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HATCH DATA RESEARCH REPORT
APRIL 6, 2020

Hatch Data (www.HatchData.com) is a commercial real estate software company focused on building operations performance management. The company is based in San Francisco and Boston.

How Is U.S. Office Building Energy Use Being Affected by the Coronavirus Crisis?

New national data covering the period right up to Saturday night (April 4) tells us. How do your buildings compare to peers in your region?

It's been three weeks since the first stay-at-home orders were issued by U.S. states to slow the spread of the coronavirus (COVID-19) by requiring people to work remotely, avoid unnecessary travel, and socially distance themselves from others. Given the inconsistent policies from federal, state and local governments, staggered roll-out of stay-at-home orders, and varying tenant occupancy levels, we were curious: **How is the coronavirus actually affecting operational practices and results across building portfolios?**

Our company, Hatch Data, supports building operations teams and owners in simplifying energy management, proactive maintenance, and performance improvements. Our platform currently captures, tracks and analyzes building data on more than 400 million square feet of occupied space. With over 14 billion hours of property operating data collected over 10 years — the most comprehensive operational data set in the industry — we are uniquely qualified to help answer this question.

By tapping into the aggregate minute-by-minute data streaming from utility meters, sub-meters, and a range of building equipment and devices at the property level, our team was quickly able to identify important trends taking place across the industry. The analysis in this report covers the past four weeks and compares them to the week of March 1, prior to the public health crisis. We've started with the United States and will update with other markets, as available.

Commercial Building Electricity Reduction
As Compared to Week of March 1st

	March 8 - March 14	March 15 - March 21	March 22 - March 28	March 29 - April 4
National	5%	12%	18%	22%
Northeast	7%	16%	21%	23%
Midwest	4%	3%	11%	19%
South	5%	10%	16%	22%
West	4%	14%	21%	22%

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Source: www.hatchdata.com

Key Takeaways:

- On a national basis, office building electricity consumption has declined 22% in the past four weeks.

- The Northeast has seen the most significant reductions (23%), followed by the West and South (22% each), and Midwest (19%).

- These trends largely follow the timing of stay-at-home orders: California (which took effect March 19), New York (which took effect March 22), Washington (which took effect March 23), and Massachusetts (which took effect March 24).

- In those markets, occupancy rates dropped the fastest as businesses quickly adopted remote work strategies, and operators adjusted their building practices and electricity use.

- Elsewhere, it took another week or two for reductions to be seen.

Commercial Building Electricity Reduction

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Source: www.hatchdata.com
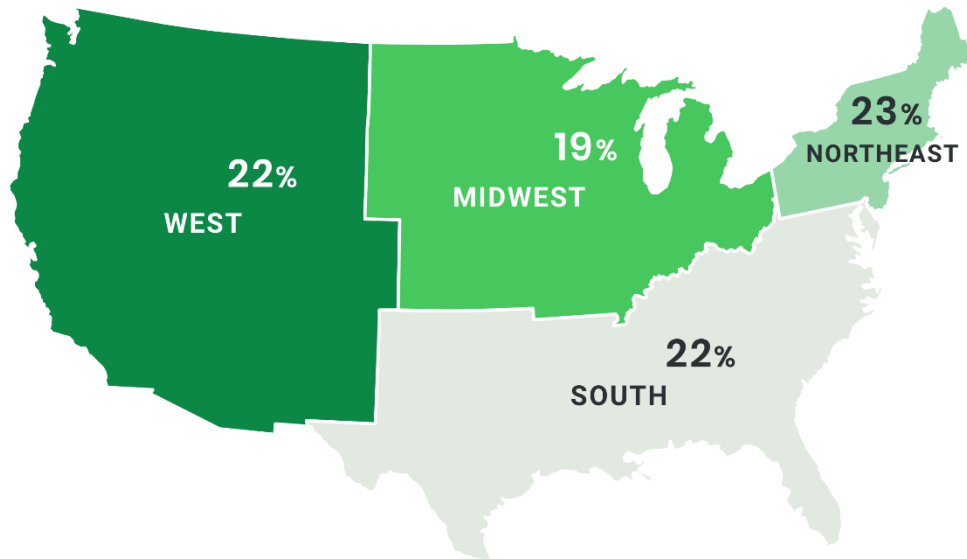
As the COVID-19 crisis continues to play out, average building energy consumption is likely to continue its downward trend as building teams adapt to decreased occupancy rates. Equipment set-points and operating schedules have been adjusted to account for occupancy reductions. With these changes in place, the coming weeks may very well see a new baseline level of energy consumption and a shift towards focusing on other energy cost components, such as time of use and demand charges.

