



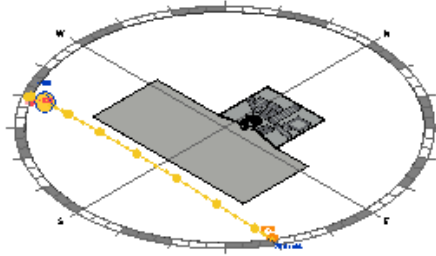
Audodesk DesingNext 2015 Yarışma Projesi

Yarışma Model son Analysis

Analyzed at 12/25/2015 3:16:27 PM

Energy Analysis Result

640644



Building Performance Factors

Location:	Hasköy, Turkey
Weather Station:	186777
Outdoor Temperature:	Max: 32°C/Min: -2°C
Floor Area:	936 m ²
Exterior Wall Area:	1,005 m ²
Average Lighting Power:	9.69 W / m ²
People:	29 people
Exterior Window Ratio:	1.23
Electrical Cost:	\$0.14 / kWh
Fuel Cost:	\$1.44 / Therm

Energy Use Intensity

Electricity EUI:	118 kWh / sm / yr
Fuel EUI:	571 MJ / sm / yr
Total EUI:	997 MJ / sm / yr

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	3,317,922 kWh
Life Cycle Fuel Use:	16,039,498 MJ
Life Cycle Energy Cost:	\$309,023

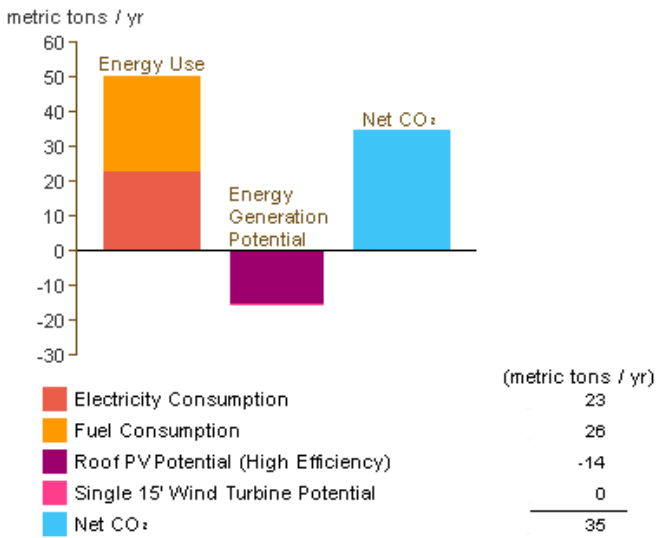
*30-year life and 6.1% discount rate for costs

Renewable Energy Potential

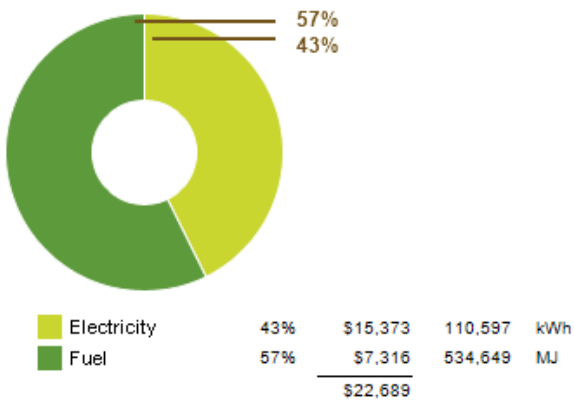
Roof Mounted PV System (Low efficiency):	23,845 kWh / yr
Roof Mounted PV System (Medium efficiency):	47,690 kWh / yr
Roof Mounted PV System (High efficiency):	71,535 kWh / yr
Single 15' Wind Turbine Potential:	2,154 kWh / yr

