



*This is a specific section designed just for RESNET **appropriated users**.*

The following instructions will help to upload each of the requested tests on the International Code Compliance Calculator (IC3) v4.4 for the RESNET accreditation process.

IC3 software is fully operational and set up for each test case



ENERGY SYSTEMS LABORATORY
TEXAS A&M ENGINEERING EXPERIMENT STATION



RESNET Tests Main Menu

ASHRAE Standard 140 Test

HVAC Test

Auto-Generation Test

DSE Test

HERS Method Test

DHW Test

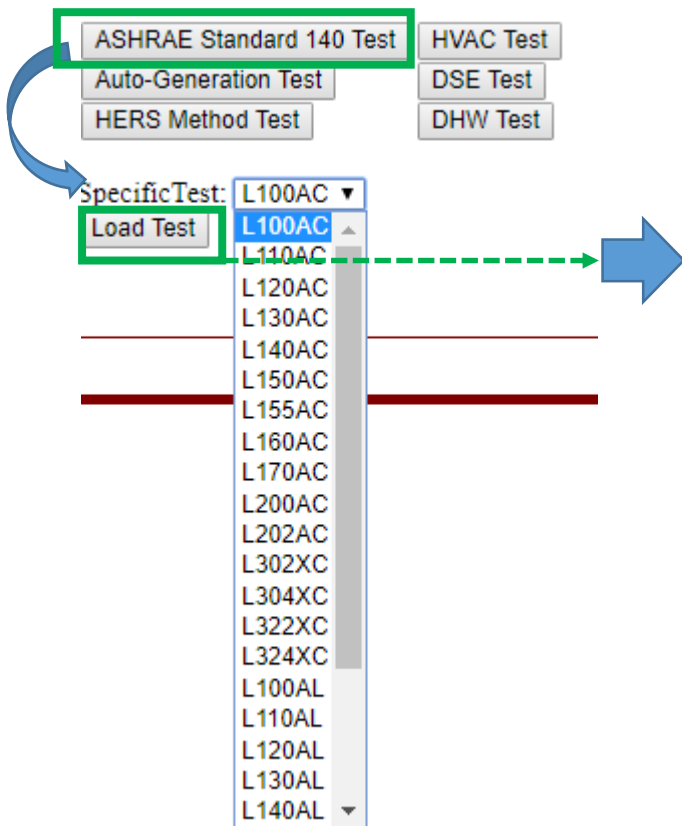
SpecificTest: ▼

Load Test

ASHRAE Standard 140 Test



Clicking the “ASHRAE Standard 140 Test”, the required case tests will show up in the *Specific Test* list



Clicking “Load Test”, It will show up all the input parameters up in the screen

Inputs

Imported Values - Rated House

Location

Project in Texas
Out of Texas City

Colorado Springs, CO

General

Number of Bedrooms: 3
Window SHGC: 0.670
Window U-factor: 1.039
Door U-factor: 1.039
Wall Cavity Insulation: R-11.00
Wall Continuous Insulation: R-11.32
Stud Type: 2 x 4
Orientation: South
Exterior Finish: Wood Siding

Roof

Cladding Type: Composite Shingle
Radiant Barrier: ☐
Sealed Attic: ☐
Roof Insulation: R-19.00
Attic Area (sq. ft.): 1539.00

Floors & Walls

1st floor Front/Back length (ft): 37.00
1st floor Front Window Area (sq. ft.): 90.00
1st floor Back Window Area (sq. ft.): 90.00
1st floor Left/Right length (ft): 27.00
1st floor Left Window Area (sq. ft.): 45.00
1st floor Right Window Area (sq. ft.): 45.00
1st floor Average Wall height (ft): 8.00
1st Floor Conditioned floor area (sq. ft.): 1539.00

