

ATCO Electric

YUKON

July 17, 2014

Yukon Utilities Board
P.O. Box 31728
Whitehorse, Yukon Y1A 6L3

Attention: Deana Lemke, Yukon Utilities Board Executive Secretary

Dear Deana:

Re: Service Interruptions

In accordance with Board Decision 1989-5, attached is the summary of major unplanned outages for the months of April, May, and June 2014. A major outage has, for the purposes of these reports, been defined as an interruption of any length involving either a significant number of customers or a small community.

Please contact me at 633-7003, if you require any additional information or clarification.

Yours Sincerely,

ATCO Electric Yukon



Dwight Redden,
General Manager

DR:cm
Encl.

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Board Report (>50 custs)

ATCO Electric

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Service Area 571 Whitehorse

Date Reported 2014-04-07 **Time Reported** 13:50
Outage Number RGC00035 **Time Interrupted** 13:30
Planned Unplanned **Time Restored** 14:25
Sub Number 11 **Primary Cause** 2 Trees
Line Number 5L631 **CEA Coding** Trees
Location Whitehorse-Alaska Hwy South

of Customers 73
Avg. Customer Duration 1.22

Explanations Comments
 Tree on S9318 tap caused outage to customers in the area, power was restored in 2 stages

Service Area 571 Whitehorse

Date Reported 2014-04-15 **Time Reported** 3:00
Outage Number RJZ00379-571 **Time Interrupted** 3:00
Planned Unplanned **Time Restored** : 0
Sub Number **Primary Cause** 22 YEC Generation/Transm
Line Number WAF **CEA Coding** Loss of Supply - Yukon Energy
Location

of Customers 11584
Avg. Customer Duration 1.35

Explanations Comments
 YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages

Service Area 571 Whitehorse

Date Reported 2014-04-23 **Time Reported** 7:50
Outage Number RSM00242 **Time Interrupted** 7:50
Planned Unplanned **Time Restored** 13:00
Sub Number 28 **Primary Cause** 8 Equipment Failure
Line Number 4L307 **CEA Coding** Defective Equipment
Location Whitehorse-Porter Creek

of Customers 85
Avg. Customer Duration 5.17

Explanations Comments
 Underground transformer at 91 Ponderosa Dr faulted after elbow & conductor failed causing a phase to ground fault. Power was restored in stages.

Board Report (>50 custs)

Service Area 571 Whitehorse

of Customers 3358

Date Reported 2014-05-02 Time Reported 14:55

Avg. Customer Duration 0.54

Outage Number RJZ00387 Time Interrupted 14:55

Planned Unplanned

Time Restored : 0

Sub Number

Primary Cause 22 YEC Generation/Transm

Line Number WAF

CEA Coding Loss of Supply - Yukon Energy

Location

Explanations Comments
YEC WH4 loadshed Stage 1 & 2 causing outage to part of Whitehorse and surrounding area

Service Area 571 Whitehorse

of Customers 681

Date Reported 2014-05-05 Time Reported 10:25

Avg. Customer Duration 0.37

Outage Number RSM00246 Time Interrupted 10:25

Planned Unplanned

Time Restored 10:47

Sub Number 21

Primary Cause 14 Unknown

Line Number 5L645

CEA Coding Unknown/Other

Location Whitehorse-Mayo Road

Explanations Comments
5L645 was under "Hold Off Permit" AMI14May5IA. S8686 had the hot line tag enabled, the line tripped off, no cause found

Service Area 571 Whitehorse

of Customers 1105

Date Reported 2014-06-06 Time Reported 11:10

Avg. Customer Duration 0.94

Outage Number RSM00249 Time Interrupted 11:10

Planned Unplanned

Time Restored 11:52

Sub Number 17

Primary Cause 14 Unknown

Line Number 5L624

CEA Coding Unknown/Other

Location Whitehorse-Multiple Areas

Explanations Comments
Breaker S9815 tripped off, patrolled 5L624, found no visible cause for the outage.

Board Report (>50 custs)

ATCO Electric

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Service Area 571 Whitehorse

Date Reported 2014-06-16 Time Reported 23:15
Outage Number MWG00087 Time Interrupted 23:11
Planned Unplanned Time Restored :25
Sub Number 2 Primary Cause 8 Equipment Failure
Line Number 5L645 CEA Coding Defective Equipment
Location Whitehorse-Mayo Road

of Customers 681
Avg. Customer Duration 1.27

Explanations Comments
Fault on breaker S8686 caused by failed insulator, isolated the fault, re energized the line

