

2022-23 Holiday Curtailment Energy Savings Report

Summary

This year the UC Berkeley Campus curtailed buildings over the winter holiday for 11 days, from December 22nd through January 1st. The Energy Office worked with the EMS group, Stationary Engineers, HVAC and Electric Shops to curtail 60 buildings. In total, curtailment saved 567,860 kWh and 1,448,340 pounds of steam. Compared to the baseline, electric use was 10.5% lower and steam use was 5.4% lower (when normalized for weather). Although the campus experiences the lowest electric rates of the year over winter break, curtailment saved the campus approximately \$141,324 and 386 metric tons of carbon dioxide emissions. Below are the detailed costs and energy savings associated with curtailment this year.

| | Electric (kWh) | Steam (lbs)* |
|------------------------------|----------------|--------------|
| Pre-Curtailment Usage | 5,384,660 | 26,897,805 |
| Curtailment Usage | 4,816,800 | 25,449,465 |
| Savings | 567,860 | 1,448,340 |
| % Savings | 10.5% | 5.4% |

*Weather normalized

| | |
|---------------------|-------------|
| Cost (Labor) | \$15,000 |
| Savings | \$141,324 |
| ROI | 942% |

Curtailment 2022-23 saved **386 metric tons** of CO₂ – the emissions of:

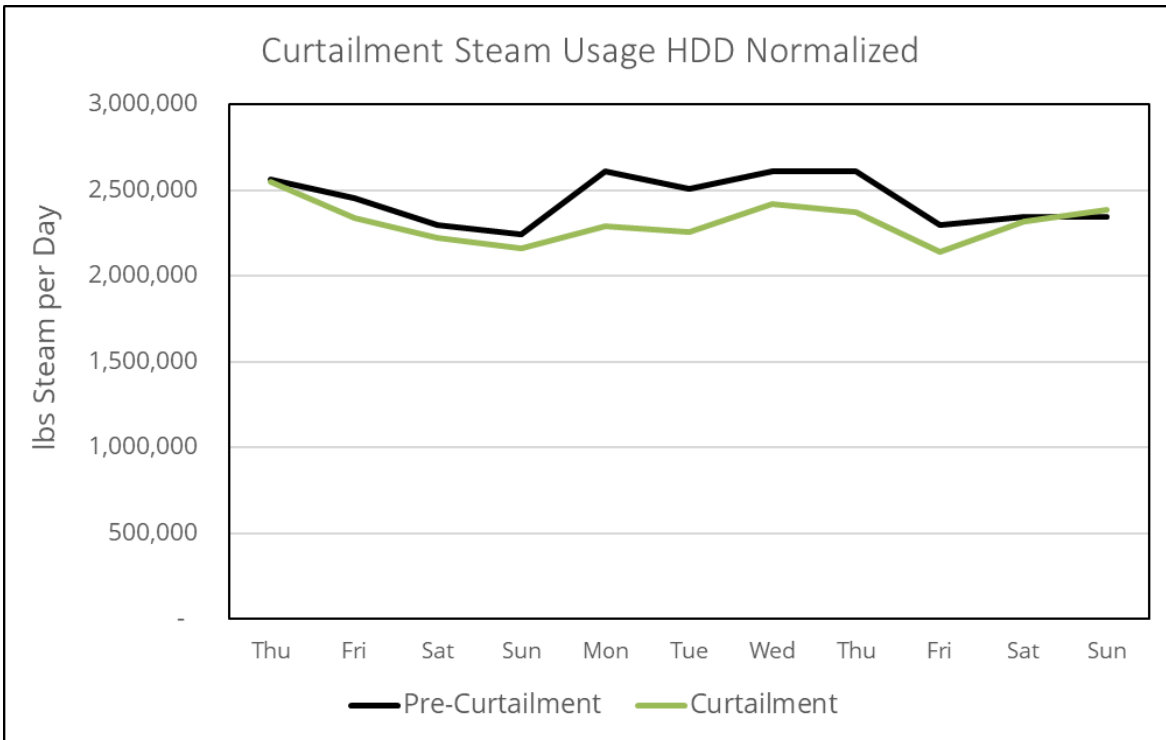
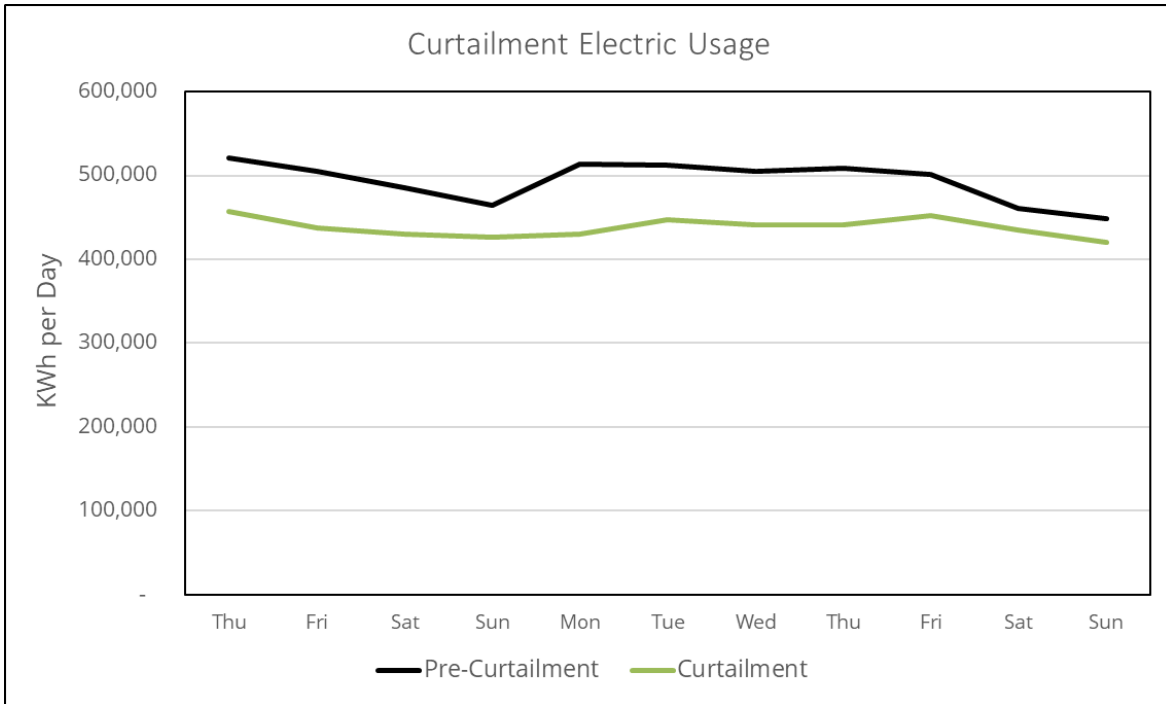
46.5 average US homes' annual energy use...



