Affordable Multifamily Program Upstate

CLARITY COMPASS TOOL

Tool Training Webinar Series
December 9, 2025

NEW YORK STATE | NYSERDA

Agenda

- Housekeeping
- Introduction to the Affordable Multifamily Program Upstate
- Energy Assessment & Scoping Tool (EAST) training
- Questions and Answers
- What's Next

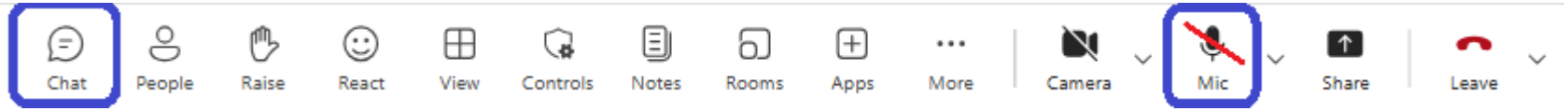
Housekeeping

Today's meeting is being recorded and will be made available along with a copy of the slide deck.

You have all been muted. Please remain muted unless we call on you during our Q&A session at the end of the presentation. For those of you calling in through the phone, *6 can be used to toggle mute on/off.

Questions will be addressed at the end of the presentation. In the event we run out of time, unanswered questions will be reviewed, and responses will be circulated after the call.

Please use the CHAT function to ask questions throughout the presentation. Referencing the slide # in your question may be helpful. For those joining via phone, *5 can be used to toggle raising/lowering your hand. Please wait to be called upon to share your question.



ANNOUNCEMENT

PLEASE NOTE:

The December 11, 2025, **AMP Up** Tool Training Webinar Series for the **EAST Tool** is being rescheduled. Please keep an eye out for an updated invitation. We apologize for any inconvenience this may cause.

Affordable Multifamily Program Upstate (AMP Up)

Presented by: Pamela Miller
Sr. Project Manager
NYSERDA Multifamily Team

LMI Multifamily Portfolio

2016-2025: Clean Energy Fund Portfolio

Utilities (Statewide)
Affordable Multifamily Energy Efficiency Program (AMEEP)
Upstate applications closed on 10/31/25
Downstate will continue

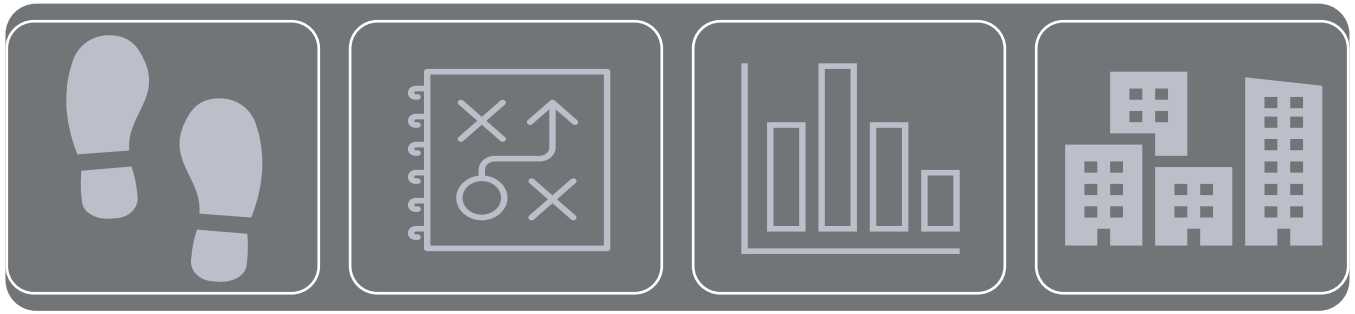
2026-2030 LMI Energy Efficiency/Building Electrification Portfolio (EE/BE)

Con Edison & National Grid (Downstate)
Affordable Multifamily Energy Efficiency Program (AMEEP)

NYSERDA (Upstate)
AMP Up
Launch Date Q1 2026

Program Goals

Based on Stakeholder feedback, the Multifamily Team at NYSERDA has the following program goals:



Streamline the customer journey	Provide flexibility to meet owners where they are at	Maintain tenant affordability	Take an efficiency first approach

Intervention Strategy

Core program at launch

Mid-cycle

Regulated projects with financing and regulatory agreements from housing agencies; mid-financing term

Naturally occurring affordable

Very common in smaller multifamily buildings

Existing Networks

- MREP
- Owner's Rep
- Clean Energy Hubs
- Community Based Organizations

Offerings

- Technical assistance and end-use incentives
- Concierge service to shepherd projects
- Resiliency enhancement incentives

Support for difficult to develop DAC pipelines

PHA Pathway

- Offers robust technical assistance
- Participation in Facilitated Workshops
- Assist with funding
- Offer Concierge service for application submission and project management

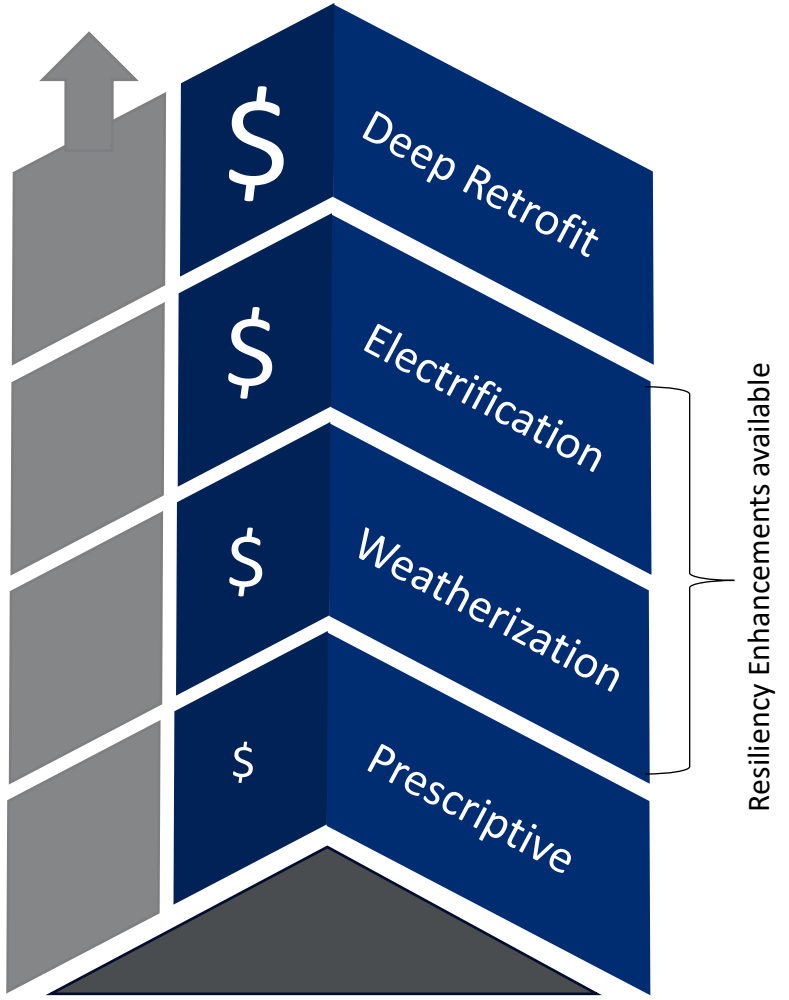
Launched August 2025

Program details are subject to change before official launch.

Affordable Multifamily Program Upstate (AMP UP)

Launching in 2026

- Expected to offer upstate multifamily buildings with incentives for energy efficiency and building electrification upgrades
- Program will feature a streamlined customer journey with embedded technical assistance and will offer a concierge service
    - For the purposes of this program, technical assistance is defined as the building assessment or audit, whichever is required to comply with the program requirements.



Program details are subject to change before official launch.

