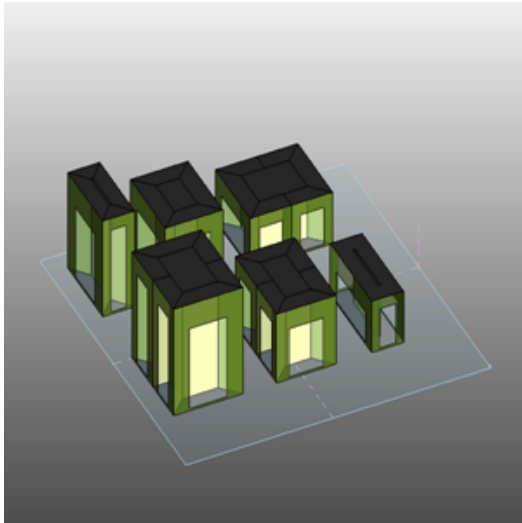


Project3

Project3 Analysis (2)

Analyzed at 12/19/2011 7:57:41 PM

Mass



Building Performance Factors

Location:	Belgrade, Serbia
Weather Station:	171981
Outdoor Temperature:	Max: 94°F/Min: 6°F
Floor Area:	20,375 sf
Exterior Wall Area:	111,412 sf
Average Lighting Power:	1.01 W / ft ²
People:	66 people
Exterior Window Ratio:	0.40
Electrical Cost:	\$0.09 / kWh
Fuel Cost:	\$0.78 / Therm

Energy Use Intensity

Electricity EUI:	44 kWh / sf / yr
Fuel EUI:	260 kBtu / sf / yr
Total EUI:	411 kBtu / sf / yr

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	27,127,008 kWh
Life Cycle Fuel Use:	1,588,648 Therms
Life Cycle Energy Cost:	\$1,721,681

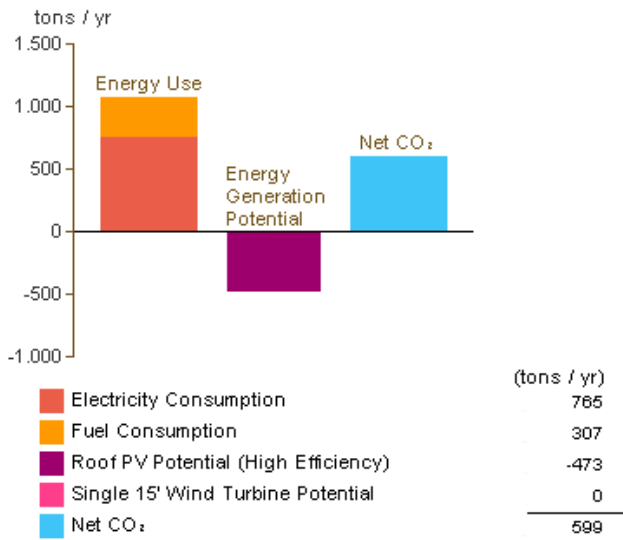
*30-year life and 6.1% discount rate for costs

Renewable Energy Potential

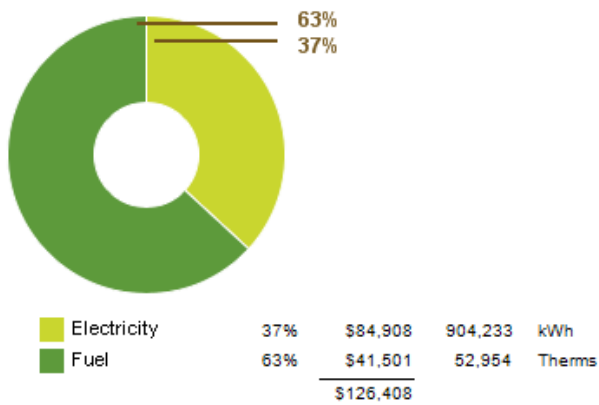
Roof Mounted PV System (Low efficiency):	186,243 kWh / yr
Roof Mounted PV System (Medium efficiency):	372,485 kWh / yr
Roof Mounted PV System (High efficiency):	558,728 kWh / yr
Single 15' Wind Turbine Potential:	670 kWh / yr