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

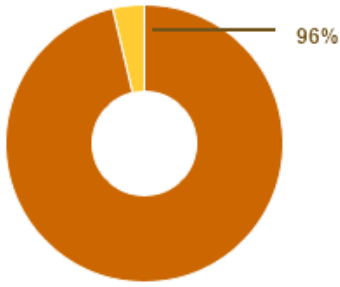
Annual Carbon Emissions



Annual Energy Use/Cost

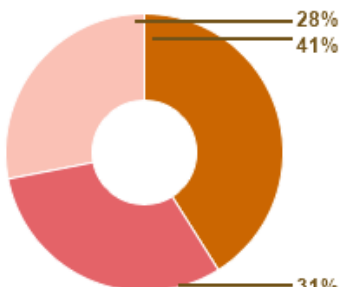


Energy Use: Fuel



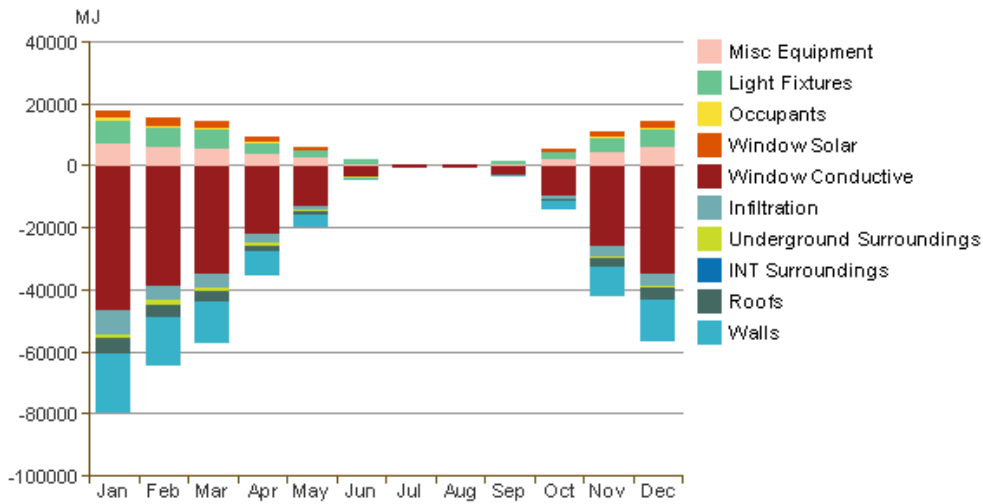
			(MJ)
HVAC	96%	\$7,046	514,957
Domestic Hot Water	4%	\$269	19,692
		\$7,315	534,649

Energy Use: Electricity

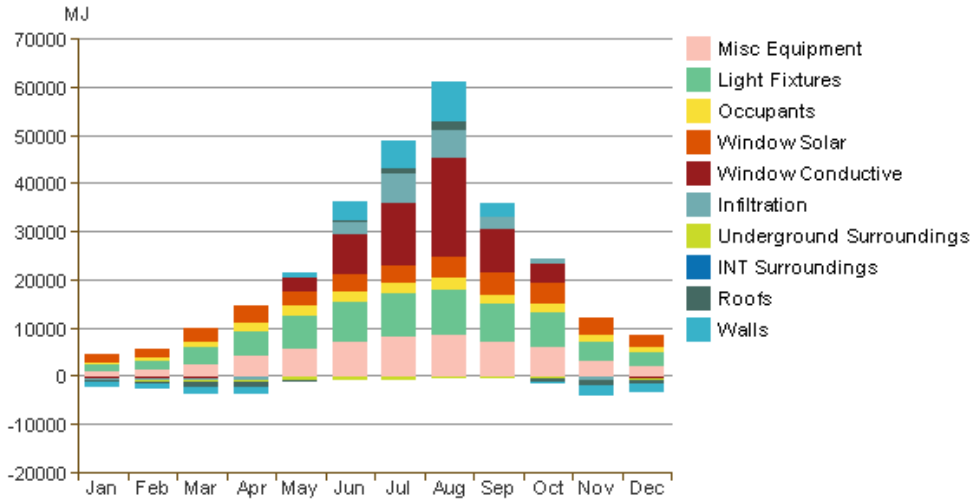


			(kWh)
HVAC	41%	\$6,183	44,482
Lighting	31%	\$4,652	33,473
Misc Equipment	28%	\$4,227	30,415
		\$15,062	108,370