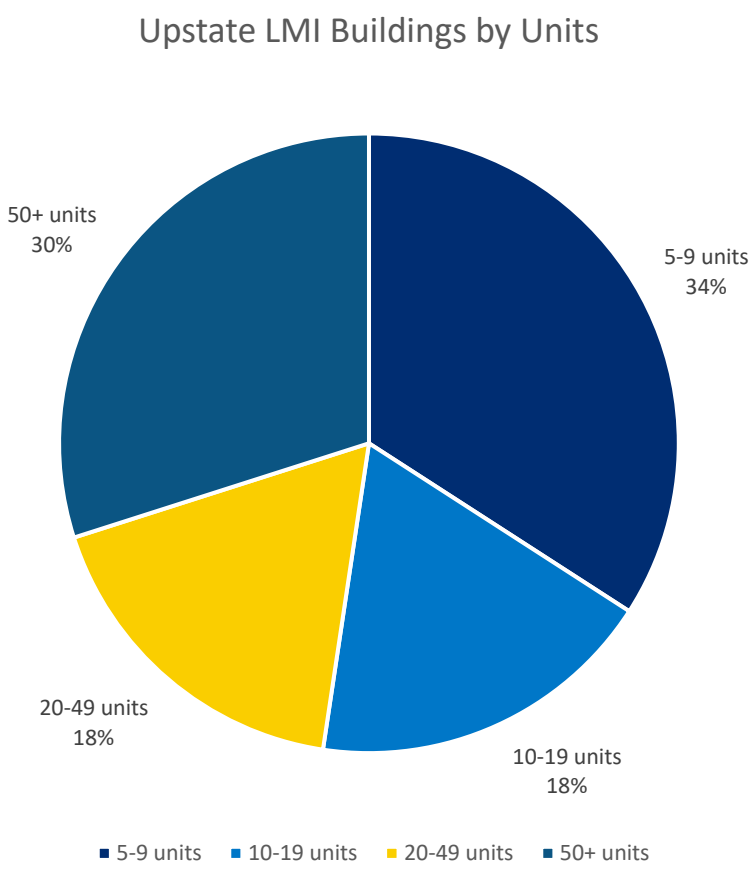
Program Eligibility

- **Must be in the Upstate region of NYS**
    - Upstate is defined as any property *north of* Con Edison service territory
- **Must pay into the System Benefits Charge on either electric or gas utility bill**
- **Project must consist of one or more existing multifamily buildings that have been in operation for >12 months**
    - Mixed use buildings are allowed, but 50% of the GHSF must be residential or residentially associated.
- **Project must have a total of 5 or more units**
    - Any project with >150 units must receive prior approval to submitting application
- **Must meet LMI criteria**
    - For buildings up to 10 units: 50% or more of the building must be ≤ 80% AMI or SMI, whichever is higher
    - For buildings with 11+ units: 25% of the building must be ≤80%AMI or SMI, whichever is higher
- **Must use a MREP contractor or participate in Concierge Service**

Program details are subject to change before official launch.

Upstate LMI Multifamily – Building Stock Overview

~254K units



Small Building Obstacles:

- >50% of upstate LMI multifamily building stock has <20 units
- Small multifamily buildings are often below 3-stories
  - They typically need more technical support
  - They offer little economies of scale
  - They can be difficult to reach
- Contractors tend to focus on larger properties

Source: 2022 5-Year ACS Summary Table B25024
Projected number of buildings using midpoint estimate for building size provided in ranges of units

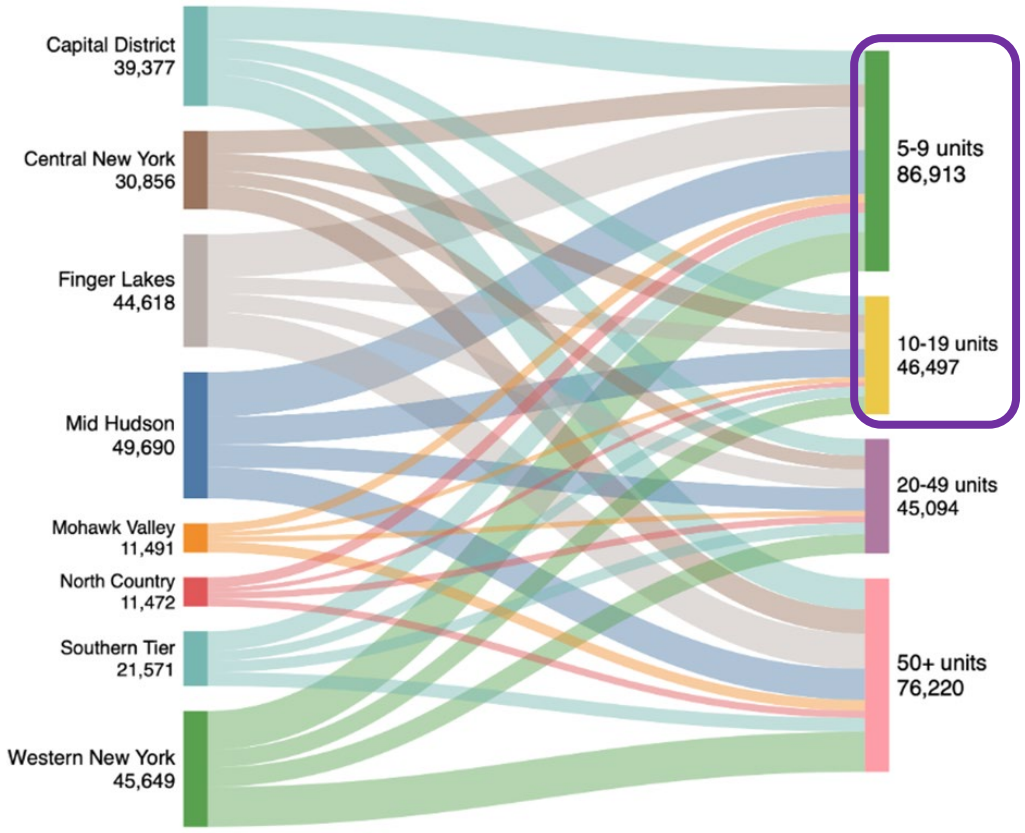
Program details are subject to change before official launch.

Solution to Handling Small Buildings

Low-Rise Pathway:

Better targeting and support for small multifamily buildings:

- Available for projects with 5-20 units and are 1-3 stories
- Utilize local actors to engage small building owners
  - Clean Energy Hubs
  - CBO's
- Provide Concierge Service for Support Services
- Streamlined alternative to modeling using Clarity Compass Tool
- **85%** Incentive Cost Cap (vs 70%)
- Greater portion of incentives in initial payment milestone



Program details are subject to change before official launch.

