

Oklahoma Residential SmartHours™ VPP Customer Resource: Understanding Critical Events

To understand why and when a Critical Event is called, it's helpful to understand the intent of the SmartHours program.

The SmartHours program was designed to reduce OG&E's summer monthly peak demand (in megawatts) by as much as possible. Achieving this goal involves a partnership with our customers in which they receive a lower price during off-peak periods as an incentive to reduce their energy use during the peak demand periods (weekdays from 2-7 p.m.), when they receive a variable price.

OG&E must engage its **SmartHours Variable Peak Pricing (VPP)** customers in reducing the peak demand so that their contribution to the system peak is less; calling Critical Events is an important part of achieving the necessary reduction in customer demand. By reducing energy use during the highest demand peak periods, VPP customers reduce their cost to serve; therefore, a discounted price is warranted.

Critical Events are called by a team of OG&E personnel who use predictive models and historical data from various factors to forecast when monthly system demand will be highest. The team meets several days a week – often daily. Their task is similar to what meteorologists face; they're human and can't predict the future, but they use models and data to come as close as possible.

The variable peak price tiers within the program (low/standard/high/critical) are determined by a formula in the Variable Peak Pricing tariff. Prices that are communicated to VPP customers include fuel charges, and the prices in the tariff do not include fuel.



Critical Events are usually called for the period from 4-6 p.m. when customer demand is expected to be the highest. OG&E is trying to reduce the peaks every summer, and regardless of temperatures, every summer has a peak demand.

Keep in mind, this team must consider the following data for OG&E's entire service area of 30,000 square miles, serving 890,000 customers:

- Load forecasting data – the expected demand on OG&E's system, determined using models and historical data.
- Meteorological data – weather patterns including forecasted temperature, heat index, residual/latent heat (the cumulative effect of heat on buildings or residences), precipitation chances, wind speeds.
- Other factors not for public availability due to federal regulations and market effects.



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