Has 2nd Floor: ☐

Foundation & Basement

Foundation Type: Raised Floor
Floor Insulation: R-11.00
Height of basement/crawlspace wall above ground (ft): 0.0100
Height of basement/crawlspace wall underground (ft): 8.8300

Duct Test

Ducts Tested: ☐

Tests

Blower Door Test (ACH50): 5.00
No Cooling: ☐

Heating

Heating Type: Heat Pump
Heating Efficiency (AFUE HSPF): 8.00
Heating Capacity (Btu/hour): 36906

Cooling

A/C SEER: 10
A/C Tonnage: 3

DHW

Water Heater Type: Natural Gas
Water Heater Energy Factor: 0.68
Water Heater Tank size (gal): 40
Drain Water Heat Recovery: ☐
Recirculation System: ☐

Pipe Length: 88.50
Pipe Insulation: 0.00

Low Flow Water Heater: ☐

Mechanical

Mechanical Ventilation Type: None

Appliance

Fuel Type of Range: Natural Gas
Fuel Type of Dryer: Natural Gas

Clothes Washer

Dollar Per Therm: 0.58
AGC: 23.00
Capacity: 2.8700
Dollar Per kWh: 0.0800
LER: 704.00

Dishwasher

Energy Factor: 0.48
Capacity: 12

Lighting

Percent High Efficiency Interior Lighting: 75
Percent High Efficiency exterior Lighting: 75
Programmable Thermostat: ☐

Report

Output Report

BEPU Cooling Energy (KWH)
BEPU Heating energy (KWH/THERM)
SS-M Fan Cooling (KWH)
SS-M Fan heating (KWH)
SS-A Cooling Load (MBTU)
SS-A Heating Load (MBTU)
BEPU DHW Energy (THERMS)
Recirculation Pump Energy (KWH/YR)

Clicking “Submit Single Run”, It will show up the results in the *output report* section.

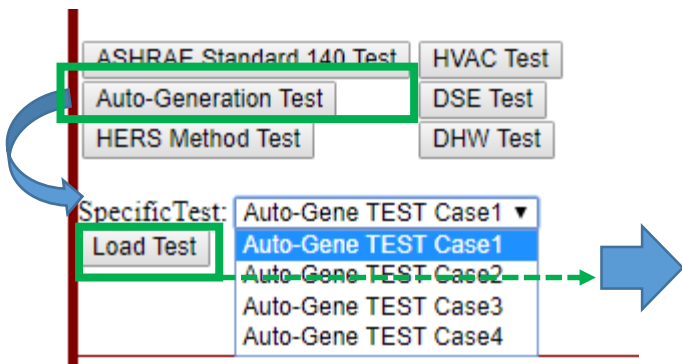
Use the “Return to Main Menu” button to get back to the main menu. Do not use the navigation back arrow.



Auto-Generation Test



Clicking the “Auto-Generation Test”, the required case tests will show up in the *Specific Test* list