Participating Contractors

Complimentary Concierge Service

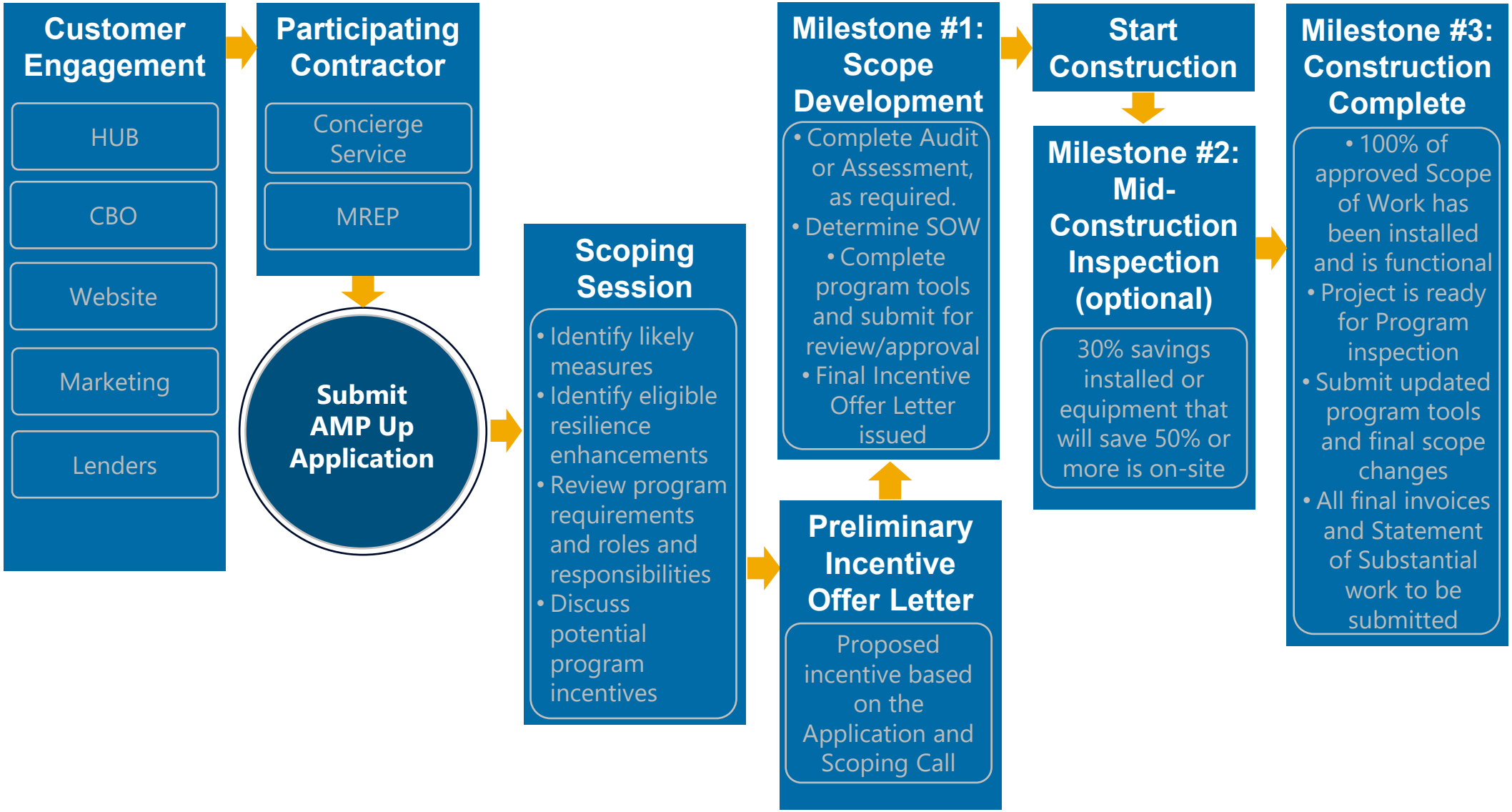
- Program Application and Compliance
- Building Assessment/Audit
- Project Scoping
- Capital Funding Guidance/Analysis
- Contractor Selection Support
- Construction Monitoring
- Project Close Out
- Services provided through Owner's Representative program offering, incentive caps may apply

MREP

- Program Application and Compliance
- Building Assessment/Audit (no cost to applicant)
- Project Scoping
- Construction Monitoring for program compliance
- Project Close Out

Program details are subject to change before official launch.

Customer Journey



Program details are subject to change before official launch.

Incentive Schedule

Incentive Category		Incentive	Milestone #1[4] (Scope Development)	Milestone #2 (Partial Construction – optional)	Milestone #3 (Construction Complete)
End-Use Incentives[1]	Prescriptive	$TBD/Unit	50% (5-20 units) or 25% (21+ units)	25% (5-20 units) or 40% (21+ units)	25% (5-20 units) or 35% (21+ units)
	Weatherization	$TBD/Unit			
	Electrification	$TBD/Unit			
	Deep Retrofit	$TBD/Unit			
Resiliency Enhancements[2]		Varies	n/a	n/a	100%
Technical Assistance[3]		Up to 100%	75% at Milestone #1 approval 25% at construction start		

1. End Use incentive cost caps are set at 85% for Low-Rise Pathway and 70% for all other projects.
2. Resiliency Enhancement incentives vary dependent on which resiliency options are selected. More information can be found in the Program Manual.
3. Technical Assistance costs count toward the overall project incentive cost cap.
4. Combined Milestone #1 incentives cannot exceed total end-use incentives.

Program details are subject to change before official launch.

Eligible Measures

Measure Category	Measure
Prescriptive	Occupancy Sensors Door Weatherstripping Low-Flow Showerheads Low-Flow Faucet Aerators Thermostatic Shower Restriction Valves DHW Pipe Insulation Room AC Refrigerators (w/Freezer) Thermostatic Radiator Valves Smart Thermostatic Radiator Enclosures Steam Trap Boiler/Furnace Tune-Up
Weatherization	Roof Insulation Attic Access Insulation Air-sealing Basement Insulation Heating & Cooling Pipe Insulation Wall Insulation Duct Sealing Duct Insulation Exterior Doors Window Replacement

Measure Category	Measure
Electrification	H&C Heat Pumps DHW Heat Pumps
Deep Retrofit	Advanced Ventilation with Heat Recovery Envelope Over-cladding
Resiliency Enhancements	H&C Heat Pump Floodproofing DHW Heat Pump Floodproofing Electrical Panel Elevation Electrification for Heat Vulnerable Population Hurricane Resistant Windows

Program details are subject to change before official launch.

Phased Scopes and Measure Stacking

2026: Prescriptive measures ($/DU)
- In unit direct installs (door sweeps, weather stripping, faucet aerators)

2027: Weatherization measures ($$/DU)
- Roof insulation
- Whole building air sealing
- Wall insulation

2030: Electrification measures ($$$/DU)
- Heat pump (space heating/cooling)
- Heat pump DWH

- Buildings allowed to enter **AMP Up** multiple times
- New scopes of work may be considered for a building for additional incentives
- A building cannot receive additional incentives for a scope of work previously completed for the same measure category

Comprehensive scope with layered incentive tiers

Prescriptive: $/DU + Weatherization: $$/DU + Electrification: $$$/DU = **Total Incentive award: $$$$$$/DU**

5-MINUTE BREAK

NEW YORK STATE | NYSERDA

Clarity Compass

TRAINING

For NYSERDA's AMP Up Contractor Network

12/09/25

NEW YORK STATE | NYSERDA

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Agenda

1 The Tool Intent

2 Modeling Approach

3 The Workflow

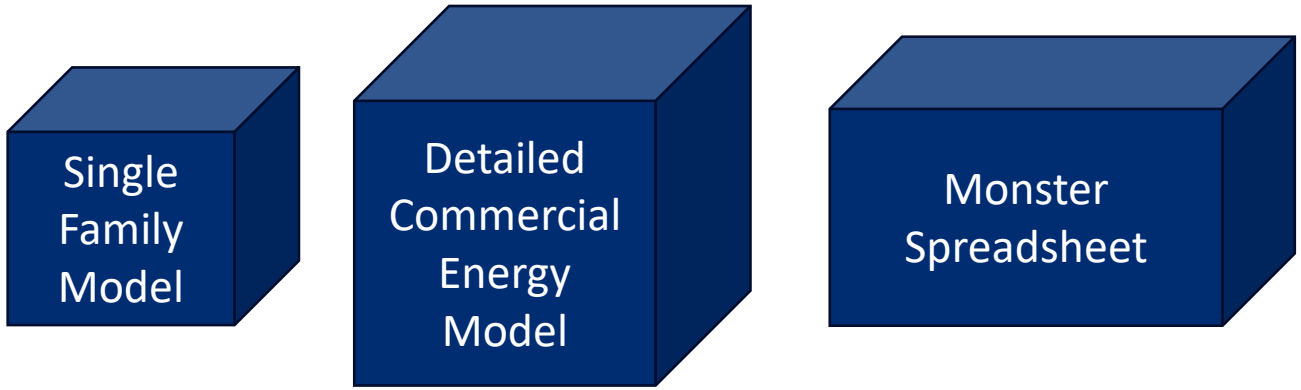
4 Further Help

1

The Tool Intent

Context

Multifamily modeling efforts introduce complexity overhead because they tend to fall in a non-fit box.



