

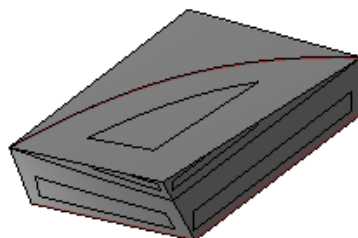
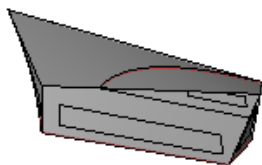


nextdesign analiz abd

nextdesign analiz abd Analysis

Analyzed at 12/21/2014 4:40:44 PM

## Energy Analysis Result



### Building Performance Factors

Location:	Istanbul, Turkey
Weather Station:	53159
Outdoor Temperature:	Max: 36°C/Min: -24°C
Floor Area:	637 m <sup>2</sup>
Exterior Wall Area:	534 m <sup>2</sup>
Average Lighting Power:	10.87 W / m <sup>2</sup>
People:	319 people
Exterior Window Ratio:	0.31
Electrical Cost:	\$0.14 / kWh
Fuel Cost:	\$1.44 / Therm

### Energy Use Intensity

Electricity EUI:	304 kWh / sm / yr
Fuel EUI:	839 MJ / sm / yr
Total EUI:	1,934 MJ / sm / yr

### Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	6,037,275 kWh
Life Cycle Fuel Use:	16,648,705 MJ
Life Cycle Energy Cost:	\$484,415

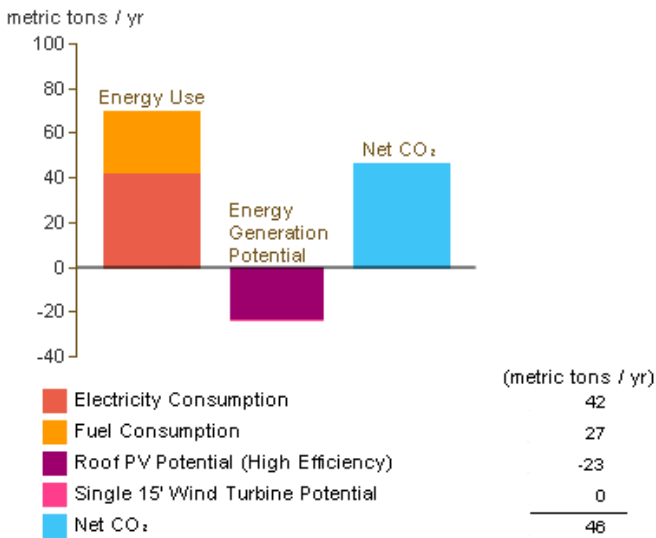
\*30-year life and 6.1% discount rate for costs

### Renewable Energy Potential

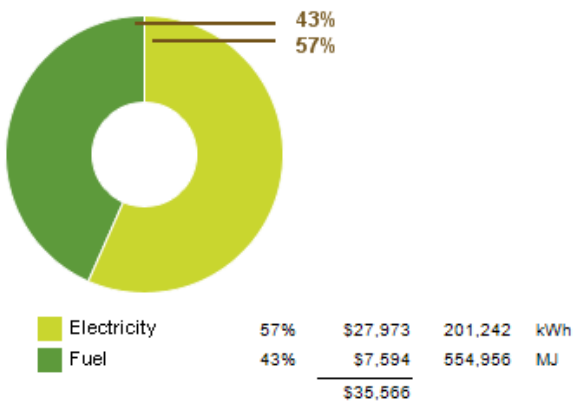
Roof Mounted PV System (Low efficiency):	36,860 kWh / yr
Roof Mounted PV System (Medium efficiency):	73,720 kWh / yr
Roof Mounted PV System (High efficiency):	110,580 kWh / yr
Single 15' Wind Turbine Potential:	989 kWh / yr

