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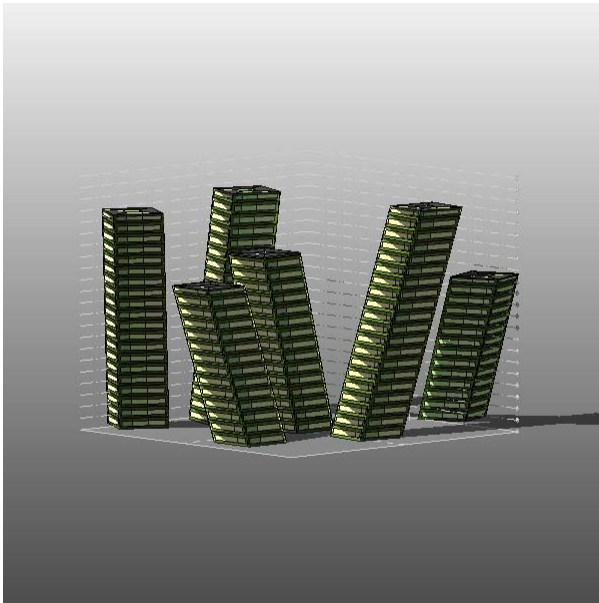
Project21

Project2 Analysis (1)

Analyzed at 20/12/2011 01:51:12

Version 2012.2.21.3448(DOE-2.2-44e4)

Mass



Building Performance Factors

Location:	Boston, MA
Weather Station:	53158
Outdoor Temperature:	Max: 82°F/Min: -10°F
Floor Area:	203,110 sf
Exterior Wall Area:	187,150 sf
Average Lighting Power:	0.99 W / ft ²
People:	901 people
Exterior Window Ratio:	0.40
Electrical Cost:	\$0.16 / kWh
Fuel Cost:	\$1.25 / Therm

Energy Use Intensity

Electricity EUI:	18 kWh / sf / yr
Fuel EUI:	45 kBtu / sf / yr
Total EUI:	107 kBtu / sf / yr

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	111,966,540 kWh
Life Cycle Fuel Use:	2,716,240 Therms
Life Cycle Energy Cost:	\$9,574,551

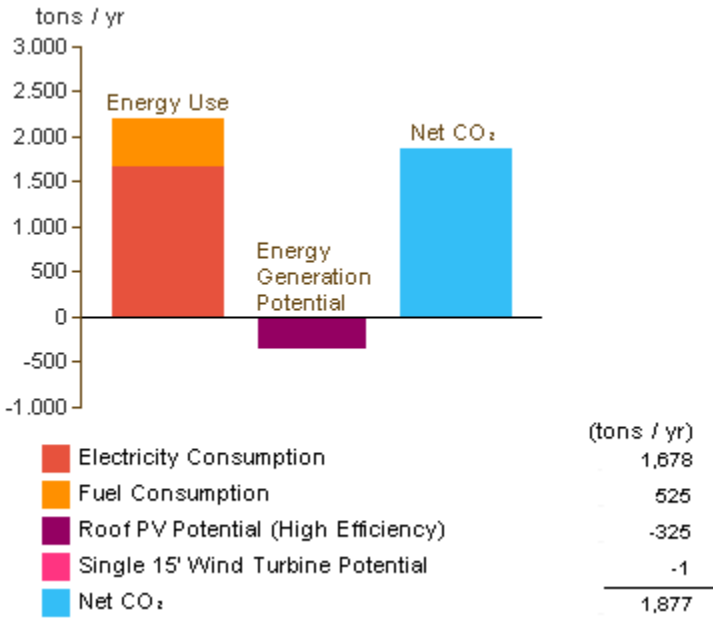
*30-year life and 6.1% discount rate for costs