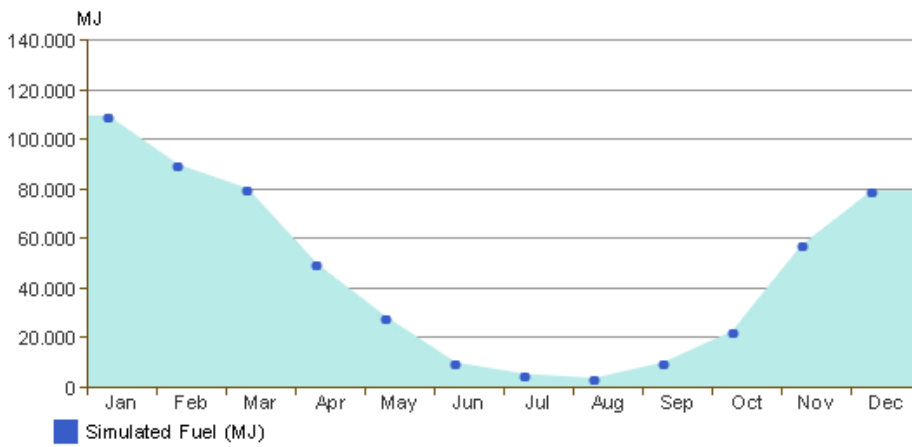
Monthly Heating Load



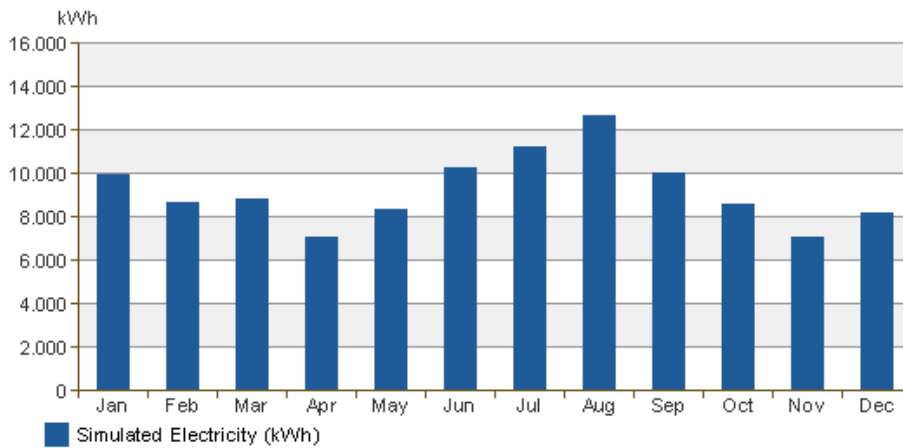
Monthly Cooling Load



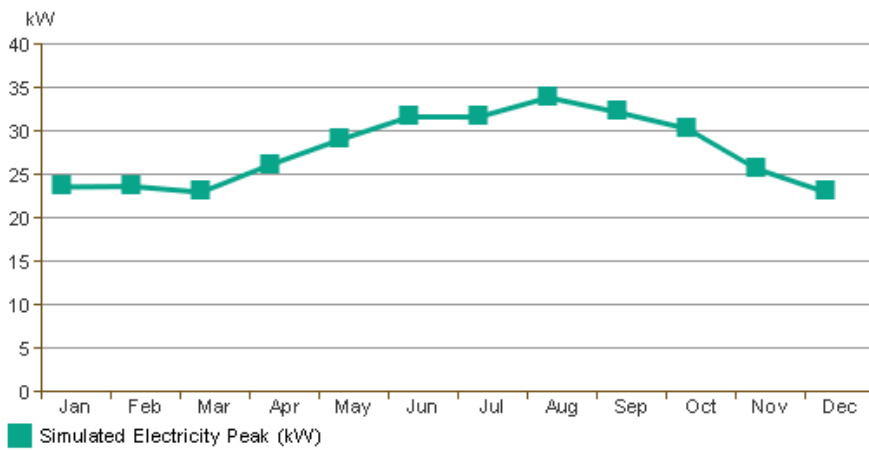