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

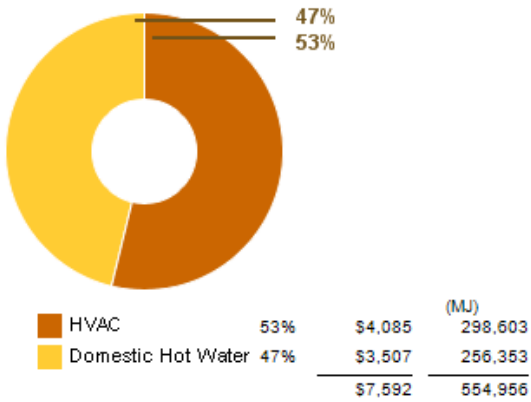
### Annual Carbon Emissions



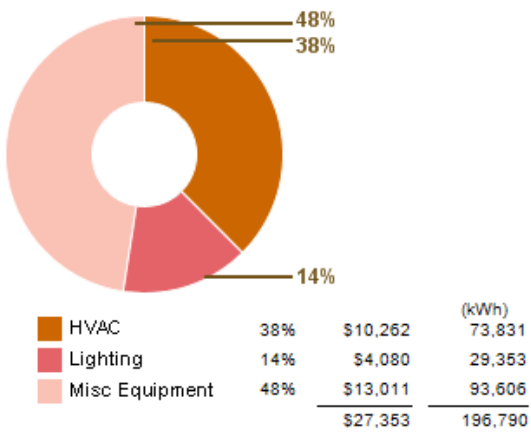
