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# Outlet

[www.chugachelectric.com](http://www.chugachelectric.com)

## Crews move quickly to restore service after Railbelt outage

A major power outage that began on the evening of June 25 was one of the largest for the region in recent years. While it left thousands of Alaskans without power, utility teams up and down the Railbelt responded quickly and power was restored to nearly all locations within just a few hours.

In a follow-up investigation, Chugach identified the point on the grid where the outage began, but was not able to determine exactly what triggered the sequence of events that blacked out portions of five electric utilities from Homer to Fairbanks.

The trouble began at 9:09 p.m. Sunday, June 25, when a 7-foot long string of porcelain insulators shattered on a transmission structure near the Fort Richardson exit along the Glenn Highway. The insulator string holds one of three wires of a 230,000-volt transmission line away from the tower. When the device broke, the line suffered a phase-to-ground fault. The short circuit de-energized two key segments of the transmission grid and created an imbalance on the electric system between supply and demand.

At that point, system protection designed to keep the grid up and running kicked in and tripped a combination of generators and substations off line. Power dispatchers

took additional steps intended to stabilize the system and by 9:25 p.m. the situation was under control. At that point the normally unified Railbelt power grid was electrically separated into three pieces, generators were off line at power plants at Bradley Lake,

service, breakers closed and lines re-energized. By about 1 a.m. Monday service had been restored to most customers.

Directed by the electronic data collected during events like these, a Chugach crew found the broken insulator string at the transmission tower along the Glenn Highway early in the morning on Monday, June 26, and replaced it later that day.

By Tuesday, June 27, engineers had completed an initial review of the physical evidence and electronic record of the outage, reconstructed the sequence of events and determined that the broken insulator string was the origin of the problem.

Still to be determined is exactly what caused the insulator string to break. There was bad weather across a swath of Southcentral Alaska at the time and some have suggested a lightning strike could have caused the insulator failure. While the National Oceanic and Atmospheric Administration had no record of lightning in the Anchorage area at that time, NOAA could not rule out the possibility. Mechanical failure or another problem may also be responsible.

Chugach will send the broken insulator to a national testing laboratory for analysis.



**This new insulator string on a transmission structure along the Glenn Highway replaced one that shattered at the start of a major outage.**

Anchorage, Eklutna at Beluga, and a significant number of customers were without power.

Utility workers began putting the system back together a piece at a time, restoring power to customers as generators were returned to

**See Outage on back page**

## Landscaping for energy efficiency

Planting trees, shrubs, vines, grasses and hedges could help to lower your energy bill. Well-designed landscaping can help reduce costs as you protect your home from winter wind and summer sun. Landscaping also helps to control noise.

While summer in Alaska is not usually air-conditioning weather, shade from a strategically-placed tree can help keep a room that gets overly-hot cooler.

In the winter, wind chill adds to the cold. Trees and fences can shield your home from the wind, reducing fuel consumption.

Develop a plan for the wind direction, routes of noise pollution you wish to block and the types of trees and shrubs you will use. You can obtain more information at [www.chugachelectric.com](http://www.chugachelectric.com) or [www.energy.gov](http://www.energy.gov).

## Construction of substation complete

Chugach crews recently completed the commissioning and energizing of the new South Anchorage Substation located off 94th Avenue near the Old Seward Highway. Crews completed the permanent connection of the new 34.5-kilovolt circuits June 13 and 14 and transferred the customer load on the Klatt Substation. Chugach expects to transfer other substations later this summer.



**South Anchorage Substation**

The substation along with the 138-kilovolt transmission line linking the International and South Anchorage substations are two of the three Anchorage South Loop projects that will ultimately provide additional electrical capacity for

the South Anchorage area and increase the reliability and operating flexibility of the regional transmission system.

The University to South Anchorage transmission line that will complete the link is presently in the right of way acquisition and planning stage. The final project is expected to be completed in 2008.

### Outage, continued from front page

It was a team effort to restore service.

"I am really proud of how our employees worked together to get the lights back on," said Chugach CEO Bill Stewart. "Considering how widespread and complicated this outage was, folks here and at

the other utilities got things back on and back to normal in a very short time. Power dispatchers, the people at the power plants and our line crews all worked together to take care of customers, and that's what we're here for," Stewart said.

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Main number	563-7494
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Credit	563-5060
Power theft hotline	762-4731
Danger tree hotline	762-7227
Underground locates	278-3121
Regulatory Commission of Alaska	
(800) 390-2782 or	276-6222
To report a power outage	
In Anchorage	762-7888
Outside Anchorage	(800) 478-7494

### Monthly residential service costs

(based on 700 kwh)

Customer charge/month	\$ 8.42
Energy charge $\$0.09282 \times \text{kwh} =$	\$64.97
Fuel adjustment $\$0.03354 \times \text{kwh} =$	<u>\$23.48</u>
<b>Sub-total</b>	<b>\$96.87</b>
2% MOA Underground Charge =	\$ 1.87
RCC charge $\$0.000387 \times \text{kwh} =$	<u>\$ 0.27</u>
<b>Total bill</b>	<b>\$99.01</b>

### Corporate Mission

Through superior service, safely provide reliable and competitively priced energy.

### Hours

Member Service lobby:  
5601 Electron Drive  
Monday - Friday  
8 a.m. - 6 p.m.

Member Service phone:  
Monday - Friday  
8 a.m. - 9 p.m.

Main office:  
Monday - Friday  
8 a.m. - 5 p.m.

### The Chugach Outlet

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