



SCRANTON PASSIVE HOUSE

THE SCRANTON PASSIVE HOUSE IS NORTHEASTERN PENNSYLVANIA'S FIRST CERTIFIED PASSIVE HOUSE AND THE 112TH PHIUS+ CERTIFIED PASSIVE HOUSE IN NORTH AMERICA.



PROJECT INFORMATION

LOCATION	SCRANTON, PA
SIZE	2,153 SQFT
CLIMATE ZONE	5 / 6 COLD
HERS	28
CONSTRUCTION	COMPLETE 2015
COST	\$165/SQFT
MODELING TOOLS	PHPP / REMRATE
MONITORING	RPA PHOT

PASSIVE HOUSE ENERGY CRITERIA

ANNUAL HEAT DEMAND	4.52 KBTU/(FT2YR)
HEAT LOAD	2.75 BTU/(FT2HR)
PRIMARY ENERGY	31.5 KBTU/(FT2YR)
AIR TIGHTNESS	0.47ACH@50Pa
TREATED FLOOR AREA	1,750 SQFT

CONSTRUCTION SPECIFICATIONS

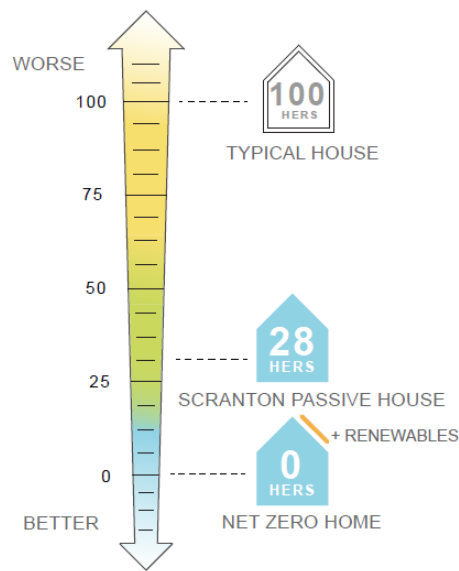
FLOOR	R=76	SLAB ON GRADE
WALLS	R=61	2X4 WALL PLUS TJI
ROOF	R=85	ENERGY TRUSS
WINDOWS	R=7	INTUS EFORTE

MECHANICAL SYSTEMS

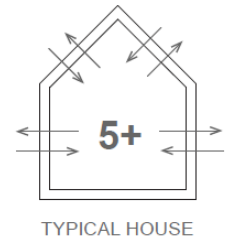
VENTILATION	RENEWAIRE ERV
HEATING AND COOLING	MITSUBISHI ASHP
DOMESTIC HOT WATER	GE HWHP

RPA PASSIVE HOUSE MORPHOLOGY

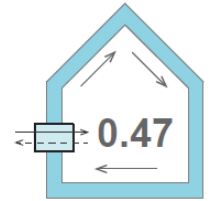
ENVELOPE AREA TO TFA	3
SURFACE AREA TO VOLUME	32
ENVELOPE AREA TO GLAZING	14%
SOUTH GLAZING	47%
ENCLOSURE R VALUE	36.2



AIR CHANGES PER HOUR @50Pa

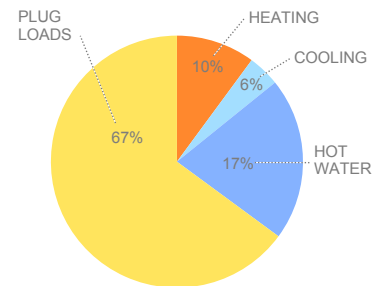
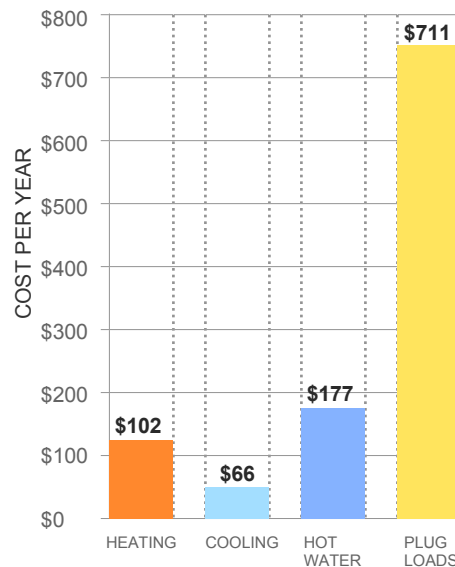


TYPICAL HOUSE



SCRANTON PASSIVE HOUSE

HERS RATING AND AIR TIGHTNESS

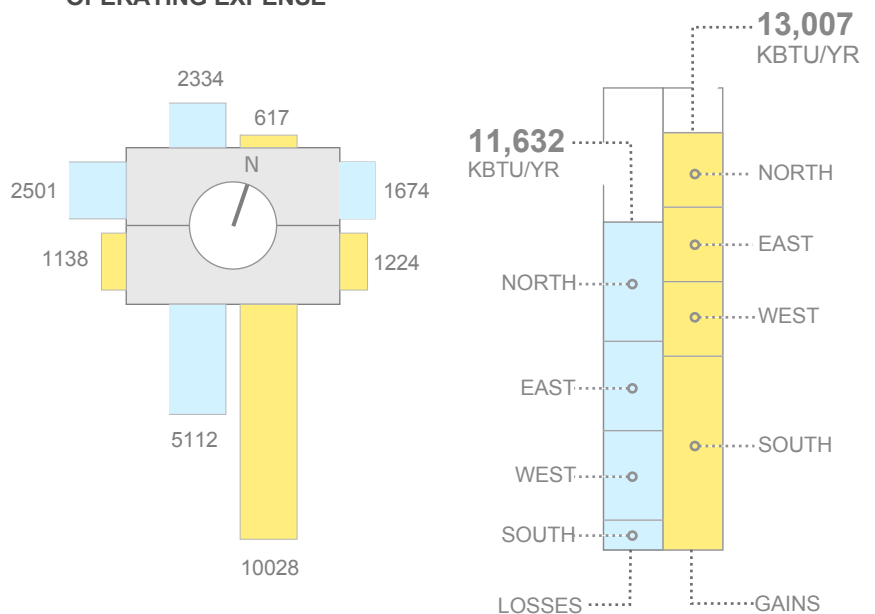


\$1,056 YR
\$88 MO
\$2.90 DAY



\$2,800 YR
\$233 MO
\$7.76 DAY

OPERATING EXPENSE



GLAZING SOLAR GAINS AND LOSSES BY ORIENTATION