

# **ATCO Electric**

## **YUKON**

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October 23, 2015

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 July, August and September 2015. 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 633-7080, if you require any additional information or clarification.

Yours Sincerely,

ATCO Electric Yukon



For Jay Massie,  
Manager

JM:cm  
Encl.

YUB\yubout15

# Board Report (>50 Customers)

Service Area 575 Carmacks

Date Reported 2015-07-03  
 Outage Number CAJ00071  
 Planned Unplanned  
 Sub Number 18  
 Line Number 5L606  
 Location Carmacks

Time Reported 10:00  
 Time Interrupted 10:00  
 Time Restored 15:00  
 Primary Cause 8 Equipment Failure  
 CEA Coding Defective Equipment

# of Customers 70  
 Avg. Customer Duration 5:00

**Explanations and Comments**  
 Pole caught fire due to failed switch

Service Area 578 Beaver Creek

Date Reported 2015-07-09  
 Outage Number RTW00312B  
 Planned Unplanned  
 Sub Number  
 Line Number  
 Location Beaver Creek

Time Reported 5:05  
 Time Interrupted 1:43  
 Time Restored 6:03  
 Primary Cause 21 YECL Plant Outage  
 CEA Coding Loss of Supply - Yukon Electrical

# of Customers 101  
 Avg. Customer Duration 6:30

**Explanations and Comments**  
 Morning outage reported at 05:05hrs all customers restored by 06:03hrs. no cause found at the time. Second outage occurred when Feeder 2 opened. During attempts to close Feeder 2, Feeder 1 opened, see DIR#RTW00312A. In line openers installed, closed feeders.

Service Area 571 Whitehorse

Date Reported 2015-07-09  
 Outage Number RSM00354  
 Planned Unplanned  
 Sub Number 17  
 Line Number 5L624  
 Location Wh-Multiple Areas

Time Reported 9:56  
 Time Interrupted 9:56  
 Time Restored 11:01  
 Primary Cause 9 Bird/Animal  
 CEA Coding Foreign Interference

# of Customers 1100  
 Avg. Customer Duration 1:05

**Explanations and Comments**  
 Breaker S9815 opened on a phase to phase fault. A hawk was found to be the cause of the outage.

Service Area 578 Beaver Creek

Date Reported 2015-07-09  
 Outage Number RTW00312A  
 Planned Unplanned  
 Sub Number  
 Line Number  
 Location Beaver Creek

Time Reported 1:43  
 Time Interrupted 1:43  
 Time Restored 5:57  
 Primary Cause 21 YECL Plant Outage  
 CEA Coding Loss of Supply - Yukon Electrical

# of Customers 237  
 Avg. Customer Duration 1:19

**Explanations and Comments**  
 Outages on Feeder 1 relate to faults on Feeder 2, see DIR#RTW00312B. Last restoration has more customers & load as the normal open switch point was moved.

# Board Report (>50 Customers)

Service Area 571 Whitehorse

Date Reported 2015-07-10  
 Outage Number RSM00355A  
 Planned Unplanned  
 Sub Number  
 Line Number  
 Location Wh-Multiple Areas

Time Reported 7:50  
 Time Interrupted 7:50  
 Time Restored 9:20

Primary Cause 22 YEC Generation/Transmission  
 CEA Coding Loss of Supply - Yukon Energy

# of Customers 4138  
 Avg. Customer Duration 1:35

**Explanations and Comments**  
 Loss of supply from YEC resulting in outages to Services, Logan, Mountainview, and Porter Creek Substations.

Service Area 575 Carnacks

Date Reported 2015-07-10  
 Outage Number RSM00355B  
 Planned Unplanned  
 Sub Number 18  
 Line Number  
 Location Carnacks

Time Reported 7:50  
 Time Interrupted 7:50  
 Time Restored 7:53

Primary Cause 22 YEC Generation/Transmission  
 CEA Coding Loss of Supply - Yukon Energy

# of Customers 314  
 Avg. Customer Duration :03

**Explanations and Comments**  
 Loss of supply from YEC caused brief outage to Carnacks until back up diesel generator came on line. See DIR#RSM00355A

Service Area 573 Watson Lake

Date Reported 2015-07-10  
 Outage Number JAB00006  
 Planned Unplanned  
 Sub Number 31  
 Line Number 5L619  
 Location Watson lake