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

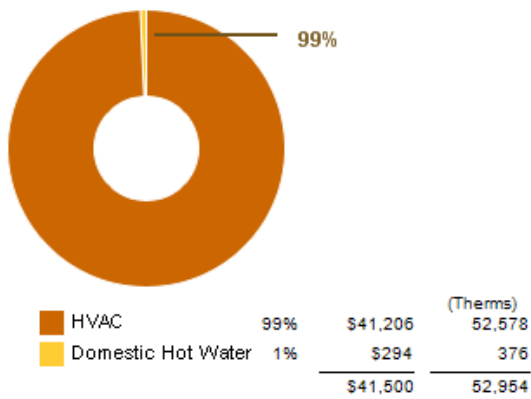
Annual Carbon Emissions



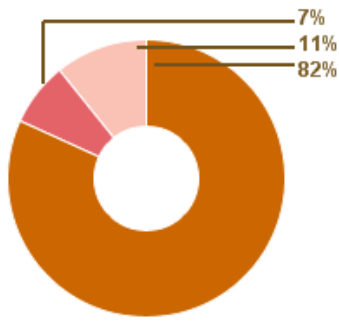
Annual Energy Use/Cost



Energy Use: Fuel

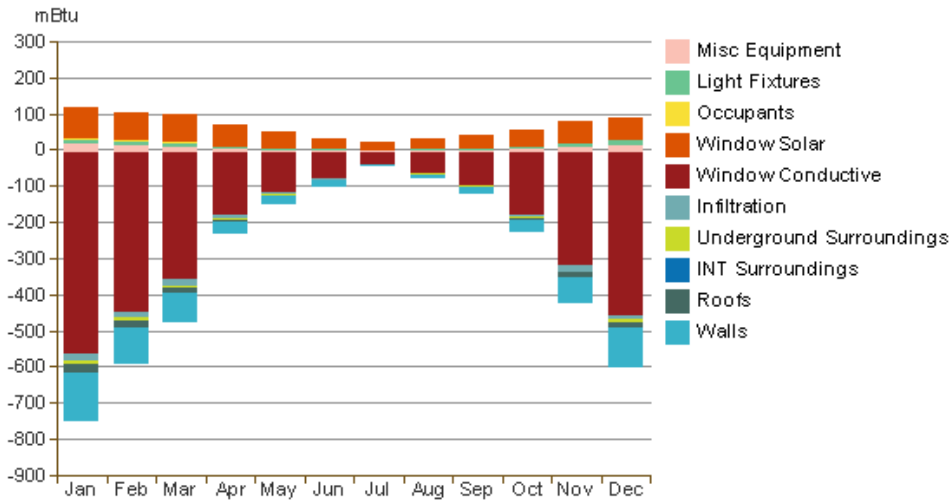


Energy Use: Electricity

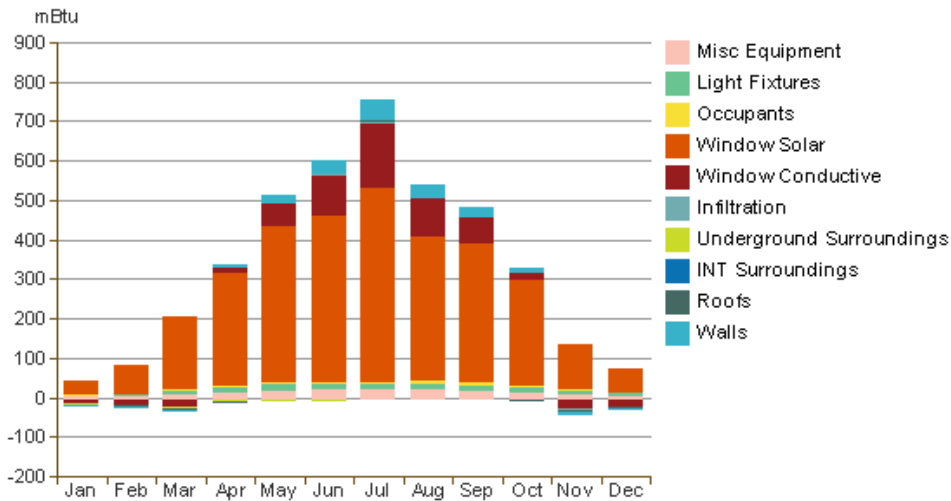


			(kWh)
HVAC	82%	\$69,450	739,624
Lighting	7%	\$6,310	67,209
Misc Equipment	11%	\$9,145	97,399
		\$84,905	904,232

