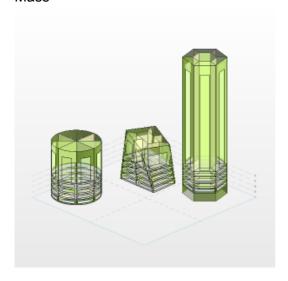
# Project1

# Project1 Analysis (1) Analyzed at 11/29/2011 1:58:15 PM

#### Mass



# **Building Performance Factors**

Location:	44.7942543029785,20.4544830322266
Weather Station:	53158
Outdoor Temperature:	Max: 28°C/Min: -23°C
Floor Area:	6,252 m²
Exterior Wall Area:	9,504 m²
Average Lighting Power:	10.87 W / m²
People:	292 people
Exterior Window Ratio:	0.40
Electrical Cost:	\$0.09 / kWh
Fuel Cost:	\$0.78 / Therm

# **Energy Use Intensity**

Electricity EUI:	236 kWh / sm / yr
Fuel EUI:	1,024 MJ / sm / yr
Total EUI:	1,874 MJ / sm / yr

#### Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	46,695,180 kWh
Life Cycle Fuel Use:	202,774,410 MJ
Life Cycle Energy Cost:	\$2,674,466

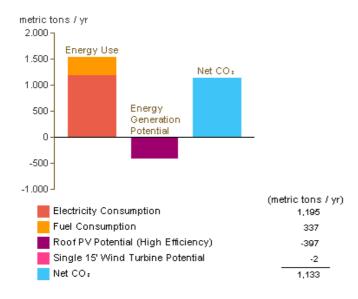
<sup>\*30-</sup>year life and 6.1% discount rate for costs

# Renewable Energy Potential

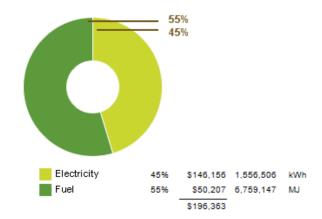
Roof Mounted PV System (Low efficiency):	172,609 kWh / yr
Roof Mounted PV System (Medium efficiency):	345,217 kWh / yr
Roof Mounted PV System (High efficiency):	517,826 kWh / yr
Single 15' Wind Turbine Potential:	2,969 kWh / yr