### Annual Energy Use/Cost



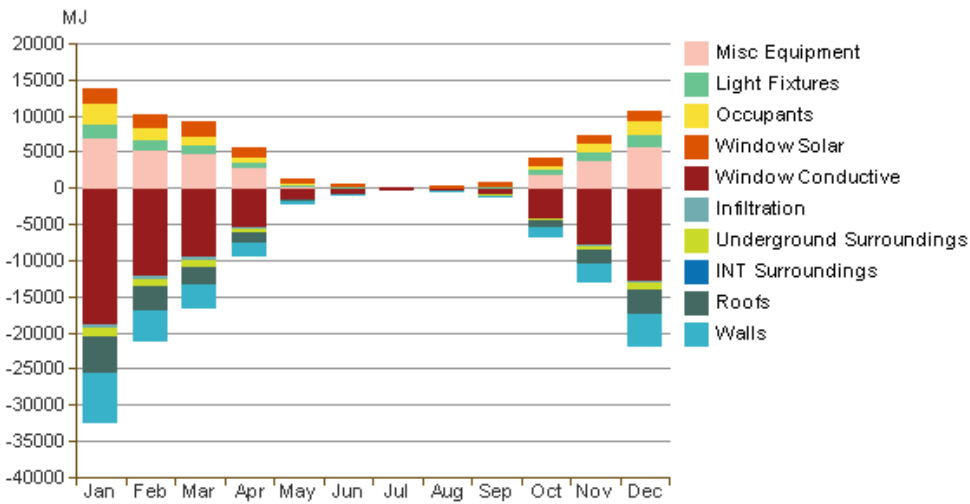
### Energy Use: Fuel



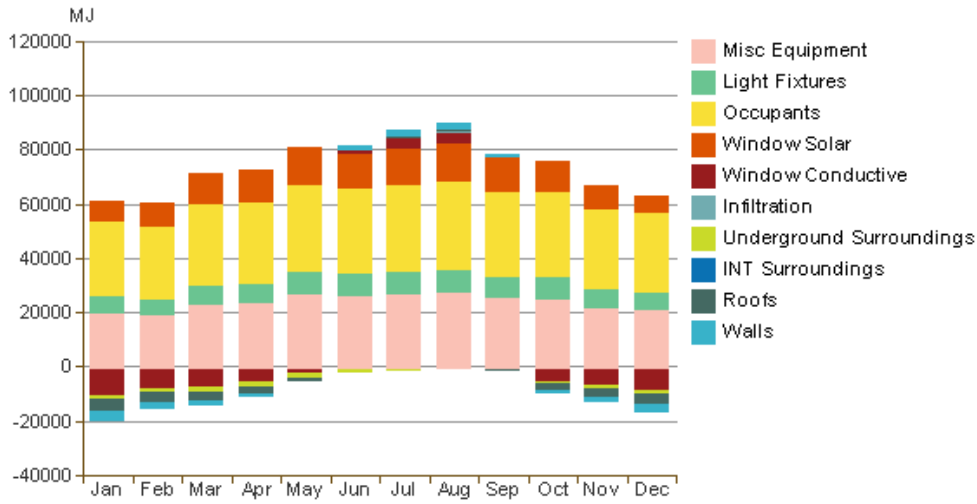
Energy Use: Electricity



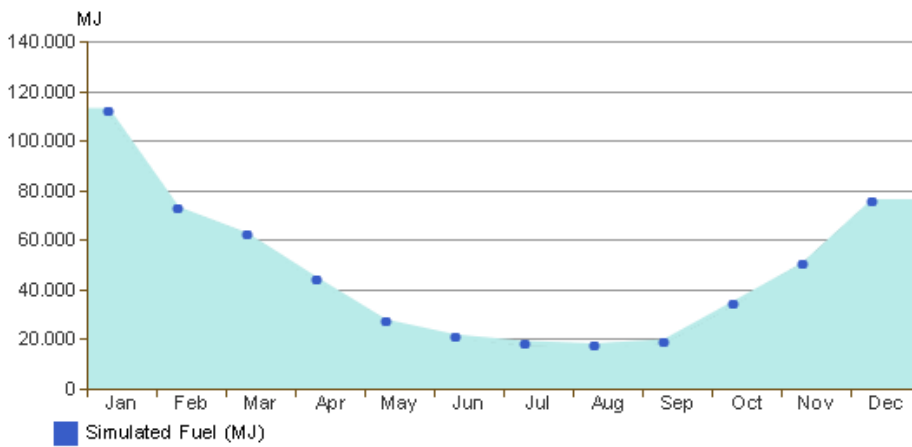
