

BUILDING INFORMATION

Category:	Residential
Status:	In planning
Building type:	New construction
Year of construction:	2015
Units:	1
Number of occupants:	5 (Design)
Occupant density:	701 ft²/Person



Boundary conditions

Climate:	COEUR D'ALENE(AWOS) ID
Internal heat gains:	0.7 Btu/hr ft²
Interior temperature:	68 °F
Overheat temperature:	77 °F

Building geometry

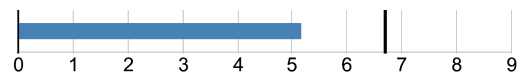
Enclosed volume:	28,575 ft³
Net-volume:	27,523 ft³
Total area envelope:	13,610.4 ft²
Area/Volume Ratio:	0.5 1/ft
Floor area:	3,505 ft²
Envelope area/ICFA:	3.883

PASSIVEHOUSE REQUIREMENTS

Certificate criteria: PHIUS+ 2015

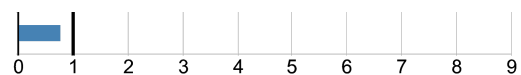
Heating demand

specific:	5.16 kBtu/ft²yr
target:	6.7 kBtu/ft²yr
total:	18,099.91 kBtu/yr



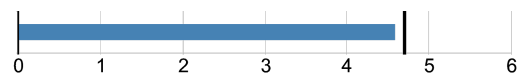
Cooling demand

sensible:	0.76 kBtu/ft²yr
latent:	0 kBtu/ft²yr
specific:	0.76 kBtu/ft²yr
target:	1 kBtu/ft²yr
total:	2,651.26 kBtu/yr



Heating load

specific:	4.59 Btu/hr ft²
target:	4.7 Btu/hr ft²
total:	16,075.55 Btu/hr



Cooling load

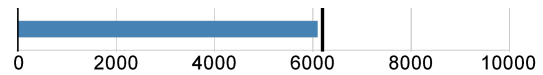
specific:	1.83 Btu/hr ft²
target:	3.8 Btu/hr ft²
total:	6,418.16 Btu/hr



Source energy

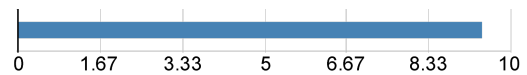
PHIUS+ Source Zero: NO

total: **30,543.18 kWh/yr**
 specific: **6,109 kWh/Person yr**
 target: **6,200 kWh/Person yr**
 total: **104,207.38 kBtu/yr**
 specific: **29.73 kBtu/ft²yr**



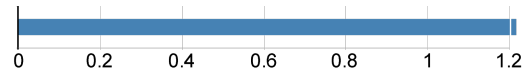
Site energy

total: **32,977.02 kBtu/yr**
 specific: **9.41 kBtu/ft²yr**
 total: **9,665.56 kWh/yr**
 specific: **2.76 kWh/ft²**



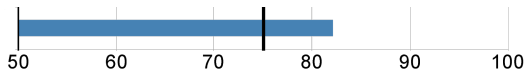
Air tightness

ACH50: **1.27 1/hr**
 CFM50 per envelope area: **0.04 cfm/ft²**
 target: **1.48 1/hr**
 target CFM50: **0.05 cfm/ft²**

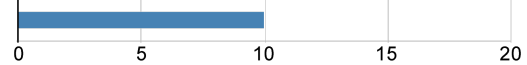


PASSIVEHOUSE RECOMMENDATIONS

Sensible recovery efficiency: **82.1 %**



Frequency of overheating: **10 %**
 Cooling system is not required



Frequency of overheating only applies if there is not a [properly sized] cooling system installed.