Clicking “Load Test”,
It will show up all the input parameters up
in the screen

Inputs

Imported Values - Rated House

Location

Project in Texas
Out of Texas City

Colorado Springs, CO

General

Number of Bedrooms: 3

Window SHGC: 0.670

Window U-factor: 1.040

Door U-factor: 0.330

Wall Cavity Insulation: R-11.00

Wall Continuous Insulation: R-1.32

Stud Type: 2 X 4

Orientation: South

Exterior Finish: Brick

Roof

Cladding Type: Composite Shingle

Radiant Barrier: ☐

Sealed Attic: ☐

Roof Insulation: R-19.00

Attic Area (sq. ft.): 1639.00

Floors & Walls

1st floor Front Back length (ft): 57.00

1st floor Front Window Area (sq. ft.): 90.00

1st floor Back Window Area (sq. ft.): 90.00

1st floor Left Right length (ft): 27.00

1st floor Left Window Area (sq. ft.): 48.00

1st floor Right Window Area (sq. ft.): 48.00

1st floor Average Wall height (ft): 8.00

1st Floor Conditioned floor area (sq. ft.): 1639.00

Has 2nd Floor: ☐

Foundation & Basement

Foundation Type: Vented crawlspace

Floor Insulation: R-4.20

Height of basement crawlspace wall above ground (ft): 0.0100

Height of basement crawlspace wall underground (ft): 8.8820

Duct Test

Ducts Tested: ☐

Tests

Blower Door Test (ACH50): 3.00

No Cooling: ☐

Heating

Heating Type: Heat Pump

Heating Efficiency (AFUE HSPF): 8.30

Heating Capacity (Btu/hour): 88936

Cooling

A/C SEER: 10

A/C Tonnage: 3

DHW

Water Heater Type: Electric

Water Heater Energy Factor: 0.88

Water Heater Tank size (gal): 40

Drain Water Heat Recovery: ☐

Recirculation System: ☐

Pipe Length: 88.50

Pipe Insulation: 0.00

Low Flow Water Heater: ☐

Mechanical

Mechanical Ventilation Type: None

Appliance

Fuel Type of Range: Electric

Fuel Type of Dryer: Electric

Clothes Washer

Dollar Per Therm: 0.58

AGC: 23.00

Capacity: 2.8700

Dollar Per kWh: 0.0800

LER: 704.00

Dishwasher

Energy Factor: 0.46

Capacity: 12

Lighting

Percent High Efficiency Interior Lighting: 75

Percent High Efficiency exterior Lighting: 75

Programmable Thermostat: ☐

Submit for ERI

Return to Main Menu

Clicking “Submit for HERS”,
It will show up the results
in the *output report*
section.

Use the “Return
to Main Menu”
button to get back
to the main menu.
Do not use the
navigation back
arrow.

Report

Input Values - Reference House Id: 928

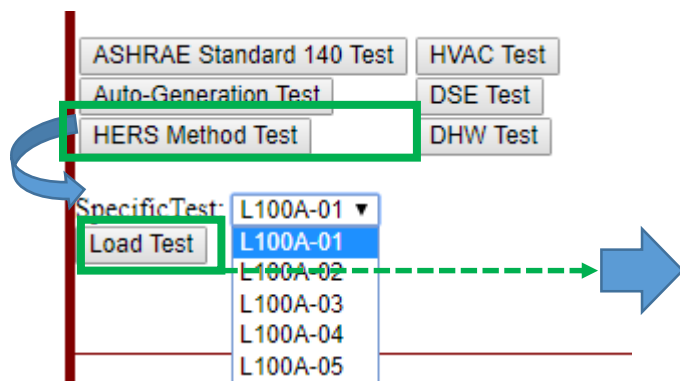
Walls U-Value	0.082
Walls Solar Absorptance	0.75
Walls Infrared Emittance	0.90
Basement Walls U-Value	N/A
Floor U-Value	N/A
Slab Insulation R-Value	0
Ceiling U-Value	0.035
Roof Solar Absorptance	0.75
Roof Infrared Emittance	0.90
Attic Vent Area	5.13
Crawlspace Vent Area	N/A
Exposed Masonry Floor Area	307.80
Carpet & Pad R-Value	2
Door Area	40
Door U-Factor	1.20
Front Window Area	69.26
Left Window Area	69.26
Back Window Area	69.26
Right Window Area	69.26
Window U-Factor	1.20
Window SHGC ₀ (heating)	0.34
Window SHGC ₀ (cooling)	0.28
SLA	0.00036
Sensible Internal Gain	48111
Latent Internal Gain	9259
Labeled Heating Efficiency	7.70
Labeled Cooling SEER	13.00
Air Distribution System	0.80
Thermostat Type	Manual
Heating Thermostat Setting	68
Cooling Thermostat Setting	78
Mechanical Ventilation (kWh/y)	140.4
DHW pipe length refPipeL (ft)	88.5
DHW loop length refLoopL (ft)	156.9
e-ratio	1.000



