

# COMPARATIVE CASE STUDY

## Cambridge Space Heaters vs. Air Turnover Side-By-Side Warehouses - MA

### Cambridge Space Heaters



#### Operating Costs

Based on 6,014 Heating Degree Days

\$0.15/ft<sup>2</sup> Gas cost @ \$0.50/therm

\$0.05/ft<sup>2</sup> Electric cost @ \$0.08/Kwh

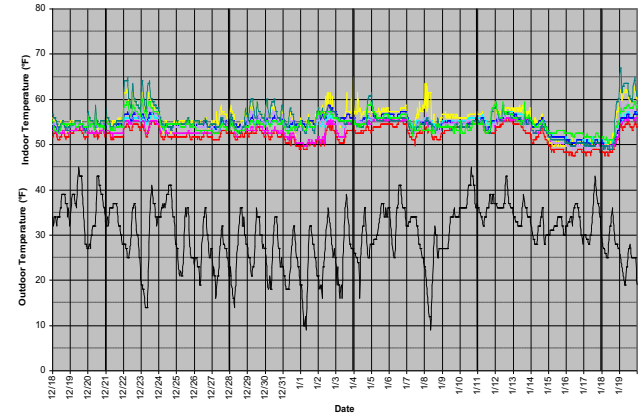
**\$0.20/ft<sup>2</sup> Total cost**

#### Building Specifications

- 105,000 ft<sup>2</sup> x 24' high
- R-4 Roof / R-2 Walls

#### Heating System

- (4) Cambridge Space Heaters
- Roof top mounting
- 6,706 MBH total
- 31,000 CFM total
- 22.5 HP total - intermittent



± 10° indoor temperature variation  
from 65° setpoint

### Air Turnover



#### Operating Costs

Based on 6,014 Heating Degree Days

\$0.26/ft<sup>2</sup> Gas cost @ \$0.50/therm

\$0.12/ft<sup>2</sup> Electric cost @ \$0.08/Kwh

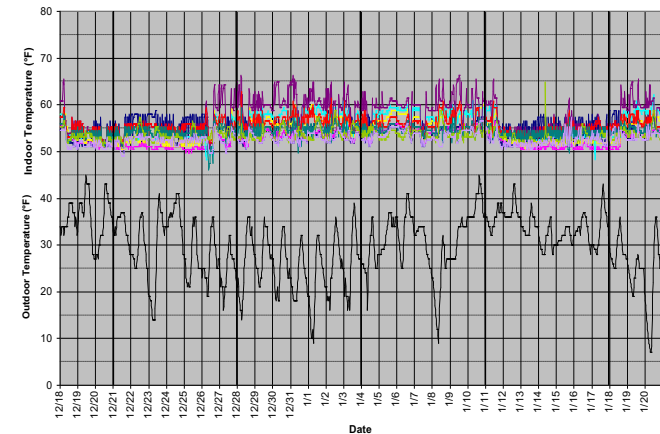
**\$0.38/ft<sup>2</sup> Total cost**

#### Building Specifications

- 105,000 ft<sup>2</sup> x 24' high
- R-4 Roof / R-2 Walls

#### Heating System

- (4) Air Turnover Heaters
- Floor mounting
- 10,000 MBH total
- No outside air
- 60 HP total - intermittent



± 10° indoor temperature variation  
from 70° setpoint

### Summary

The Cambridge system used over **45% less** total energy with less temperature variation.

If the facility with air turnover heaters had installed a Cambridge system they could have saved approximately **\$19,000/year** operating at \$0.20/ft<sup>2</sup> vs. \$0.38/ft<sup>2</sup>.