



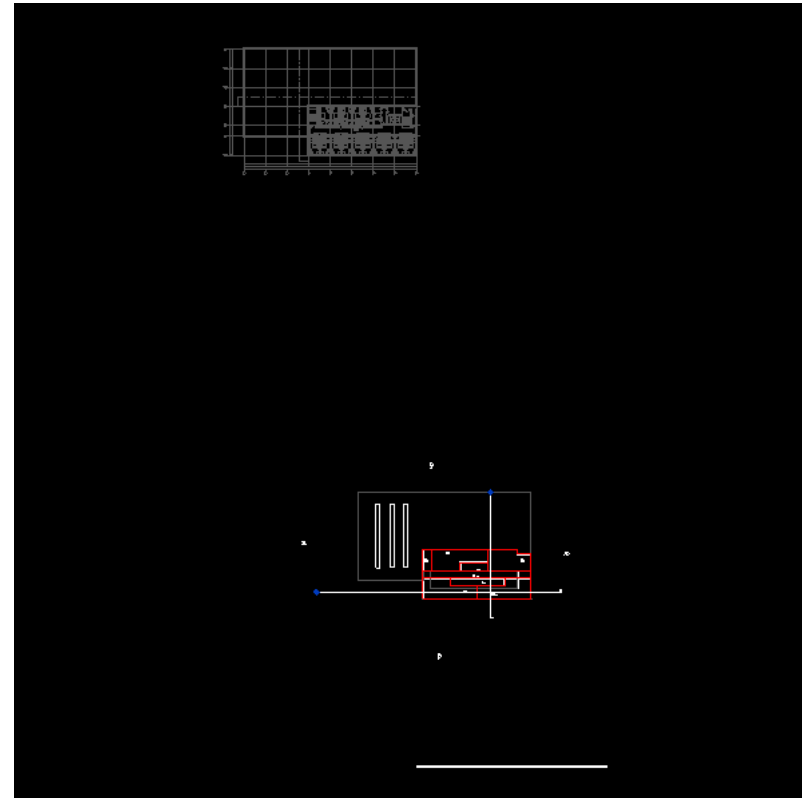
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BEM II Analysis

Energy Analysis Result



Energy Analysis Data



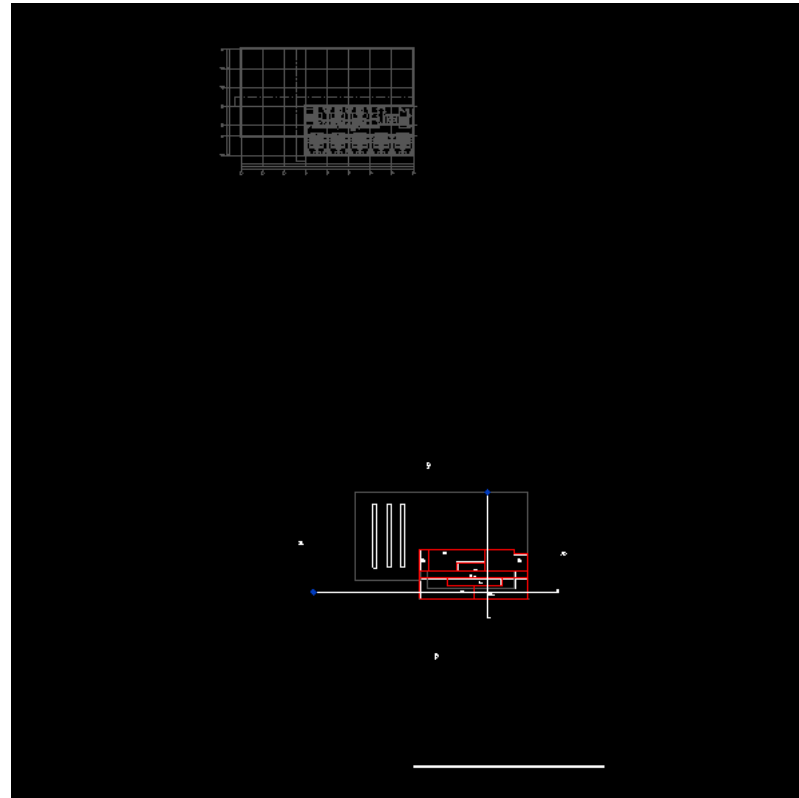
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BEM II Analysis (1)

[Energy Analysis Result](#)



Energy Analysis Data



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BEM II Analysis

Building Performance Factors

Location:	Moscow, Moscow
Weather Station:	188352
Outdoor Temperature:	Max: 30°C/Min: -31°C
Floor Area:	4,766 m ²
Exterior Wall Area:	3,790 m ²
Average Lighting Power:	11.63 W / m ²
People:	264 people
Exterior Window Ratio:	0.21
Electrical Cost:	p.2.00 / kWh
Fuel Cost:	p.20.00 / Therm

Energy Analysis Data



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BEM II Analysis (1)

[Building Performance Factors](#)

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Energy Analysis Data



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BEM II Analysis

[Energy Use Intensity](#)

Electricity EUI:	888 kWh / sm / yr
Fuel EUI:	27,226 MJ / sm / yr
Total EUI:	30,422 MJ / sm / yr

Energy Analysis Data



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BEM II Analysis (1)

[Energy Use Intensity](#)

Electricity EUI:	165 kWh / sm / yr
Fuel EUI:	1,642 MJ / sm / yr
Total EUI:	2,235 MJ / sm / yr

Energy Analysis Data



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BEM II Analysis

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	116,846,010 kWh
Life Cycle Fuel Use:	3,583,200,136 MJ
Life Cycle Energy Cost:	p.414,472,794

*30-year life and 6.1% discount rate for costs



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BEM II Analysis (1)

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	21,710,343 kWh
Life Cycle Fuel Use:	216,055,928 MJ
Life Cycle Energy Cost:	p.38,307,151

*30-year life and 6.1% discount rate for costs



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BEM II Analysis

Renewable Energy Potential

Roof Mounted PV System (Low efficiency):	119,291 kWh / yr
Roof Mounted PV System (Medium efficiency):	238,583 kWh / yr
Roof Mounted PV System (High efficiency):	357,874 kWh / yr
Single 15' Wind Turbine Potential:	0 kWh / yr

*PV efficiencies are assumed to be 5%, 10% and 15% for low, medium and high efficiency systems



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BEM II Analysis (1)

Renewable Energy Potential

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Energy Analysis Data



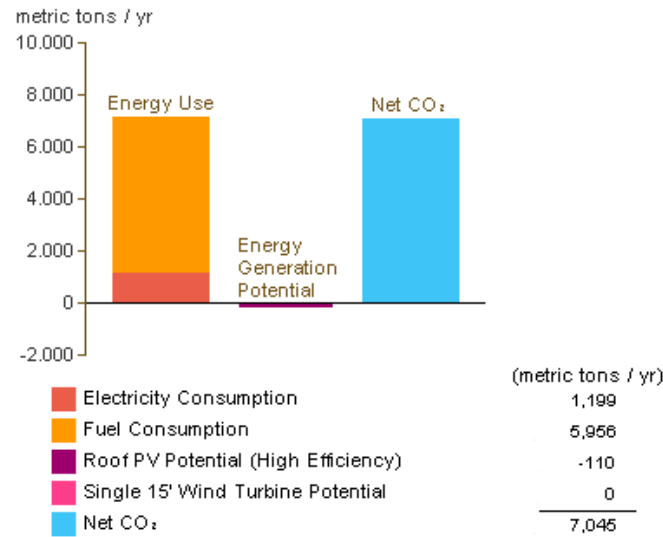
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BEM II Analysis