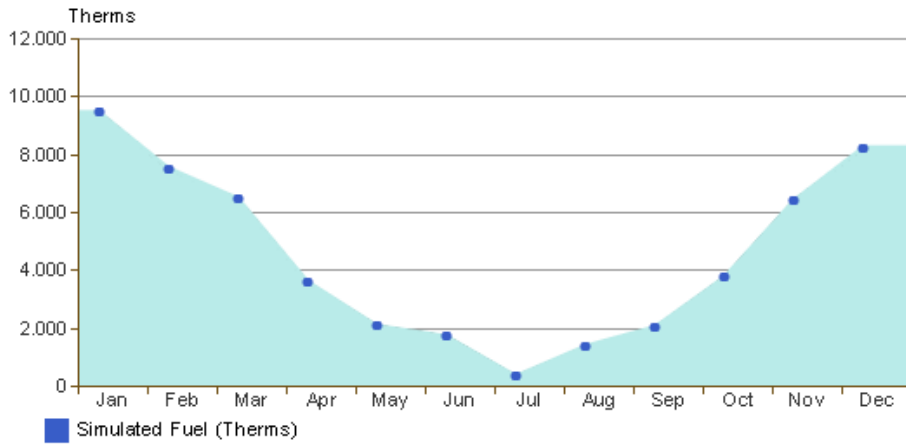
Monthly Heating Load



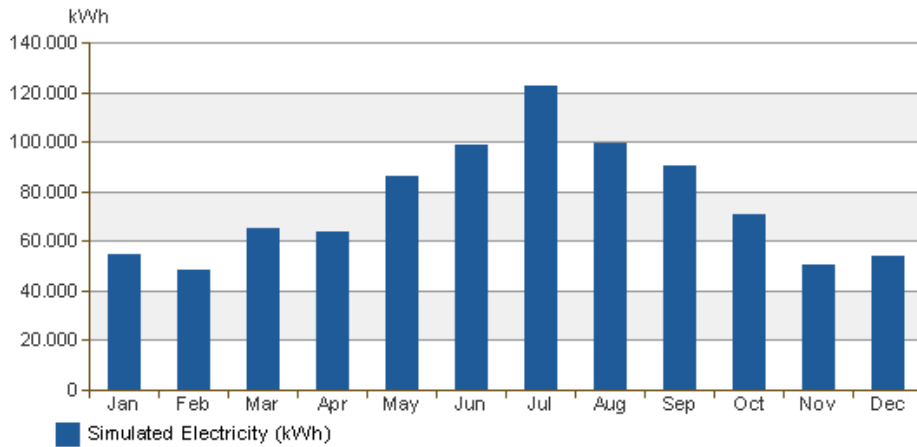
Monthly Cooling Load



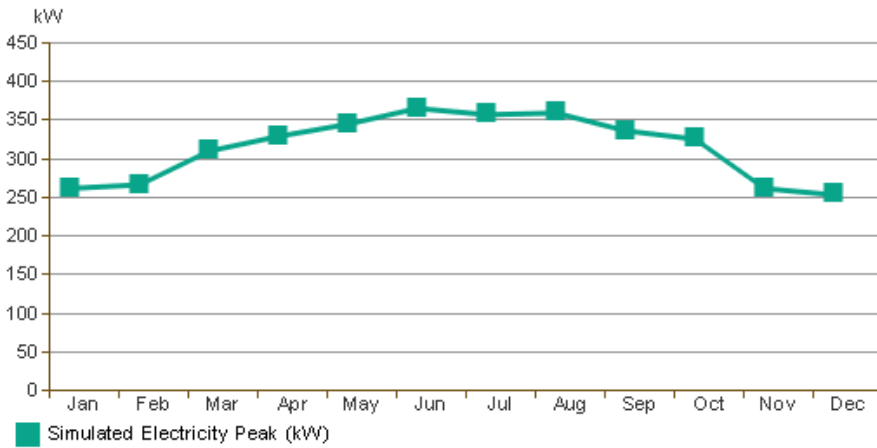
