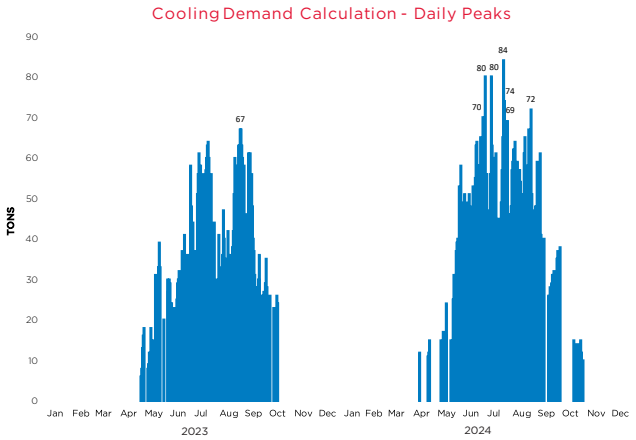
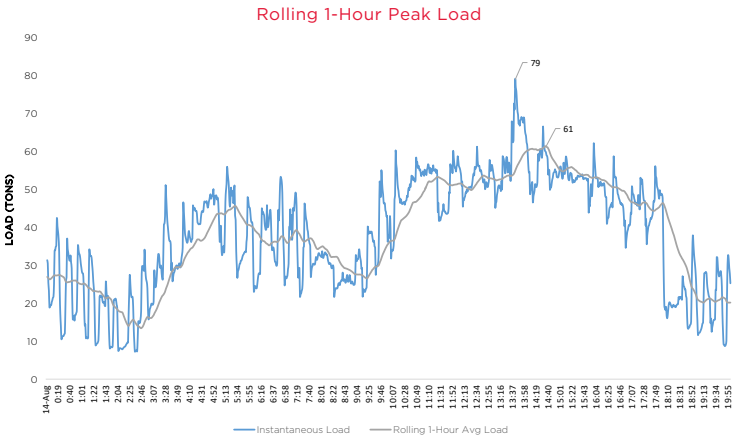
DISTRICT ENERGY ST. PAUL™

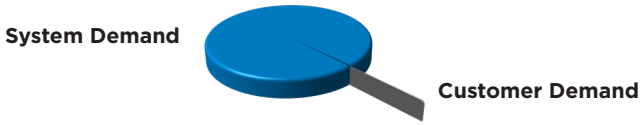
Cooling Demand Explanation





What is a cooling demand charge?

The annual demand charge is based on District Energy's annual non-energy related costs which include energy production, energy delivery, operations and maintenance, repairs, capital expenditures, general, administrative, debt service, and working capital costs. This sum is divided across the total customer demand and charged to each customer based on their portion of system demand.



How is cooling demand calculated?

A customer's cooling demand (tons) is based on a building's required peak energy capacity which is calculated using the building's multiple one-hour peaks from June through September of the previous two 12-month periods. The customer's cooling demand is then multiplied by the cooling demand rate to calculate the monthly demand charge. The following is the formula we use to determine your monthly demand charge:

Demand (ton) x Demand Rate ($ per ton per month) = Monthly Demand Charge

The demand charge is determined each year prior to the cooling season and billed to customers in 12 equal monthly installments throughout the fiscal year. A monthly charge provides customers with the ability to avoid seasonal spikes and forecast costs for a longer time period.

How is the energy charge calculated for cooling?

To determine the energy charge, a customer's energy consumption (ton-hour) is measured each month and multiplied by the energy rate. The energy rate is based on District Energy's annual energy cost and usage, and is expressed in dollars per ton-hour. The energy charge is a pass-through of the system energy costs based on our projected costs for electricity for cooling production and does not include a markup. The energy charge varies by usage. A fuel adjustment may be included with the energy charge for changes in the annual system fuel costs and is also expressed in dollars per ton-hour. The following is the formula we use to determine your monthly energy charge:

Energy Consumption (ton-hour) x Energy Rate ($ per ton-hour) x Fuel Adjustment ($ per ton-hour) = Energy Charge

Initial cooling demand

For new customers, the initial demand is estimated based on building type, square footage, and either energy use prior to connecting to the district system or the energy model for the building's design based on anticipated use.

Cooling demand adjustment

After a building has been on the system for at least two cooling seasons, the customer's peak energy consumption is annually evaluated to determine any necessary adjustments to the contracted demand. The demand is annually adjusted up or down based on a building's multiple one-hour peaks normalized for weather from June through September of the previous two 12-month periods. Demand can adjust to 80% of initial demand or 80% of your peak one-hour consumption during the initial demand period.

Reducing cooling demand

To learn more about the steps you can take at your building to reduce your cooling demand, please contact the District Energy team at 651-297-8955.