Annual Carbon Emissions



Energy Analysis Data



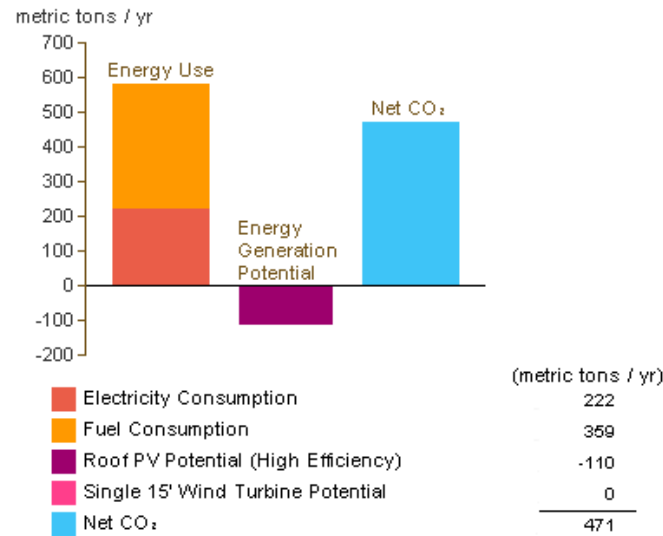
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BEM II Analysis (1)

Annual Carbon Emissions



Energy Analysis Data



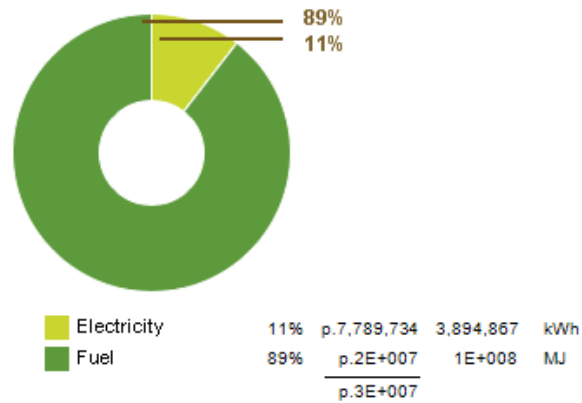
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BEM II Analysis

Annual Energy Use/Cost



Energy Analysis Data



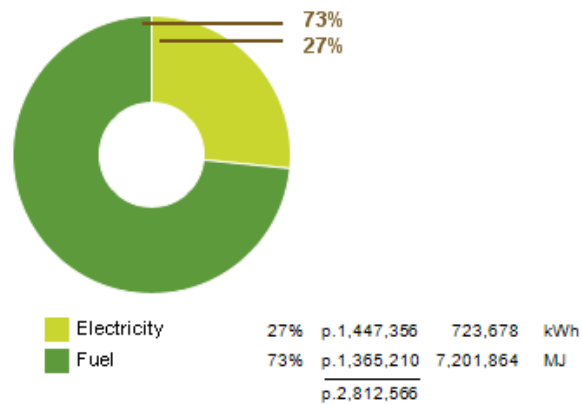
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BEM II Analysis (1)

Annual Energy Use/Cost



Energy Analysis Data



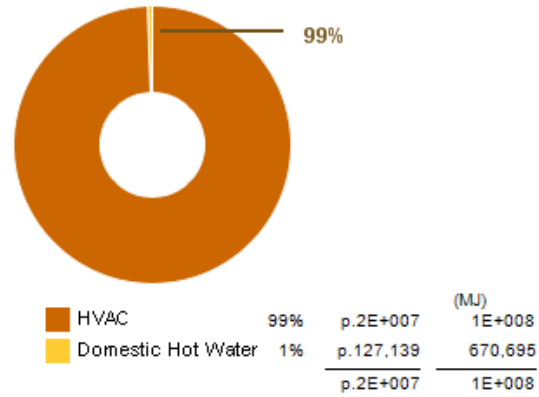
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BEM II Analysis

Energy Use: Fuel



Energy Analysis Data



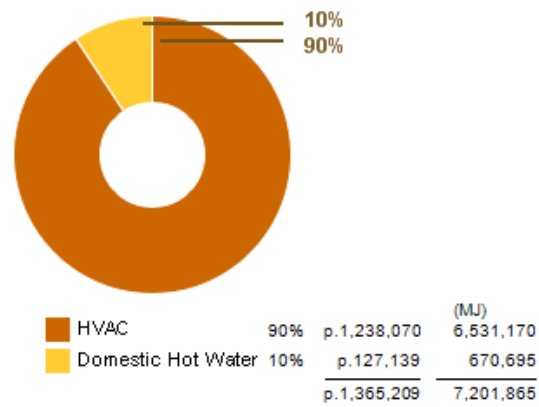
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BEM II Analysis (1)

Energy Use: Fuel



Energy Analysis Data



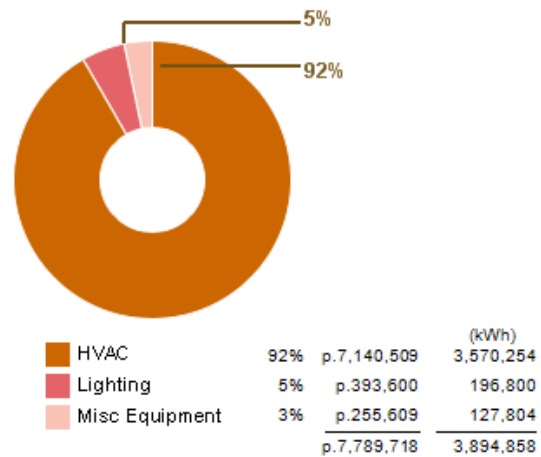
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BEM II Analysis

Energy Use: Electricity



Energy Analysis Data



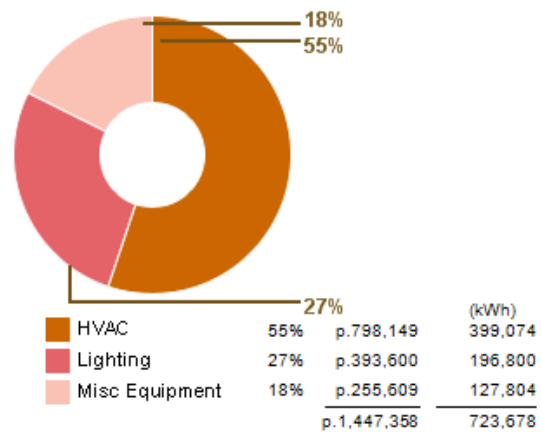
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BEM II Analysis (1)