Renewable Energy Potential

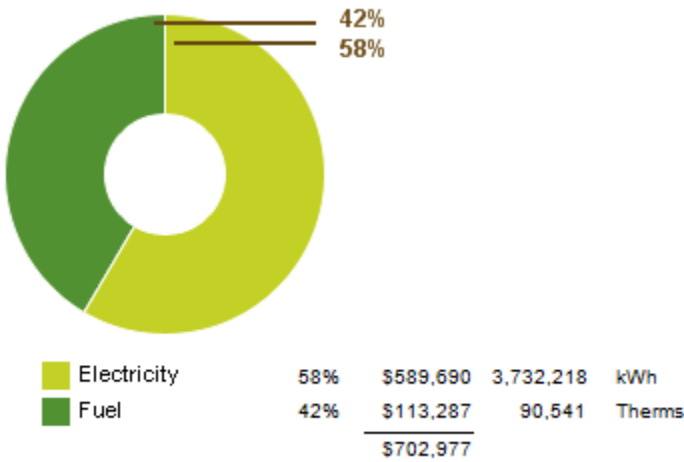
Roof Mounted PV System (Low efficiency):	241,080 kWh / yr
Roof Mounted PV System (Medium efficiency):	482,160 kWh / yr
Roof Mounted PV System (High efficiency):	723,240 kWh / yr
Single 15' Wind Turbine Potential:	2,969 kWh / yr

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

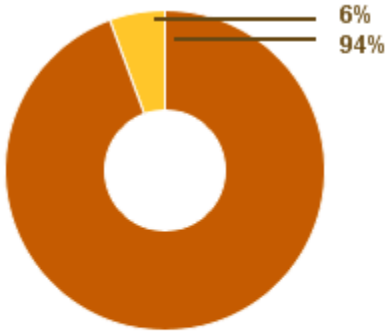
Annual Carbon Emissions



Annual Energy Use/Cost

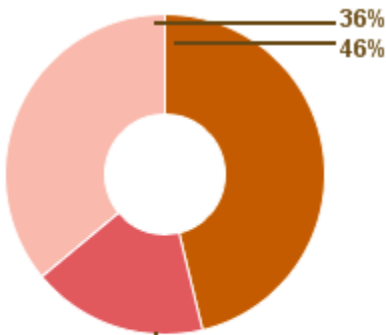


Energy Use: Fuel



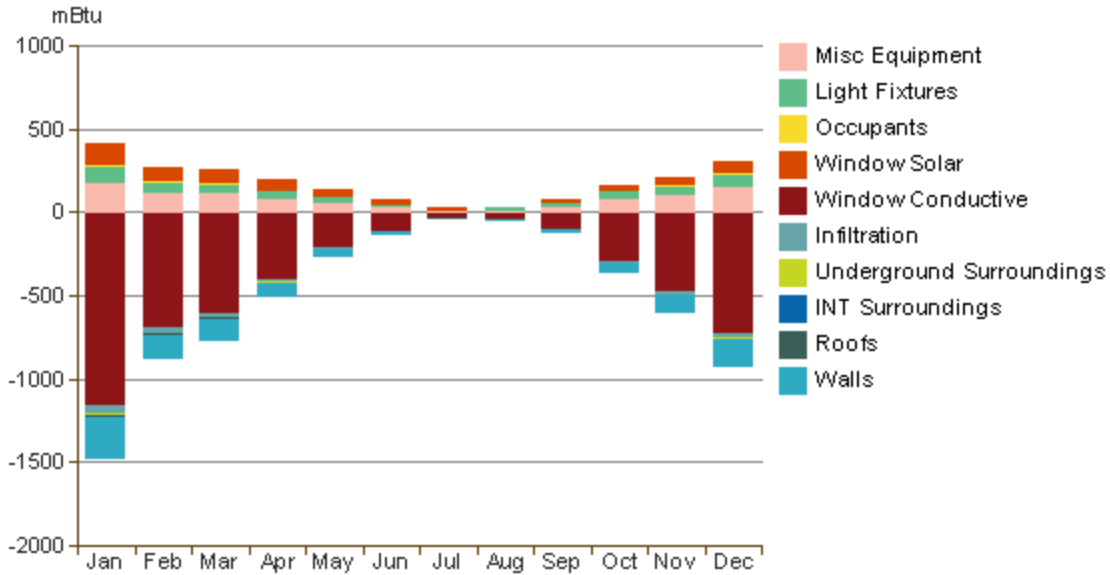
			(Therms)
HVAC	94%	\$106,922	85,454
Domestic Hot Water	6%	\$6,364	5,086
		<u>\$113,286</u>	<u>90,540</u>