HERS Method Test and HERS Method IAF Test



Clicking the “HERS Method Test”, the required case tests will show up in the *Specific Test* list



Clicking “Load Test”, It will show up all the input parameters up in the screen

Inputs

Imported Values - Rated Home

Location
Project in Texas
Out of Texas City
Colorado Springs, CO

General
Number of Bedrooms: 3
Window SHGC: 0.670
Window U-factor: 1.040
Door U-factor: 0.330
Wall Cavity Insulation: R-11.00
Wall Continuous Insulation: R-1.32
Stud Type: 2 X 4
Orientation: South
Exterior Finish: Brick

Roof
Cladding Type: Composite Shingle
Radiant Barrier: ☐
Sealed Attic: ☐
Roof Insulation: R-19.00
Attic Area (sq. ft.): 1639.00

Floors & Walls
1st floor Front Back length (ft): 57.00
1st floor Front Window Area (sq. ft.): 90.00
1st floor Back Window Area (sq. ft.): 90.00
1st floor Left Right length (ft): 27.00
1st floor Left Window Area (sq. ft.): 48.00
1st floor Right Window Area (sq. ft.): 48.00
1st floor Average Wall height (ft): 8.00
1st Floor Conditioned floor area (sq. ft.): 1639.00
Has 2nd Floor: ☐

Foundation & Basement
Foundation Type: Vented crawlspace
Floor Insulation: R-4.20
Height of basement crawlspace wall above ground (ft): 0.0100
Height of basement crawlspace wall underground (ft): 8.8820

Duct Test
Ducts Tested: ☐
Tests
Blower Door Test (ACH50): 3.00
No Cooling: ☐

Heating
Heating Type: Heat Pump
Heating Efficiency (AFUE HSPF): 8.30
Heating Capacity (Btu/hour): 36936

Cooling
A/C SEER: 10
A/C Tonnage: 3

DHW
Water Heater Type: Electric
Water Heater Energy Factor: 0.88
Water Heater Tank size (gal): 40
Drain Water Heat Recovery: ☐
Recirculation System: ☐
Pipe Length: 88.50
Pipe Insulation: 0.00
Low Flow Water Heater: ☐

Mechanical
Mechanical Ventilation Type: None
Appliance
Fuel Type of Range: Electric
Fuel Type of Dryer: Electric
Clothes Washer
Doller Per Therm: 0.58
AGC: 23.00
Capacity: 2.8700
Doller Per kWh: 0.0800
LER: 704.00
Dishwasher
Energy Factor: 0.46
Capacity: 12
Lighting
Percent High Efficiency Interior Lighting: 75
Percent High Efficiency exterior Lighting: 75
Programmable Thermostat: ☐

Submit for ERI
Return to Main Menu

Report

Output Report

HERS Index	with Adjusted Factor	
	w/o Adjusted Factor	
Reference Home End Use Loads (RUEL)	RUEL_rheating (MBTU)	
	RUEL_rcooling (MBTU)	
	RUEL_rDHW (MBTU)	
Reference Home End Use Energy Consumption (EC_r)	EC_rheating (MBTU)	
	EC_rcooling (MBTU)	
	EC_rDHW (MBTU)	
Rated Home End Use Energy consumption (EC_x)	EC_heating (MBTU)	
	EC_cooling (MBTU)	
	EC_DHW (MBTU)	
	nMEUL_LA (MBTU)	
IADSAVE (%)		

