Austin Energy

UNDERSTANDING
LOAD FACTOR

What Is Load Factor?

Load factor measures how efficiently a customer uses the available capacity of Austin Energy's system assets (generators, substations, wires and poles). Austin Energy measures each customer's demand throughout the day. A customer whose demand holds steady throughout the day will exhibit a flat load and high load factor. That means the customer is more fully utilizing the available system capacity.

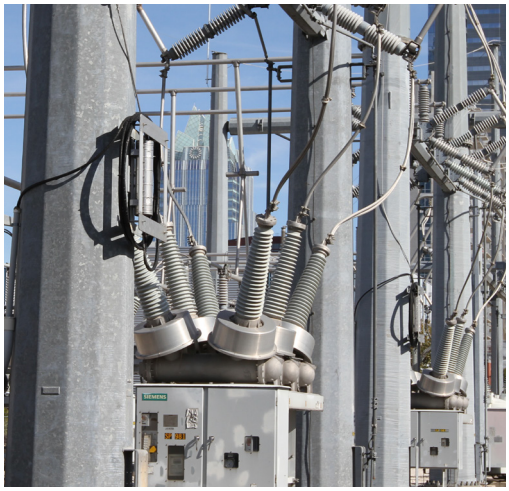
How To Calculate Load Factor

1 Start by calculating your average demand during the billing period. This is the total amount of energy consumed (in kilowatt-hours) divided by the number of hours in the billing period (number of days in the billing period multiplied by 24 hours in each day).

2 Divide your average demand (in kilowatts) by your peak demand (also in kilowatts) during the billing period. Multiply this number by 100 to get your load factor, expressed as a percentage.

Why Load Factor Matters

Austin Energy must be able to meet all customers' peak demand at all times. In the example to the right, Austin Energy would have to build and maintain enough capacity to provide Company A 100 kW all day, every day, even though Company A's demand is usually much lower.



Example:

Suppose Company A's total power consumption was 30,000 kilowatt-hours (kWh) during a 31-day billing period, and its peak demand was 100 kilowatts (kW).

31 days x 24 hours/day =
744 hours in the billing period

30,000 kWh ÷ 744 hours =
40.3 kW average demand

40.3 kW ÷ 100 kW peak demand =
0.403 kW x 100 =
40.3% Load Factor

That means Company A used the capacity Austin Energy has made available only **40.3%** of the time.

For more information about understanding load factor, please contact us at 512-494-9400.

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Why Load Factor Matters (continued)

Building and maintaining system capacity is costly and requires scarce raw materials and specialized staff. When customers use the system's capacity efficiently, by flattening load or spreading it throughout the day, Austin Energy can deliver the same amount of power at a lower cost. Austin Energy passes these savings onto you in the form of reduced demand charges and lower utility bills.

How To Improve Load Factor

The best way to improve your facility's load factor is by lowering peak demand. This means **flattening** and **scheduling load** throughout the day, so your demand stays relatively steady.

Load Flattening

- When possible, size equipment to use it consistently throughout the day. Avoid over-sizing equipment to accomplish the same work faster than necessary.
- Use a storage system like a battery to smooth out the peaks and valleys in power usage.

Load Scheduling

- Schedule electrical devices to run at different times, when possible.
- Avoid running multiple high-power devices at the same time.

Get Paid To Use Less

Austin Energy offers award-winning energy efficiency, demand response and demand management programs that can help you flatten and schedule your loads to increase your load factor.

Visit **AustinEnergy.com/CommercialRebates** to learn more.

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