Energy Use: Electricity

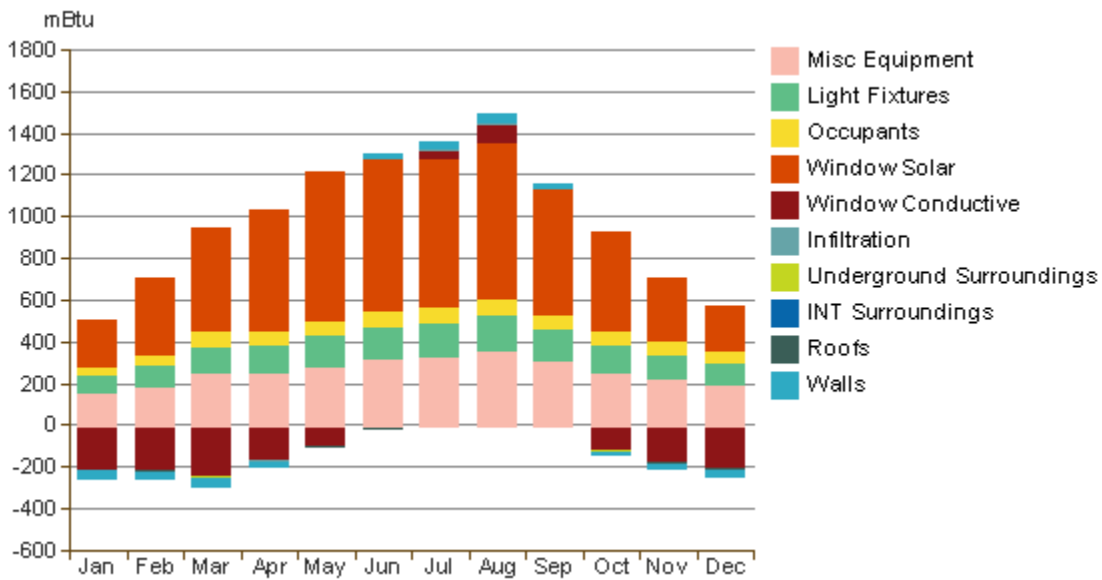


			(kWh)
HVAC	46%	\$270,277	1,710,618
Lighting	18%	\$103,746	656,622
Misc Equipment	36%	\$210,684	1,333,449
		<u>\$584,707</u>	<u>3,700,689</u>