Time Reported 21:18  
 Time Interrupted 21:18  
 Time Restored 21:31

Primary Cause 9 Bird/Animal  
 CEA Coding Foreign Interference

# of Customers 385  
 Avg. Customer Duration :13

**Explanations and Comments**  
 Feeder tripped due to raven contacting line

Service Area 578 Beaver Creek

Date Reported 2015-07-10  
 Outage Number RTW00312C  
 Planned Unplanned  
 Sub Number  
 Line Number  
 Location Beaver Creek

Time Reported 11:27  
 Time Interrupted 11:27  
 Time Restored 12:09

Primary Cause 8 Equipment Failure  
 CEA Coding Defective Equipment

# of Customers 132  
 Avg. Customer Duration :19

**Explanations and Comments**  
 Transformer failed causing outage to customers in Beaver Creek, isolated and replaced equipment. Customers power restored in stages. Six customers experienced lengthy outage due to failed transformer.

# Board Report (>50 Customers)

Service Area 571 Whitehorse

Date Reported 2015-07-19

Outage Number RSM00350

Planned Unplanned

Sub Number 5

Line Number 4L314

Location Wh-Downtown

Time Reported 17:21

Time Interrupted 17:20

Time Restored 18:00

Primary Cause 14 Unknown

CEA Coding Unknown/Other

# of Customers 50

Avg. Customer Duration :40

**Explanations and Comments**

Outage to downtown customers when two 40amp fuses blew at S6579, no cause found.

Service Area 571 Whitehorse

Date Reported 2015-07-23

Outage Number RSM00353A

Planned Unplanned

Sub Number S150

Line Number 3L

Location Wh-Multiple Areas

Time Reported 11:36

Time Interrupted 11:36

Time Restored 13:06

Primary Cause 12 Personnel Error

CEA Coding Human Element

# of Customers 902

Avg. Customer Duration 1:30

**Explanations and Comments**

Outage occurred while personnel were switching the single phase on the 34.5kV line. Line patrolled-found damaged arrester.

Service Area 571 Whitehorse

Date Reported 2015-07-30

Outage Number AMI00195

Planned Unplanned

Sub Number S164

Line Number 5L655

Location Wh-Multiple Areas

Time Reported 22:19

Time Interrupted 22:19

Time Restored 23:17

Primary Cause 9 Bird/Animal

CEA Coding Foreign Interference

# of Customers 1786

Avg. Customer Duration :58

**Explanations and Comments**

Raven caused breaker in the Whistlebend substation to open

Service Area 571 Whitehorse

Date Reported 2015-07-31

Outage Number AMI00196

Planned Unplanned

Sub Number S17

Line Number 5L624

Location Wh-Multiple Areas

Time Reported 18:58

Time Interrupted 18:58

Time Restored 19:43

Primary Cause 14 Unknown

CEA Coding Unknown/Other

# of Customers 1105

Avg. Customer Duration :45

**Explanations and Comments**

YEC reported under-voltage trip. Breaker S9815 in McIntyre Switching Station showed a B-G fault, cause of the fault is unknown.

# Board Report (>50 Customers)

Service Area 571 Whitehorse

Date Reported 2015-08-15  
 Outage Number RSM00365  
 Planned Unplanned  
 Sub Number 17  
 Line Number 5L626  
 Location Wh-Multiple Areas

Time Reported 9:45  
 Time Interrupted 9:45  
 Time Restored 10:36

Primary Cause 22 YEC Generation/Transmission  
 CEA Coding Loss of Supply - Yukon Energy

# of Customers 4881  
 Avg. Customer Duration :43

**Explanations and Comments**

Loss of supply from YEC caused Stage 1 to open, customers restored in stages.

Service Area 576 Teslin

Date Reported 2015-08-15  
 Outage Number CAJ00082  
 Planned Unplanned  
 Sub Number 27  
 Line Number 5L631  
 Location Teslin

Time Reported 10:00  
 Time Interrupted 9:40  
 Time Restored 13:40

Primary Cause 14 Unknown  
 CEA Coding Unknown/Other

# of Customers 262  
 Avg. Customer Duration 4:00

**Explanations and Comments**

Breaker S7345 in Teslin Substation opened on fault, line patrolled, no cause found. Re energized line.