Monthly Heating Load



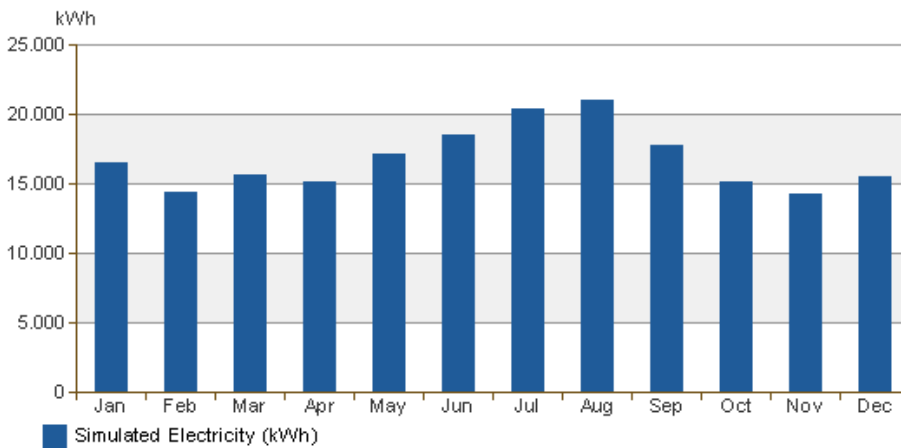
Monthly Cooling Load



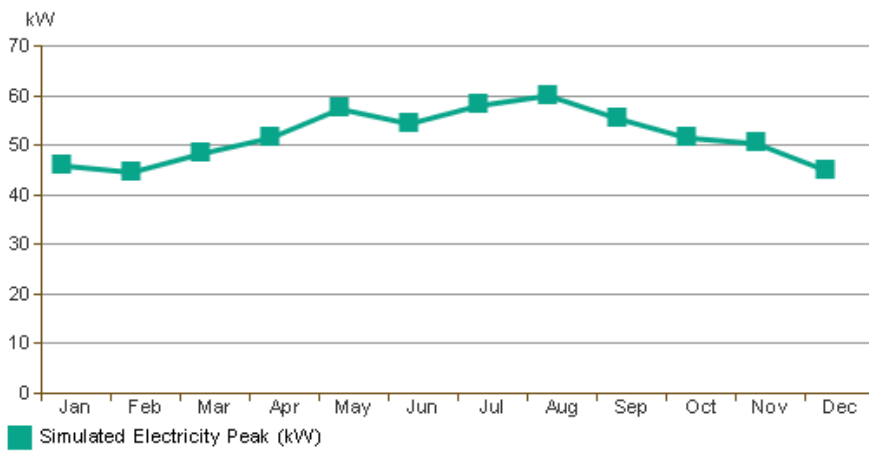
### Monthly Fuel Consumption



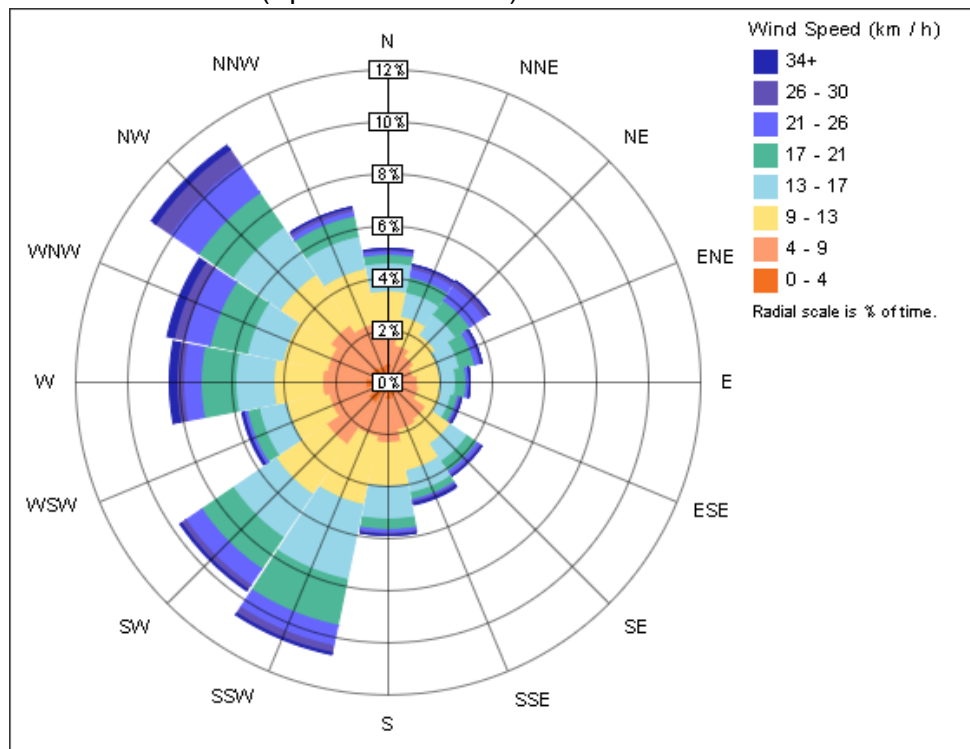