Clarity Compass “The Tool” Goals

PSD COMPASS

- To be **an accessible cross-collaboration platform for** contractors, engineers, and program directors, to develop cost effective **electrification and deep retrofit projects** leveraging standardized performance simulation.
- To provide a reporting stack that allows direct analysis, use in proposals, Assessment QA/truing-up, program submissions, and enhanced communication with owners and tenants.

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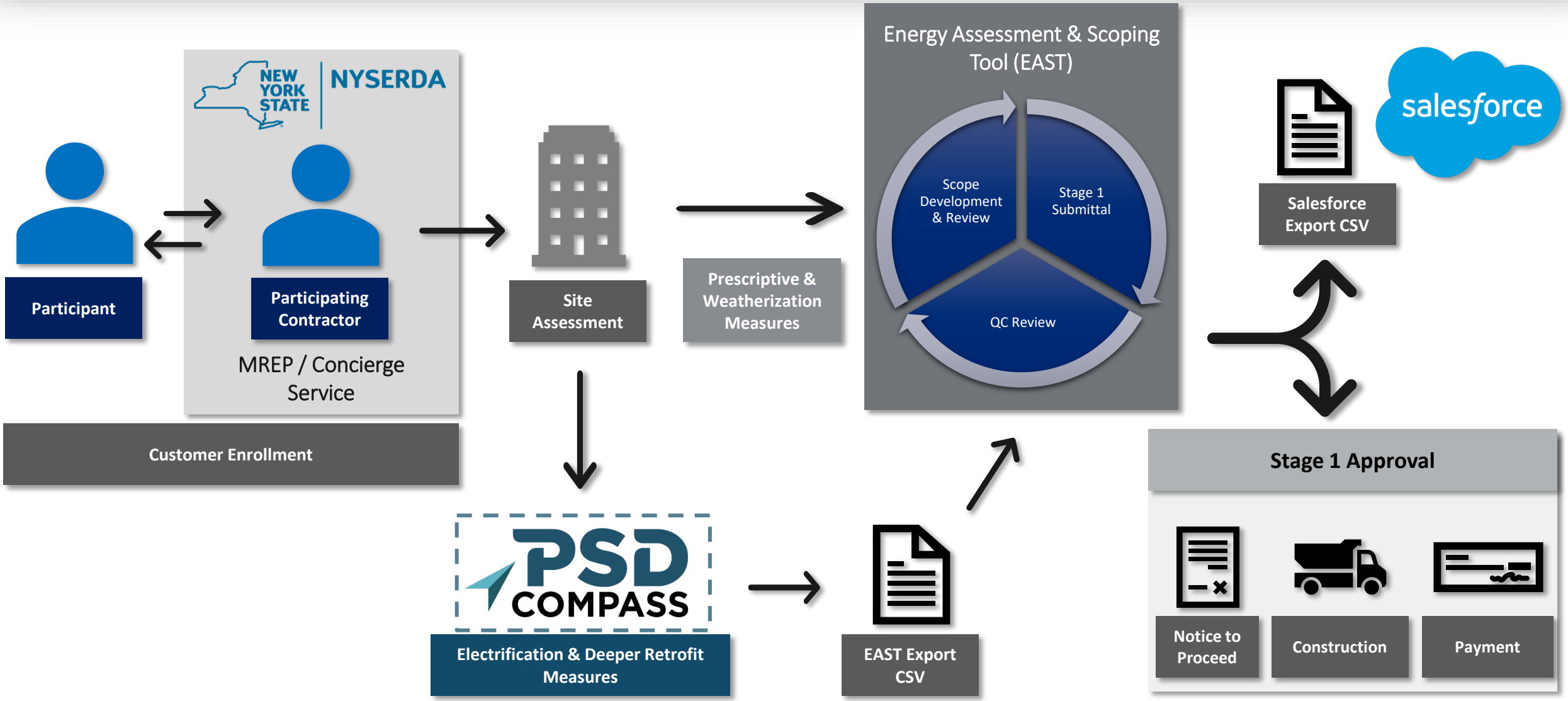
Clarity Compass Integration with EAST

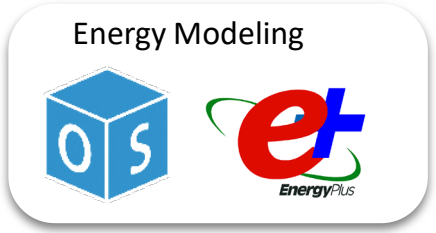


2

Modeling Approach

An Openstudio-HPXML based simulation

Uses Standardized Residential ***EnergyPlus*** models for the Small Multifamily (SMF) use case, with validated inputs, and runs hourly for all building systems.



The tool does not take a full 3D model; instead, it reduces 3D geometry into simplified inputs like areas, orientations, exposed perimeters, floor counts, and adjacency conditions at the **Unit Type** level, then computes loads and savings and **rolls** them **up** to the **Whole-Building** level. Resulting in increased speed, while preserving the physics that drive thermal loads.

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A simple 2x2 workflow to define scope

2 Levels in Existing Building Setup

Whole Building

Unit Types

2 Improvement Categories

Envelope Packages

Equipment & Appliances

A simple 2x2 workflow to define scope

Whole Building

AKA “The site”, it describes the overall features: size, form, foundations, and measures that affect all the Unit Types. It captures context attributes and shared systems/measures.

Envelope Packages

Predefined sets of improvements to compare vs the “Existing Building” , tiered 1- 3. They scope air & duct sealing and insulation (rim joist, ducts, foundations, walls, windows, doors) for Wood or Masonry framed.

Unit Types

Groups of tenant spaces or common areas that share the same starting conditions (space use, orientation and envelope exposure) and receive the same improvements, resulting in scalable savings.

Equipment & Appliances

Optional add on Improvements applied across the different envelope packages and applicable Unit Types. They scope HVAC Heat-Pumps, DHW, Kitchen, laundry, appliances, ventilation, lighting, and more.

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Whole Building

Site and Envelope

- Building footprint and height
- Predominant floor-ceiling height
- Site context shading
- Air tightness
- Type of attic and foundation
- Type of wall construction
- Window-to-wall ratio
- Predominant door and window types
- % Area Already Improved for all envelope assemblies

Systems & Appliances

- Primary Heating and Cooling system types and fuel sources.
- Thermostat schedule type.
- Duct system type and state.
- Hot water usage, system type, distribution, fuel source.
- Existing kitchen and laundry appliance types and fuel source.

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Unit Types

Minimal prototypical pieces that will characterize the model. Choose from:

- *Above Grade Living Space*
- *Below Grade Living Space*
- *Central Laundry*
- *Common Area*
- *Corridor/Stairs*
- *Living Unit with Attic Knee walls.*

Required Inputs

- Unit-Type specific Inputs
- # of Units (of that type)
- # BedRs and BathRs
- Foundation connection
- Horizontal (floor & ceiling) areas by connection type
- Exposed perimeter by orientation
- Floor-ceiling height
  - # of Floors Above Grade
  - Unit-Type Specific height

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Envelope Packages

Predefined tiered (incrementally enhanced) bundles of measures, ordered in a load-reduction priority.

The bundles are not an “all or nothing”. Scope can be adjusted through allocation and selection of given inputs.

BENEFITS:

- Enabled multi-scenario comparison compare vs the “Existing Building”.
- Increased ability to implement automated Input and Output QA.

Envelope Packages for Wood-Framed Buildings

Optional Measures

May or may not Include	Input Type	Package 1	Package 2	Package 3
Air Sealing	SA	✓ (Tier 1)	✓ (Tier 2)	✓ (Tier 3)
Duct Leakage & Insulation*	SA	✓	✓	✓
Attic Surfaces Insulation	AA	✓	✓	✓
Roof Insulation	AA	✓	✓	✓
Rim Joist Insulation	SA	✓	✓	✓
Walls Insulation	AA		✓	✓
Foundations Insulation	AA		✓	✓
Windows Improvement	AA / SA			✓
Doors Improvement	AA / SA			✓

Load Reduction →

AA: Adjusted by Allocation (area, parameter)
SA: Adjuste by Selection (options)

* Only occurs when new HVAC units are added, i.e. improvement to existing air distribution systems maintaining existing HVAC equipment is out of scope.

