



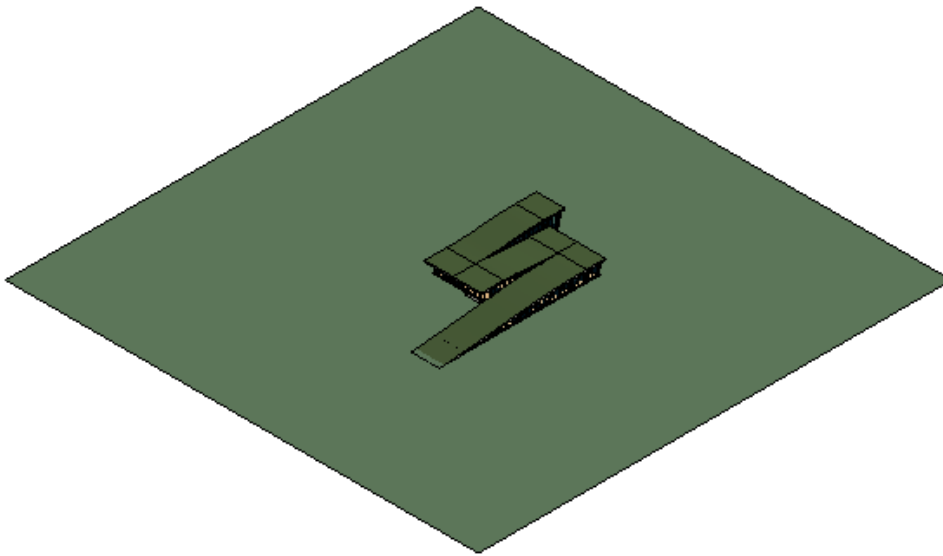
DesignNext2015

DesignNext2015 Analysis

Analyzed at 12/26/2015 10:49:14 PM

## Energy Analysis Result

276383



## Building Performance Factors

Location:	Kayseri, Turkey
Weather Station:	188208
Outdoor Temperature:	Max: 36°C/Min: -9°C
Floor Area:	1,595 m <sup>2</sup>
Exterior Wall Area:	11 m <sup>2</sup>
Average Lighting Power:	9.69 W / m <sup>2</sup>
People:	46 people
Exterior Window Ratio:	86.18
Electrical Cost:	\$0.14 / kWh
Fuel Cost:	\$1.44 / Therm

## Energy Use Intensity

Electricity EUI:	155 kWh / sm / yr
Fuel EUI:	562 MJ / sm / yr
Total EUI:	1,121 MJ / sm / yr

### Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	5,416,818 kWh
Life Cycle Fuel Use:	19,580,059 MJ
Life Cycle Energy Cost:	\$463,471

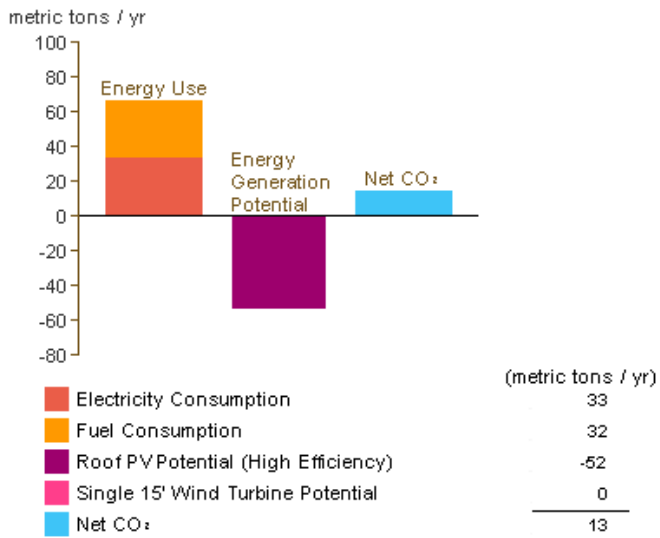
\*30-year life and 6.1% discount rate for costs