### Monthly Electricity Consumption



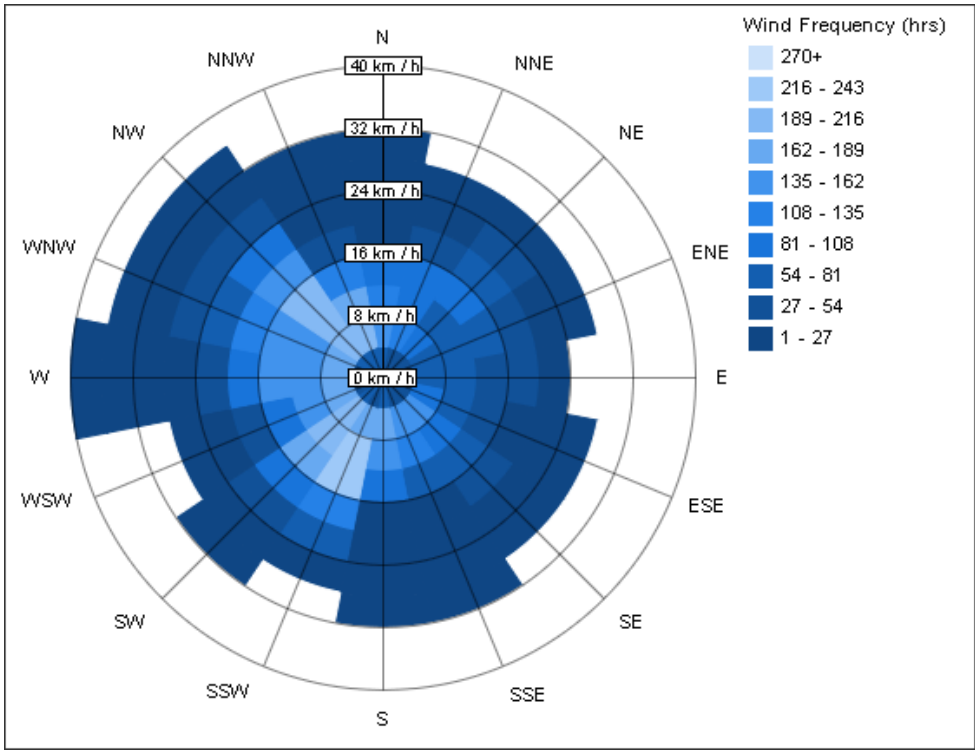
### Monthly Peak Demand



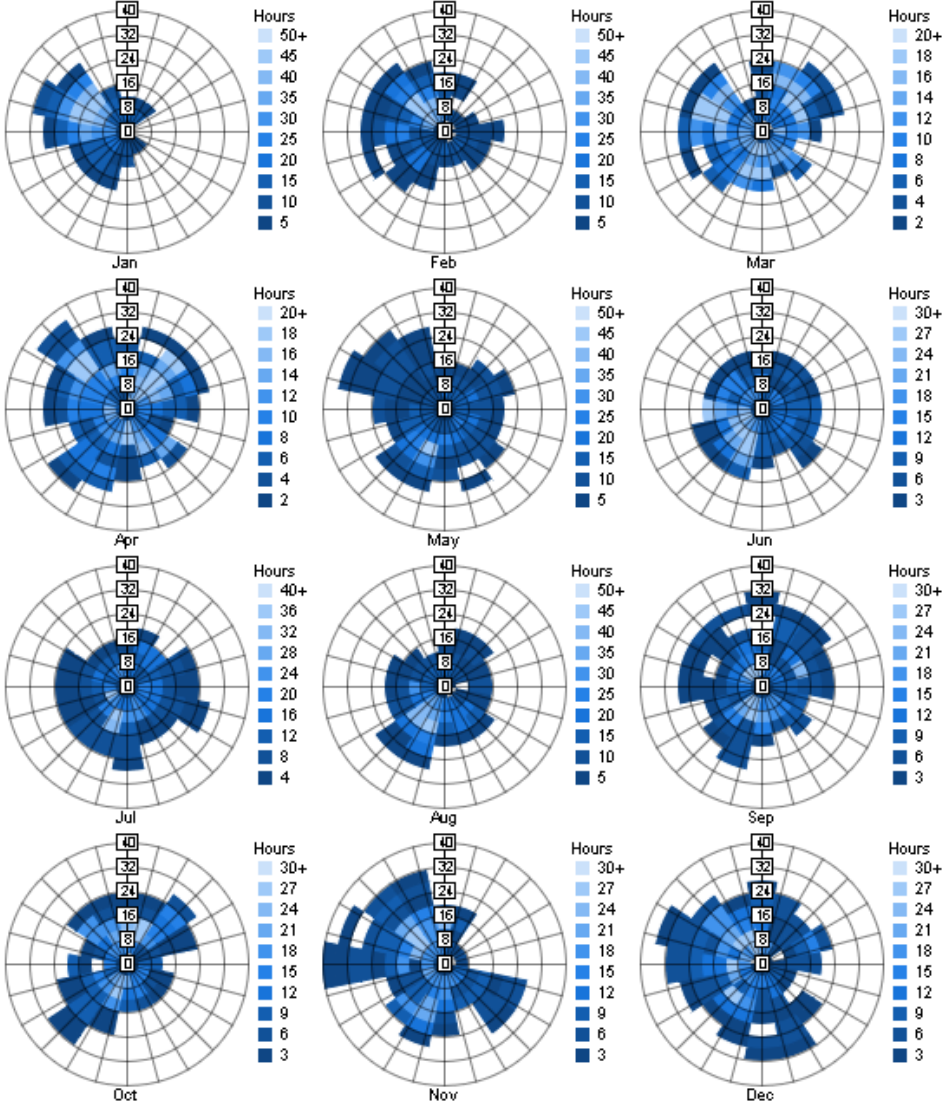
Annual Wind Rose (Speed Distribution)



