

ATCO Electric

YUKON

July 18, 2017

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 of 2017. 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 yubout17

Outages

Service Area 291 Upper Liard Location Upper Liard
 Date Reported 2017-05-03 City/Town Upper liard
 Outage Number CGK00060 Time Reported
 Planned Unplanned
 Sub Number 31 Watson Lake First Interruption
 Line Number 5L620 Last Restoration
 Primary Cause 2 Trees
 CEA Coding Trees

Customer-Hrs of Interruption 36000.00
Number of Customers Affected 50
Avg. Customer Outage Duration 720.00

Explanations and Comments
 Tree leaning close to powerline, required outage to safely remove the tree.

Service Area 575 Carmacks Location Carmacks
 Date Reported 2017-04-22 City/Town carmacks
 Outage Number DLA00086 Time Reported 12:20
 Planned Unplanned First Interruption 12:10
 Sub Number 18 Carmacks Last Restoration 12:12
 Line Number 5L606 Primary Cause 13 YEC U/F Load Shed
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 10.28
Number of Customers Affected 314
Avg. Customer Outage Duration 0.02

Explanations and Comments
 YEC LOST NORTH GRID FROM TREE ON THE LIN L178

Service Area 583 Pelly Crossing Location Pelly Crossing
 Date Reported 2017-04-22 City/Town pelly crossing
 Outage Number DLA00087 Time Reported 12:20
 Planned Unplanned First Interruption 12:10
 Sub Number 304 Pelly Crossing Last Restoration 12:12
 Line Number 5L639 Primary Cause 13 YEC U/F Load Shed
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 6.26
Number of Customers Affected 193
Avg. Customer Outage Duration 0.02

Explanations and Comments
 YEC lost north grid

Service Area 578 Beaver Creek Location Beaver Creek
 Date Reported 2017-06-21 City/Town beaver creek west side
 Outage Number DLA00092 Time Reported 2:30
 Planned Unplanned First Interruption 1:30
 Sub Number 20 Haimes Junction Last Restoration 14:55
 Line Number 3L401 Primary Cause 2 Trees
 CEA Coding Trees

Customer-Hrs of Interruption 915.50
Number of Customers Affected 70
Avg. Customer Outage Duration 13.05

Explanations and Comments
 Feeder tripped on our current. Local operator tried to reclose. Feeder would not hold. Operator patrolled line and found tree on the west side of Beaver Creek. PLT was dispatched from Whitehorse. PLT removed tree and re-energized the line.

Outages

Service Area	571 Whitehorse	Location	Wh-Multiple Areas	Customer-Hrs of Interruption	4227.40
Date Reported	2017-05-26	City/Town	Whitehorse	Number of Customers Affected	1153
Outage Number	JIS00025	Time Reported	20:10	Avg. Customer Outage Duration	3.40
Planned	Unplanned	First Interruption	20:10	<p>Explanations and Comments S6837 tripped off on May 26 2017 at 20:10 due to termination failure at S1113. 1153 customers were affected and restored power at 23:50</p>	
Sub Number	17 McIntyre	Last Restoration	23:50		
Line Number	6L15	Primary Cause	8 Equipment Failure		
		CEA Coding	Defective Equipment		
Service Area	571 Whitehorse	Location	Marsh Lake	Customer-Hrs of Interruption	2979.52
Date Reported	2017-06-08	City/Town	Marsh Lake	Number of Customers Affected	568
Outage Number	MP000221	Time Reported	10:00	Avg. Customer Outage Duration	5.14
Planned	Unplanned	First Interruption	10:00	<p>Explanations and Comments planned outage to restring lewes river bridge from 1/0 to 2/66 wire</p>	
Sub Number	S150 Whitehorse	Last Restoration	15:15		
Line Number	6L19	Primary Cause	17 Construction		
		CEA Coding	Scheduled		
Service Area	571 Whitehorse	Location	Wh-McIntyre	Customer-Hrs of Interruption	322.00
Date Reported	2017-06-09	City/Town	Whitehorse	Number of Customers Affected	210
Outage Number	MWG00298	Time Reported	5:00	Avg. Customer Outage Duration	1.32
Planned	Unplanned	First Interruption	5:00	<p>Explanations and Comments Outage for McIntyre was planned in conjunction with the construction team, to facilitate both interests. Brushing of the primary overhead lines and to set a new pole for future upgrades to the system. Outage was planned for 2 hrs but was completed early and power was restored by 06:12. Castle power was contractor on site.</p>	
Sub Number	35 Logan	Last Restoration	6:32		
Line Number	5L633	Primary Cause	20 Maintenance		
		CEA Coding	Scheduled		
Service Area	578 Beaver Creek	Location	Beaver Creek	Customer-Hrs of Interruption	4.04
Date Reported	2017-05-01	City/Town	Plant	Number of Customers Affected	122
Outage Number	RAF00101	Time Reported	2:18	Avg. Customer Outage Duration	.02
Planned	Unplanned	First Interruption	2:18	<p>Explanations and Comments Unit #1 was online, had an intake air over temperature and shutdown causing an outage for the town.</p>	
Sub Number		Last Restoration	2:20		
Line Number		Primary Cause	8 Equipment Failure		
		CEA Coding	Defective Equipment		