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

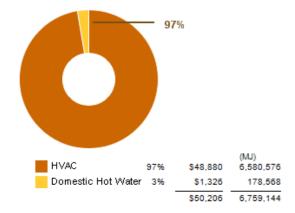
#### **Annual Carbon Emissions**



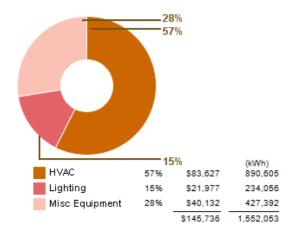
# Annual Energy Use/Cost



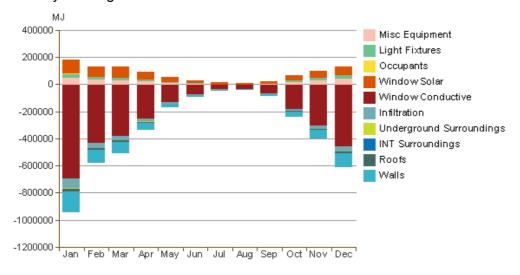
# Energy Use: Fuel



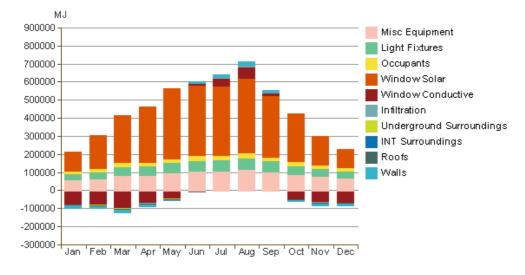
**Energy Use: Electricity** 



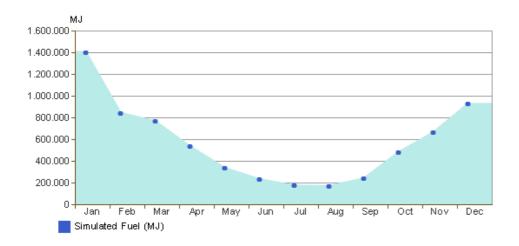
#### Monthly Heating Load



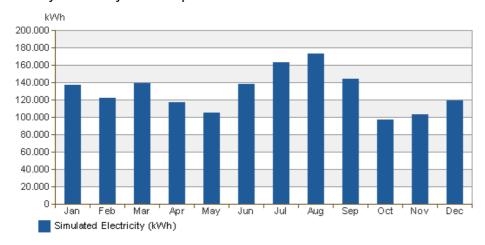
# Monthly Cooling Load



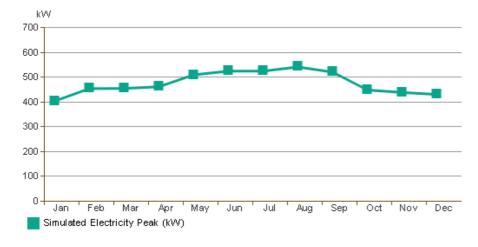
# Monthly Fuel Consumption



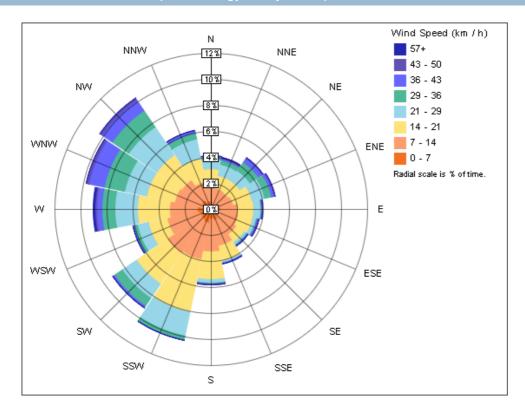
# Monthly Electricity Consumption



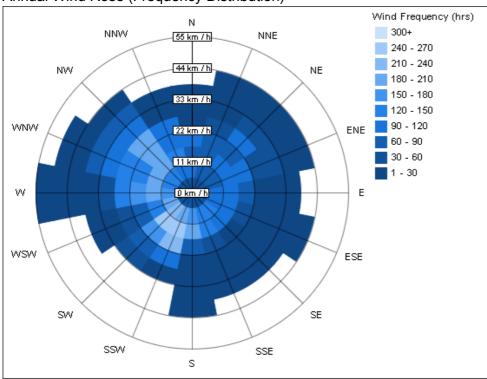
# Monthly Peak Demand



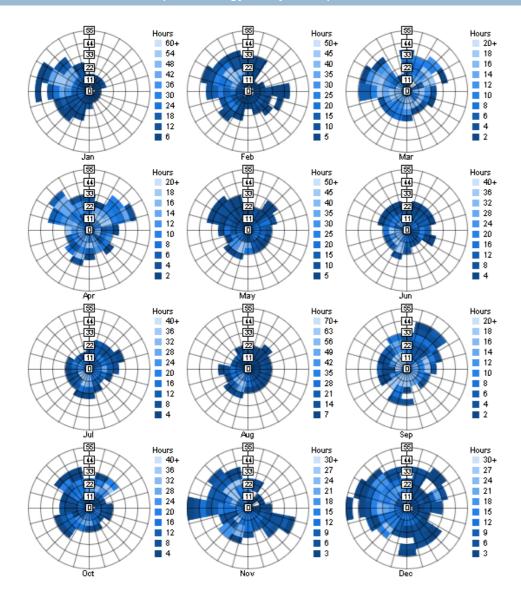
Annual Wind Rose (Speed Distribution)



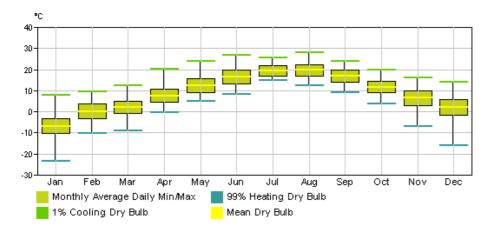
# Annual Wind Rose (Frequency Distribution)



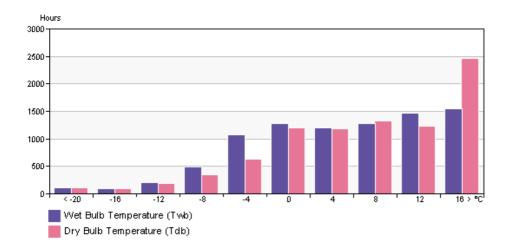
Monthly Wind Roses



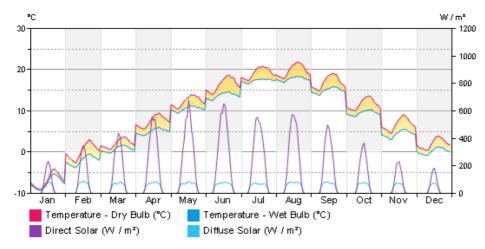
#### Monthly Design Data



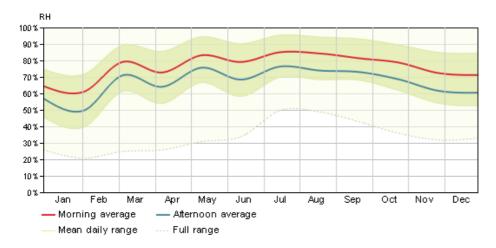
#### **Annual Temperature Bins**



#### **Diurnal Weather Averages**



#### Humidity



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