



## CUSTOMER CARE

# UNDERSTANDING HEATING AND COOLING DEGREE-DAYS

*by Austin Energy*

### WHAT ARE HEATING AND COOLING DEGREE-DAYS?

“Heating degree-day” and “cooling degree-day” are measurements that help relate each day’s temperatures to the energy required to heat and cool buildings and can be very helpful in understanding and comparing electric usage.

### HOW ARE HEATING AND COOLING DEGREE-DAYS CALCULATED?

To calculate this measurement, compare the average temperature for the day to a base of 65°, the standard representing the average outdoor temperature at which people are least likely to use their heater or air conditioner.

For example, if the low temperature for a day was 40° and the high temperature was 70° ( $40° + 70° = 110°$ ), the average was 55° ( $110° / 2 = 55°$ ). This average is 10 degrees colder than 65°, so this day had 10 heating degree-days. Any average daily temperature below 65° would represent a heating degree-day, because you would operate the heater to offset the colder weather.

Any average daily temperature above 65° would represent a cooling degree-day, because you would operate the air-conditioner to offset the warmer weather.

### HOW DOES AUSTIN ENERGY USE THESE CALCULATIONS?

The National Weather Service Office in San Antonio compiles monthly reports, which include these degree-day measurements and other climate-related data. The report is called “Preliminary Monthly Climate Data (CF6)” and can be viewed at <http://www.weather.gov/climate/index.php?wfo=ewx>.

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**FOR MORE INFORMATION  
ABOUT HEATING AND COOLING DEGREE-DAYS,  
contact us at 512/494-9400.**



## HOW DOES AUSTIN ENERGY USE THESE CALCULATIONS? (continued)

Austin Energy uses these reports to determine how many heating or cooling degree-days will affect each billing cycle. There are 20 billing cycles each month for the City of Austin Utilities, and the meters for each cycle are read on different, predetermined days. Therefore, each billing cycle might have a different number of heating or cooling degree-days. After the heating and cooling degree-days are totaled by cycle, they can be used to help analyze electrical consumption in a customer's business.

An electric heater will cause the customer's usage to be proportionately higher if there are more heating degree-days. An electric air conditioner will cause the customer's usage to be proportionately higher if there are more cooling degree-days.

Heating and cooling degree-days will affect electric usage differently for different customers due to:

1. Different billing cycles.
2. Different size and weatherization of buildings.
3. Different types, sizes, and operating conditions of the heaters or air conditioners.
4. The customer's comfort preferences and conservation habits.

For more information about heating and cooling degree-days, contact us at 512/494-9400.

