

DAYLIGHTING THE NEW YORK TIMES HEADQUARTERS BUILDING



[Home](#) >> [Demand Response](#)

[Overview](#)

[The architectural approach](#)

[The owner's approach](#)

[Daylighting field study](#)

[Daylighting control systems](#)

[Automated roller shades](#)

[Procurement specifications](#)

[Shades and Shade Controls](#)

[Lighting Controls](#)

[Visualizing daylight](#)

[Commissioning/verification](#)

Demand response

[Mainstream solutions](#)

[Publications](#)

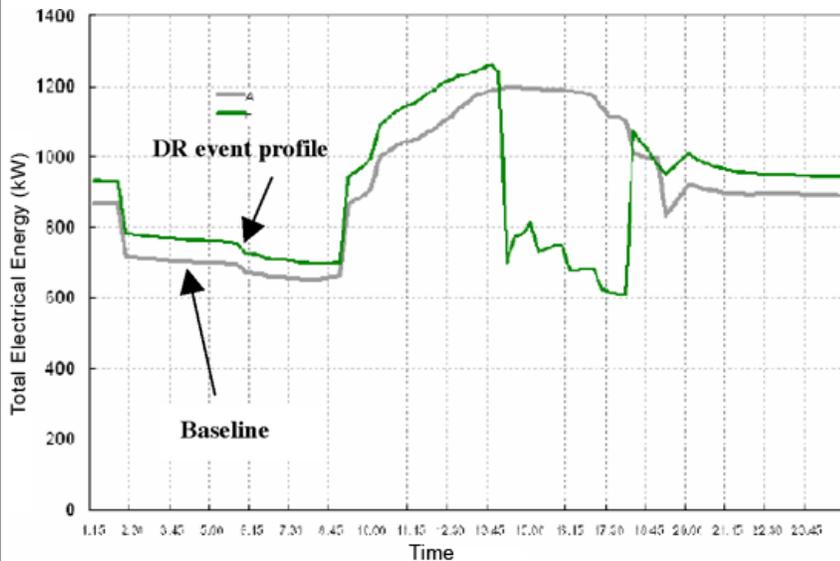
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[Project Team](#)

Demand Response

Commercial buildings represent over one-third of electrical loads on hot summer days—reducing these loads helps improve grid reliability, flatten the system load shape, and reduce wholesale and retail costs. Demand response (DR) is any demand side action required to reduce electrical loads when contingencies such as emergencies and congestion occur that threaten system reliability and/or when market conditions raise supply costs.

Advanced building controls in commercial buildings can provide an excellent resource for demand response. Commercial buildings are a major contributor to summer peak demand, with large increases in cooling requirements on hot summer days. Recent estimates on the role of this sector in driving summer peak demands suggest that commercial buildings account for 330 coincident GW, which is 45% of the total for the entire U.S. summer peak demand.



Demand profile of The New York Times Headquarters under the best demand response

control sequence.

Source: NaturalWorks.

As a corporate citizen, The Times is interested in using the combined capability of dimmable lighting, automated shades, and the underfloor air distribution system to shed peak loads during critical periods when an electricity brown-out or black-out was imminent. With co-funding from the CEC PIER [Demand Response Research Center](#), LBNL and NaturalWorks estimated potential peak demand reductions were using the EnergyPlus building energy simulation program under different scenarios of curtailment, ranging from moderate to severe (see [Publications](#)). Financial implications were computed. The Times is now considering whether to engage in various demand-response programs offered by the local utility and New York Independent System Operator in the area.

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