Service Area 571 Whitehorse

Date Reported 2014-06-16 Time Reported 11:50
Outage Number RSM00254 Time Interrupted 11:50
Planned Unplanned Time Restored 12:22
Sub Number 17 Primary Cause 13 YEC U/F Load Shed
Line Number 5L626 CEA Coding Loss of Supply - Yukon Energy
Location Whitehorse-Multiple Areas

of Customers 4374
Avg. Customer Duration 0.65

Explanations Comments
YEC loss of unit WH3 forced a stage 1 load shed opening breaker S6838. System brought up in stages, all customers returned to normal at 1222hrs

Service Area 571 Whitehorse

Date Reported 2014-06-16 Time Reported 11:32
Outage Number RSM00255 Time Interrupted 11:32
Planned Unplanned Time Restored 12:14
Sub Number 11 Primary Cause 14 Unknown
Line Number 5L631 CEA Coding Unknown/Other
Location Whitehorse-Alaska Hwy South

of Customers 1006
Avg. Customer Duration 0.70

Explanations Comments
Breaker S9833 was on Hold off Permit, breaker opened on over current fault, no cause found

Board Report (>50 custs)

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Service Area 571 Whitehorse

Date Reported 2014-06-25 **Time Reported** 13:10
Outage Number RSM00257 **Time Interrupted** 13:10
Planned Unplanned **Time Restored** 13:51
Sub Number 11 **Primary Cause** 9 Bird/Animal
Line Number 5L631 **CEA Coding** Foreign Interference
Location Whitehorse-Mary Lake

of Customers 1006
Avg. Customer Duration 0.68

Explanations Comments
 Breaker S9833 tripped off line due to a raven on the single phase line, S9833 was on Hold off Permit. S9833 was picking up 1/2 of Arkell Substation load while on scheduled maintenance.

Service Area 571 Whitehorse

Date Reported 2014-06-30 **Time Reported** 9:00
Outage Number RSM00258 **Time Interrupted** 9:00
Planned Unplanned **Time Restored** 9:28
Sub Number **Primary Cause** 9 Bird/Animal
Line Number 0L **CEA Coding** Foreign Interference
Location System Outage

of Customers 9554
Avg. Customer Duration 1.33

Explanations Comments
 Raven caused a phase to phase fault on transformer T1 in Arkell Substation, S150-52-18 tripped on over current fault. YEC WH4 tripped off line, for reasons YEC is to determine causing S6837, S6838, S150-52-22 to trip (Stage 1, 2, 3 load shed)

Service Area 572 Haines Junction

Date Reported 2014-04-15 **Time Reported** 3:00
Outage Number RJZ00379-572 **Time Interrupted** 3:00
Planned Unplanned **Time Restored** : 0
Sub Number **Primary Cause** 22 YEC Generation/Transm
Line Number WAF **CEA Coding** Loss of Supply - Yukon Energy
Location

of Customers 495
Avg. Customer Duration 0.24

Explanations Comments
 YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages. Backup generation did start.

Board Report (>50 custs)

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Service Area 572 Haines Junction

Date Reported 2014-05-28 Time Reported 13:32
Outage Number RTW00290 Time Interrupted 13:32
Planned Unplanned Time Restored 13:33
Sub Number 20 Primary Cause 7 Overload
Line Number 0L CEA Coding Unknown/Other
Location

of Customers 578
Avg. Customer Duration 0.02

Explanations Comments
Breaker S9292 and breaker S8343 opened on overcurrent fault, reclosed. No cause found for the overcurrent.

Service Area 574 Carcross

Date Reported 2014-04-15 Time Reported 3:00
Outage Number RJZ00379-574 Time Interrupted 3:00
Planned Unplanned Time Restored : 0
Sub Number Primary Cause 22 YEC Generation/Transm
Line Number 5L601 CEA Coding Loss of Supply - Yukon Energy
Location

of Customers 317
Avg. Customer Duration 1.80

Explanations Comments
YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages

Service Area 574 Carcross

Date Reported 2014-05-02 Time Reported 14:55
Outage Number RJZ00387A Time Interrupted 14:55
Planned Unplanned Time Restored 15:19
Sub Number S150 Primary Cause 22 YEC Generation/Transm
Line Number 0L CEA Coding Loss of Supply - Yukon Energy
Location

of Customers 324
Avg. Customer Duration 0.40

Explanations Comments
YEC WH4 loadshed Stage 1 & 2 causing outage to part of Whitehorse, & Carcross

Board Report (>50 custs)

Service Area	574 Carcross	
Date Reported	2014-06-30	Time Reported 9:00
Outage Number	RSM00258A	Time Interrupted 9:00
Planned	Unplanned	Time Restored 10:15
Sub Number	0L	Primary Cause 13 YEC U/F Load Shed
Line Number	0L	CEA Coding Loss of Supply - Yukon Energy
Location		
	# of Customers 324	
	Avg. Customer Duration 1.25	
	Explanations Comments Raven caused a phase fault on transformer T1 in Arkell Substation, S150-52-18 tripped on over current fault. YEC WH4 tripped off line, for reasons YEC is to determine causing S6837, S6838, S150-52-22 to trip (Stage 1, 2, 3 load shed)	