Service Area 573 Watson Lake

Date Reported 2015-08-16  
 Outage Number JAB00015  
 Planned Unplanned  
 Sub Number 31  
 Line Number 5L620  
 Location Watson Lake

Time Reported 17:30  
 Time Interrupted 17:30  
 Time Restored 17:50

Primary Cause 9 Bird/Animal  
 CEA Coding Foreign Interference

# of Customers 241  
 Avg. Customer Duration :20

**Explanations and Comments**

Breaker S7237 opened on a phase to phase fault, suspect bird caused outage.

Service Area 571 Whitehorse

Date Reported 2015-08-18  
 Outage Number RSM00369  
 Planned Unplanned  
 Sub Number 303  
 Line Number 4L313  
 Location Wh-Downtown

Time Reported 14:10  
 Time Interrupted 14:10  
 Time Restored 15:35

Primary Cause 11 Human Interference  
 CEA Coding Human Element

# of Customers 720  
 Avg. Customer Duration 1:25

**Explanations and Comments**

Roofing contractor was metal sheeting roof when the tm was caught by the wind, it contacted the 3 phase primary line causing the phases to wrap together and the breaker S1016 to open

# Board Report (>50 Customers)

Service Area 571 Whitehorse

Date Reported 2015-08-20  
 Outage Number RSM0370  
 Planned Unplanned  
 Sub Number S170  
 Line Number  
 Location Wh-Multiple Areas

Time Reported 3:25  
 Time Interrupted 3:25  
 Time Restored 4:45

# of Customers 88(0)  
 Avg. Customer Duration 1:37

Primary Cause 13 YEC U/F Load Shed  
 CEA Coding Loss of Supply - Yukon Energy

**Explanations and Comments**  
 Fault on the YEC Fato L355 line caused under frequency loadshed. As a result S6838, S6837, S9815, and S150-52-22 tripped off. Teslin, Stewart, Camacks, Pelly and Ross customers saw brief outage until

Service Area 571 Whitehorse

Date Reported 2015-08-21  
 Outage Number MWG0204  
 Planned Unplanned  
 Sub Number 715  
 Line Number S164  
 Location Wh-Multiple Areas

Time Reported 6:30  
 Time Interrupted 6:28  
 Time Restored 7:36

# of Customers 1786  
 Avg. Customer Duration 1:08

Primary Cause 9 Bird/Animal  
 CEA Coding Foreign Interference

**Explanations and Comments**  
 Raven made contact between phases in Whistlebend Substation causing outage to customers fed from Whistleben and LaBerge Substations.

Service Area 571 Whitehorse

Date Reported 2015-08-25  
 Outage Number BAC00239  
 Planned Unplanned  
 Sub Number 21  
 Line Number 5L655  
 Location Laberge Sub

Time Reported 18:15  
 Time Interrupted 18:15  
 Time Restored 19:20

# of Customers 1950  
 Avg. Customer Duration 1:05

Primary Cause 9 Bird Animal  
 CEA Coding Foreign Interference

**Explanations and Comments**  
 Raven made contact between phases on transformer in Laberge Substation causing YEC breaker S164-52-7 to open on overcurrent.

Service Area 571 Whitehorse

Date Reported 2015-08-29  
 Outage Number RJZ00468  
 Planned Unplanned  
 Sub Number 5  
 Line Number 4L315  
 Location Wh-Downtown

Time Reported 14:30  
 Time Interrupted 12:30  
 Time Restored 15:30

# of Customers 246  
 Avg. Customer Duration 3:00

Primary Cause 6 Vehicles  
 CEA Coding Foreign Interference

**Explanations and Comments**  
 Capital Towing drove into a guy wire in their yard causing phases to slap and burn down. Re-string and energized.

# Board Report (>50 Customers)

Service Area 571 Whitehorse

Date Reported 2015-08-31  
 Outage Number RJZ00469  
 Planned Unplanned  
 Sub Number S150  
 Line Number 9L  
 Location Wh-Multiple Areas

Time Reported 4:50  
 Time Interrupted 4:50  
 Time Restored 5:55  
 Primary Cause 2 Trees  
 CEA Coding Trees

# of Customers 1816  
 Avg. Customer Duration 2:50

**Explanations and Comments**

A snowstorm caused multiple faults on the 34kV line feeding Carcross Tagish with fallen trees.

