

| Building Summary | | Weather Summary | |
|---|---|---|---------------|
| Building Type | | Location KIRUNA - SWE | |
| Conditioned Floor Area | 24,073 ft ² | Weather File SWE_Kiruna.020440_IWEC | |
| Total Building Area | 24,073 ft ² | Latitude N 67° 49 | |
| Gross Wall Area | 10,348 ft ² | Longitude E 20° 19 | |
| Window-Wall Ratio | 10.49 % | Time Zone GMT +1.0 Hours | |
| Gross Roof Area | 12,375 ft ² | Summer Design Dry Bulb Temperature (1%) | 68.0 |
| Skylight-Roof Ratio | 0 % | Winter Design Dry Bulb Temperature (99%) | -15.9 |
| Average Plug Load Density | 0.15 W/ft ² | User Defined | |
| Average Lighting Density | 0.17 W/ft ² | Summer Design Day Dry Bulb Temperature | 68.1 |
| Average Lighting Density | U. 17 VV/IL | | |
| Peak Occupancy | 6 | Coincident Design Day Wet Bulb Temperature | 55.9 |
| 0 0 0 , | | Coincident Design Day Wet Bulb Temperature Winter Design Day Dry Bulb Temperature | 55.9 -21.6 |
| Peak Occupancy | 6 | | |
| Peak Occupancy Site Ventilation | 6 1,200 ft³/min | | |
| Peak Occupancy Site Ventilation Cooling Specific Air Flow | 6 1,200 ft ³ /min 3,413 ft ³ /min | | |

Project Information

Project Name Santa's House & Workshop

Building Owner Santa

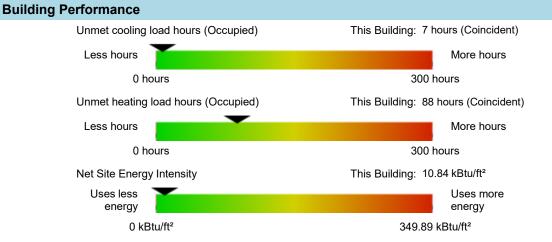
Location North Pole, Finland

Program User CSR

Company Lorax Partnerships

Site Performance

| Net Source Energy Use Intensity (EUI) | 34.3 kBtu/ft² |
|---------------------------------------|---------------|
| Annual Electrical Consumption | 76,486 kWh |
| Annual Peak Electrical Demand | 26 kW |
| Annual Gas Consumption | 0 MMBtu |
| Annual Water Consumption | 0 gal |



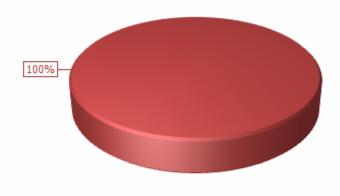
Alternative: Primary

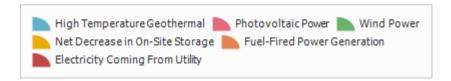
File Santa's House & Workshop.mdf

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TRACE 3D Plus 5.20.117





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|---------------------|
| 0 k///h |
| U KVVII |
| 0 kWh |
| 0 kWh |
| |
| 0 kWh |
| 0 kWh |
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| 0 kWh |
| 0 kWh 76,485 kWh |
| |

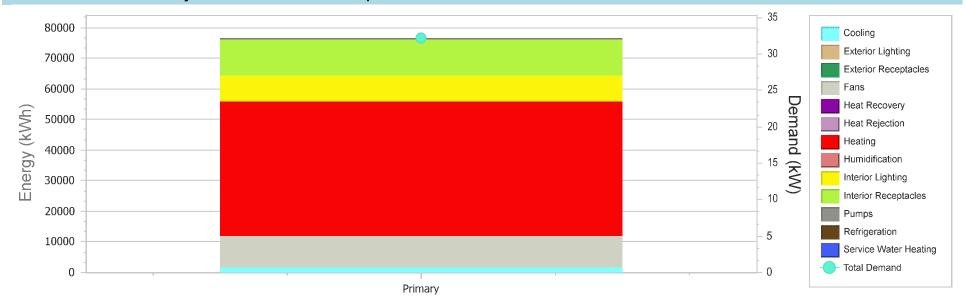
| Water-Side Heat Recovery | 0 kWh |
|----------------------------------|-------|
| Air to Air Heat Recovery Cooling | 0 kWh |
| Air to Air Heat Recover Heating | 0 kWh |
| High-Temperature Geothermal | 0 kWh |
| Solar Water Thermal | 0 kWh |
| Solar Air Thermal | 0 kWh |
| Total On-Site Thermal Sources | 0 kWh |

Alternative: Primary

File Santa's House & Workshop.mdf name:

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Alternative Annual Electricity End Use and Demand Comparison

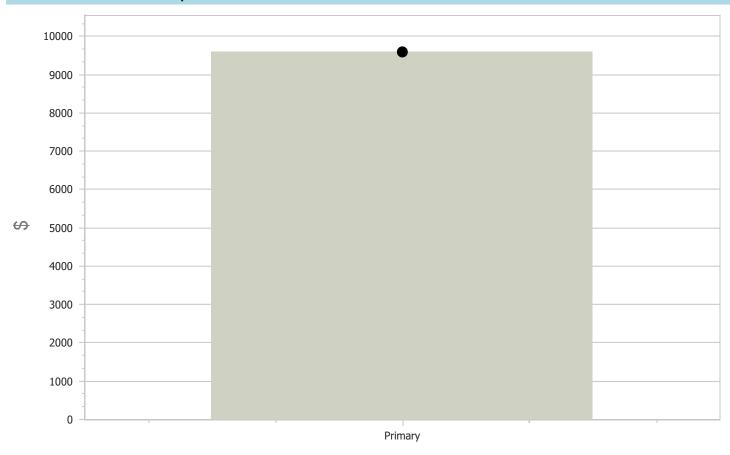


| | Primary | |
|-----------------------|--------------|-------------|
| | Energy (kWh) | Demand (kW) |
| Cooling | 1,646.29 | 1.90 |
| Exterior Lighting | 0.00 | 0.00 |
| Exterior Receptacles | 0.00 | 0.00 |
| Fans | 10,324.23 | 1.69 |
| Heat Recovery | 0.00 | 0.00 |
| Heat Rejection | 0.00 | 0.00 |
| Heating | 43,908.90 | 22.83 |
| Humidification | 0.00 | 0.00 |
| Interior Lighting | 8,427.65 | 2.79 |
| Interior Receptacles | 12,177.91 | 2.95 |
| Pumps | 0.79 | 0.00 |
| Refrigeration | 0.00 | 0.00 |
| Service Water Heating | 0.00 | 0.00 |
| Grand Total | 76,485.77 | 32.15 |

Alternative: Primary

File Santa's House & Workshop.mdf name:

Economic Alternative Comparison



| | Primary |
|--------------------------------------|---------|
| Annual District Cooling Utility Cost | 0 |
| Annual District Heating Utility Cost | 0 |
| Annual Electric Utility Cost | 9,600 |
| Annual Gas Utility Cost | 0 |
| Annual Other Utility Cost | 0 |
| Average Yearly Maintenance Cost | 0 |
| Average Yearly Total Operating Cost | 9,600 |

Alternative: Primary

File Santa's House & Workshop.mdf name:

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Annual District Heating Utility Cost

Annual District Cooling Utility Cost
Annual Electric Utility Cost

Average Yearly Maintenance Cost

- Average Yearly Total Operating Cost

Annual Gas Utility Cost Annual Other Utility Cost