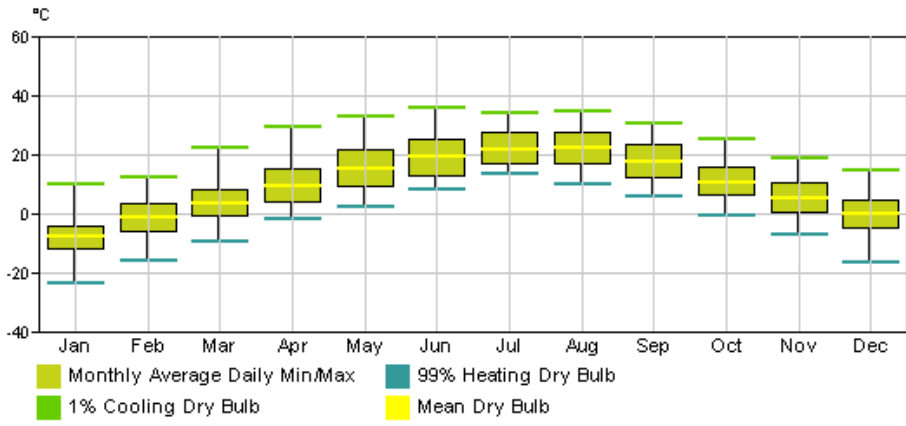
Annual Wind Rose (Frequency Distribution)