Service Area 592 Marsh Lake

Date Reported 2015-09-04  
 Outage Number CAJ00087  
 Planned Unplanned  
 Sub Number 23  
 Line Number 5L611  
 Location Army Beach

Time Reported 15:00  
 Time Interrupted 15:00  
 Time Restored 15:30  
 Primary Cause 2 Trees  
 CEA Coding Trees

# of Customers 100  
 Avg. Customer Duration 1:30

**Explanations and Comments**

Tree on the line caused outage to customers in Army Beach

Service Area 591 Upper Liard

Date Reported 2015-09-16  
 Outage Number JAB00016  
 Planned Unplanned  
 Sub Number 31  
 Line Number 5L620  
 Location Upper Liard

Time Reported 20:15  
 Time Interrupted 20:30  
 Time Restored 22:04  
 Primary Cause 8 Equipment Failure  
 CEA Coding Defective Equipment

# of Customers 106  
 Avg. Customer Duration 1:34

**Explanations and Comments**

Pole on fire in Upper Liard. Loose hot tap burning off at strup

Service Area 571 Whitehorse

Date Reported 2015-09-18  
 Outage Number MPJ00143  
 Planned Unplanned  
 Sub Number 150  
 Line Number 5L622  
 Location Johnson's Crossing

Time Reported 4:50  
 Time Interrupted 4:49  
 Time Restored 7:07  
 Primary Cause 2 Trees  
 CEA Coding Trees

# of Customers 314  
 Avg. Customer Duration 2:18

**Explanations and Comments**

Tree on line opened S9567. Teslin diesel came on at 4:52 am. Patrolled, removed tree and re-energized.

# Board Report (>50 Customers)

Service Area 571 Whitehorse

Date Reported 2015-09-18  
 Outage Number RSM0372  
 Planned Unplanned  
 Sub Number 35  
 Line Number 5L633  
 Location Wh-Logan

Time Reported 13:15  
 Time Interrupted 13:15  
 Time Restored 17:15  
 Primary Cause 6 Vehicles  
 CEA Coding Foreign Interference

# of Customers 300  
 Avg. Customer Duration 4:00

**Explanations and Comments**  
 Vehicle contacted 3 phase OH pole. McIntyre Subdivision power was off for 4 hours while pole was replaced.

Service Area 571 Whitehorse

Date Reported 2015-09-18  
 Outage Number MPJ00144  
 Planned Unplanned  
 Sub Number 17  
 Line Number 5L626  
 Location Wh-Multiple Areas

Time Reported 4:50  
 Time Interrupted 4:49  
 Time Restored 5:18  
 Primary Cause 2 Trees  
 CEA Coding Trees

# of Customers 3175  
 Avg. Customer Duration :33

**Explanations and Comments**  
 Tree at Johnson's Crossing caused stage to open S6838 in McIntyre dumping all of Porter Creek and Mountain View

Service Area 578 Beaver Creek

Date Reported 2015-09-20  
 Outage Number WPC0016  
 Planned Unplanned  
 Sub Number Beaver Creek  
 Line Number 3L401  
 Location Beaver Creek

Time Reported 22:30  
 Time Interrupted 21:30  
 Time Restored 13:10  
 Primary Cause 2 Trees  
 CEA Coding Trees

# of Customers 90  
 Avg. Customer Duration 15:49

**Explanations and Comments**  
 Tree on line caused BC-52-F1 to trip open. Local plant personnel attempted restoration. Decision was made to wait until morning to safely send more personnel. Arrived on site, local personnel had found tree on the line. Removed tree and re-energized.

Service Area 571 Whitehorse

Date Reported 2015-09-29  
 Outage Number RSM0376  
 Planned Unplanned  
 Sub Number 17  
 Line Number  
 Location Wh-Multiple Areas

Time Reported 9:52  
 Time Interrupted 9:52  
 Time Restored 10:31  
 Primary Cause 13 YEC U/F Load Shed  
 CEA Coding Loss of Supply - Yukon Energy

# of Customers 4138  
 Avg. Customer Duration :42

**Explanations and Comments**  
 Breakers S6838 and S6837 tripped open due to loss of supply from YEC