

VIRTUAL COMMISSIONING[®]
(VCX[®]) PROGRAM

HOME FURNISHINGS RETAILER

A 3,450-square-foot home furnishings retail store achieved an 18% reduction in annual energy use — saving \$8,760 and eliminating 91,490 kWh in wasted consumption — after participating in Power TakeOff's Virtual Commissioning[®] (VCx[®]) Program.

The Opportunity

Power TakeOff's analysis revealed that the store's unoccupied baseload was higher than expected, inconsistent, and volatile. This indicated excessive energy consumption during non-operating hours, likely due to manual overrides of programmed schedules.

Baseload levels were also significantly higher than the prior year, presenting a clear opportunity to restore energy use to historical benchmarks. This would require partnering with facility management to minimize manual system overrides and implement more consistent, automated operating practices.

The Action Plan

Following initial engagement, Power TakeOff's Energy Advisor recommended reprogramming lighting schedules in the Building/Energy Management System (BMS/EMS) to match operating hours:

Updated Lighting Controls

- Adjusted to reflect store hours of 8:00 a.m.–11:00 p.m.
- Implemented on a trial basis; however, the store manager's use of the maintenance switch initially override schedules.
- After a follow-up, the maintenance switch use was discontinued.

Additional Considerations

- Early morning start-ups were permitted during Thanksgiving/Black Friday week to accommodate extended shopping hours, but baseload remained significantly reduced afterward.
- Further focus was directed to minimizing manual adjustments and improving automated scheduling reliability.



\$8,760
Annual Savings



91,490 kWh
Saved



18% Reduction
in Annual Usage

The Outcome

By reprogramming schedules and addressing manual override habits, the site achieved:

91,490 kWh
saved annually

enough to power eight average U.S. homes for a year.

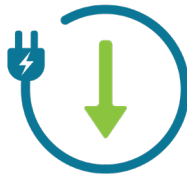


More consistent and predictable baseload, aligning better with occupancy patterns.

\$8,760

in annual cost savings

with no capital investment.



Reduced peak demand and unnecessary off-hours consumption, improving operational efficiency.

18%

reduction in total energy consumption



A framework for ongoing automated energy management, minimizing the risk of efficiency losses due to manual interventions.

● Hourly
○ Daily



Figure 1. Comparison of Energy Usage from before and after Power TakeOff Intervention.

Since 2007, Power TakeOff has been an industry leader in data-first, virtual utility products and efficiency programs. Specializing in Energy Information Software, Power TakeOff transforms complex utility AMI data into personalized energy efficiency recommendations with proven measurement and verification results. Utilities across North America rely on Power TakeOff to enhance customer experiences, increase revenue, meet efficiency goals, and reduce greenhouse gas emissions. Learn more at www.PowerTakeOff.com.