

IT'S 5:30 P.M.

After a long day, you're finally home, pulling your electric vehicle into the garage.

YOU PLUG IN THE CAR FOR CHARGING,

head into the house and turn on the air conditioner because it's summer and sizzling. Moving through the house, you switch on the lights and the TV. It's time for dinner. The stove is warming; the food processor is whirring away. At the same time, hundreds of thousands of people around you are doing the same thing.

THE POWER GRID IS CLOSE TO MAXIMUM SUPPLY CAPABILITY. DEMAND MUST BE REDUCED.

Plug-in electric vehicles can be part of the solution.

HERE'S HOW:

The utility sees that the electric grid is under stress from high demand. It sends an automated message to the central gateway computer, which communicates with automakers' servers:

"REQUEST TO STOP CHARGING."

The central gateway computer receives the message and fans out an automated signal to automakers' servers. Plugged-in EVs are notified:

"REQUEST TO STOP CHARGING."

Each car receives the message and sends the servers a response, which is picked up by the utility:

"REQUEST TO STOP CHARGING RECEIVED."

The cars automatically stop charging.

LATER,

when the demand for power lessens, the utility sends another message through the system to the cars that it's OK to resume charging.

This process helps manage power consumption and creates a more stable and efficient power grid.