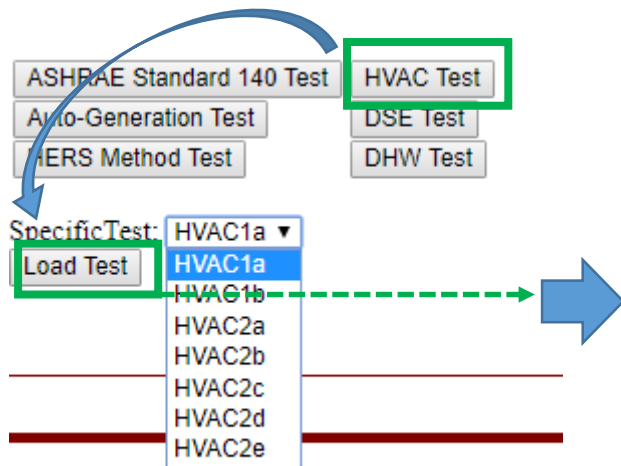
Clicking “Submit for HERS”, It will show up the results in the *output report* section.

Use the “Return to Main Menu” button to get back to the main menu. Do not use the navigation back arrow.

HVAC Test



Clicking the “HVAC Test”, the required case tests will show up in the *Specific Test* list



Clicking “Load Test”, It will show up all the input parameters up in the screen

Inputs

Imported Values - Rated House

Location

Project in Texas
Out of Texas City

General

Number of Bedrooms: 3
Window SHGC: 0.670
Window U-factor: 1.039
Door U-factor: 1.039
Wall Cavity Insulation: R-11.00
Wall Continuous Insulation: R-11.32
Stud Type: 2 x 4
Orientation: South
Exterior Finish: Wood Siding

Roof

Cladding Type: Composite Shingle
Radiant Barrier: ☐
Sealed Attic: ☐
Roof Insulation: R-19.00
Attic Area (sq. ft.): 1539.00

Floors & Walls

1st floor Front Back length (ft): 87.00
1st floor Front Window Area (sq. ft.): 90.00
1st floor Back Window Area (sq. ft.): 90.00
1st floor Left Right length (ft): 27.00
1st floor Left Window Area (sq. ft.): 45.00
1st floor Right Window Area (sq. ft.): 45.00
1st floor Average Wall height (ft): 8.00
1st Floor Conditioned floor area (sq. ft.): 1539.00

Has 2nd Floor: ☐

Foundation & Basement

Foundation Type: Raised Floor
Floor Insulation: 11.00
Height of basement/crawlspace wall above ground (ft): 0.0100
Height of basement/crawlspace wall underground (ft): 8.8330

Duct Test

Ducts Tested: ☐

Tests

Blower Door Test (ACH50): 5.00
No Cooling: ☐

Heating

Heating Type: Heat Pump
Heating Efficiency (AFUE HSPF): 8.00
Heating Capacity (Btu/hour): 88936

Cooling

A/C SEER: 10
A/C Tonnage: 3

DHW

Water Heater Type: Natural Gas
Water Heater Energy Factor: 0.68
Water Heater Tank size (gal): 40
Drain Water Heat Recovery: ☐
Recirculation System: ☐
Pipe Length: 88.50
Pipe Insulation: 0.00
Low Flow Water Heater: ☐

Mechanical

Mechanical Ventilation Type: None

Appliance

Fuel Type of Range: Natural Gas
Fuel Type of Dryer: Natural Gas

Clothes Washer

Dollar Per Therm: 0.58
AGC: 23.00
Capacity: 2.8700
Dollar Per kWh: 0.0800
LER: 704.00

Dishwasher

Energy Factor: 0.48
Capacity: 12

Lighting

Percent High Efficiency Interior Lighting: 75
Percent High Efficiency exterior Lighting: 75
Programmable Thermostat: ☐

Report

Output Report

BEPU Cooling Energy (KWH)
BEPU Heating energy (KWH/THERM)
SS-M Fan Cooling (KWH)
SS-M Fan heating (KWH)
SS-A Cooling Load (MBTU)
SS-A Heating Load (MBTU)
BEPU DHW Energy (THERMS)
Recirculation Pump Energy (KWH/YR)

