

Chugach Electric Association, Inc.  
Anchorage, Alaska

First Quarter 2006 Distribution Line Loss Report

Summary

- Distribution losses represent the difference between energy put into the system at the retail transmission substation level and energy taken out of the system at the customer's meter. Chugach's distribution losses are averaging approximately 5 percent.
- The distribution loss factor is used as part of Chugach's monthly calculation that adjusts retail kWh sales to reflect calendar-month deliveries for sales and financial reporting purposes. The majority of Chugach's retail meters are not read on a calendar-month basis.

Determination of Distribution Losses

- Chugach's distribution loss factor is calculated monthly, and is based on a 12-month difference between retail deliveries at the transmission substation level (calendar-month read) and retail sales delivered at the customer's meter (non-calendar month read). A 12-month period is used to minimize error associated with timing differences between substation and customer meter reads.
- Actual distribution losses are not known. The only way to determine an exact distribution loss factor would be to take the difference between energy delivered into the system at retail substations and subtract actual delivered loads over the same time frame. Chugach is not able to determine calendar-month deliveries to each of its retail customers. To do so would require reading over 70,000 meters at one time. For this reason, calculations are made to estimate distribution losses.

First Quarter 2006 Results

- Attached is a graph that summarizes Chugach's distribution line losses from January 1, 2004 through March 31, 2006. The information presented on this chart illustrates energy lost between deliveries at Chugach's retail transmission substations and the final recorded delivery at the customer level.
- The monthly distribution loss factor applied to first quarter sales was 5.4 percent for January, and 5.1 percent for both February and March.
- Primary factors that impact distribution losses include system load, system operation, and unaccounted for kWh sales.

Chugach Electric Association, Inc.  
Anchorage, Alaska

Retail Sales & Distribution Losses:  
January 2004 - March 2006