### Renewable Energy Potential

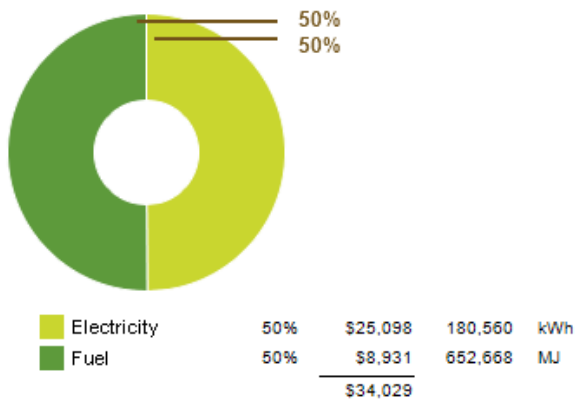
Roof Mounted System (Low efficiency):	93,671 kWh / yr
Roof Mounted PV System (Medium efficiency):	187,342 kWh / yr
Roof Mounted PV System (High efficiency):	281,013 kWh / yr
Single 15' Wind Turbine Potential:	943 kWh / yr

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

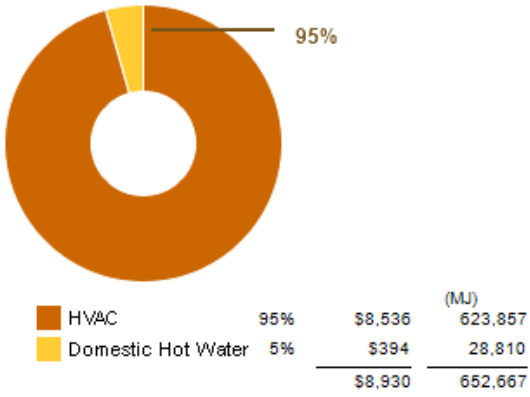
### Annual Carbon Emissions



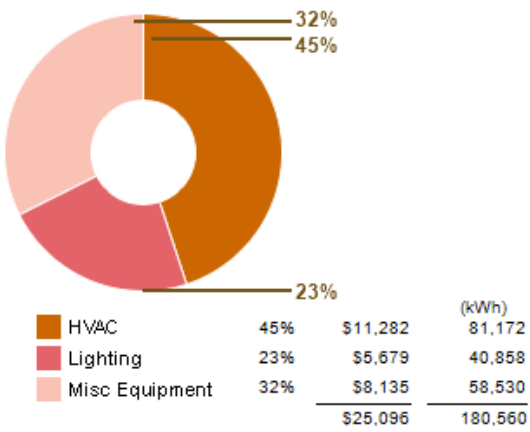