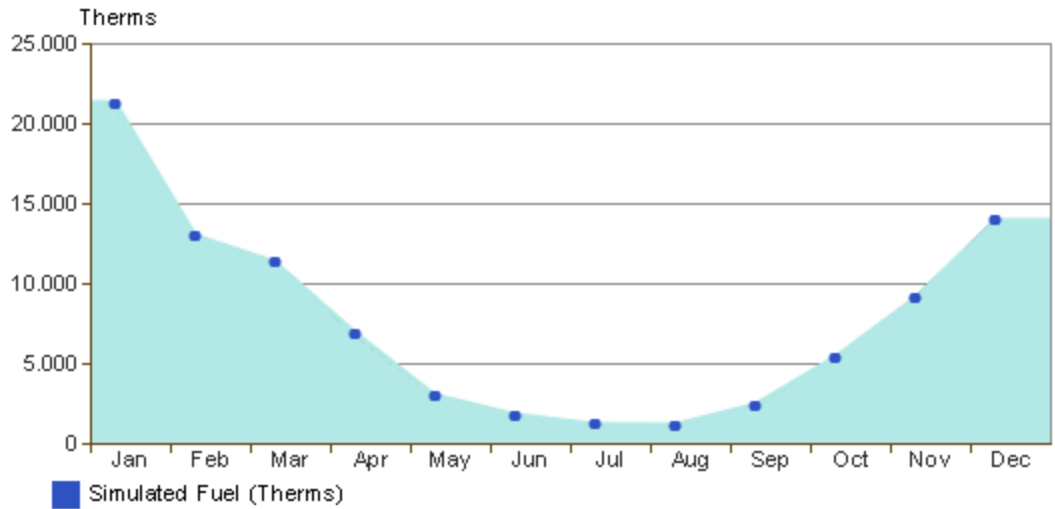
Monthly Heating Load



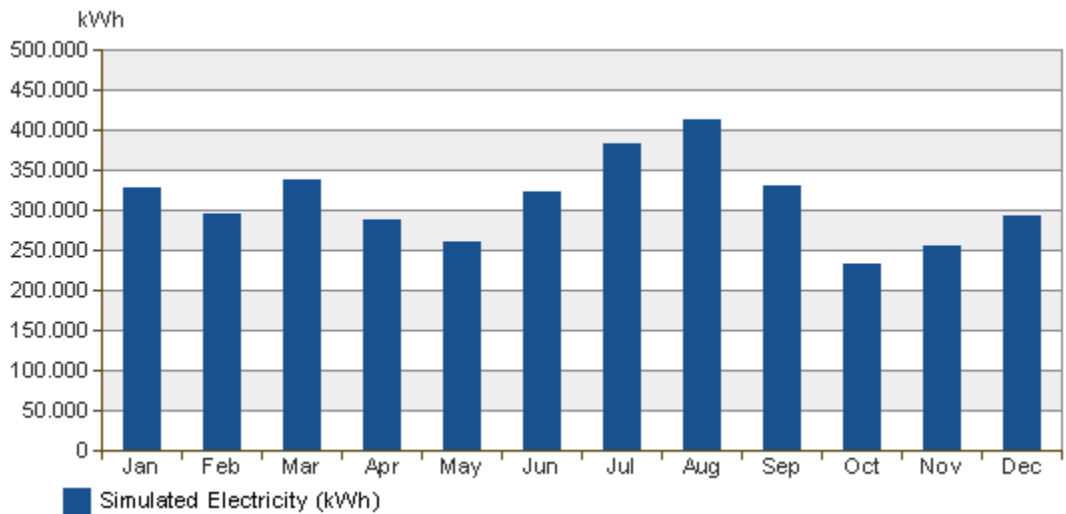
Monthly Cooling Load



