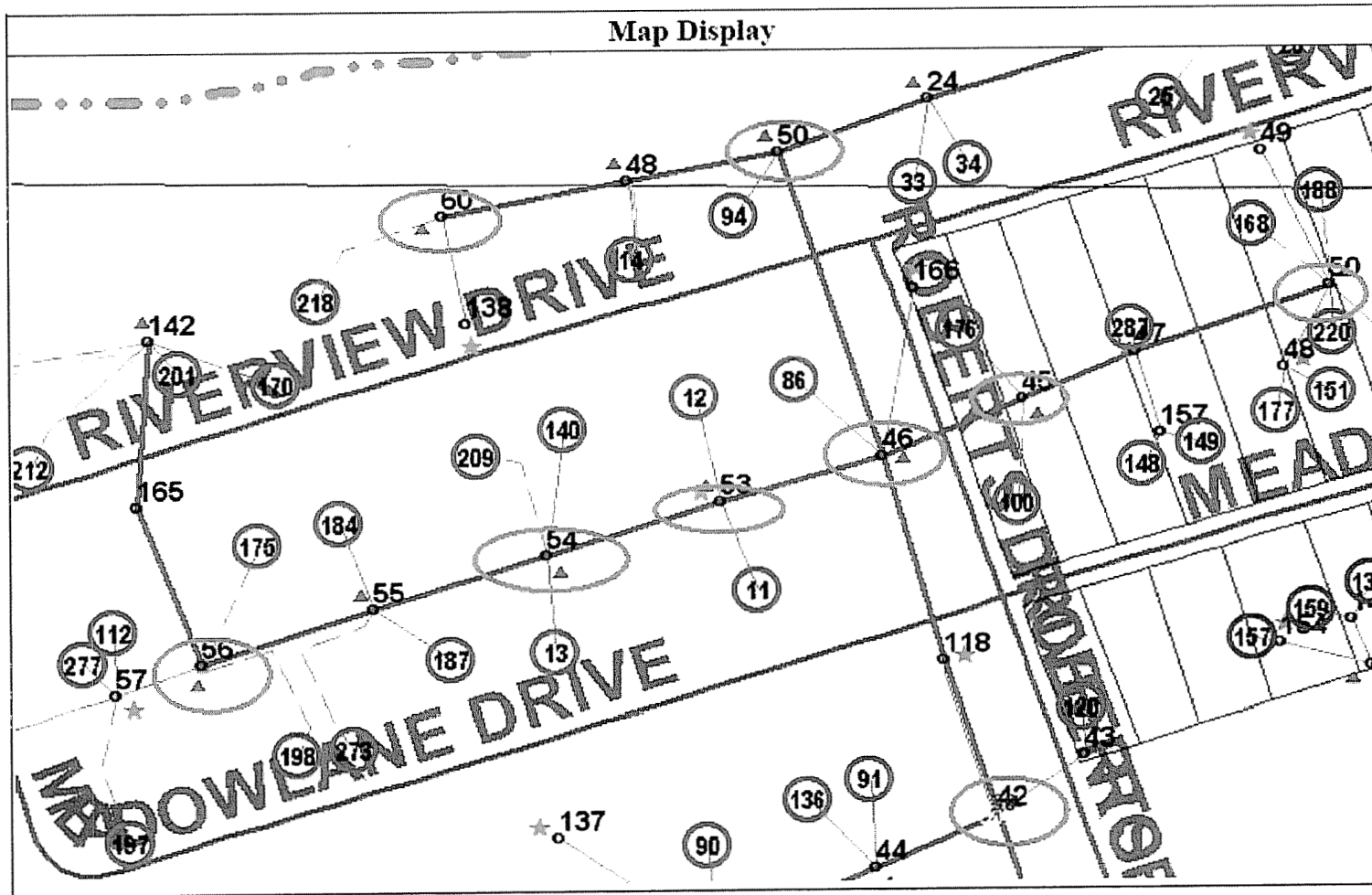
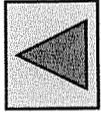
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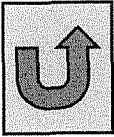
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Rio Tinto Alcan



Cutout Replacement Program							WO # 11-95__ __ Owensboro
Tracking Sheet							
Date	JO MADE	Customer #	Pole #	Map	Cutout removed		Cutout installed
					Type/KV	Manufactured	Type/KV

RioTinto Alcan

UtilityCenter version: 2.6. User: jeff.parks

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EXHIBIT

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