Outages

Service Area	578 Beaver Creek	Location	Beaver Creek	Customer-Hrs of Interruption	6:06
Date Reported	2017-06-11	City/Town	Plant	Number of Customers Affected	122
Outage Number	RAF00102	Time Reported	16:47	Avg. Customer Outage Duration	:03
Planned	Unplanned	First Interruption	16:47	Explanations and Comments Plant feeders open due to under voltage, when generator shut down.	
Sub Number		Last Restoration	16:51		
Line Number		Primary Cause	8 Equipment Failure		
		CEA Coding	Defective Equipment		
Service Area	578 Beaver Creek	Location	Beaver Creek	Customer-Hrs of Interruption	9:55
Date Reported	2017-06-22	City/Town	Unit 1	Number of Customers Affected	119
Outage Number	RAF00103	Time Reported	21:37	Avg. Customer Outage Duration	0:05
Planned	Unplanned	First Interruption	21:37	Explanations and Comments Beaver Creek unit #1 generator had a high charge air temperature shutdown causing outage.	
Sub Number		Last Restoration	21:42		
Line Number		Primary Cause	8 Equipment Failure		
		CEA Coding	Defective Equipment		
Service Area	578 Beaver Creek	Location	Beaver Creek	Customer-Hrs of Interruption	3:58
Date Reported	2017-06-25	City/Town	Unit #1	Number of Customers Affected	119
Outage Number	RAF00104	Time Reported	23:25	Avg. Customer Outage Duration	:02
Planned	Unplanned	First Interruption	23:25	Explanations and Comments Beaver Creek Unit #1 had a high voltage air temperature shutdown causing outage.	
Sub Number		Last Restoration	23:27		
Line Number		Primary Cause	8 Equipment Failure		
		CEA Coding	Defective Equipment		
Service Area	571 Whitehorse	Location	Wh-North Klondike Hwy	Customer-Hrs of Interruption	427:48
Date Reported	2017-05-12	City/Town	Whitehorse	Number of Customers Affected	558
Outage Number	RJZ00501	Time Reported	5:00	Avg. Customer Outage Duration	0:46
Planned	Unplanned	First Interruption	7:50	Explanations and Comments 34 kV insulator failed, tracked to the neutral and caught the pole on fire. The carbon from the fire caused the 25kV insulator to fail on the bottom circuit. Both the 34kV and the 25kV were isolated to change out the insulators.	
Sub Number	21 LaBerge	Last Restoration	8:36		
Line Number	5L645	Primary Cause	8 Equipment Failure		
		CEA Coding	Defective Equipment		

Outages

Service Area 571 Whitehorse
 Location Wh -Copperridge
 City/Town Whitehorse
 Date Reported 2017-05-11
 Outage Number RSM00475
 Planned Unplanned
 Sub Number 17 McInyre
 Line Number 6L14
 Customer-Hrs of Interruption 509:26
 Number of Customers Affected 839
 Avg. Customer Outage Duration 0.34
 Time Reported 12:25
 First Interruption 12:25
 Last Restoration 12:59
 Primary Cause 14 Unknown
 CEA Coding Unknown/Other
Explanations and Comments
 Breaker S9815 opened up on a phase fault. No cause found at this time. Restored system.

Service Area 571 Whitehorse
 Location System Outage
 City/Town Whitehorse
 Date Reported 2017-05-01
 Outage Number SMB00184
 Planned Unplanned
 Sub Number S150 Whitehorse
 Line Number
 Customer-Hrs of Interruption 8512:05
 Number of Customers Affected 6289
 Avg. Customer Outage Duration 1:21
 Time Reported 5:32
 First Interruption 5:32
 Last Restoration 7:14
 Primary Cause 16 YEC System Outage
 CEA Coding Loss of Supply - Yukon Ener
Explanations and Comments
 YEC lost generation at the Whitehorse Hydro Dam due to earthquakes in the area. Units tripped off due to vibration sensors. Last customers came online at 07:14

Service Area 574 Carcross
 Location Carcross
 City/Town Carcross
 Date Reported 2017-05-01
 Outage Number SMB00185
 Planned Unplanned
 Sub Number S150 Whitehorse
 Line Number 6L18
 Customer-Hrs of Interruption 1007:30
 Number of Customers Affected 975
 Avg. Customer Outage Duration 1:02
 Time Reported 5:32
 First Interruption 5:32
 Last Restoration 7:59
 Primary Cause 16 YEC System Outage
 CEA Coding Loss of Supply - Yukon Ener
Explanations and Comments
 YEC lost generation at whitehorse hydro dam due to earthquakes. Vibration sensors tripped units offline. After restoring power from the first outage, an earthquake aftershock caused the units to trip a second time. Power restored to customers at 06:34