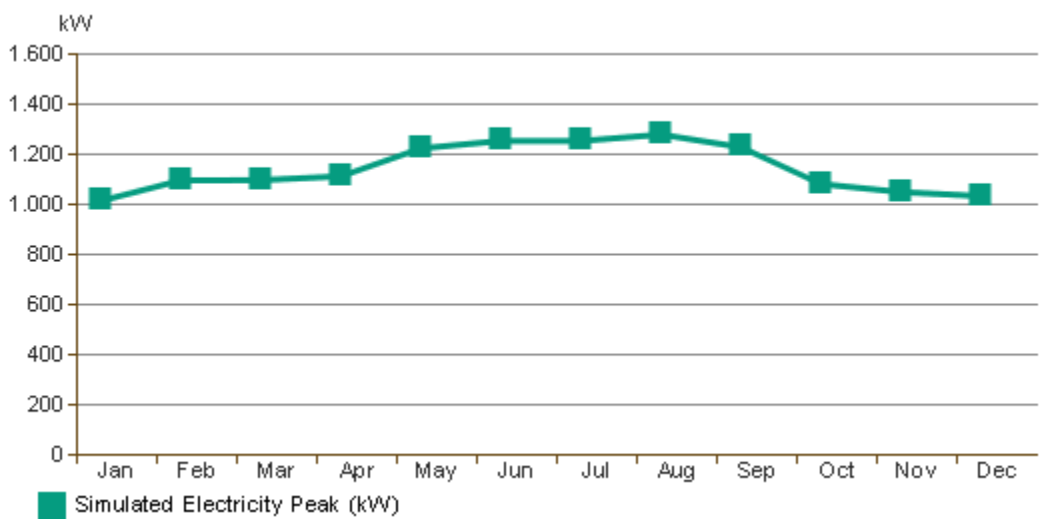
Monthly Fuel Consumption



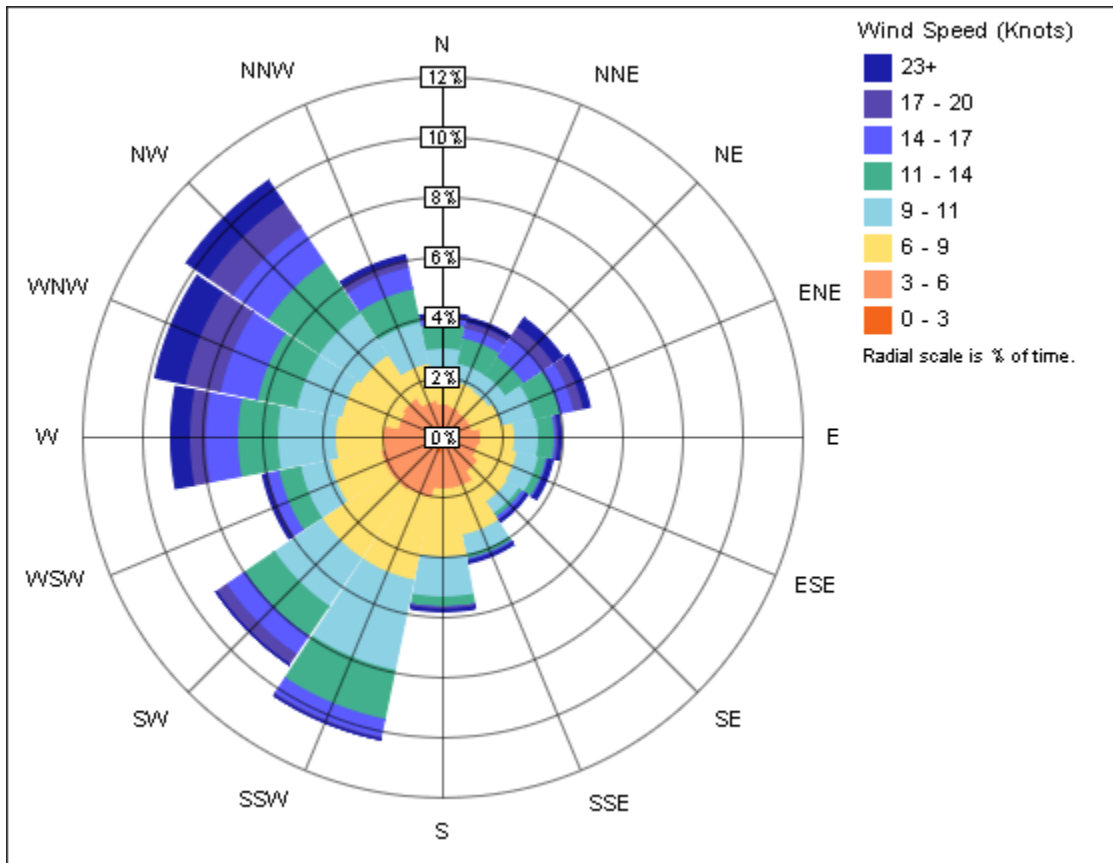
Monthly Electricity Consumption