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Envelope Packages for Masonry-Framed Buildings

Optional Measures

May or may not Include	Input Type	Package 1	Package 2	Package 3
Air Sealing	SA	✓ (Tier 1)	✓ (Tier 2)	✓ (Tier 3)
Duct Leakage & Insulation*	SA	✓	✓	✓
Attic Surfaces Insulation	AA	✓	✓	✓
Roof Insulation	AA	✓	✓	✓
Rim Joist Insulation	SA	✓	✓	✓
Walls Insulation	AA			✓
Foundations Insulation	AA		✓	✓
Windows Improvement	AA / SA		✓	✓
Doors Improvement	AA / SA		✓	✓

AA: Adjusted by Allocation (area, parameter)
SA: Adjuste by Selection (options)

Load Reduction →

* Only occurs when new HVAC units are added, i.e. improvement to existing air distribution systems maintaining existing HVAC equipment is out of scope.

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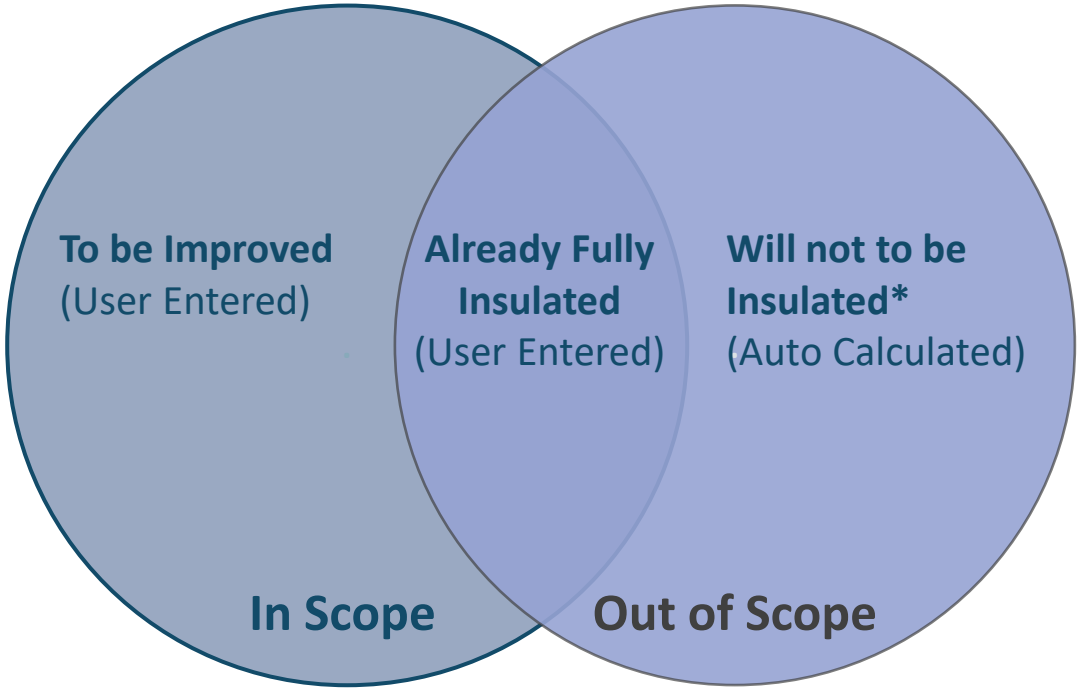
Envelope Packages

% Area allocation

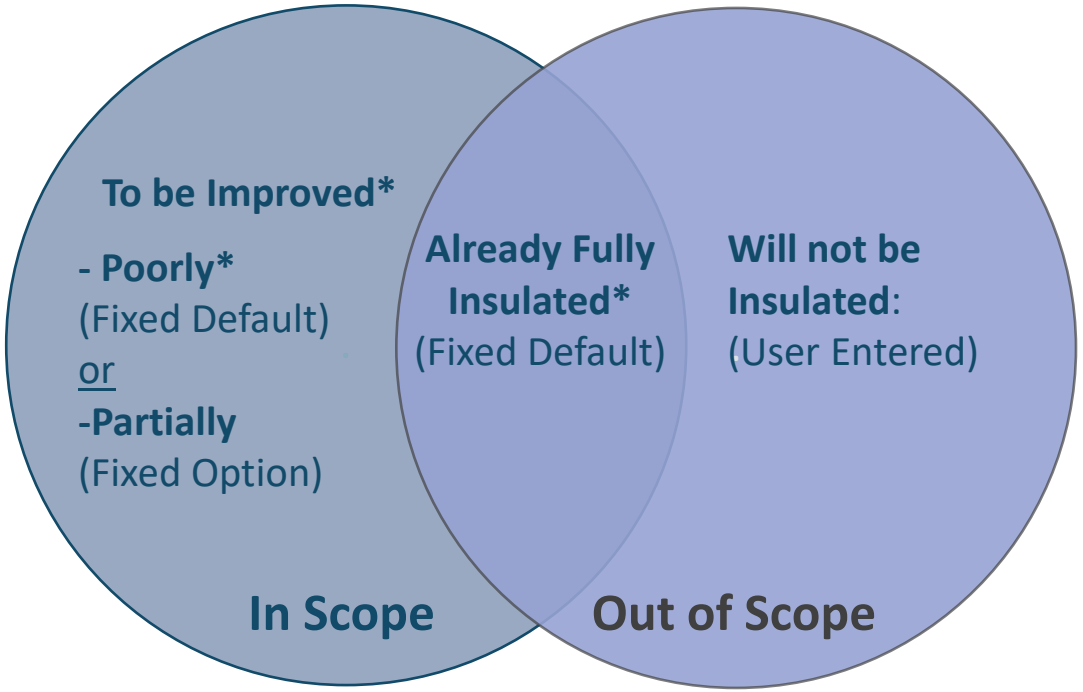
For each applicable Surface Type



*Field is unexposed to the user in Compass

R-Value allocation

For each applicable Surface Type



*Field is unexposed to the user in Compass

Equipment & Appliances

If selected by the user, any of these measures are applied to all three “Packages”, providing a more informed comparison, regardless what the scope and selected package is. This enables the assessment to show the impact and benefit across different building envelope scenarios.

*Currently, Ventilation measures must only be used and adjusted in line with requirements for Over-Cladding, which cover:

- AHRI HRVs
- Air Balance
- Continuous Kitchen & Exhaust Airflow

Whole Building

Hot Water

- Install HP Water Heater
- Install Low Flow Aerators
- Install Low Flow Showerheads

Kitchen

- Replace Fridge

Ventilation*

- Install/Replace Mech Ventilation
- Energy Recovery Ventilator

Unit Type

HVAC

- Install Heat Pump

Complete list of available measures

at Whole Building

Envelope

- Air Sealing
- Duct Leakage & Insulation*
- Attic Surfaces Insulation
- Roof Insulation
- Rim Joist Insulation
- Walls Insulation
- Foundations Insulation

Equipment & Appliances

Hot Water
- Install HP Water Heater
- Install Low Flow Aerators
- Install Low Flow Showerheads