Service Area	575 Carmacks	
Date Reported	2014-04-15	Time Reported 3:00
Outage Number	RJZ00379-575	Time Interrupted 3:00
Planned	Unplanned	Time Restored : 0
Sub Number		Primary Cause 22 YEC Generation/Transm
Line Number	5L606	CEA Coding Loss of Supply - Yukon Energy
Location		
	# of Customers 289	
	Avg. Customer Duration 0.12	
	Explanations Comments YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages. Backup generation did start.	

Service Area	576 Teslin	
Date Reported	2014-04-15	Time Reported 3:00
Outage Number	RJZ00379-576	Time Interrupted 3:00
Planned	Unplanned	Time Restored : 0
Sub Number		Primary Cause 22 YEC Generation/Transm
Line Number	WAF	CEA Coding Loss of Supply - Yukon Energy
Location		
	# of Customers 351	
	Avg. Customer Duration 0.56	
	Explanations Comments YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages. Backup generation did start.	

Board Report (>50 custs)

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Service Area

of Customers 367
Avg. Customer Duration 0.16

Date Reported 2014-05-02 Time Reported 14:55
 Outage Number RJZ00387D Time Interrupted 14:55
 Planned Unplanned Time Restored 15:00
 Sub Number S150 Primary Cause 22 YEC Generation/Transm
 Line Number 0L CEA Coding Loss of Supply - Yukon Energy
 Location

Explanations Comments
 YEC WH4 loadshed Stage 1 & 2 causing outage to part of Whitehorse and Teslin area, brief outage to the Village of Teslin until back up diesel came on line

Service Area

of Customers 90
Avg. Customer Duration 0.05

Date Reported 2014-06-17 Time Reported 14:09
 Outage Number RSM00256 Time Interrupted 14:09
 Planned Unplanned Time Restored 14:12
 Sub Number S150 Primary Cause 2 Trees
 Line Number 5L622 CEA Coding Trees
 Location Teslin

Explanations Comments
 Tree fell across all 3 phases, S9567 opened on overcurrent fault. Sectionalized, removed tree, repaired line and re energized.

Service Area

of Customers 368
Avg. Customer Duration 4.50

Date Reported 2014-06-20 Time Reported 13:30
 Outage Number RGC00044 Time Interrupted 13:30
 Planned Unplanned Time Restored 18:00
 Sub Number S150 Primary Cause 8 Equipment Failure
 Line Number 5L622 CEA Coding Defective Equipment
 Location Teslin

Explanations Comments
 Breaker S9567 tripped on overcurrent. During patrol of lines serviceman found centre phase conductor tie on insulator had failed.

Board Report (>50 custs)

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Service Area 576 Teslin

Date Reported 2014-06-30 Time Reported 9:00
Outage Number RSM00258D Time Interrupted 9:00
Planned Unplanned Time Restored 9:05
Sub Number S150 Primary Cause 13 YEC U/F Load Shed
Line Number 9L CEA Coding Loss of Supply - Yukon Energy
Location Teslin

of Customers 371
Avg. Customer Duration 0.46

Explanations Comments
Raven caused a phase fault on transformer T1 in Arkell Substation, S150-52-18 tripped on over current fault. YEC WH4 tripped off line, for reasons YEC is to determine causing S6837, S6838, S150-52-22 to trip (Stage 1, 2, 3 load shed)

Service Area 579 Old Crow

Date Reported 2014-05-29 Time Reported 12:16
Outage Number PTM00133 Time Interrupted 12:16
Planned Unplanned Time Restored 12:19
Sub Number Primary Cause 7 Overload
Line Number 0L CEA Coding Defective Equipment
Location Old Crow

of Customers 197
Avg. Customer Duration 0.05

Explanations Comments
Unit #2 in Old Crow tripped on under frequency. Unit was unable to run to rated capacity.

Service Area 579 Old Crow

Date Reported 2014-06-07 Time Reported 10:00
Outage Number RSM00250 Time Interrupted 9:29
Planned Unplanned Time Restored 11:49
Sub Number Primary Cause 7 Overload
Line Number 3L405 CEA Coding Defective Equipment
Location Old Crow

of Customers 197
Avg. Customer Duration 2.33

Explanations Comments
No power in Old Crow, units where not coming on, found Unit #2 was unable to run to rated capacity.