### Annual Energy Use/Cost



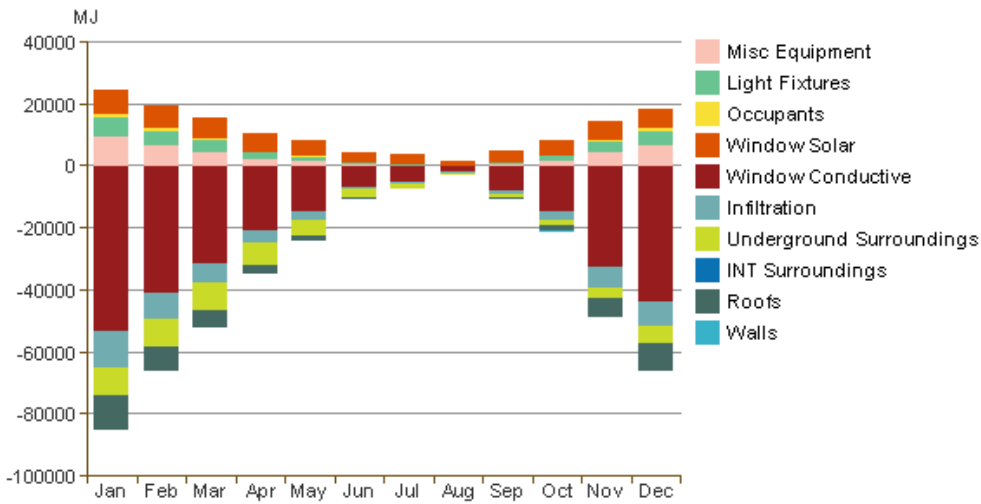
### Energy Use: Fuel



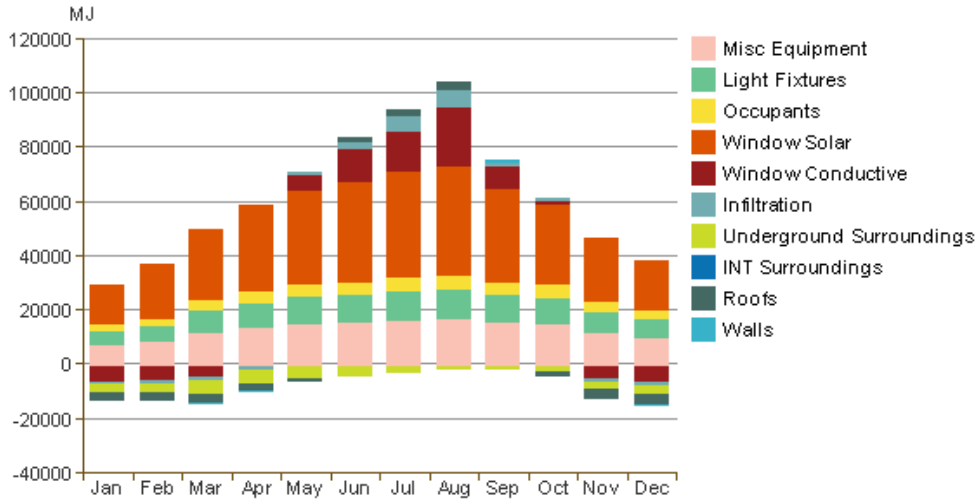
Energy Use: Electricity



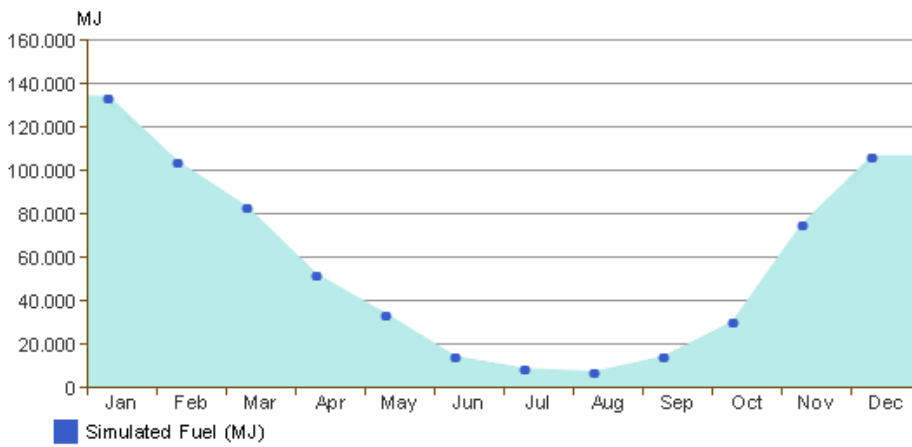
Monthly Heating Load