Kitchen
- Replace Fridge

Ventilation*
- Install/Replace Mech Ventilation
- Energy Recovery Ventilator

at Unit Type

- Windows Improvement
- Doors Improvement

HVAC
- Install Heat Pump

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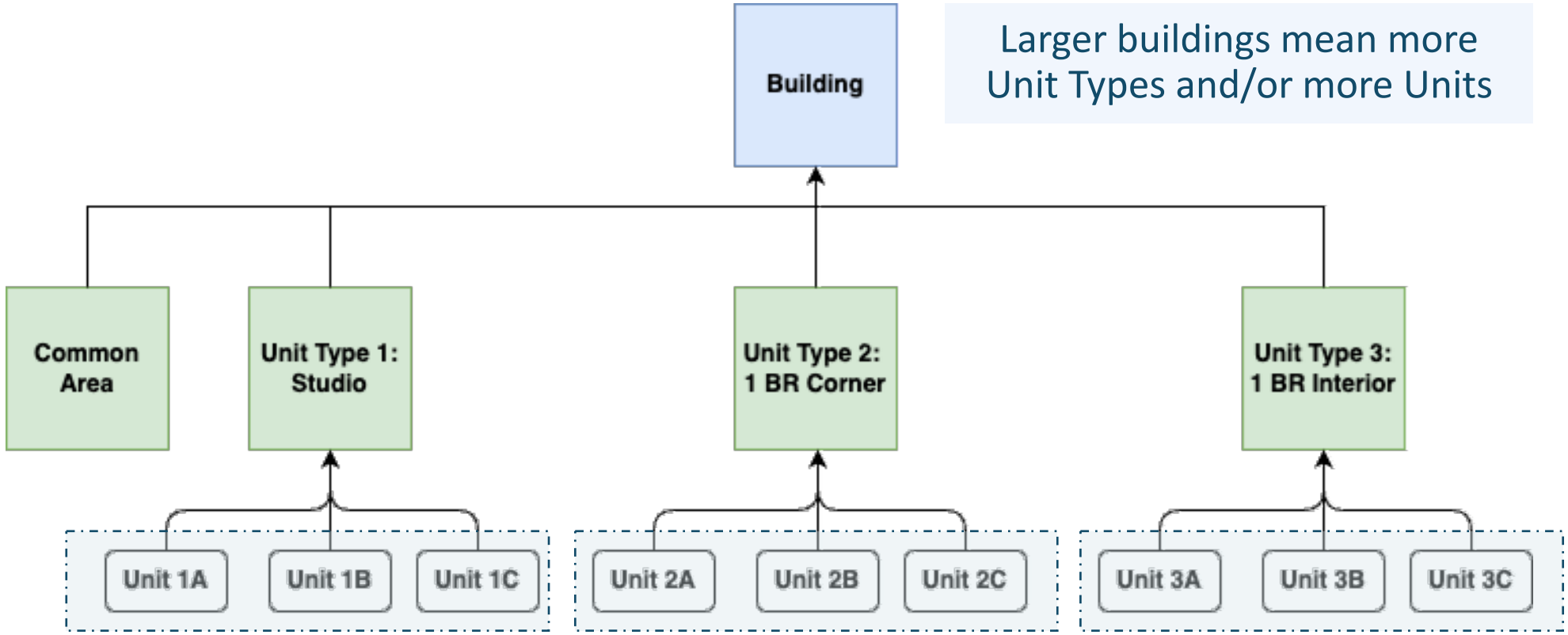
Unit Type Schematization



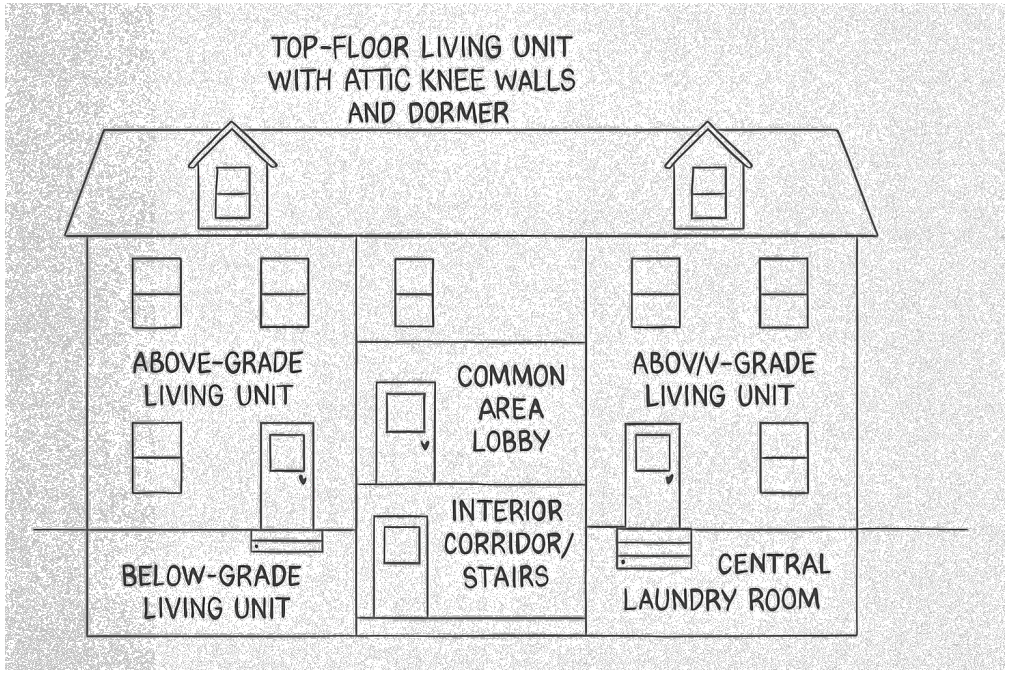
Larger buildings mean more Unit Types and/or more Units

- Projects, Improvements and Savings apply equally for these

Combining Unit Types

Create different geometrically structured, distributed and attributed multifamily buildings.

Apartments: 2–N stories with/without corridor, with/without attic (vented/unvented), with/without Attic living space, with/without Below Grade space.



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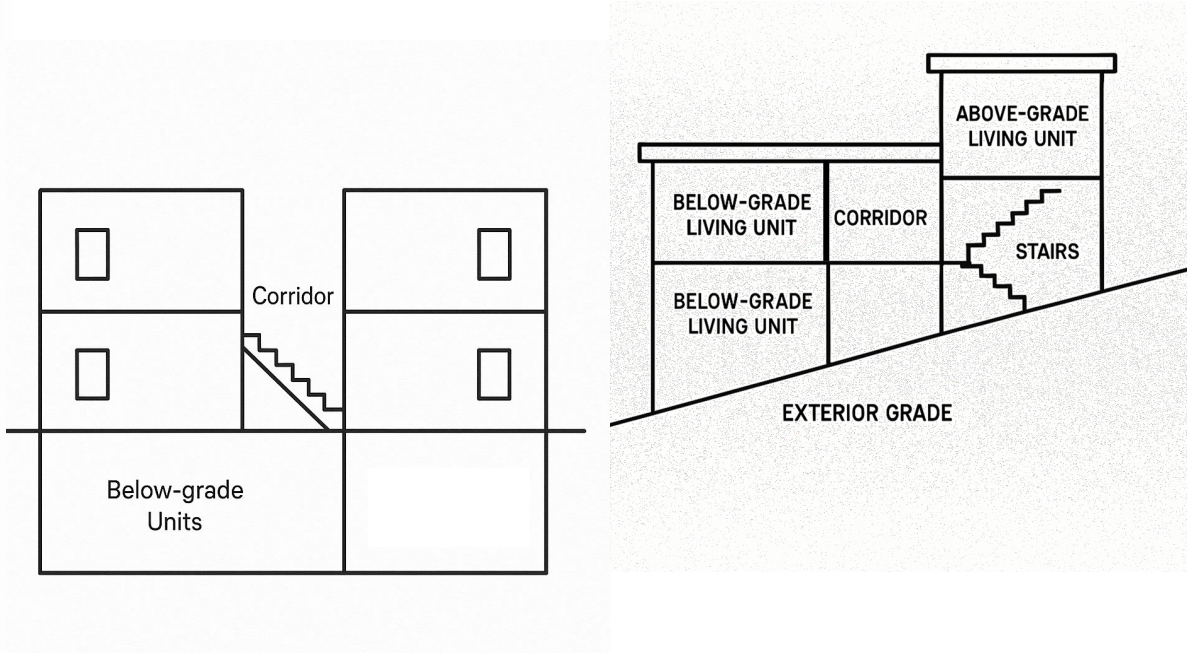
Combining Unit Types

Create different geometrically structured, distributed and attributed multifamily buildings.