Monthly Fuel Consumption



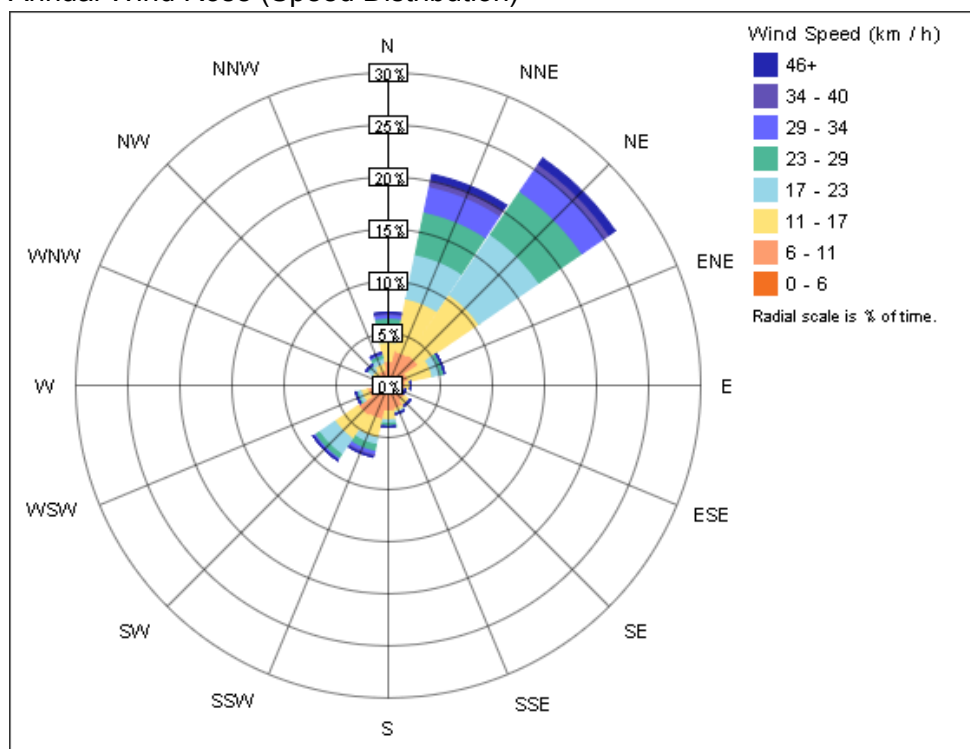
Monthly Electricity Consumption



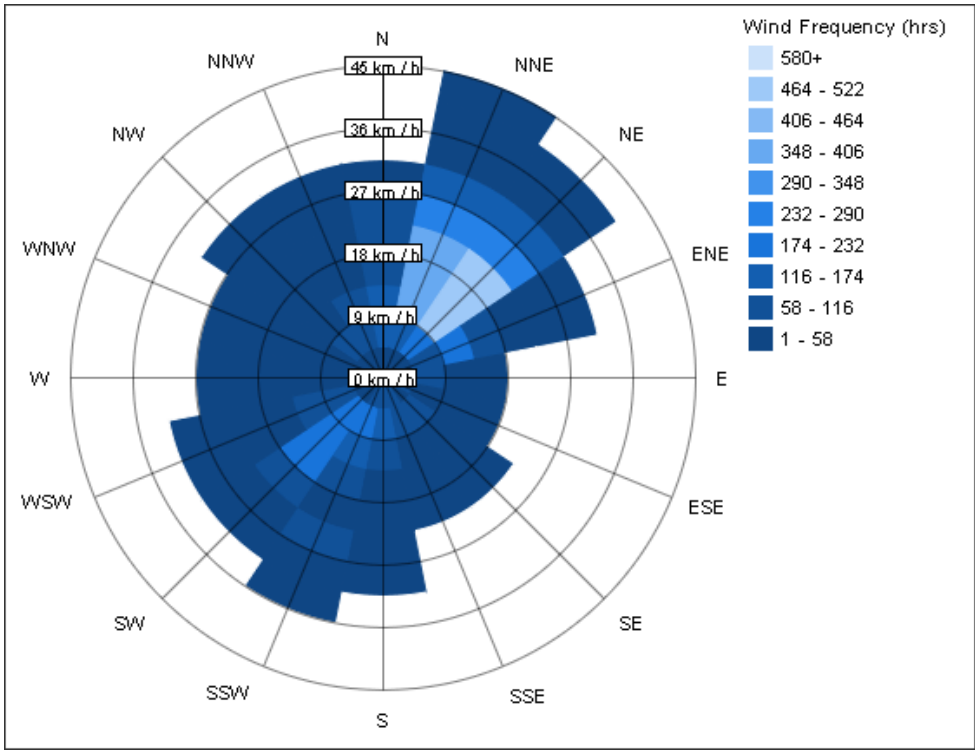
Monthly Peak Demand