Board Report (>50 custs)

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Service Area

Date Reported 2014-05-31 Time Reported 20:08 # of Customers 57

Outage Number MPJ00080 Time Interrupted 20:05 Avg. Customer Duration 1.92

Planned Unplanned Time Restored 22:00

Sub Number S257 Primary Cause 22 YEC Generation/Transm

Line Number 3L403 CEA Coding Loss of Supply - Yukon Energy

Location

Explanations Comments
YEC transmission line outage caused outage to Keno City, YEC servicemen placed Keno on back up generation

Service Area

Date Reported 2014-04-15 Time Reported 3:00 # of Customers 218

Outage Number RJZ00379-582 Time Interrupted 3:00 Avg. Customer Duration 0.12

Planned Unplanned Time Restored : 0

Sub Number Primary Cause 22 YEC Generation/Transm

Line Number 5L618 CEA Coding Loss of Supply - Yukon Energy

Location

Explanations Comments
YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages. Backup generation did start.

Service Area

Date Reported 2014-04-15 Time Reported 3:00 # of Customers 180

Outage Number RJZ00379-583 Time Interrupted 3:00 Avg. Customer Duration 0.12

Planned Unplanned Time Restored : 0

Sub Number Primary Cause 22 YEC Generation/Transm

Line Number 4L302 CEA Coding Loss of Supply - Yukon Energy

Location

Explanations Comments
YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages. Backup generation did start.

Board Report (>50 custs)

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Service Area

of Customers 373

Avg. Customer Duration 1.80

Date Reported 2014-04-15 Time Reported 3:00
Outage Number RJZ00379-585 Time Interrupted 3:00
Planned Unplanned Time Restored : 0
Sub Number Primary Cause 22 YEC Generation/Transm
Line Number 5L600 CEA Coding Loss of Supply - Yukon Energy
Location

Explanations Comments
YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages

Service Area

of Customers 386

Avg. Customer Duration 0.40

Date Reported 2014-05-02 Time Reported 14:55
Outage Number RJZ00387B Time Interrupted 14:55
Planned Unplanned Time Restored 15:19
Sub Number S150 Primary Cause 22 YEC Generation/Transm
Line Number 5L600 CEA Coding Loss of Supply - Yukon Energy
Location Tagish

Explanations Comments
YEC WH4 loadshed Stage 1 & 2 causing outage to part of Whitehorse and Tagish

Service Area

of Customers 386

Avg. Customer Duration 1.25

Date Reported 2014-06-30 Time Reported 9:00
Outage Number RSM00258B Time Interrupted 9:00
Planned Unplanned Time Restored 10:15
Sub Number Primary Cause 9 Bird/Animal
Line Number 0L CEA Coding Foreign Interference
Location Tagish

Explanations Comments
Raven caused a phase fault on transformer T1 in Arkell Substation, S150-52-18 tripped on over current fault. YEC WH4 tripped off line, for reasons YEC is to determine causing S6837, S6838, S150-52-22 to trip (Stage 1, 2, 3 load shed)

Board Report (>50 custs)

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Service Area 592 Marsh Lake

Date Reported 2014-04-15 Time Reported 3:00
Outage Number RJZ00379-592 Time Interrupted 3:00
Planned Unplanned Time Restored : 0
Sub Number Primary Cause 22 YEC Generation/Transm
Line Number 9L CEA Coding Loss of Supply - Yukon Energy
Location

of Customers 458
Avg. Customer Duration 0.83

Explanations Comments

YEC grid outage due to loss of Unit #4 caused a blackout, system was restored in stages

Service Area 592 Marsh Lake

Date Reported 2014-05-02 Time Reported 14:55
Outage Number RJZ00387C Time Interrupted 14:55
Planned Unplanned Time Restored 15:19
Sub Number S150 Primary Cause 22 YEC Generation/Transm
Line Number 0L CEA Coding Loss of Supply - Yukon Energy
Location Marsh Lake

of Customers 455
Avg. Customer Duration 0.40

Explanations Comments

YEC WH4 loadshed Stage 1 & 2 causing outage to part of Whitehorse and Marsh Lake

Service Area 592 Marsh Lake

Date Reported 2014-06-30 Time Reported 9:00
Outage Number RSM00258C Time Interrupted 9:00
Planned Unplanned Time Restored 10:12
Sub Number Primary Cause 13 YEC U/F Load Shed
Line Number 0L CEA Coding Loss of Supply - Yukon Energy
Location Marsh Lake

of Customers 455
Avg. Customer Duration 1.20

Explanations Comments

Raven caused a phase fault on transformer T1 in Arkell Substation, S150-52-18 tripped on over current fault. YEC WH4 tripped off line, for reasons YEC is to determine causing S6837, S6838, S150-52-22 to trip (Stage 1, 2, 3 load shed)