...or 2.1 Railcars of Coal



Total Campus Electric and Steam Usage



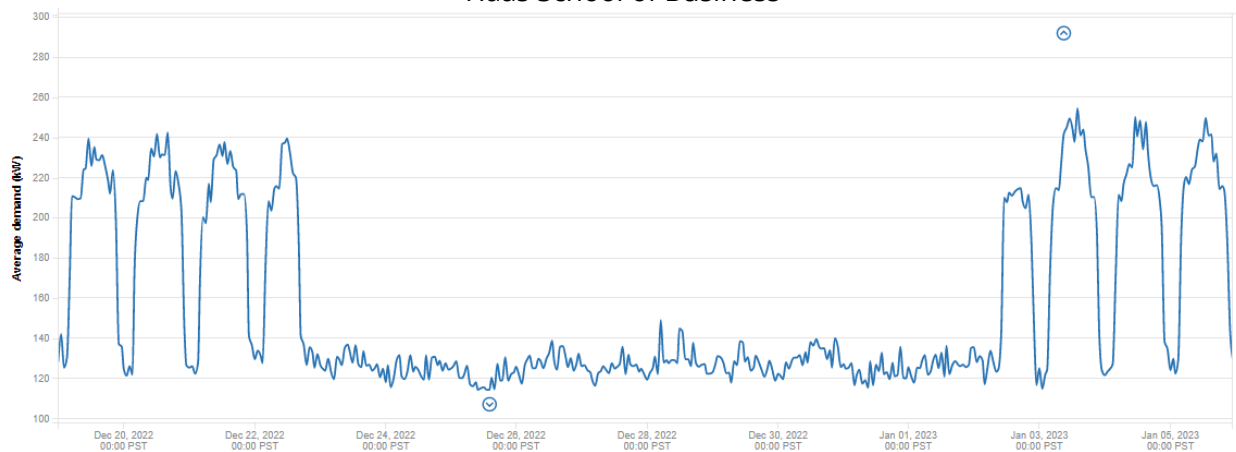
Electric Demand Reduction – Classroom Buildings

The graphs below illustrate the significant drop in energy demand (kW) during the 2022-23 winter curtailment program at four campus classroom buildings.

Dwinelle Hall



Haas School of Business



Electric Demand Reduction - Classroom Buildings (cont'd)

DOE Library



Social Science Building