Energy Use: Electricity



Energy Analysis Data



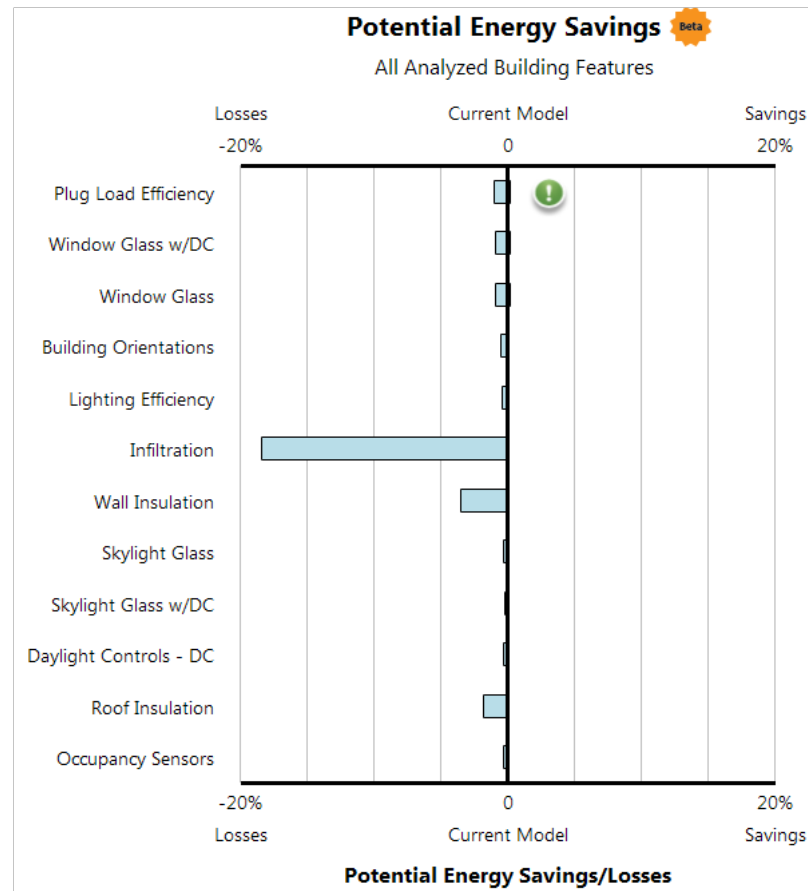
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BEM II Analysis

Potential Energy Savings



Energy Analysis Data



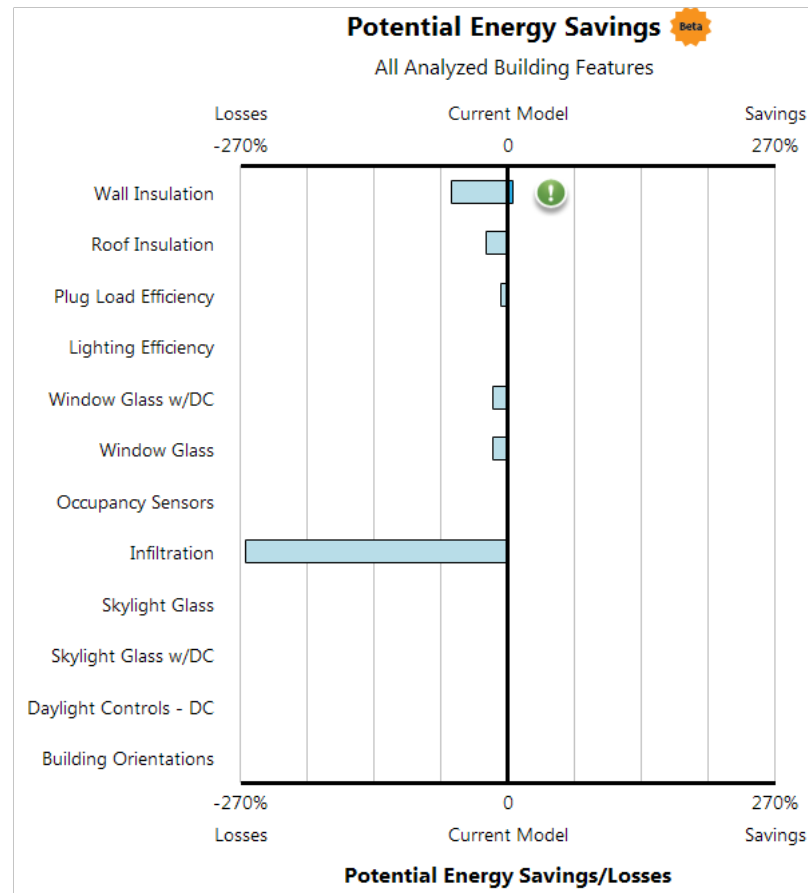
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BEM II Analysis (1)

Potential Energy Savings



Energy Analysis Data



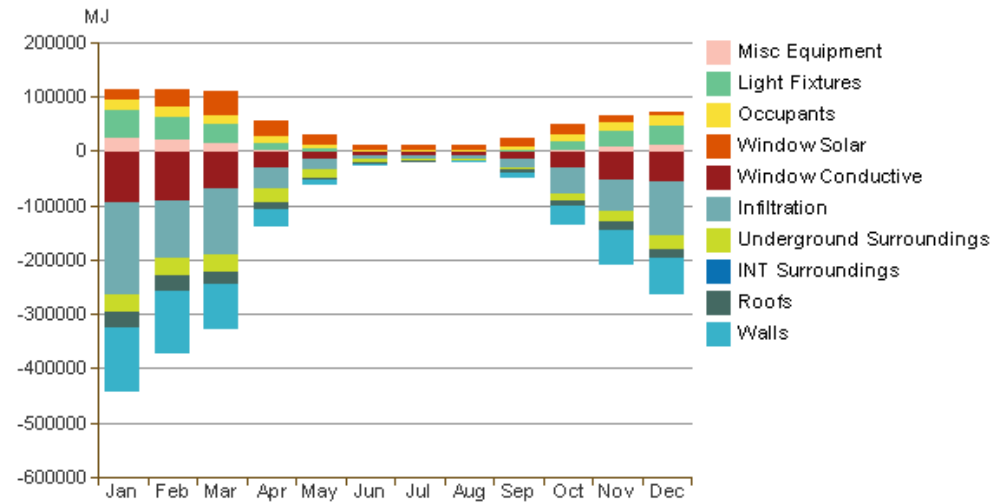
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BEM II Analysis

Monthly Heating Load



Energy Analysis Data



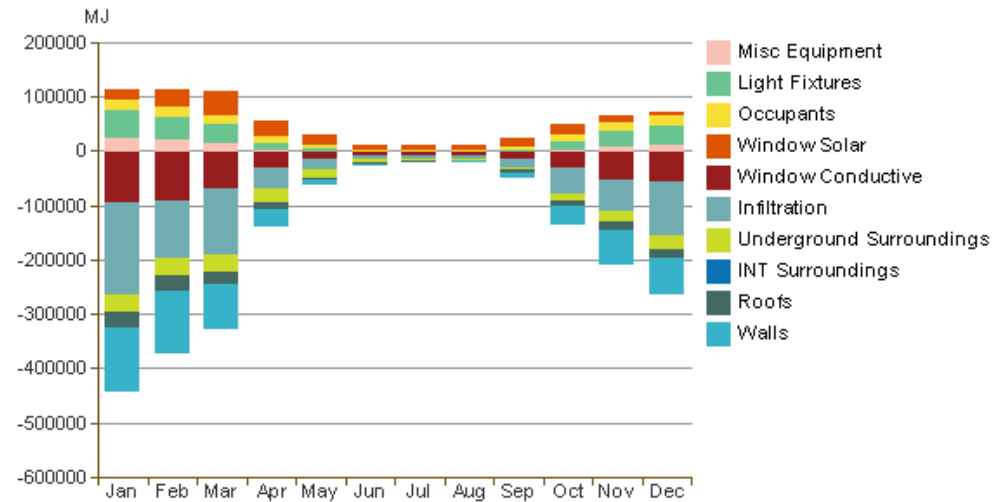
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BEM II Analysis (1)