Split-Grade or Walkout Basements



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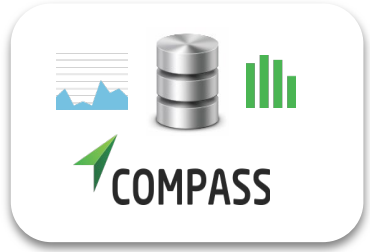
The Workflow



User Types

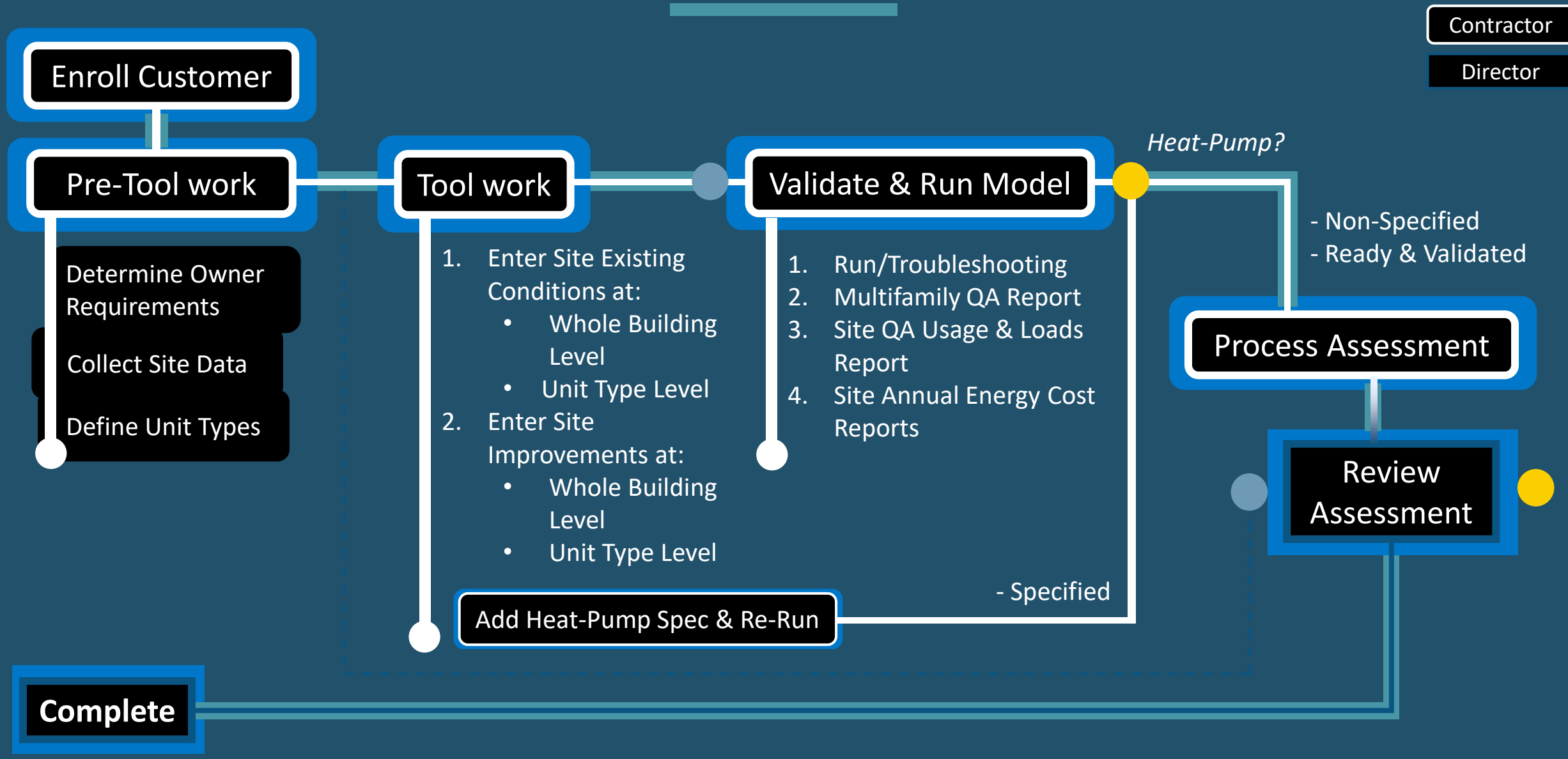
Contractor / Trade Ally

- Can edit data in Compass.
- Can run/calculate savings .
- Can generate building and project level reports.
- Can submit projects for review.
- Can view/access assessment post-Incentive.

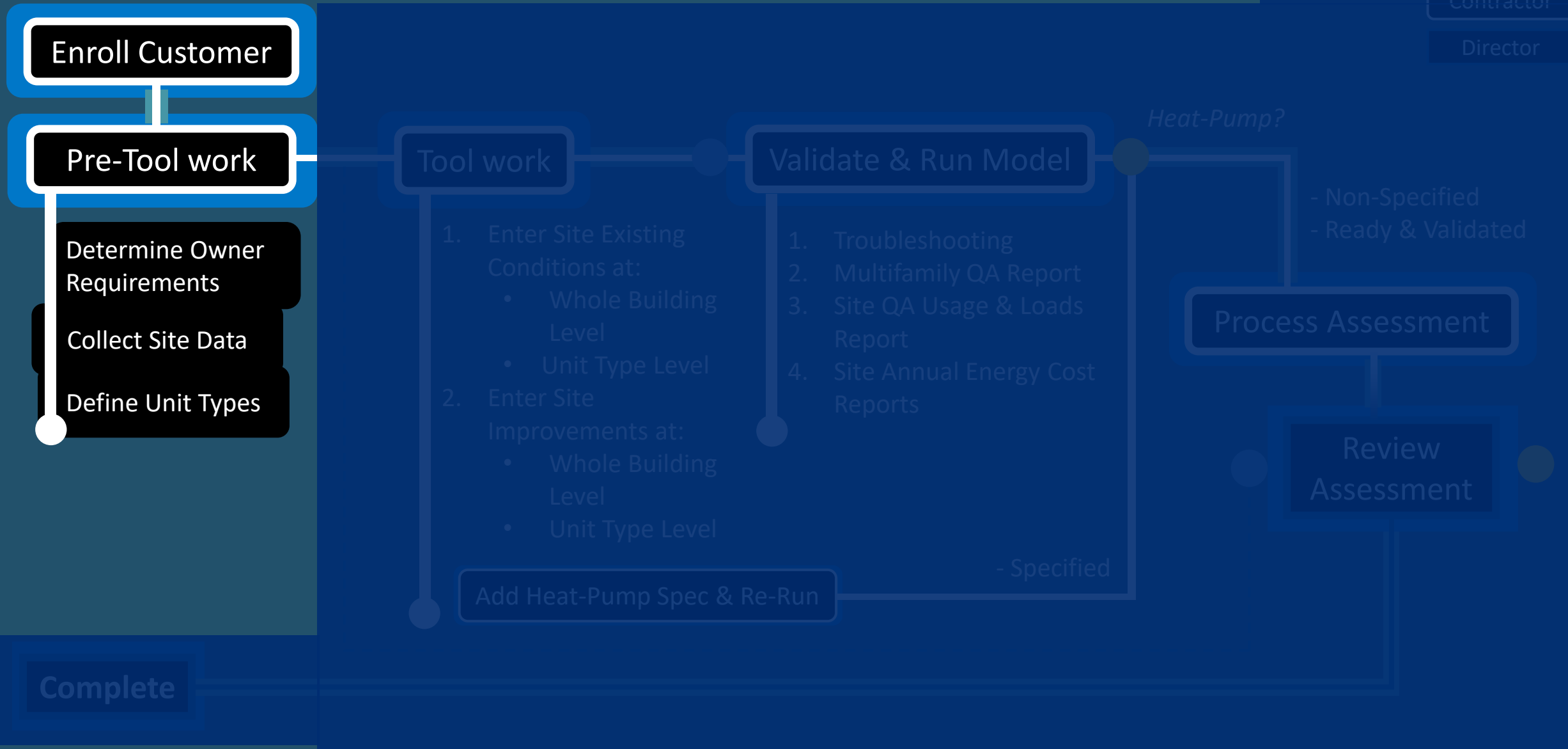
Program Director / NYSERDA

- Can edit data in Compass.
- Can run/calculate savings.
- Can generate building and project level reports.
- Can approve/reject submit projects.

