

COMMERCIAL CUSTOMER News

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FROM CHUGACH ELECTRIC

Southcentral Power Plant saves on fuel costs

From January 2013 to the end of August 2013, the Southcentral Power Plant has saved Chugach members over \$15 million in fuel. SPP is the efficient, gas-fired power plant built by Chugach Electric Association and Municipal Light & Power.

The power plant has three gas turbine-generators and one steam turbine-generator that operate in combined-cycle mode to efficiently produce electricity.

Hot exhaust from the gas turbines is captured and used to turn water into steam for the steam unit. The new plant produces a kilowatt-hour using only about three-fourths of the natural gas compared to the prior system average for other generation units.

Generating capacity of the plant is approximately 180 megawatts, and can be as much as 200 megawatts with duct-firing. Not

only does the plant use 25% less natural gas, but it also emits 25% less CO₂ and 95% CO and NO_x.

More information on the Southcentral Power Project is available at www.chugachelectric.com.



Southcentral Power Project

October is Energy Awareness Month

This October marks the fourth annual Energy Awareness Month in Alaska. Four years ago, Alaska joined the nation in encouraging people to commit to improving energy efficiency and conservation efforts in their

homes, schools, businesses and communities throughout the month of October.

If you're looking for ways to celebrate and make a difference this month, explore the ideas below:



GET A COMMERCIAL ENERGY AUDIT

Commercial energy audits can provide essential information on how your building uses and wastes energy.



DEVELOP A WORKPLACE POLICY

Work with your coworkers to develop an Energy Efficiency and Conservation Workplace Policy.



EXPLORE ON YOUR OWN

Sign up for commercial classes on lighting design or operational maintenance.

Commercial Lighting Workshop November 5

In early November, Chugach Electric and Green Star are presenting a free Commercial Lighting Workshop.

The workshop will have multiple speakers, including representatives from Browns Electric and Alaska Lighting and Supply. Key concepts to be covered include efficient lighting technology and design, the return on investment of a commercial lighting retrofit and commercial lighting case studies in Alaska. If you are a business owner or facility manager this class is for you.

Mark your calendars for:

Tuesday, November 5th
11:00am- 2:00pm
BP Energy Center
900 E. Benson Blvd.
Anchorage, Alaska 99519-6612

Registration opens October 1, 2013. Call 907.278.7827 or email info@greenstarinc.org to register. Space is limited to 50 people. Lunch will be provided.

CHUGACH
POWERING ALASKA'S FUTURE



Understanding the Demand Charge

Approximately 1,400 Chugach members require more than 20 kilowatts (kW) of power in a billing cycle for their commercial and industrial operations. These members fit into a Large General Service member class, also known as the Large Commercial rate class (to find your rate class, look to the upper right hand corner of your bill). Every 'Large Commercial' rate class member incurs a demand charge on their account(s).

The following answers the most frequently asked questions about demand and associated costs:

What is demand?	Demand (measured in kW) is the rate at which electricity is used at any one given time, as opposed to energy (measured in kilowatt-hours or kWh) which reflects the amount of electricity that is consumed over time.
How is demand measured?	Chugach's commercial meters measure both demand (the rate of use) and energy (the amount of use over time). They monitor demand in 15-minute intervals on a continuous basis and record the highest average demand which occurred in any 15-minute interval during a monthly billing cycle. This is considered the monthly peak demand.
How is the demand charge determined?	The monthly demand charge is determined by multiplying the demand rate (defined by the member's rate class) by the highest average demand in any 15-minute interval as recorded by the meter over the billing period. Total demand charges may vary from month to month, depending on how high the peak demand reaches.
Why is there a demand charge?	Through the demand charge, each member pays their share of Chugach's investment in generation, transmission and distribution equipment, including customer interconnection costs. The demand charge covers the fixed costs associated with electric service, which includes investment needed to meet peak load requirements. The cost of this infrastructure must be recovered through rates, whether a member uses their full electrical capacity continuously or only once in a while.

Demand is an important component of your bill to understand. It can represent a significant amount of monthly costs, but it can also be minimized through planning and better managing what times facility

systems are used; not necessarily using less, but using at lower peak times. An important question members can ask themselves is:

How do I manage my peak demand?

An important factor in managing your peak demand is knowing when your peak demand occurs. For instance, if your peak energy usage is in the morning, reducing your lighting load in the evening will have no impact on reducing your kW peak demand, or your demand costs during that billing period. See the detailed demand profile below for more information.

This demand profile illustrates that peak demand occurred on Monday. Knowing this, the member can most likely determine what operation(s) in the building were used during this time that caused the spike. With that information known, one can stagger their electrical load in order to reduce their demand load at that time.

Generally speaking, you can manage demand costs by scheduling times of the day when your electric usage is lowest to run equipment that uses the most power. You may want to pay special attention to equipment such as water heaters, welders, 5-horsepower and larger motors, electric heat and commercial ranges. Use thermostats, relays, timers, on/off switches, and circuit breakers to shut down non-essential equipment and lights before starting equipment which draws a large amount of power. Relays or timers can prevent two large loads from being on at the same time.

Most equipment has an identification/model number tag that also lists the kW or demand. Some tags may only list the amperage (amps) and voltage the equipment uses. You can still use this information to figure the approximate usage rate in kW. Just multiply amps by volts and divide by 1,000 to get kW.

Each building has a unique demand profile. Once these profiles are understood, steps can be taken to reduce or shift the high energy users in operations.