Monthly Fuel Consumption



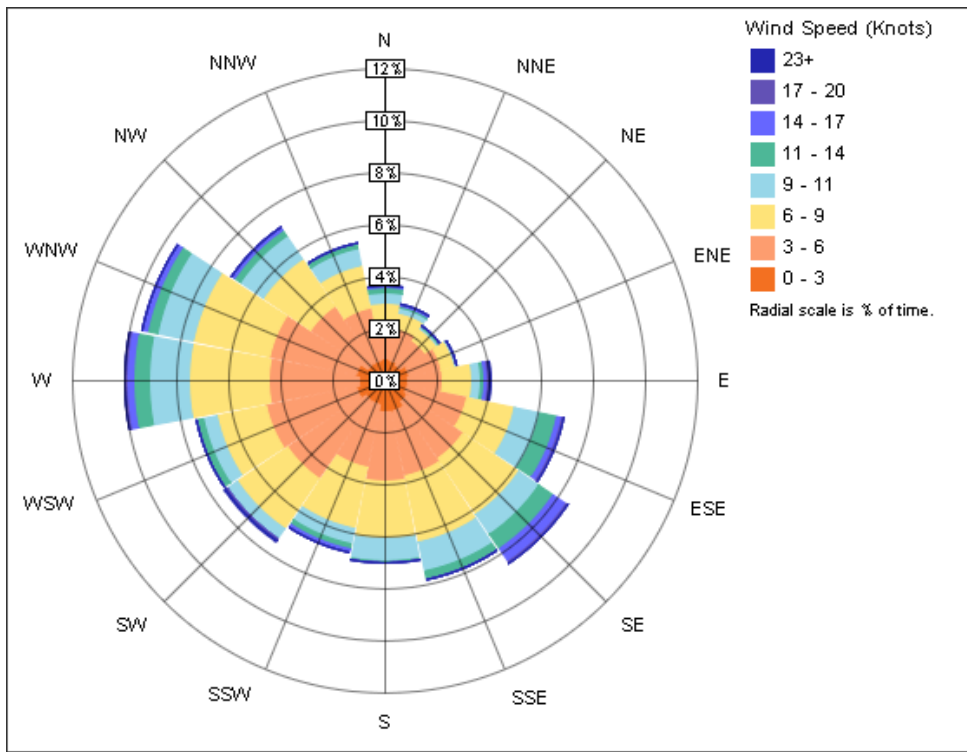
Monthly Electricity Consumption



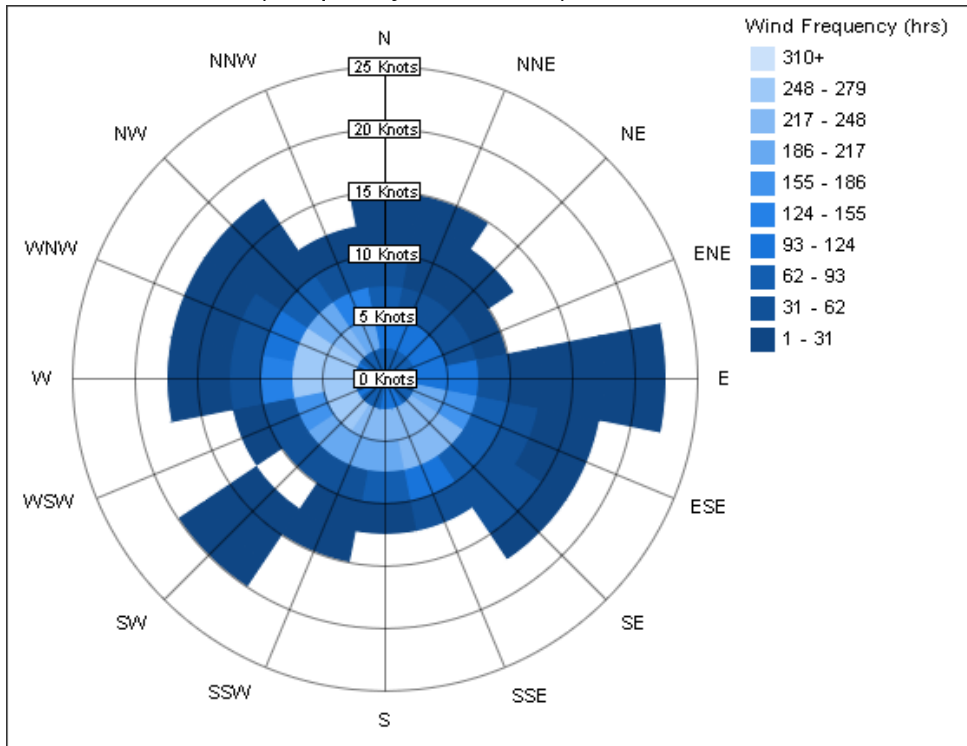
Monthly Peak Demand