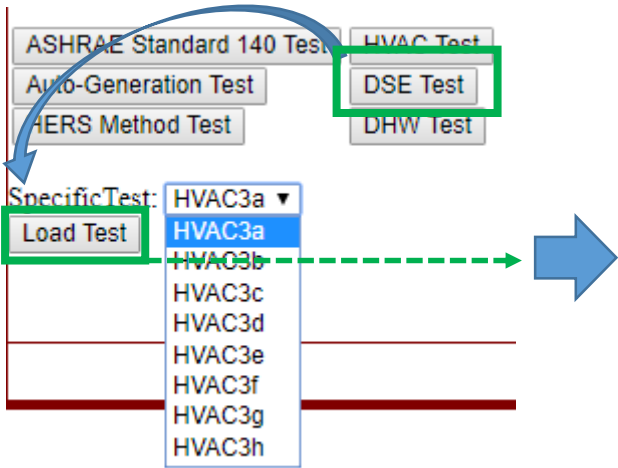
Clicking “Submit Single Run”, It will show up the results in the *output report* section.

Use the “Return to Main Menu” button to get back to the main menu. Do not use the navigation back arrow.

DSE Test



Clicking the “DSE Test”, the required case tests will show up in the *Specific Test* list



Clicking “Load Test”,
It will show up all the input parameters up
in the screen

Inputs

Imported Values - Rated House

Location

Project in Texas
Out of Texas City

Colorado Springs, CO

General

Number of Bedrooms: 3
Window SHGC: 0.670
Window U-factor: 1.039
Door U-factor: 1.039
Wall Cavity Insulation: R-11.00
Wall Continuous Insulation: R-11.32
Stud Type: 2 x 4
Orientation: South
Exterior Finish: Wood Siding

Roof

Cladding Type: Composite Shingle
Radiant Barrier: ☐
Sealed Attic: ☐
Roof Insulation: R-19.00
Attic Area (sq. ft.): 1539.00

Floors & Walls

1st floor Front Back length (ft): 37.00
1st floor Front Window Area (sq. ft.): 90.00
1st floor Back Window Area (sq. ft.): 90.00
1st floor Left Right length (ft): 27.00
1st floor Left Window Area (sq. ft.): 45.00
1st floor Right Window Area (sq. ft.): 45.00
1st floor Average Wall height (ft): 8.00
1st Floor Conditioned floor area (sq. ft.): 1539.00

Has 2nd Floor: ☐

Foundation & Basement

Foundation Type: Raised Floor
Floor Insulation: R-11.00
Height of basement/crawlspace wall above ground (ft): 0.0100
Height of basement/crawlspace wall underground (ft): 8.6830

Duct Test

Ducts Tested: ☐

Tests

Blower Door Test (ACH50): 5.00
No Cooling: ☐

Heating

Heating Type: Heat Pump
Heating Efficiency (AFUE HSPF): 8.00
Heating Capacity (Btu/hour): 36906

Cooling

A/C SEER: 10
A/C Tonnage: 3

DHW

Water Heater Type: Natural Gas
Water Heater Energy Factor: 0.68
Water Heater Tank size (gal): 40
Drain Water Heat Recovery: ☐
Recirculation System: ☐
Pipe Length: 88.50
Pipe Insulation: 0.00

Low Flow Water Heater: ☐

Mechanical Ventilation Type: None

Appliance

Fuel Type of Range: Natural Gas
Fuel Type of Dryer: Natural Gas

Clothes Washer

Dollar Per Therm: 0.58
AGC: 23.00
Capacity: 2.8700
Dollar Per kWh: 0.0800
LER: 704.00

Dishwasher

Energy Factor: 0.48
Capacity: 12

Lighting

Percent High Efficiency Interior Lighting: 75
Percent High Efficiency exterior Lighting: 75
Programmable Thermostat: ☐

Submit Single Run
Return to Main Menu

Report

Output Report

BEPU Cooling Energy (KWH)
BEPU Heating energy (KWH/THERM)
SS-M Fan Cooling (KWH)
SS-M Fan heating (KWH)
SS-A Cooling Load (MBTU)
SS-A Heating Load (MBTU)
BEPU DHW Energy (THERMS)
Recirculation Pump Energy (KWH/YR)

Clicking “Submit Single Run”,
It will show up the results in the *output report* section.

