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Abstract

This report analyzes energy spending patterns and the upgrade opportunities that can help customers save energy consumption and money. Using data from 26 different houses, we can see the most effective upgrades for each house and how much it will save them annually.

Energy costs and saving potential

Analyzing Spending Patterns and Upgrade Impact

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# Introduction

Furnace upgrades can reduce the amount of energy consumption and the amount that the consumer spends. This report shows the amount that houses are spending on their energy consumption and illustrates the most effective ways for each house to save.

# Amount currently spent on space heating.

When we look at how much energy the 26 houses assessed are using on space heating, we can see that they have a combined total of 2166 GJ/year, showing that they spend $2069 annually.

A close-up of a graph

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Figure 1. Current amount spent on space heating.

# Savings after installing a new furnace.

When we combine all 26 houses, we can see that there would be a potential savings of $2,415 if they all installed a new furnace.

A graph and a red marker

Description automatically generated with medium confidence

Figure 2. Amount saved after installing new furnaces.

# House with the highest energy consumption.

Currently, the house with the highest energy consumption is house 15. We can see that they use 306 GJ/year and that costs them $292 annually.

A screenshot of a graph

Description automatically generated

Figure 3. House consuming the most energy.

# House with the lowest energy consumption.

The house that is currently using the least amount of energy is house 20. They use 158 GJ/year which costs them $151.

A screenshot of a graph

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Figure 4. House consuming the least energy.

# Houses with the highest saving potential.

The houses that would save the most money if they installed new furnaces, starting with the highest savings, include house 6, 15, 16, 18, and 1. These 5 houses combined would save 687 GJ/year and would save them a combined total of $656.

A graph with numbers and a red circle

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Figure 5. Top 5 houses that would save the most after installing new furnaces.