Service Area 592 Marsh Lake
 Location Marsh Lake
 City/Town Whitehorse
 Date Reported 2017-05-01
 Outage Number SMB00186
 Planned Unplanned
 Sub Number S150 Whitehorse
 Line Number 6L19
 Customer-Hrs of Interruption 1135:10
 Number of Customers Affected 980
 Avg. Customer Outage Duration 1:09
 Time Reported 5:32
 First Interruption 5:32
 Last Restoration 8:01
 Primary Cause 16 YEC System Outage
 CEA Coding Loss of Supply - Yukon Ener
Explanations and Comments
 YEC lost generation at whitehorse hydro dam due to earthquakes. Vibration sensors tripped units offline. After restoring power from the first outage, an earthquake aftershock caused the units to trip a second time

Outages

Service Area 585 Tagish
 Date Reported 2017-05-01
 Outage Number SMB00187
 Planned Unplanned
 Sub Number 301 Carcross
 Line Number 5L601
 Location Tagish
 City/Town Whitehorse
 Time Reported 5:32
 First Interruption 5:32
 Last Restoration 7:59
 Primary Cause 16 YEC System Outage
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 649:00
 Number of Customers Affected 590
 Avg. Customer Outage Duration 1:06

Explanations and Comments
 YEC lost generation due to earthquakes in the area. vibration sensors tripped off the units at the Whitehorse Hydro Dam. After power was restored from the first outage, an aftershock tripped the units a second time causing another outage

Service Area 576 Teslin
 Date Reported 2017-05-01
 Outage Number SMB00188
 Planned Unplanned
 Sub Number S150 Whitehorse
 Line Number 5L622
 Location Teslin
 City/Town Teslin
 Time Reported 5:32
 First Interruption 5:32
 Last Restoration 8:03
 Primary Cause 16 YEC System Outage
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 928:33
 Number of Customers Affected 758
 Avg. Customer Outage Duration 1:13

Explanations and Comments
 YEC lost generation at whitehorse hydro dam due to earthquakes. Vibration sensors tripped units offline. After restoring power from the first outage, an earthquake aftershock caused the units to trip a second time

Service Area 575 Carmacks
 Date Reported 2017-06-22
 Outage Number SMB00190
 Planned Unplanned
 Sub Number 18 Carmacks
 Line Number
 Location Carmacks
 City/Town Carmacks
 Time Reported 19:28
 First Interruption 19:23
 Last Restoration 19:27
 Primary Cause 22 YEC Generation/Transmi
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 20:56
 Number of Customers Affected 314
 Avg. Customer Outage Duration :04

Explanations and Comments
 YEC lost L170 due to lightning. 3 minute outage for Diesel to come online

Service Area 582 Ross River
 Date Reported 2017-06-22
 Outage Number SMB00191
 Planned Unplanned
 Sub Number 19 Ross River
 Line Number
 Location Ross River
 City/Town Ross River
 Time Reported 17:28
 First Interruption 17:23
 Last Restoration 17:26
 Primary Cause 22 YEC Generation/Transmi
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 11:39
 Number of Customers Affected 233
 Avg. Customer Outage Duration :03

Explanations and Comments
 YEC lost L170 due to lightning. 3 minute outage for Diesel to come online

Outages

Service Area 583 Pelly Crossing
 Date Reported 2017-06-22
 Outage Number SMB00192
 Planned Unplanned
 Sub Number 304 Pelly Crossing
 Line Number

Location Pelly Crossing
 City/Town Pelly Crossing
 Time Reported 17:28
 First Interruption 17:23
 Last Restoration 17:27
 Primary Cause 22 YEC Generation/Transmi
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 12.52
 Number of Customers Affected 195
 Avg. Customer Outage Duration :04

Explanations and Comments
 YEC lost L170 due to lightning. 3 minute outage for Diesel to come online

Service Area 575 Carmacks
 Date Reported 2017-06-25
 Outage Number SMB00195
 Planned Unplanned
 Sub Number 18 Carmacks
 Line Number

Location Carmacks
 City/Town Carmacks
 Time Reported 17:00
 First Interruption 17:00
 Last Restoration 17:03
 Primary Cause 22 YEC Generation/Transmi
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 15.42
 Number of Customers Affected 314
 Avg. Customer Outage Duration :03

Explanations and Comments
 YEC lost L170 due to lightning. 3 minute outage for Diesel to come online. YEC unable to restore their line at 17:00. Carmacks stayed off the grid until 20:40

Service Area 582 Ross River
 Date Reported 2017-06-25
 Outage Number SMB00196
 Planned Unplanned
 Sub Number 19 Ross River
 Line Number

Location Ross River
 City/Town Ross River
 Time Reported 17:00
 First Interruption 17:00
 Last Restoration 17:03
 Primary Cause 22 YEC Generation/Transmi
 CEA Coding Loss of Supply - Yukon Ener

Customer-Hrs of Interruption 11.39
 Number of Customers Affected 253
 Avg. Customer Outage Duration :03

Explanations and Comments
 YEC lost L170 due to lightning. 3 minute outage for Diesel to come online. Ross River was transferred off of AEY diesel at 17:40, and put onto YEC diesels out of Faro.