



**General Manager**  
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TRANSMITTAL MEMORANDUM
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**TO:** The Honorable Mayor and City Council

**FROM:** Karl R. Amylon, General Manager

**DATE:** August 11, 2020

**RE:** **Reports of July 4 and 17, 2020 Power Outages**

Attached for City Council review are two memoranda from Electric System Engineering Manager Jeremy Bynum regarding the power outages of July 4 and 17, 2020. Mr. Bynum and Electric Division Manager Andy Donato will attend the City Council meeting of August 20, 2020, in order to address any questions and/or concerns that Councilmembers may have.



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## TRANSMITTAL MEMORANDUM

**TO:** Karl Amylon, KPU General Manager  
Lacey Simpson, Assistant KPU General Manager

**FROM:** Jeremy Bynum PE, Electric System Engineering Manager

**DATE:** August 10, 2020

**SUBJECT:** **Electrical Outage of July 4, 2020**

On Saturday, July 4, 2020, at 3:01 AM, an outage affected the KPU Powerplants and seven (7) substations: Point Higgins, Ward Cove, Lewis Reef, Bethe, Port West, Ketchikan, and Mt. Point. The cause of this outage was a suspected avian contact with the 34.5kV system at near the Bailey Switchyard; no remains were identified or recovered.

The contact caused protective relaying on the 34.5kV system to operate; the system protective action resulted in a system wide load-shedding event and outage. Approximately 12.17 MW of generation from all sources was lost during the event causing a loss of power to the seven (7) substations. This particular fault occurred at a critical location in the system and power could not be restored until the problem was identified and resolved.

During the restoration process, an additional problem developed that prevented the use of Southeast Alaska Power Agency (SEAPA) generation for system restoration. With KPU and SEAPA coordination, the problems were identified and system restoration continued with an alternative restoration plan. KPU operators began power restoration utilizing diesel generation. In this case, the power restoration process took additional time due to the complicated nature and locations of the failures.

Initially, 7,954 customers were affected by the outage. Within five hours and fifteen minutes, power was restored to all customers.

### Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F1S	3:01	7:31	4:30	571
Point Higgins F2N	3:01	7:12	4:11	534
Ward Cove F1S	3:01	6:47	3:46	300
Ward Cove F2N	3:01	6:50	3:49	458
Lewis Reef	3:01	6:41	3:40	5
Bethe F1J	3:01	7:04	4:03	958
Bethe F4T	3:01	7:02	4:01	605
Bethe Sectionalizer	3:01	7:03	4:02	247

Operation Schedule Continued:

Location	Open	Close	Duration (hr:min)	Customers
Port West F1N	3:01	7:21	4:20	950
Port West F2S	3:01	6:51	3:50	114
Port West F3	3:01	6:46	3:45	55
KTN F1	3:01	8:16	5:15	634
KTN F2	3:01	8:03	5:02	570
KTN F3	3:01	8:07	5:06	770
KTN F4	3:01	8:14	5:13	338
MTP F1 N	3:01	7:35	4:34	539
MTP F2 S	3:01	7:34	4:33	306

Cc: Andy Donato, Electric Division Manager  
Mark Adams, Electric Division Operations Manager  
Diane Walker, Administrative Assistant



## TRANSMITTAL MEMORANDUM

**TO:** Karl Amylon, KPU General Manager  
Lacey Simpson, Assistant KPU General Manager

**FROM:** Jeremy Bynum PE, Electric System Engineering Manager

**DATE:** July 31, 2020

**SUBJECT:** **Electrical Outage of July 17, 2020**

On Friday, July 17, 2020, at 7:04 AM, an outage affected the three (3) KPU Powerplants and five (5) substations: Point Higgins, Ward Cove, Port West, Ketchikan, and Mountain Point. The cause of this outage was a suspected avian contact with the 34.5kV system at near Herring Cove at South Tongass Hwy and Wood Road; no remains were identified or recovered.

The contact caused protective relaying at Mountain Point to open the 34.5kV tie breaker disconnecting generation from three (3) powerplants: Whitman, Silvis, and Beaver Falls. The sudden loss of generation, approximately 9.3 MW, caused a systemwide load-shedding event and the power outage.

KPU operators and crews quickly identified the issue and immediately began power restoration. Initially 4,764 customers were affected by the outage. Within fifty-six minutes, power was restored to all customers.

### Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F1S	7:04	7:26	0:22	521
Point Higgins F2N	7:04	7:38	0:34	559
Ward Cove F1S	7:04	7:34	0:30	294
Ward Cove F2N	7:04	7:40	0:36	437
Bethe Sectionalizer	7:04	7:21	0:17	247
Port West F1N	7:04	7:43	0:39	937
Port West F2S	7:04	7:24	0:20	107
Port West F3	7:04	7:23	0:19	55
KTN F3	7:04	7:36	0:32	784
MTP F1 N	7:04	7:44	0:40	303
MTP F2 S	7:04	8:00	0:56	520

Cc: Andy Donato, Electric Division Manager  
Mark Adams, Electric Division Operations Manager  
Diane Walker, Administrative Assistant