Monthly Heating Load



Energy Analysis Data



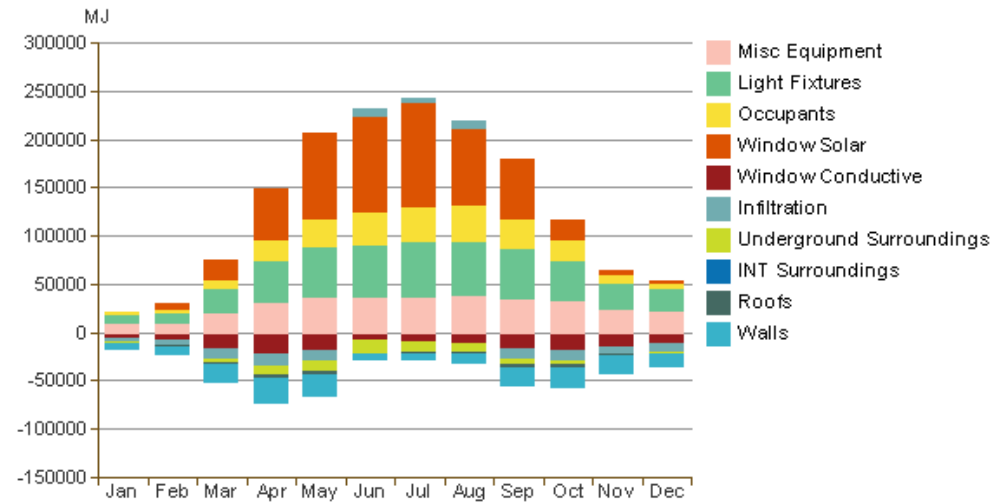
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BEM II Analysis

Monthly Cooling Load



Energy Analysis Data



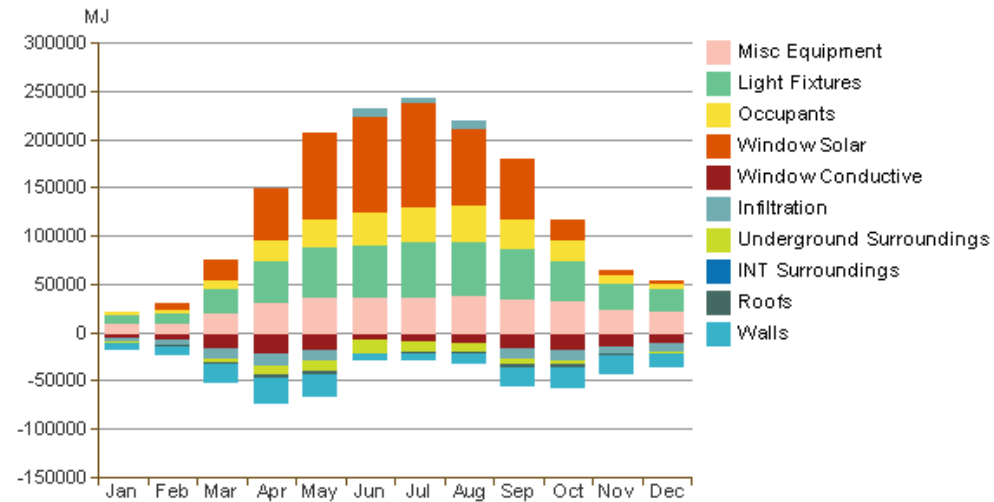
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BEM II Analysis (1)

Monthly Cooling Load



Energy Analysis Data



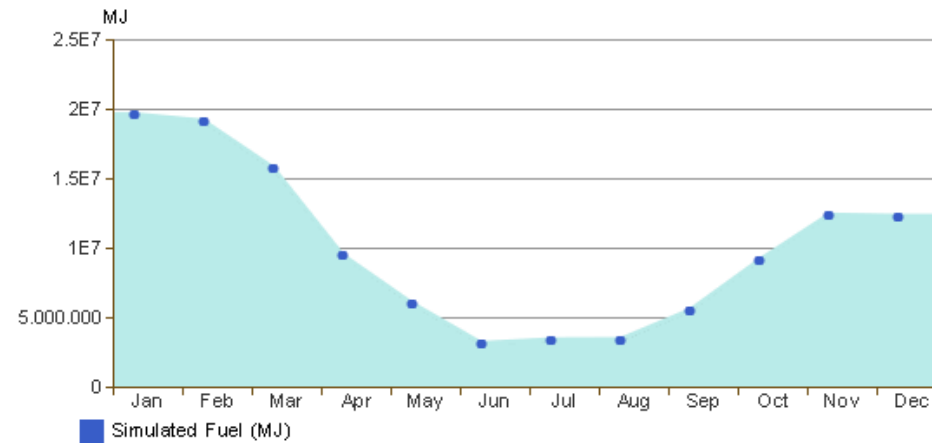
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BEM II Analysis

Monthly Fuel Consumption



Energy Analysis Data



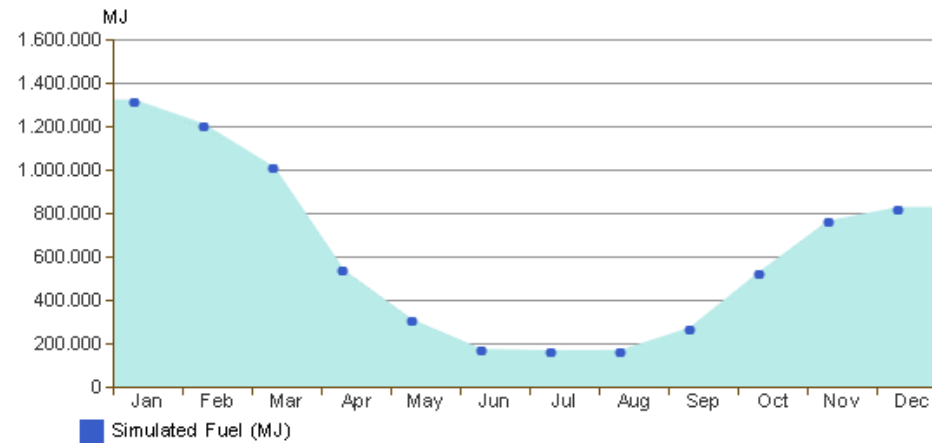
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BEM II Analysis (1)

Monthly Fuel Consumption



Energy Analysis Data



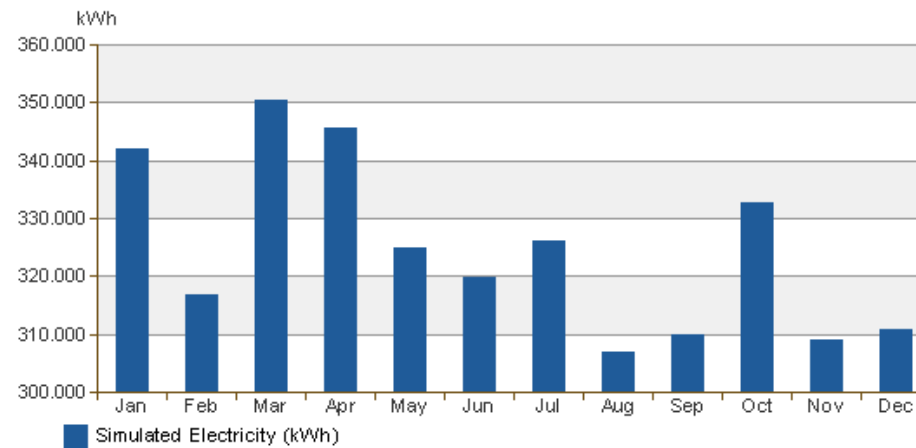
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BEM II Analysis