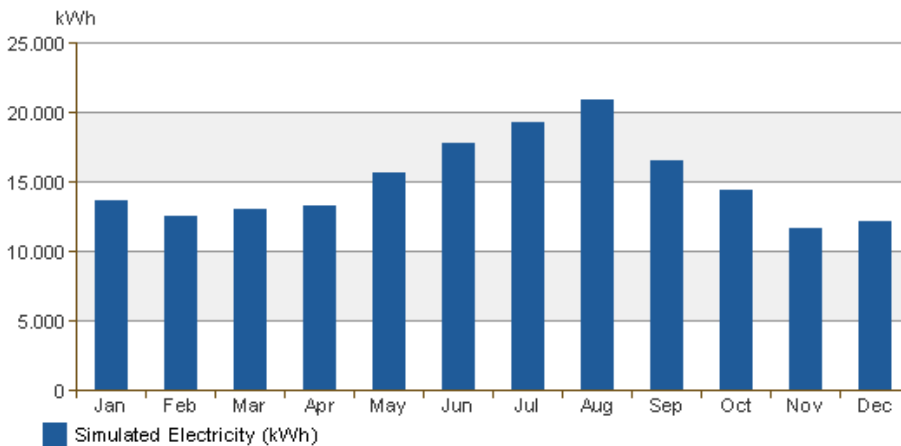
Monthly Cooling Load



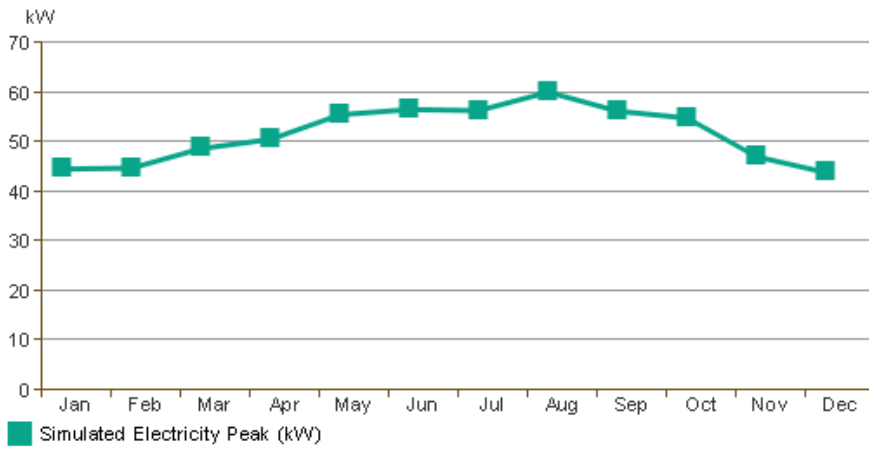
### Monthly Fuel Consumption



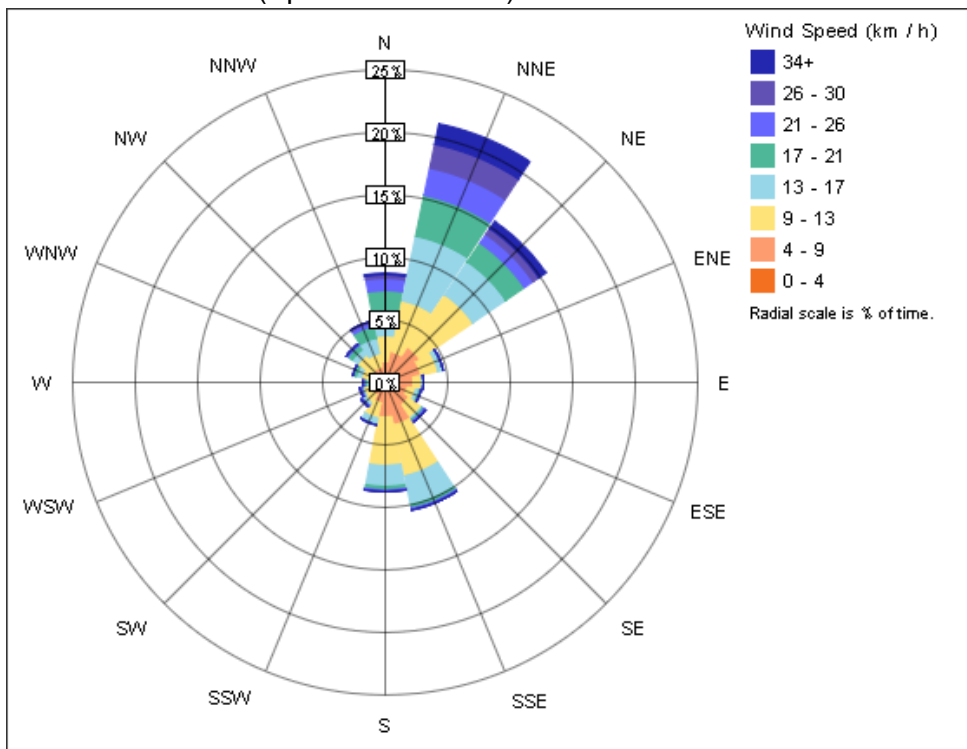
### Monthly Electricity Consumption



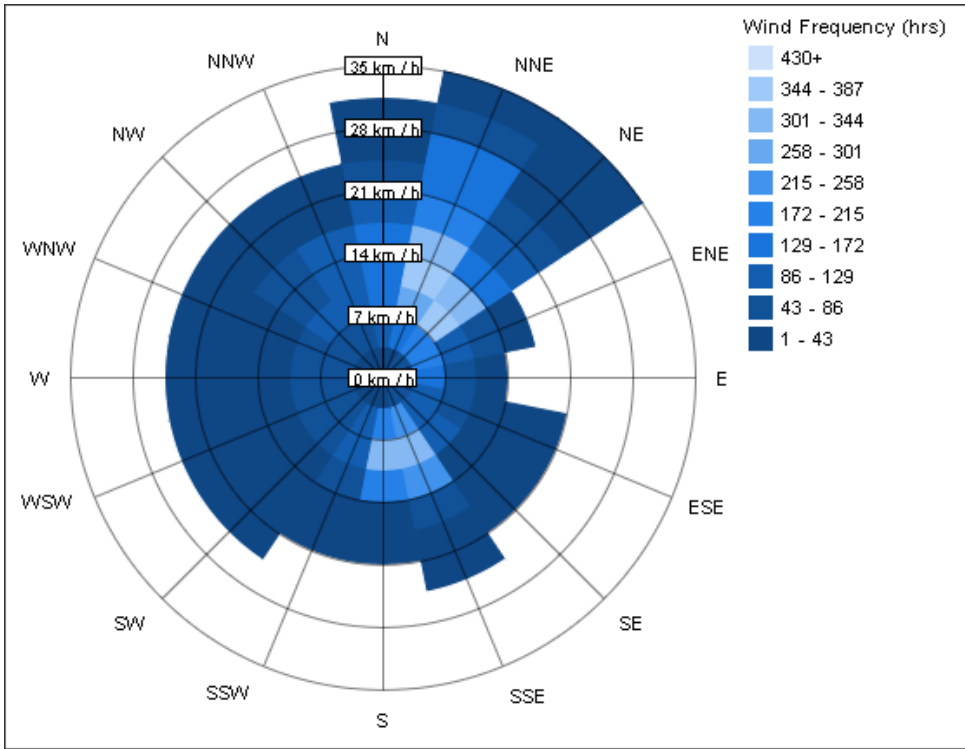