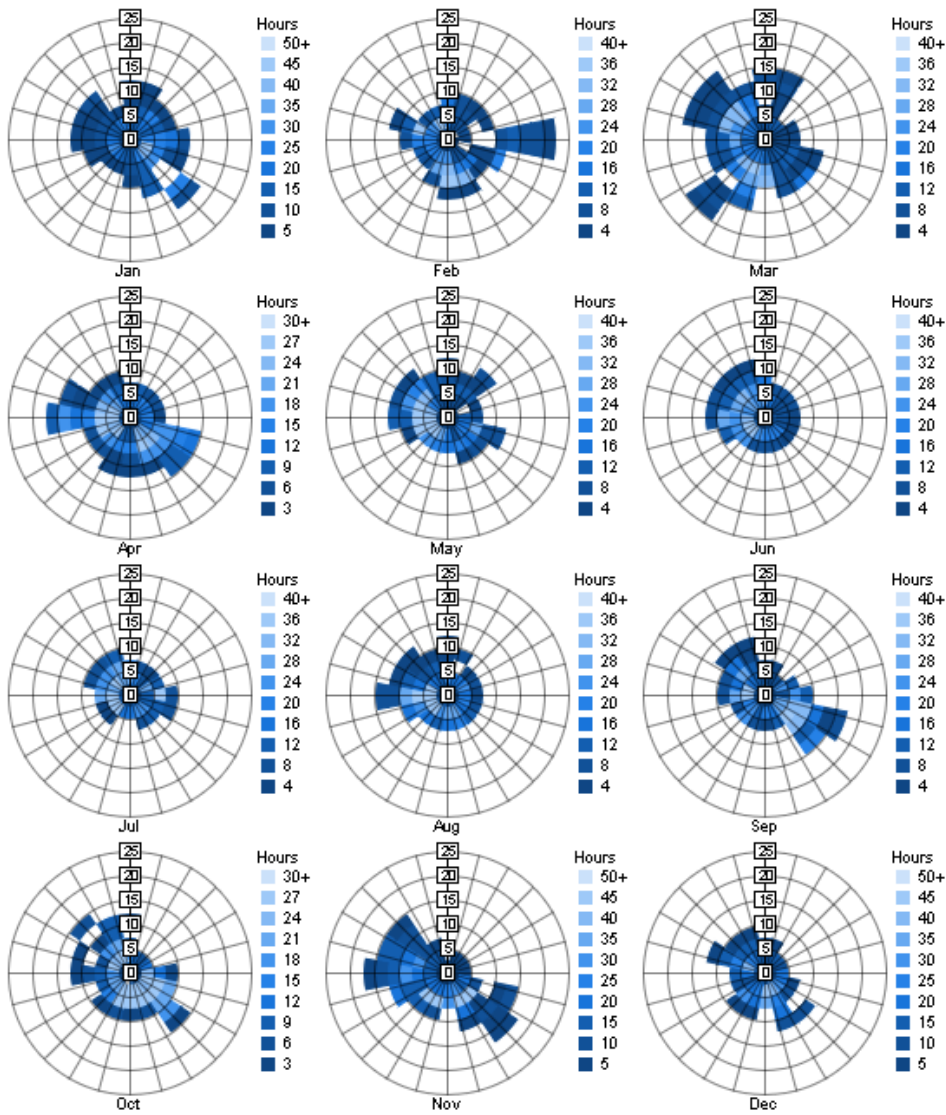
Annual Wind Rose (Speed Distribution)



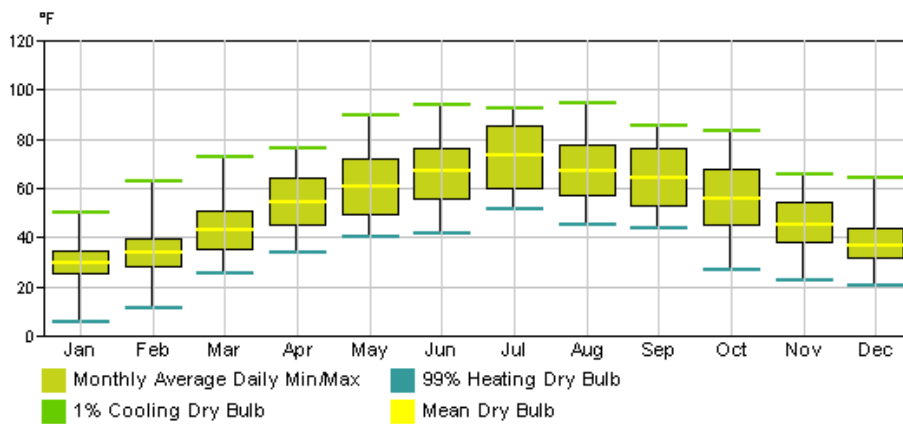
Annual Wind Rose (Frequency Distribution)



