



General Manager
334 Front Street
Ketchikan, AK 99901

Phone (907) 228-5603
Fax (907) 225-5075

TRANSMITTAL MEMORANDUM

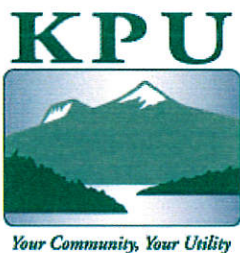
TO: The Honorable Mayor and City Council

FROM: Karl R. Amylon, General Manager

DATE: March 9, 2021

RE: **Reports of January 31 and February 24, 2021 Power Outages**

Attached for City Council review are memoranda from Electric System Engineering Manager Jeremy Bynum regarding the power outages of January 31 and February 24, 2021. Mr. Bynum and Electric Division Manager Andy Donato will attend the City Council meeting of March 18, 2021, in order to address any questions and/or concerns that Councilmembers may have.



Electric Division
1065 Fair Street
Ketchikan, AK 99901

Phone: (907) 225-5505
Fax (907) 247-0755

TRANSMITTAL MEMORANDUM

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

FROM: Jeremy Bynum PE, Electric System Engineering Manager

DATE: February 23, 2021

SUBJECT: **Electrical Outage of January 31, 2021**

On Sunday, January 31, 2021, at 9:24 PM, an outage affected electric services north of Ward Cove. This was an extended outage for sections of the system; the outage continued until early morning on February 1, 2021.

The outage was caused by a failed 34.5kV insulator on a power pole near 9200 North Tongass Highway. The failed insulator produced a phase-to-ground fault and pole fire that was cleared by the Bailey 34.5kV North tie-breaker. The loss of the 34.5kV connection on this section of line resulted in limited power availability and resulted in scheduled rotating load-shedding events (rotating blackouts) for North Point Higgins' Customers. Generating capacity at North Point Higgins when isolated from the KPU generating system is 3.6MW and loads during this period were in excess of 5.0MW, requiring the rotating blackouts.

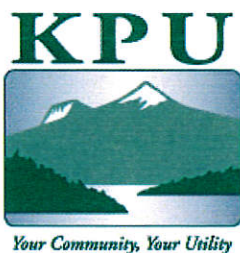
KPU operators and crews identified the issues and immediately began repairs and power restoration. Initially 1,811 Customers were affected by the outage. The system was fully restored on February 1, 2021 at 8:50 AM.

Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F1S	21:24	08:50	Rotating*	521
Point Higgins F2N	21:24	08:49	Rotating*	559
Ward Cove F1S	21:24	22:46	1:22	294
Ward Cove F2N	21:24	0:46	3:16	437

* Rotating load-shedding events (rotating blackouts) occurred every 60-90 minutes

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



Electric Division
1065 Fair Street
Ketchikan, AK 99901

Phone: (907) 225-5505
Fax (907) 247-0755

TRANSMITTAL MEMORANDUM

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

FROM: Jeremy Bynum PE, Electric System Engineering Manager

DATE: March 8, 2021

SUBJECT: **Electrical Outage of February 24, 2021**

On Wednesday, February 24, 2021, at 5:18 PM, an outage affected the three (3) KPU power plants and five (5) substations: Point Higgins, Ward Cove, Port West, Ketchikan, and Mountain Point. The cause of this outage was a snow-laden tree making contact with the 34.5kV system near Herring Cove. In addition, at approximately the same time, a separate outage affected the Forest Park area.

In the primary outage, a snow-laden tree contact caused protective relaying at Mountain Point to open the 34.5kV South tiebreaker disconnecting generation from three (3) power plants: Whitman, Silvis, and Beaver Falls. The sudden loss of generation, approximately 7.5 MW, caused a system load-shedding event and the power outage.

The additional outage, a broken pole affected power and traffic in the Forest Park area. Tongass Highway traffic was stopped for a short period due to debris, a pole, and power lines in the roadway.

KPU operators and crews quickly identified the issue and immediately began repairs and power restoration. Initially ~2,228 customers were affected by the outage. Within three hours thirty-seven minutes, power was restored to all customers.

Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F1S	17:18	17:44	0:26	521
KTN F3	17:18	17:46	0:28	784
MTP F1 N	17:18	18:57	1:39	303
MTP F2 S	17:18	18:39	1:21	520
Forest Park Area	~17:13	20:50	3:37	~100

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