### Monthly Peak Demand



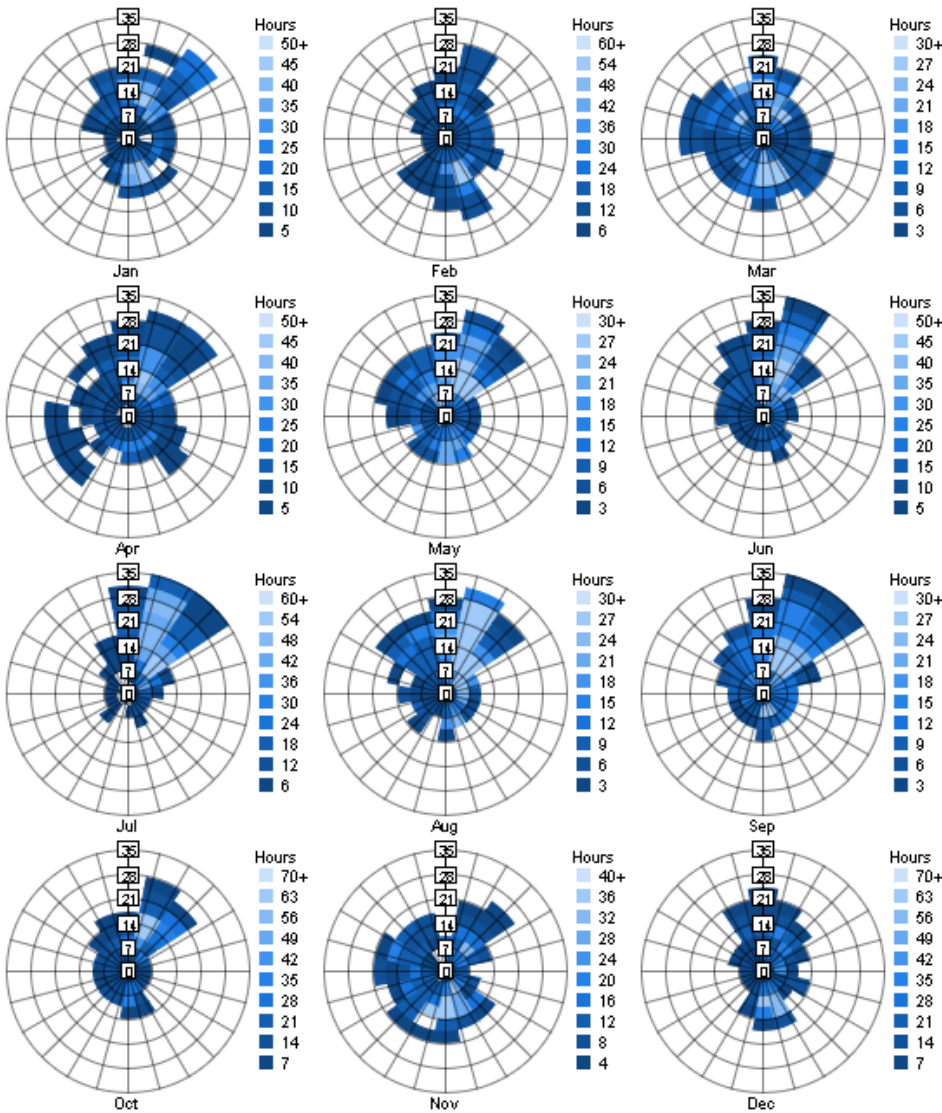
Annual Wind Rose (Speed Distribution)



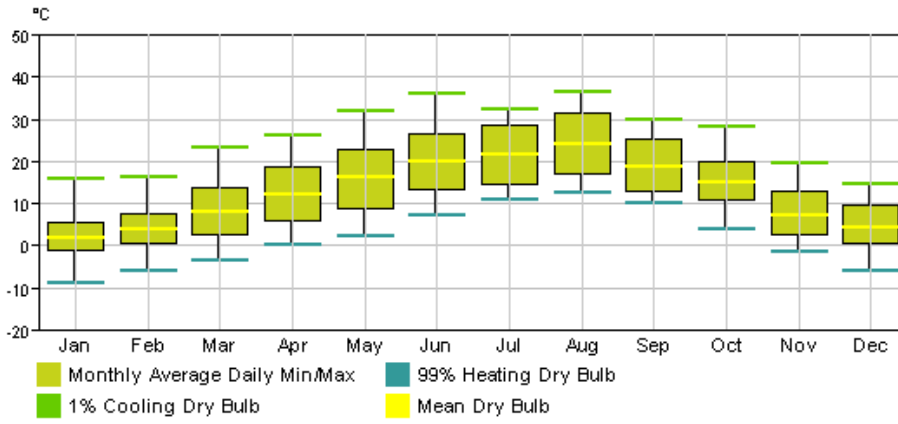
Annual Wind Rose (Frequency Distribution)