Monthly Electricity Consumption



Energy Analysis Data



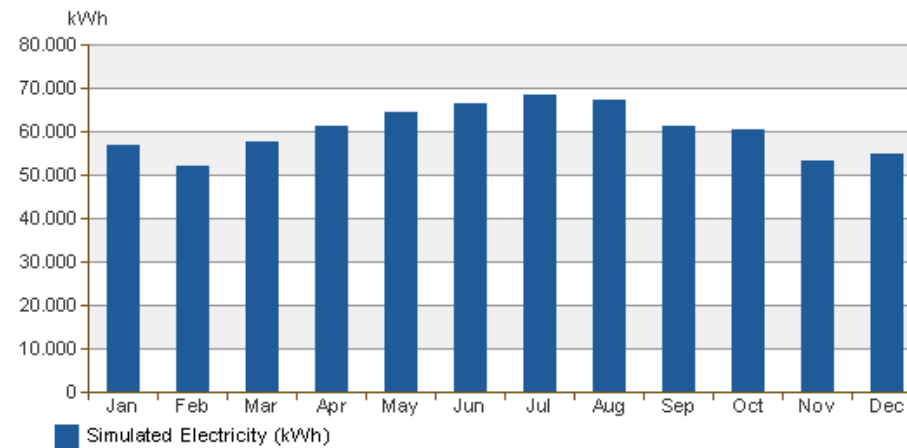
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BEM II Analysis (1)

Monthly Electricity Consumption



Energy Analysis Data



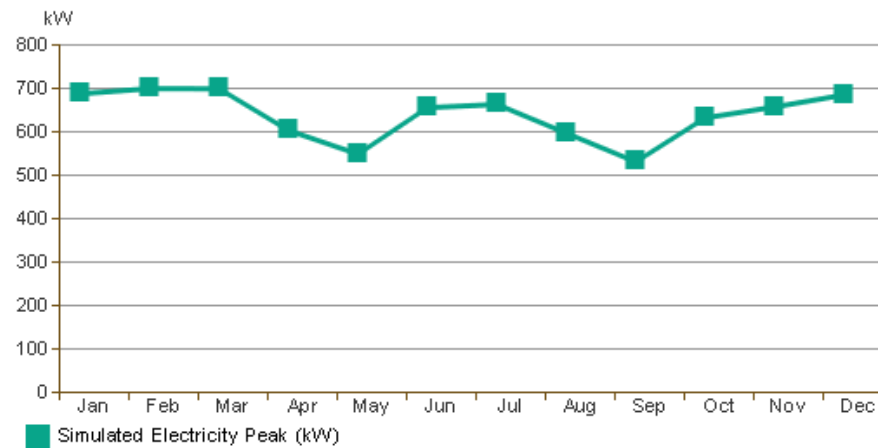
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BEM II Analysis

Monthly Peak Demand



Energy Analysis Data



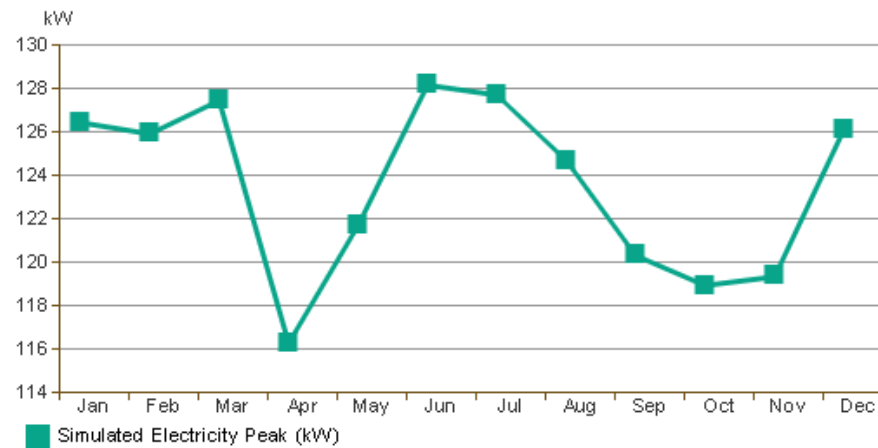
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BEM II Analysis (1)

Monthly Peak Demand



Energy Analysis Data



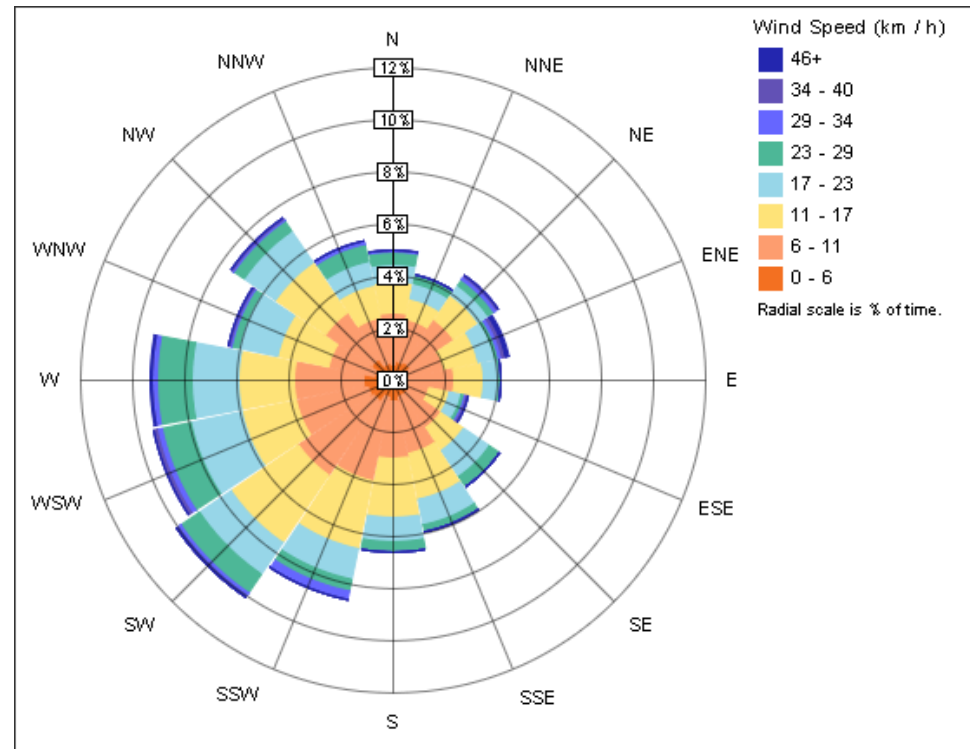
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BEM II Analysis

Annual Wind Rose (Speed Distribution)