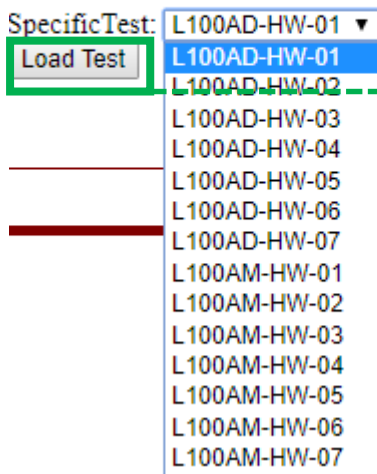
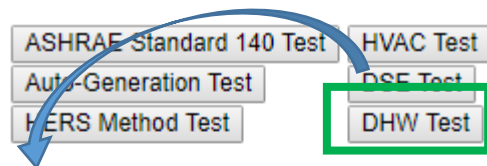
Use the “Return to Main Menu” button to get back to
the main menu. Do not use the navigation back arrow.



DHW Test



Clicking the “DHW Test”, the required case tests will show up in the *Specific Test* list



Clicking “Load Test”,
It will show up all the input parameters up
in the screen

Inputs

Imported Values - Rated House

Location
Project in Texas
Out of Texas City
Colorado Springs, CO

General
Number of Bedrooms
Window SHGC
Window U-factor
Door U-factor
Wall Cavity Insulation
Wall Continuous Insulation
Stud Type
Orientation
Exterior Finish

Roof
Cladding Type
Radiant Barrier
Sealed Attic
Roof Insulation
Attic Area (sq. ft.)

Floors & Walls
1st floor Front/Back length (ft)
1st floor Front Window Area (sq. ft.)
1st floor Back Window Area (sq. ft.)
1st floor Left/Right length (ft)
1st floor Left Window Area (sq. ft.)
1st floor Right Window Area (sq. ft.)
1st floor Average Wall height (ft)
1st Floor Conditioned floor area (sq. ft.)
Has 2nd Floor

Foundation & Basement
Foundation Type
Floor Insulation
Height of basement/crawlspace wall above ground (ft)
Height of basement/crawlspace wall underground (ft)

Duct Test
Ducts Tested
Tests
Blower Door Test (ACH50)
No Cooling

Heating
Heating Type
Heating Efficiency (AFUE HSPF)
Heating Capacity (Btu/hour)

Cooling
A/C SEER
A/C Tonnage

DHW
Water Heater Type
Water Heater Energy Factor
Water Heater Tank size (gal)
Drain Water Heat Recovery
Recirculation System
Pipe Length
Pipe Insulation
Low Flow Water Heater

Mechanical
Mechanical Ventilation Type

Appliance
Fuel Type of Range
Fuel Type of Dryer
Clothes Washer
Doller Per Therm
AGC
Capacity
Doller Per kWh
LER
Dishwasher
Energy Factor
Capacity
Lighting
Percent High Efficiency Interior Lighting
Percent High Efficiency exterior Lighting
Programmable Thermostat

Report

Output Report

BEPU Cooling Energy (KWH)
BEPU Heating energy (KWH/THERM)
SS-M Fan Cooling (KWH)
SS-M Fan heating (KWH)
SS-A Cooling Load (MBTU)
SS-A Heating Load (MBTU)
BEPU DHW Energy (THERMS)
Recirculation Pump Energy (KWH/YR)

Clicking “Submit Single Run”,
It will show up the results in the *output report* section.

Use the “Return to Main Menu” button to get back to
the main menu. Do not use the navigation back arrow.