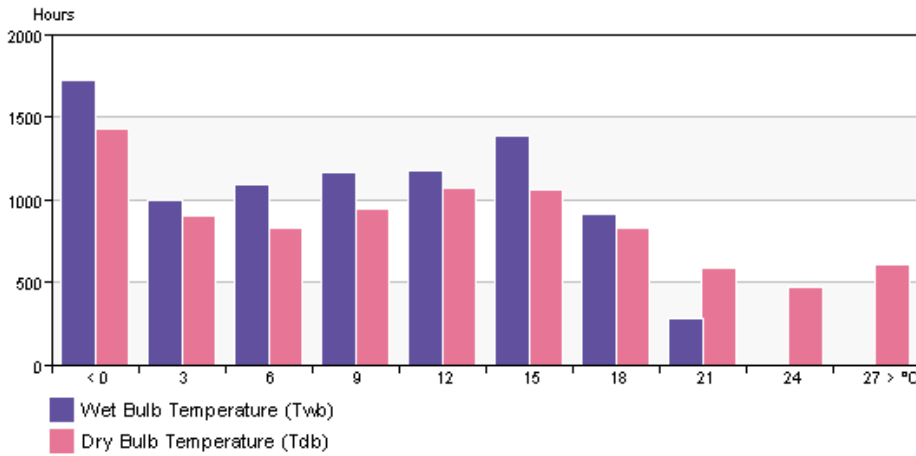
Monthly Wind Roses



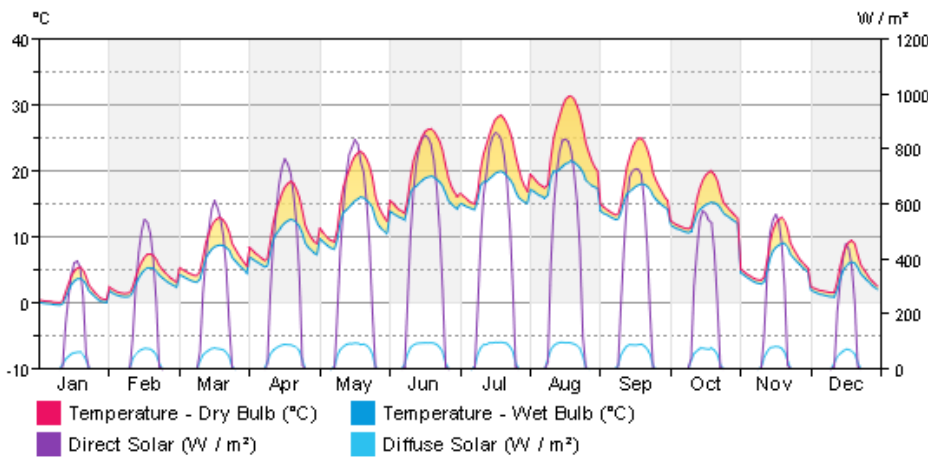
### Monthly Design Data



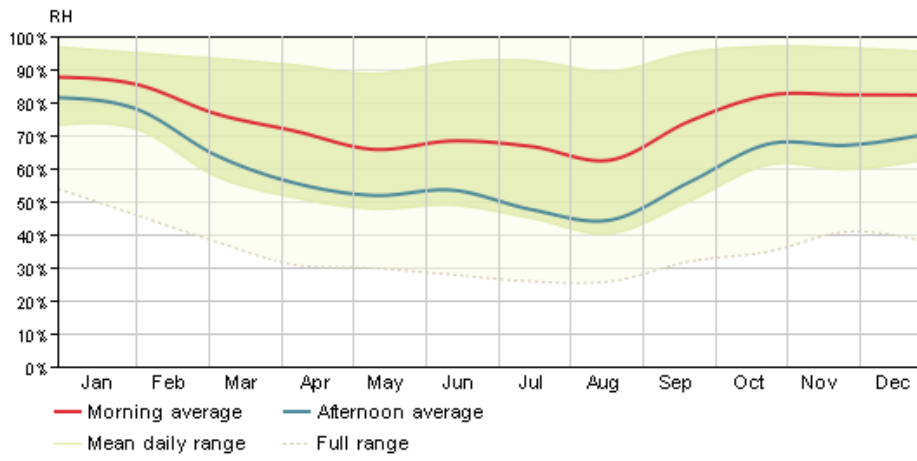
### Annual Temperature Bins



### Diurnal Weather Averages



### Humidity



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## Energy Analysis Data