Energy Analysis Data



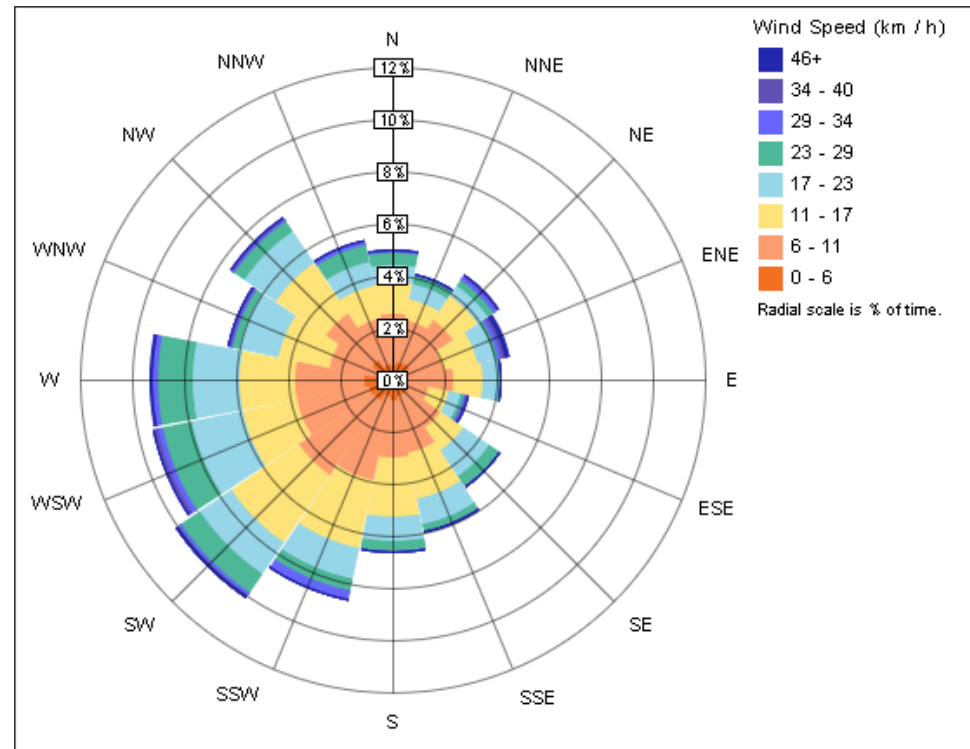
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BEM II Analysis (1)

Annual Wind Rose (Speed Distribution)



Energy Analysis Data



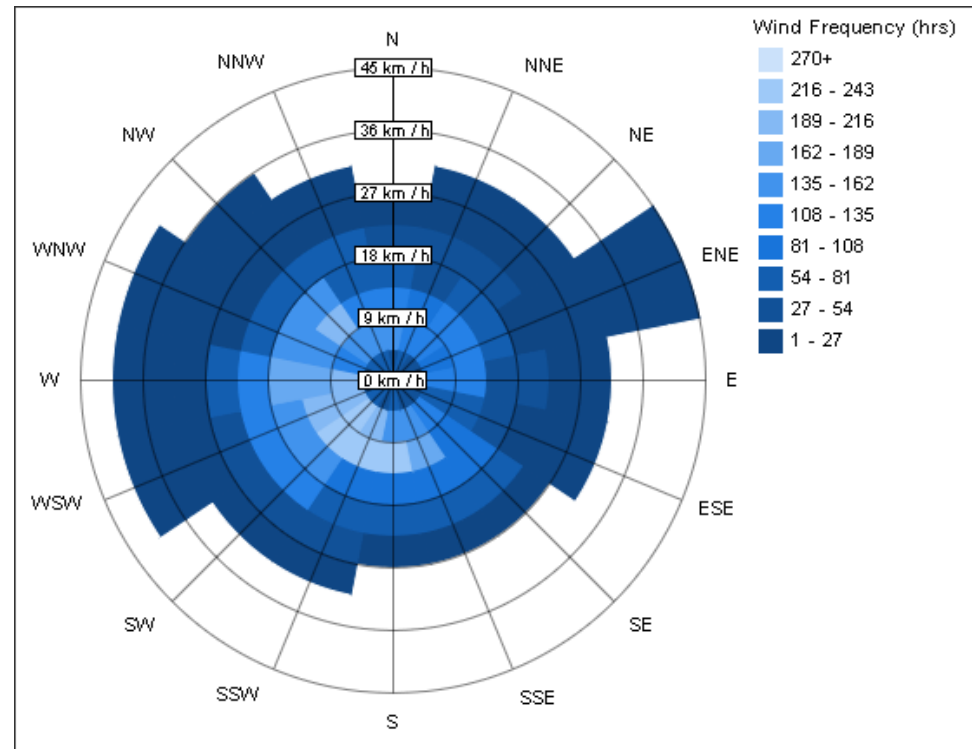
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BEM II Analysis

Annual Wind Rose (Frequency Distribution)



Energy Analysis Data



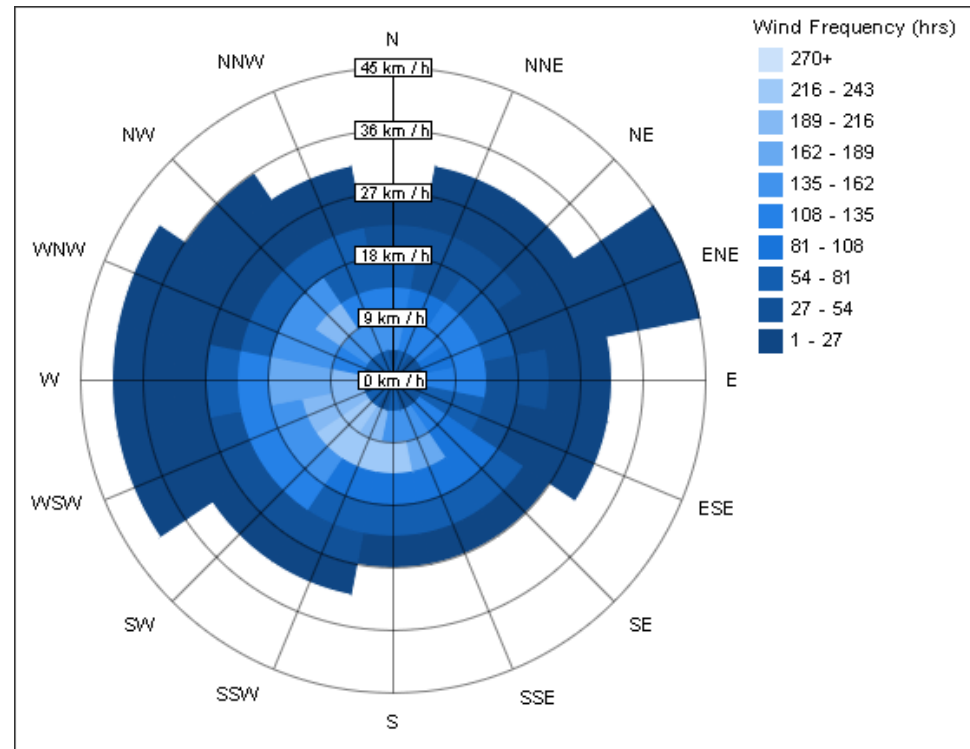
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BEM II Analysis (1)

Annual Wind Rose (Frequency Distribution)



Energy Analysis Data



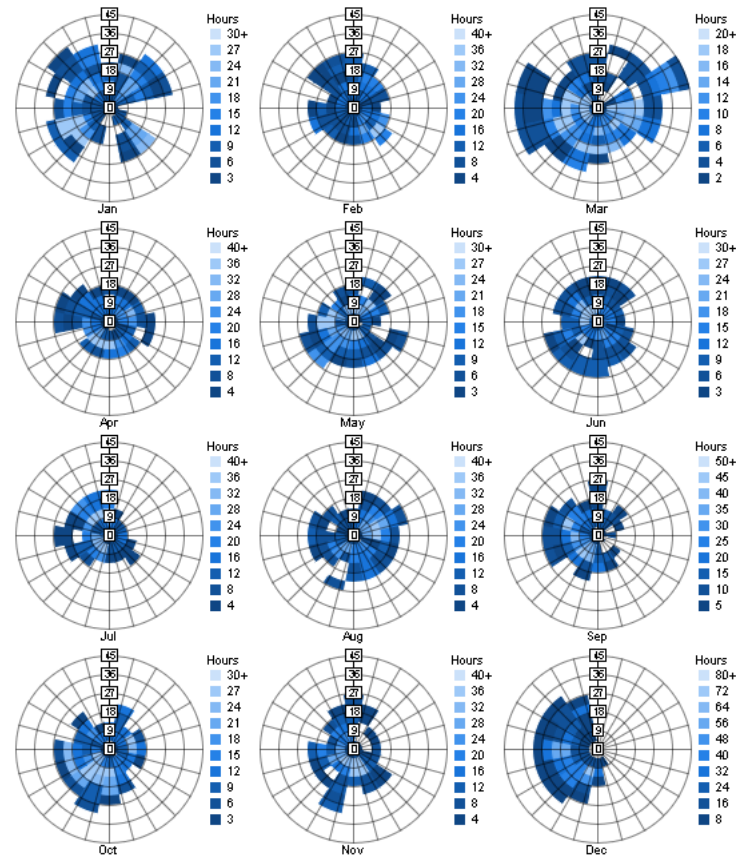
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BEM II Analysis

