California ISO

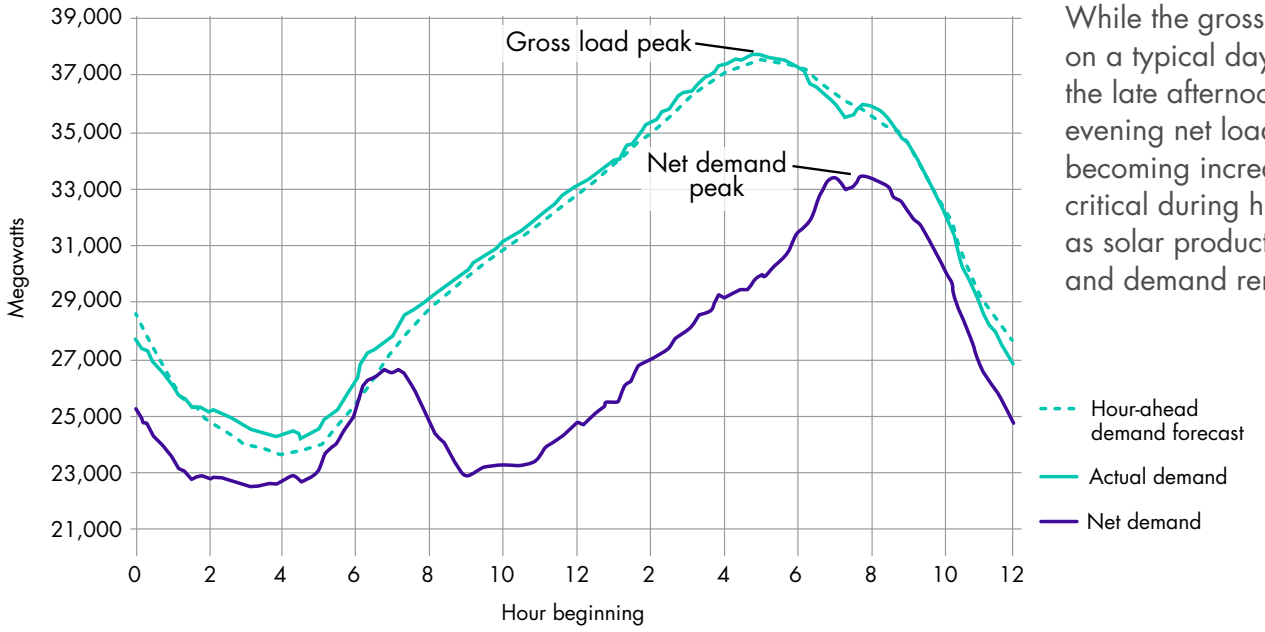
FACT SHEET

Gross & net load peaks

Gross load refers to the total energy required by the ISO to serve demand at its highest level of the day. Net load is the gross load minus the wind and solar resource generation levels to show the variance between total demand and the amount of resources required later in the afternoon when renewable resources may no longer be generating.

The electricity grid's gross load peak occurs in late afternoon when consumers' demand for energy increases. But in summer, especially during high heat events, solar production is often declining when temperatures are still hot, which means that the critical time for the grid can occur approaching or close to sunset.

To close the gap during this most critical period for the grid, the ISO must find other resources, including imports, to meet demand no longer being served by solar resources. The growing storage capacity is helping to fill this need by charging during the middle of the day and releasing the stored energy to the grid in the evening.



While the gross load peak on a typical day occurs in the late afternoon, the early evening net load peak is becoming increasingly critical during hot weather, as solar production ends and demand remains high.