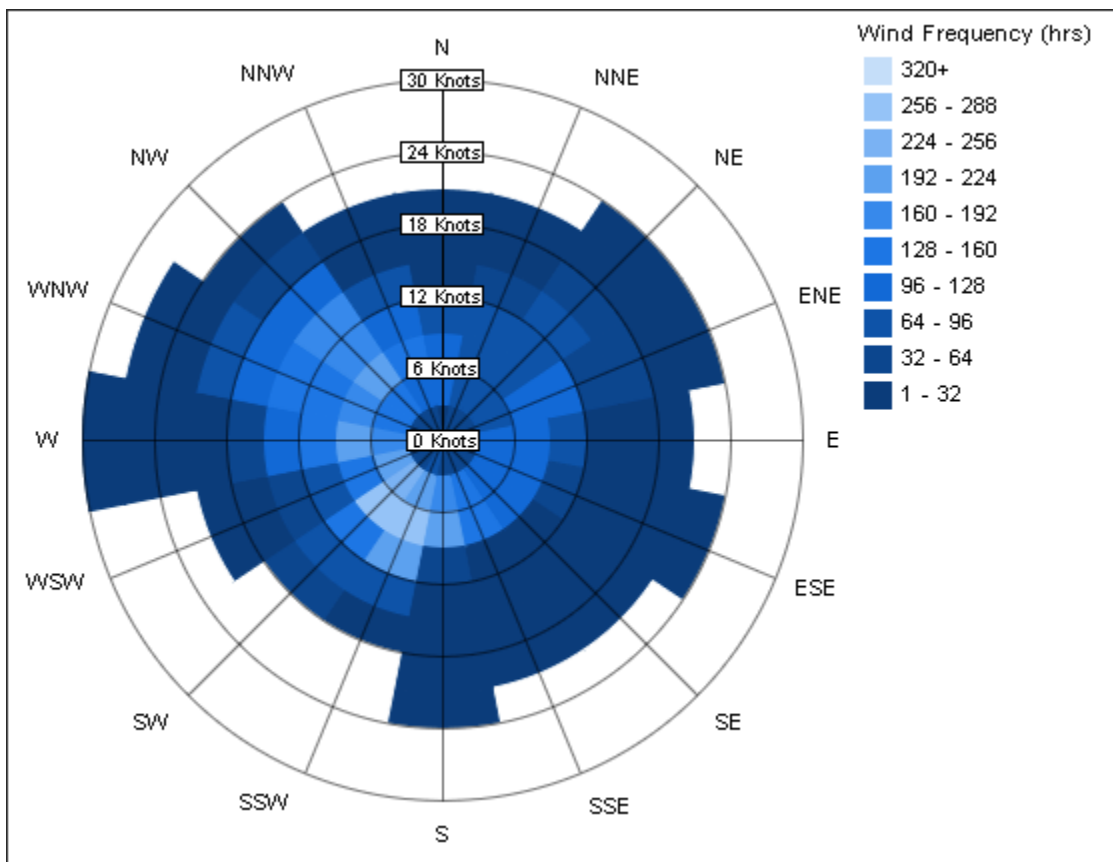
Monthly Peak Demand



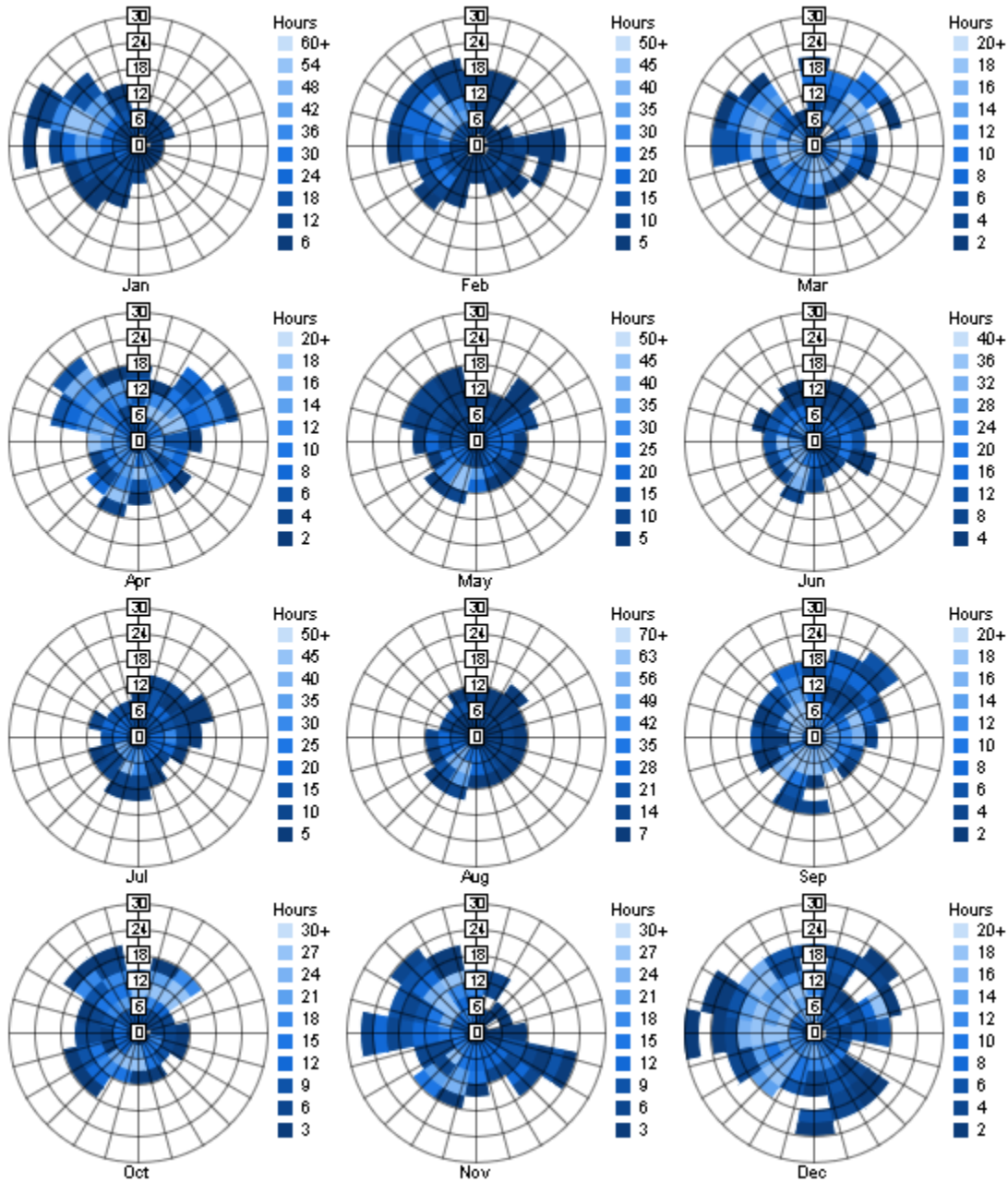
Annual Wind Rose (Speed Distribution)