Monthly Wind Roses



Energy Analysis Data



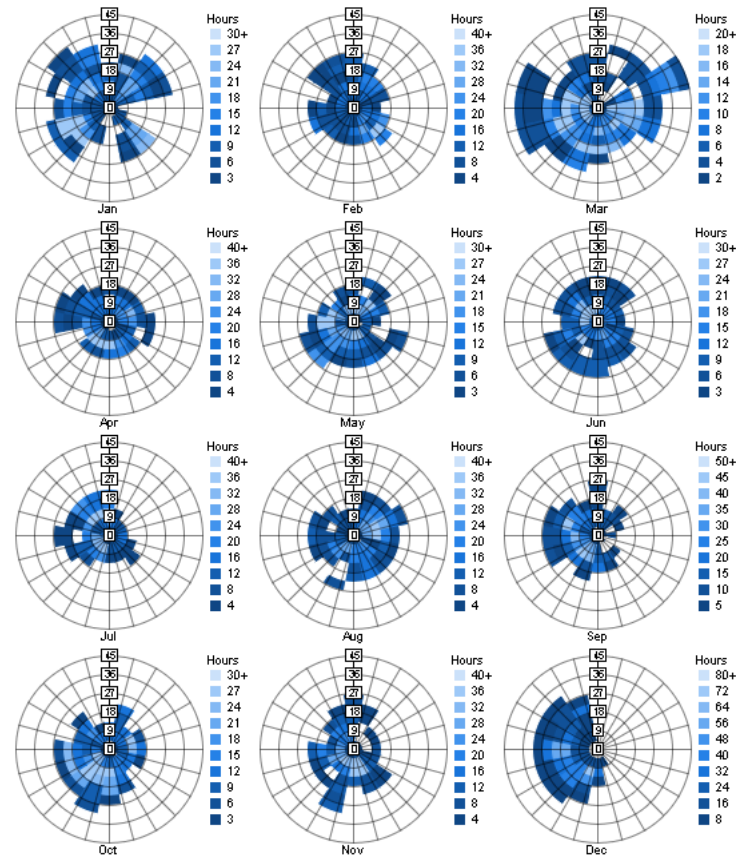
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BEM II Analysis (1)

Monthly Wind Roses



Energy Analysis Data



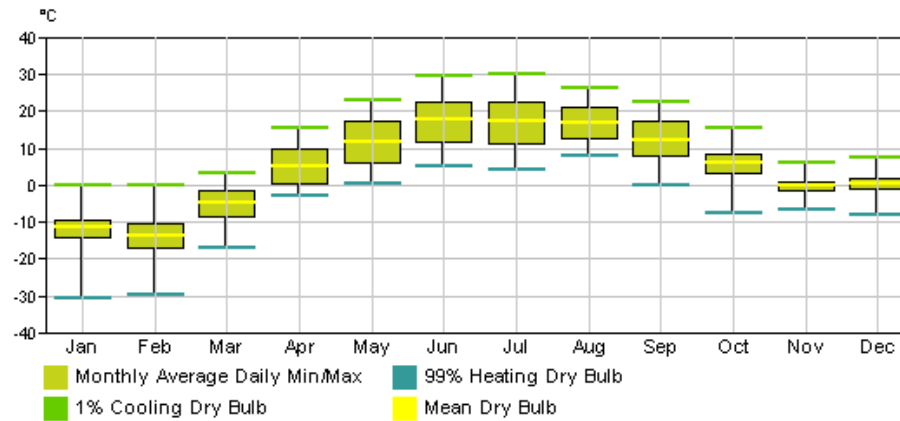
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BEM II Analysis

Monthly Design Data



Energy Analysis Data



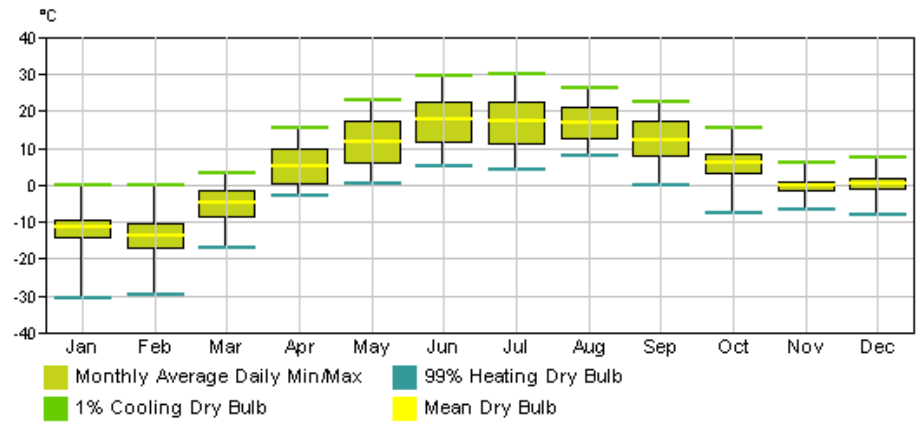
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BEM II Analysis (1)

Monthly Design Data



Energy Analysis Data



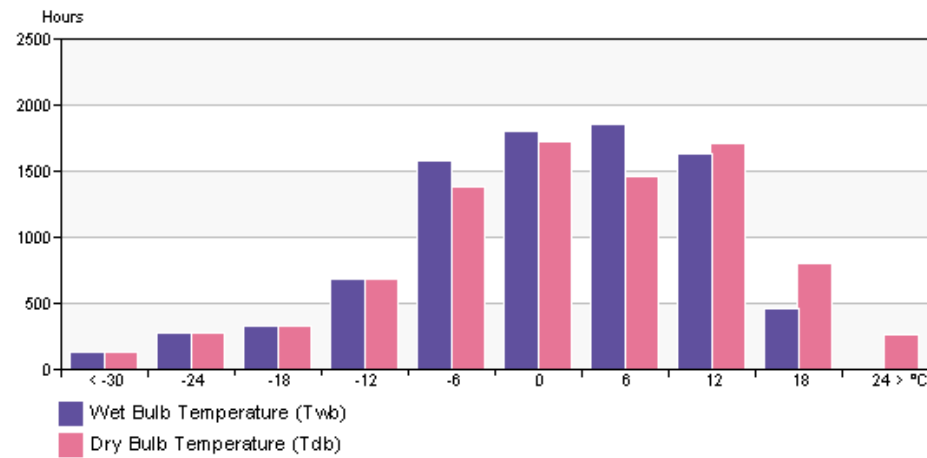
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BEM II Analysis