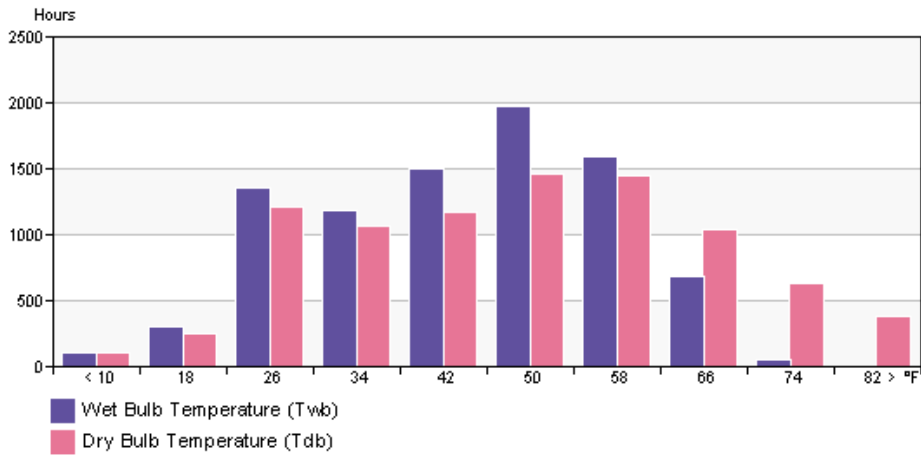
Monthly Wind Roses



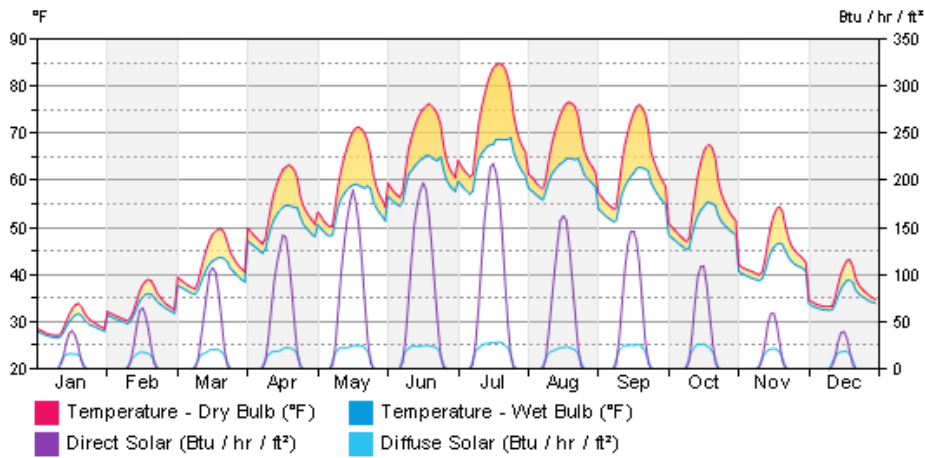
Monthly Design Data



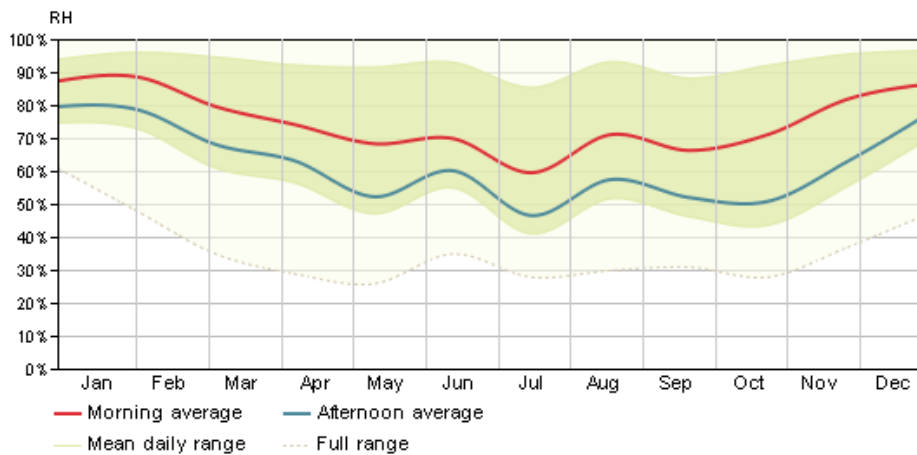
Annual Temperature Bins



Diurnal Weather Averages



Humidity



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