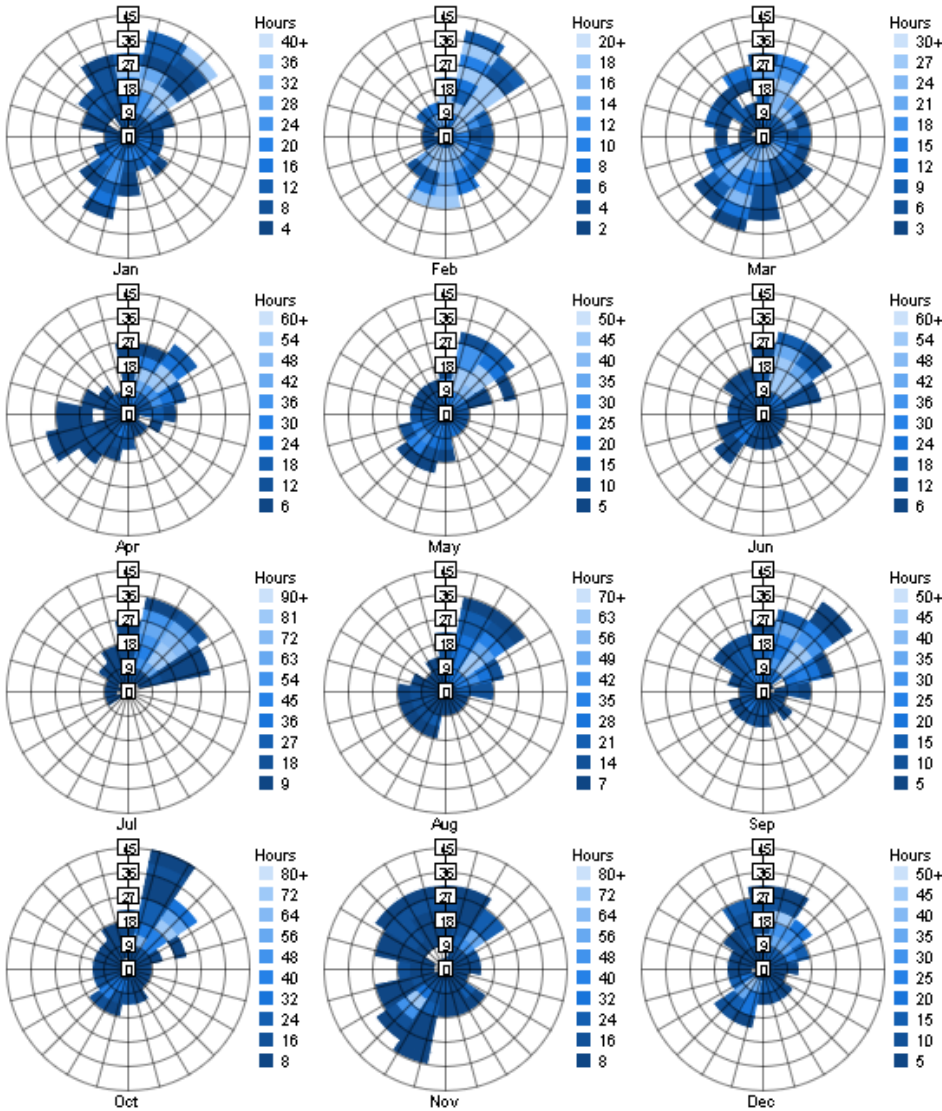
Annual Wind Rose (Speed Distribution)



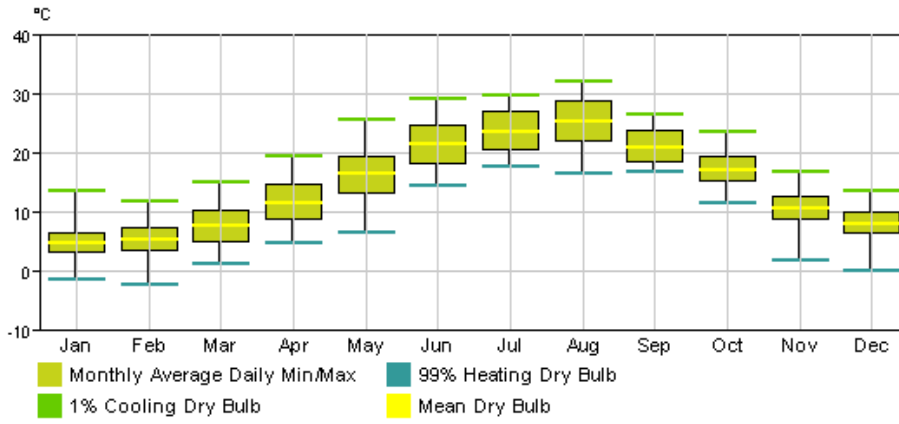
Annual Wind Rose (Frequency Distribution)