Annual Temperature Bins



Energy Analysis Data



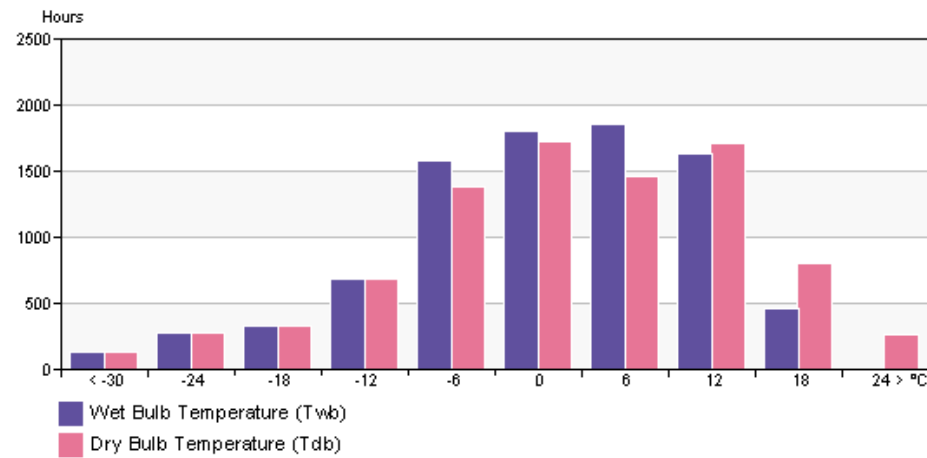
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BEM II Analysis (1)

Annual Temperature Bins



Energy Analysis Data



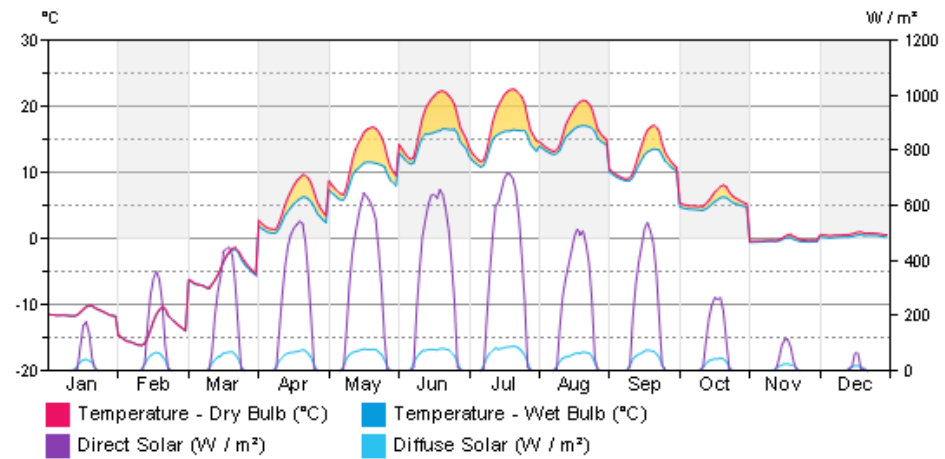
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BEM II Analysis

Diurnal Weather Averages



Energy Analysis Data



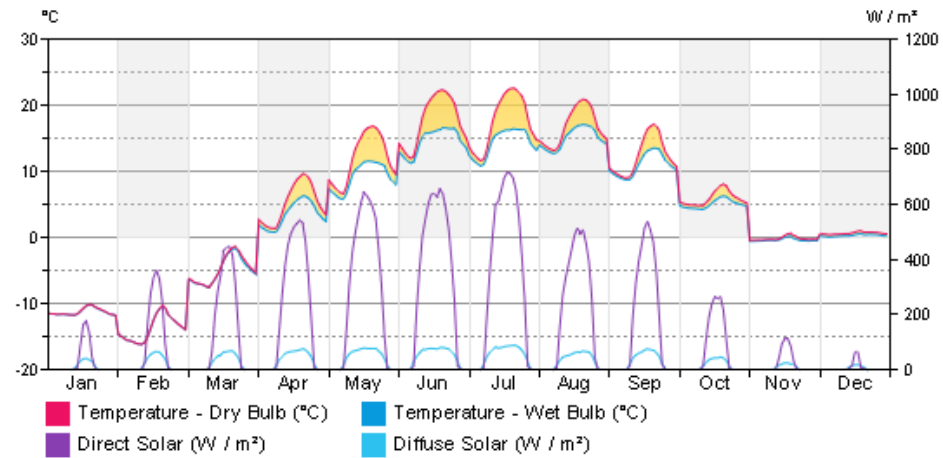
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BEM II Analysis (1)

Diurnal Weather Averages



Energy Analysis Data



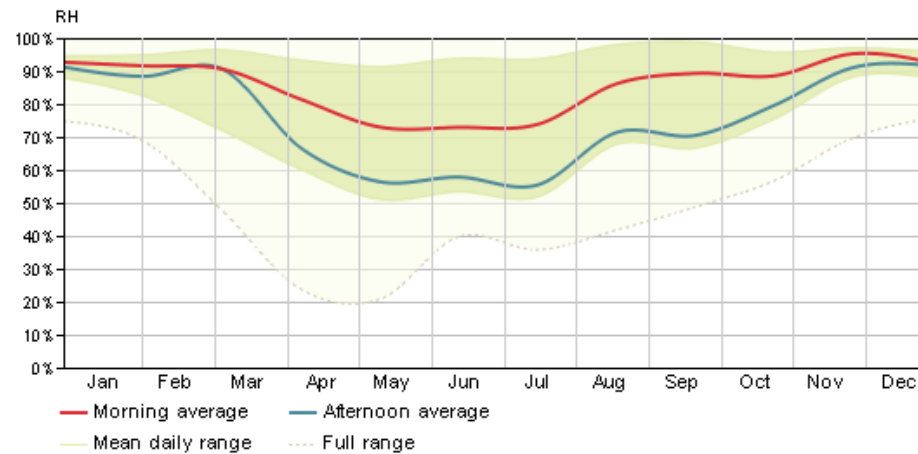
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BEM II Analysis

Humidity



Energy Analysis Data



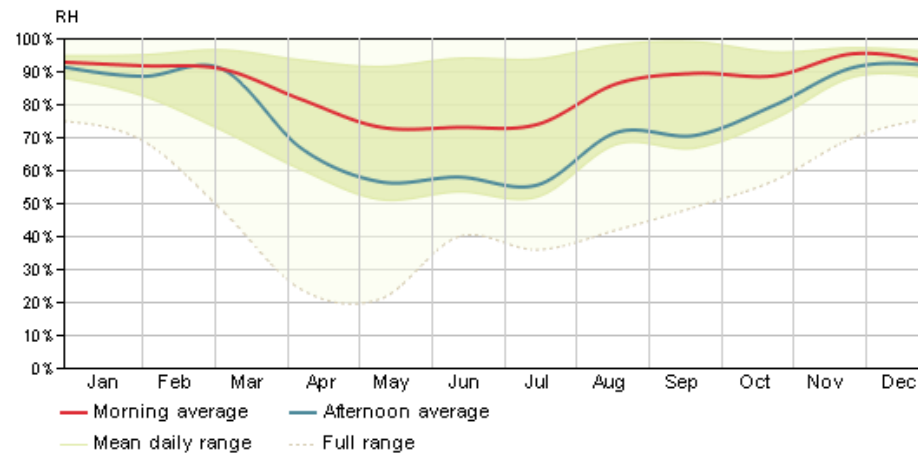
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BEM II Analysis (1)

Humidity



Energy Analysis Data

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