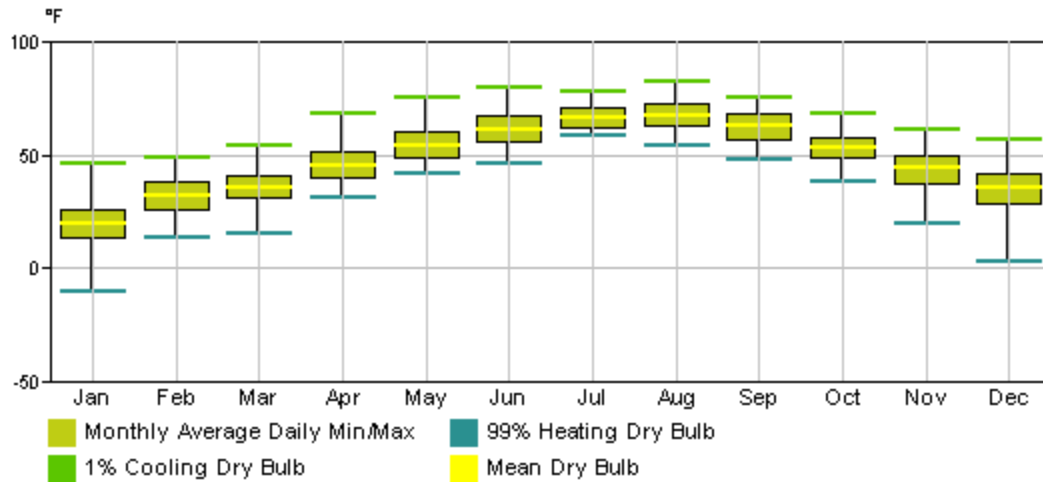
Annual Wind Rose (Frequency Distribution)