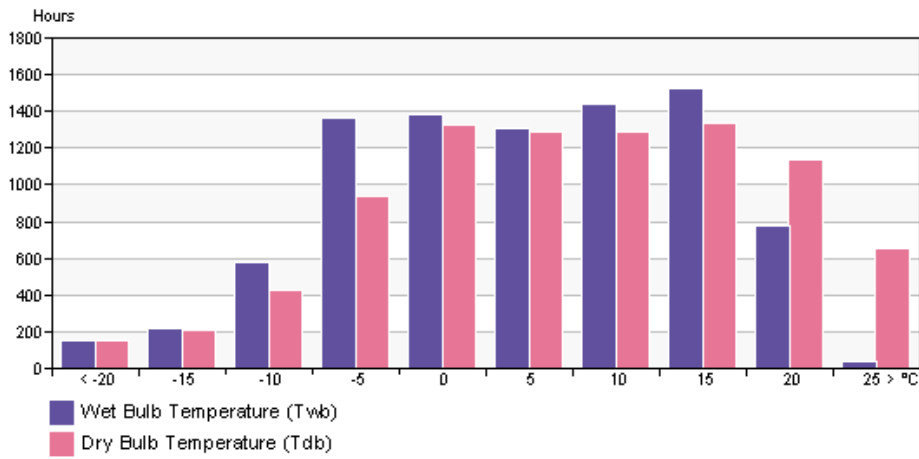
Monthly Wind Roses



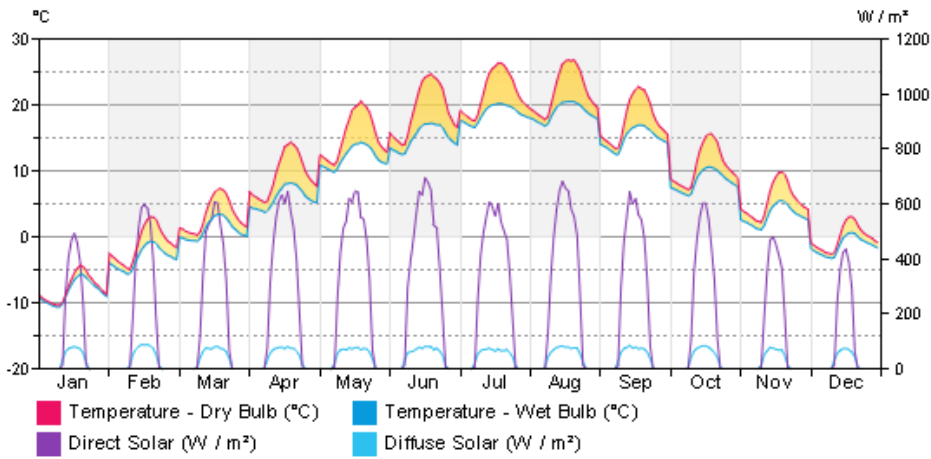
### Monthly Design Data



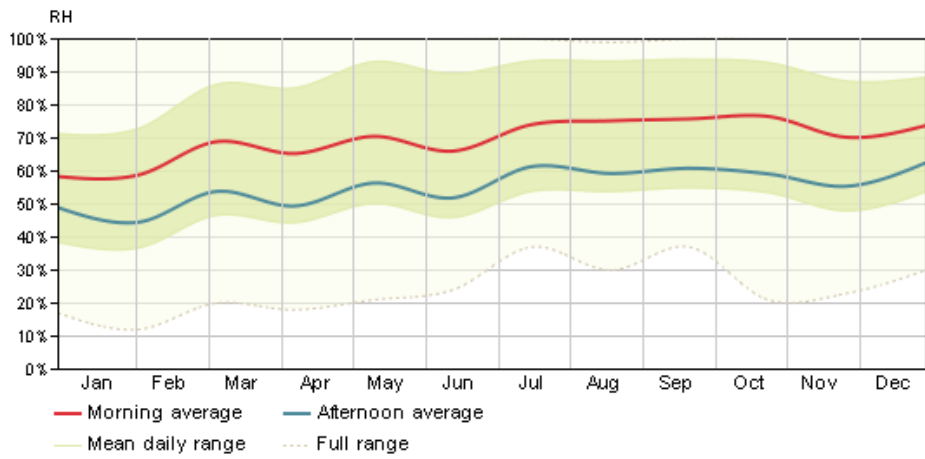
### Annual Temperature Bins



### Diurnal Weather Averages



### Humidity



© Copyright 2014 Autodesk, Inc. All rights reserved. Portions of this software are copyrighted by James J. Hirsch & Associates, the Regents of the University of California, and others.

## Energy Analysis Data