Tenants or Not, Most Building Are Still Active

Despite the reduced levels of occupancy, the desired or optimal state is not a mothballed building. In many buildings, systems need to run to prevent degradation, minimize risk of failure, and to ensure they're ready to ramp up quickly when tenants can return to work.

In many cases, lease obligations compel landlords and their operating teams to continue to maintain certain temperatures in conditioned spaces. Lease language varies, but it's common for these obligations to remain — even in a crisis situation — unless tenants explicitly consent to variances. In addition to comfort systems, essential 24/7 loads such as smaller server rooms, telco closets, and emergency lighting remain in most buildings, leading to some persistent level of energy usage.

Even in periods of low occupancy, critical preventive maintenance routines and safety standards such as regular central air filter replacement should be maintained. ASHRAE has recently released guidance on preventive measures operators can execute with respect to heating, cooling and ventilation (HVAC) systems. One suggested strategy is to increase outdoor air ventilation and reduce recirculation of air. As we enter a milder shoulder season, this approach may help remove harmful contaminants in the air while having a relatively minor impact on energy use associated with heating and cooling. Timely access to energy and weather data empowers

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operators to implement these recommendations while keeping an eye on usage and peak demand to minimize utility cost.

How This Data Helps Building Operators

While the weekly electricity data reported above is useful to demonstrate national and regional trends, Hatch Data customers have access to real-time and historical reporting for each of their buildings to track total energy demand and consumption, across all commodities, identify specific steps to improving building performance, and manage those activities through to completion, all in one spot. This makes it easy for busy teams to quickly act and capture energy and operational savings.
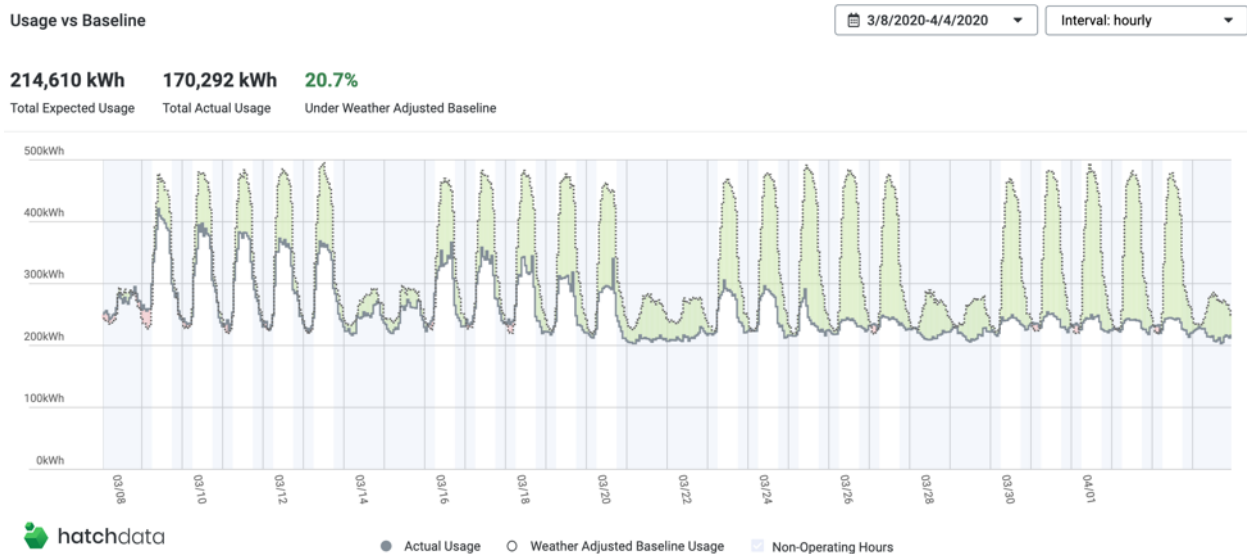
Shown above is a snapshot of one building's electricity use reduction over the past four weeks. Compared to five weeks ago, this building's electricity use has decreased by more than 20%. Located in the Western U.S. region, where we saw a 22% decrease in electricity reduction over the past four weeks, this property is in line with its peers. This knowledge can help teams, now remote more than ever, understand the impact to their current utility costs and make adjustments to their go-forward operating budgets. Operators who purchase their energy competitively should be especially mindful of potential impact from bandwidth or material change clauses in their contracts.

How You or Your Portfolio Can Benefit from Hatch Data

How is your portfolio performing through this time of change? Does your team have the proper tools at their disposal? Our software platform can be deployed for a single asset or large portfolio, including access to historical data, within a week. There is no upfront capital cost to get started. Getting connected today will better position your team to support the return of tenants without sacrificing quality.

If your company would benefit from tracking, insight, and analysis of your buildings' energy and operational data sets, please contact Ben Mendelson at ben.mendelson@hatchdata.com and he'll connect you with a member of our team for a free consultation.