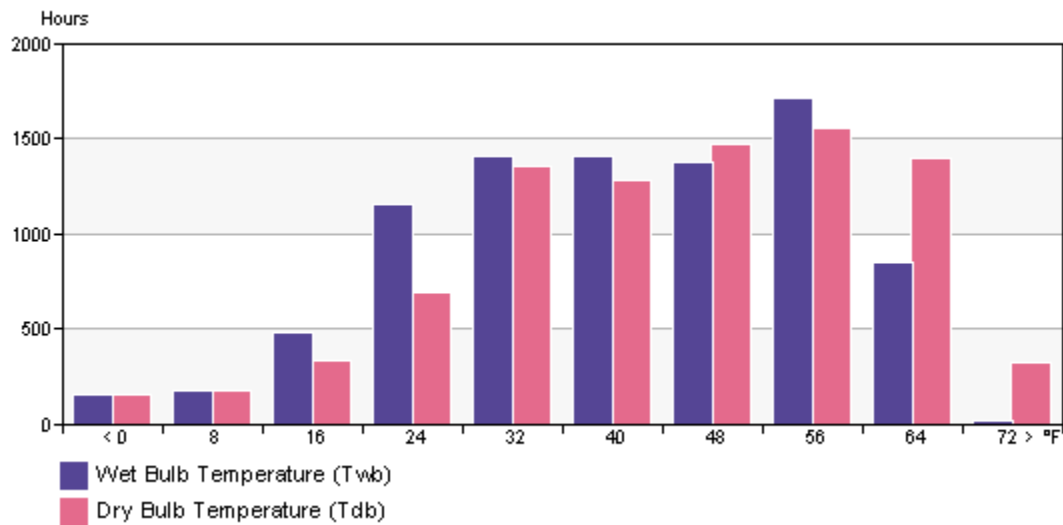
Monthly Wind Roses



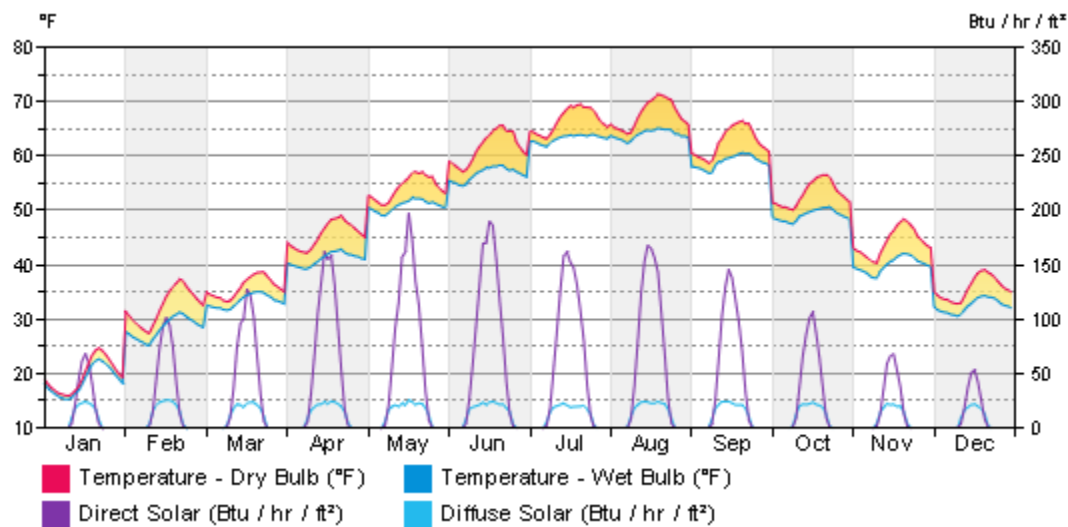
Monthly Design Data



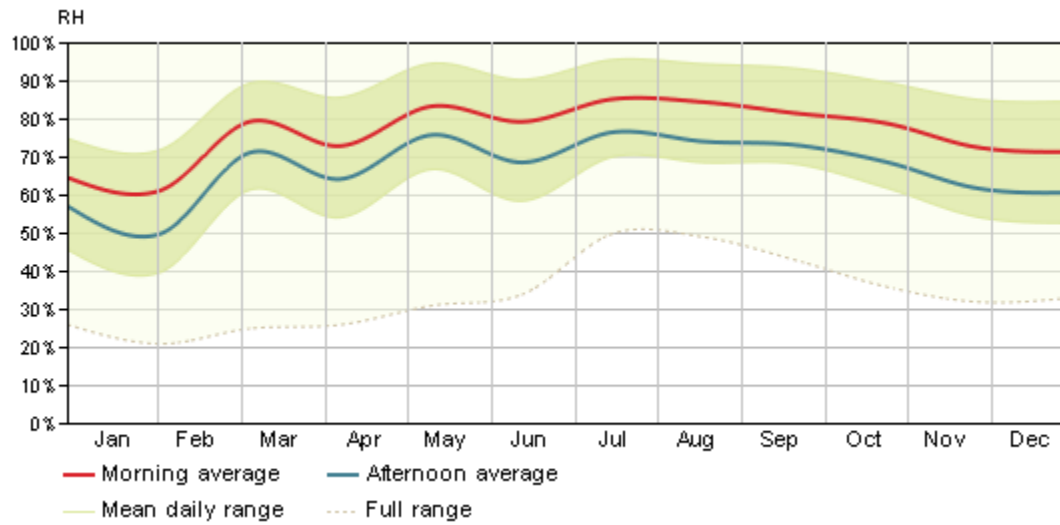
Annual Temperature Bins



Diurnal Weather Averages



Humidity



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Revit Conceptual Energy Analysis Data