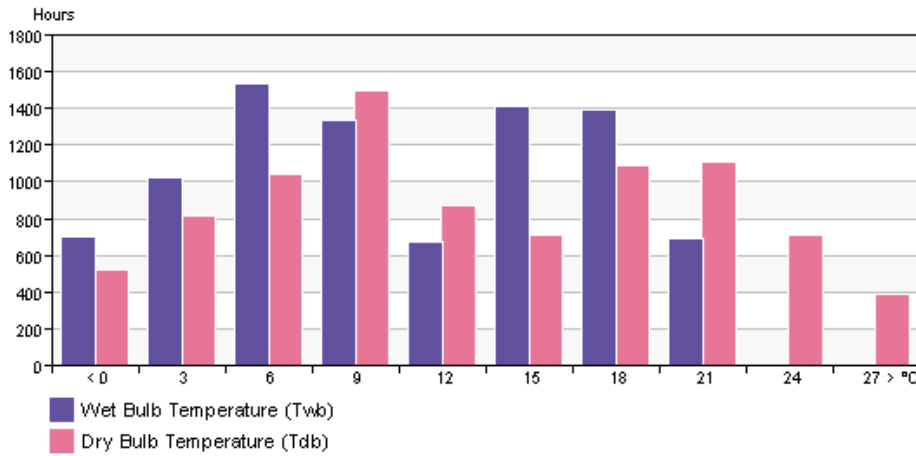
Monthly Wind Roses



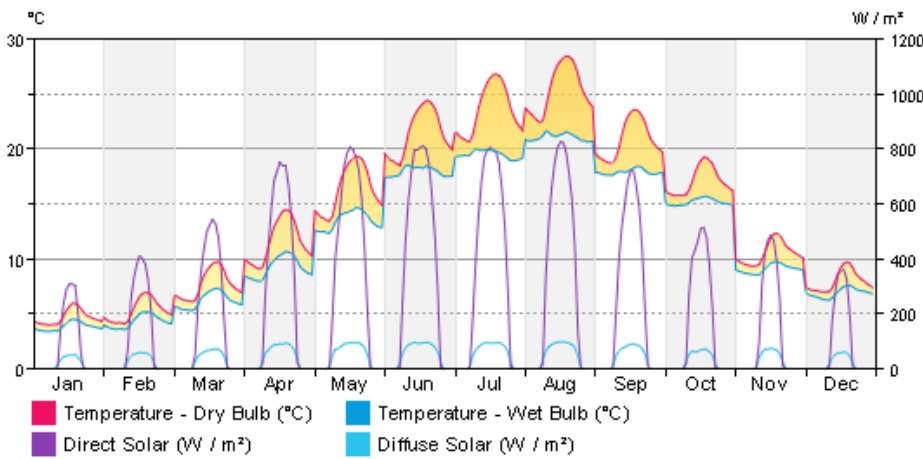
Monthly Design Data



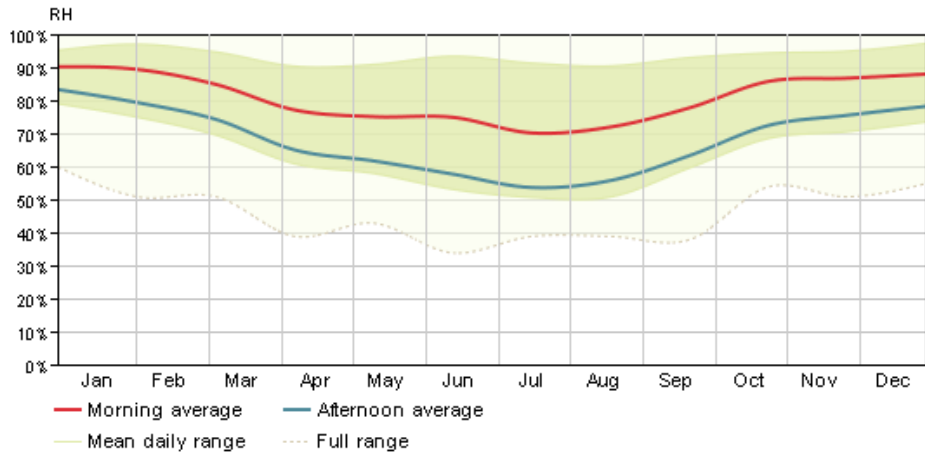
Annual Temperature Bins



Diurnal Weather Averages



Humidity



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Energy Analysis Data