



General Manager
334 Front Street
Ketchikan, AK 99901

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

TRANSMITTAL MEMORANDUM

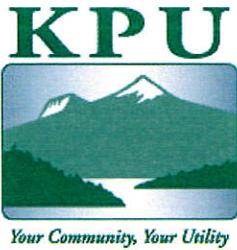
TO: The Honorable Mayor and City Council

FROM: Karl R. Amylon, General Manager

DATE: January 12, 2021

RE: **Reports of December 1, 2, 15 and 25, 2020 Power Outages**

Attached for City Council review are memoranda from Electric System Engineering Manager Jeremy Bynum regarding the power outages of December 1, 2, 15 and 25, 2020. Mr. Bynum and Electric Division Manager Andy Donato will attend the City Council meeting of January 21, 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: December 29, 2020

SUBJECT: **Electrical Outage of December 1, 2020**

On Tuesday, December 1, 2020, at 4:30 PM, an outage affected electric services fed from the North Point Higgins Substation.

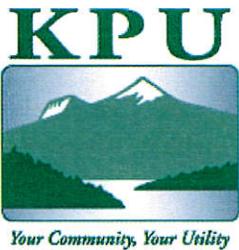
The outage was caused by a windblown tree that fell into the North Point Higgins Feeder No. 2; the tree caused a phase-to-phase fault that was cleared by substation 12.47kV feeder; this caused the outage for services fed from the substation. KPU crews responded to the scene, cut the fallen tree clear of the lines and made repairs.

KPU operators and crews quickly identified the issue and immediately began power restoration. Initially 559 Customers were affected by the outage. Within fifty-five minutes, power was restored to all Customers.

Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F2N	16:30	17:25	0:55	559

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



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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: December 29, 2020

SUBJECT: **Electrical Outage of December 2, 2020**

On Wednesday, December 2, 2020, at 7:36 AM, an outage affected electric services fed from the North Point Higgins Substation.

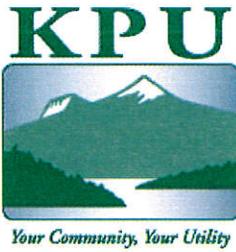
The outage was caused by a windblown tree that fell into the North Point Higgins Feeder No. 2; the tree caused a phase-to-phase fault that was cleared by substation 12.47kV feeder; this cause the outage for services fed from the substation. KPU crews responded to the scene, cut the fallen tree clear of the lines and made repairs.

KPU operators and crews quickly identified the issue and immediately began power restoration. Initially 559 Customers were affected by the outage. Within two hours six minutes, power was restored to all Customers.

Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F2N	7:36	9:42	2:06	559

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



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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: December 29, 2020

SUBJECT: **Electrical Outage of December 15, 2020**

On Tuesday December 15, 2020, at 11:03 PM, an outage affected electric services in Ketchikan caused by a loss of generation from Southeastern Alaska Power Agency (SEAPA).

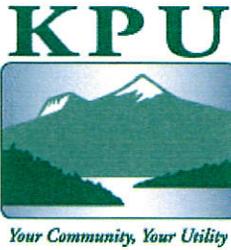
A SEAPA generator at Swan Lake (Unit No. 1) tripped offline due to a governor issue after performing maintenance; this caused a loss of generation in the SEAPA system. The sudden loss of approximately 10.0 MW of generation caused system instability, resulting in load shedding in Ketchikan. Seven KPU system feeders opened during the event causing power outages.

KPU and SEAPA operators quickly identified the issue and KPU immediately began power restoration. Initially 3,418 customers were affected by the outage. Within forty-five minutes, power was restored to all customers.

Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
Point Higgins F1S	23:03	23:46	0:43	521
Point Higgins F2N	23:03	23:48	0:45	559
Ward Cove F1S	23:03	23:43	0:40	294
Ward Cove F2N	23:03	23:44	0:41	437
KTN F3	23:03	23:39	0:36	784
MTP F1 N	23:03	23:40	0:37	303
MTP F2 S	23:03	23:41	0:38	520

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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: January 12, 2020

SUBJECT: **Electrical Outage of December 25, 2020**

On Friday, December 25, 2020, at 7:47 AM, an outage affected electric services in the greater downtown Ketchikan area.

A voltage regulator in the Ketchikan (KTN) Substation had a massive internal fault; this caused protective relays to clear the fault causing all feeders to open and tripped Units No. 3 and No. 4 at Ketchikan Powerplant. The failure caused a power outage to all service from the KTN substation.

KPU Line crews along with support from engineering identified the issue, regulators were bypassed and power restoration began. Powerplant mechanics responded to assist with generation needs and the Bailey operator assisted with coordinating events and operating the system.

Initially 2,333 customers were affected by the outage. Within one hour forty minutes, power was restored to all customers.

Operation Schedule

Location	Open	Close	Duration (hr:min)	Customers
KTN F1	7:47	9:27	1:40	633
KTN F2	7:47	9:08	1:21	582
KTN F3	7:47	9:23	1:36	784
KTN F4	7:47	9:11	1:24	334

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