Assessment-Install Cycle



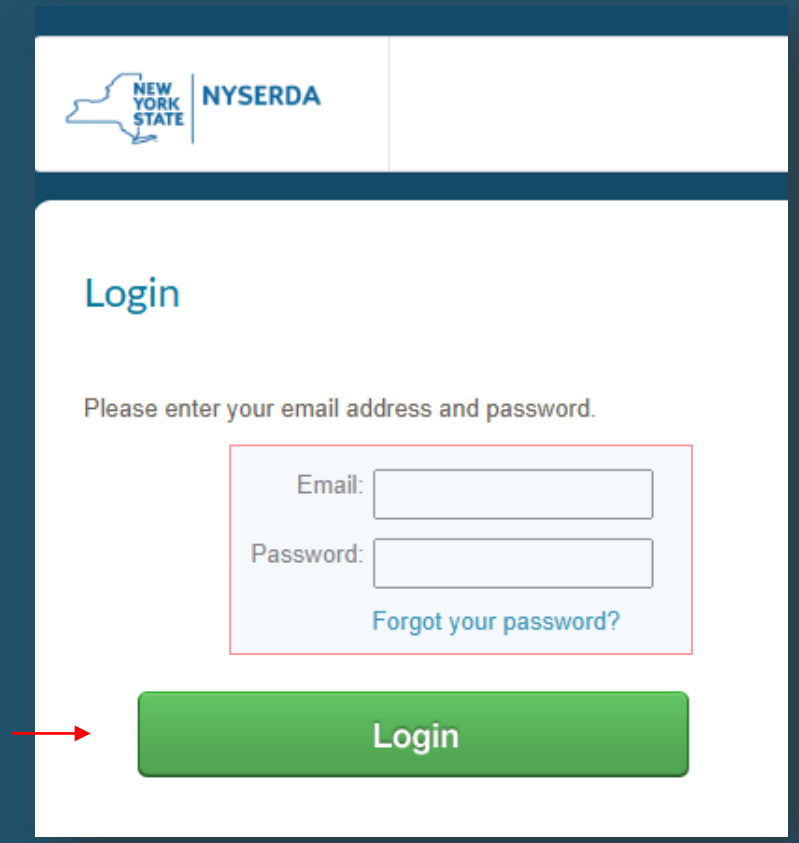
Assessment-Install Cycle



Enroll Customer

Go to the Compass Website and enter the user credentials provided to you by the **Director**

- https://review-hpr.buildingperformance.com/

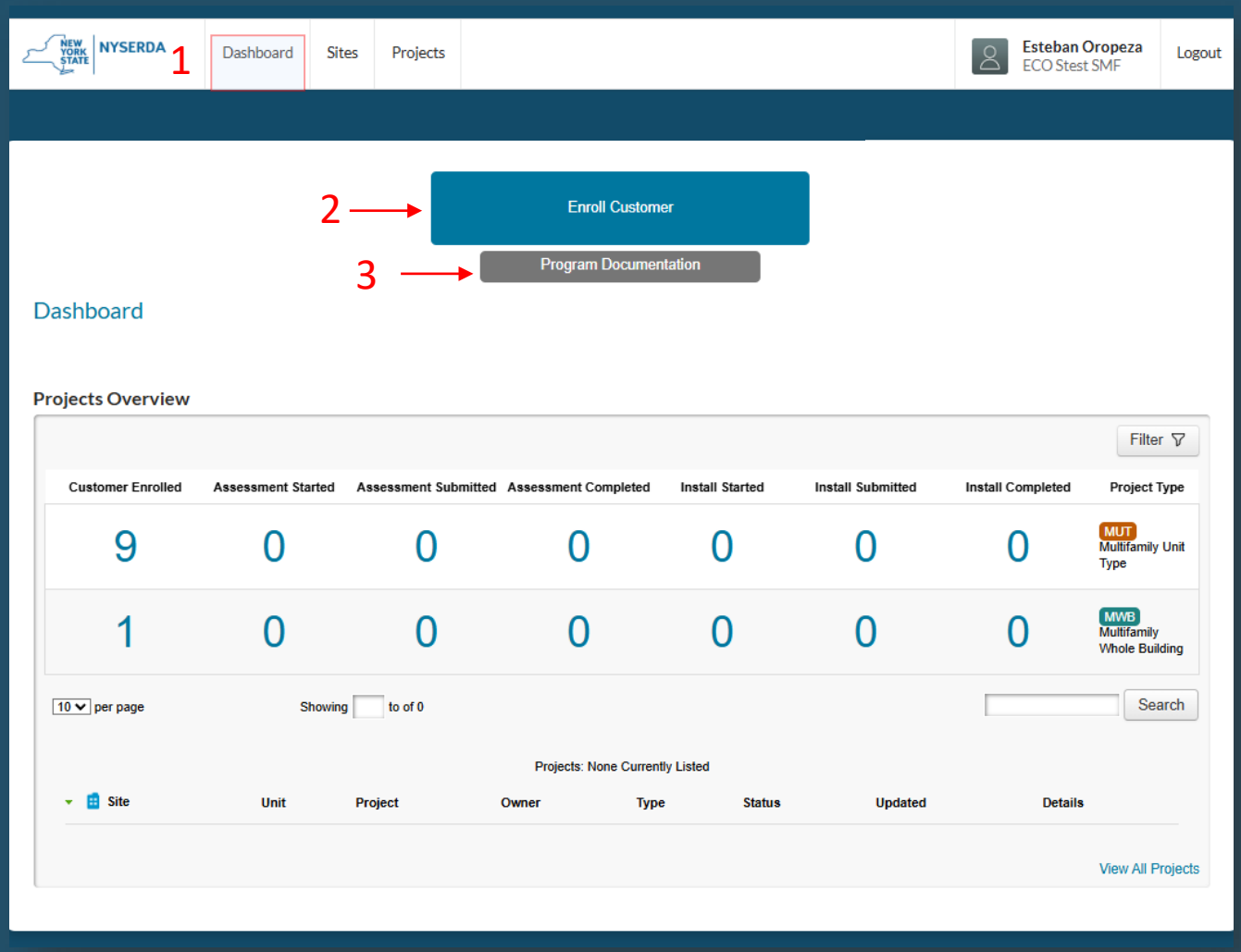


Enroll Customer

1. Go to the Dashboard
2. Click on “Enroll Customer”
3. You can view useful documents in “Program Documentation”

This page shows the current stage of all “Projects” of customers you have enrolled or are working with.

A Project aka Job, is neither a Building nor a “Site”, but the actual set of retrofit Improvements to be applied at Unit Type Level.

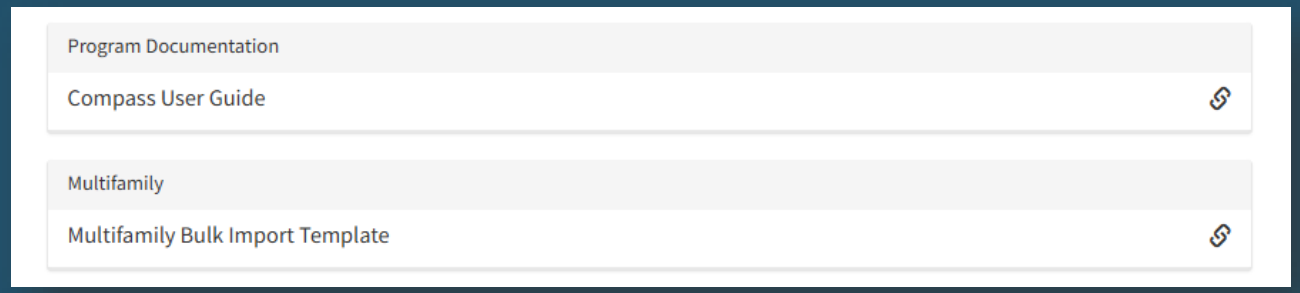


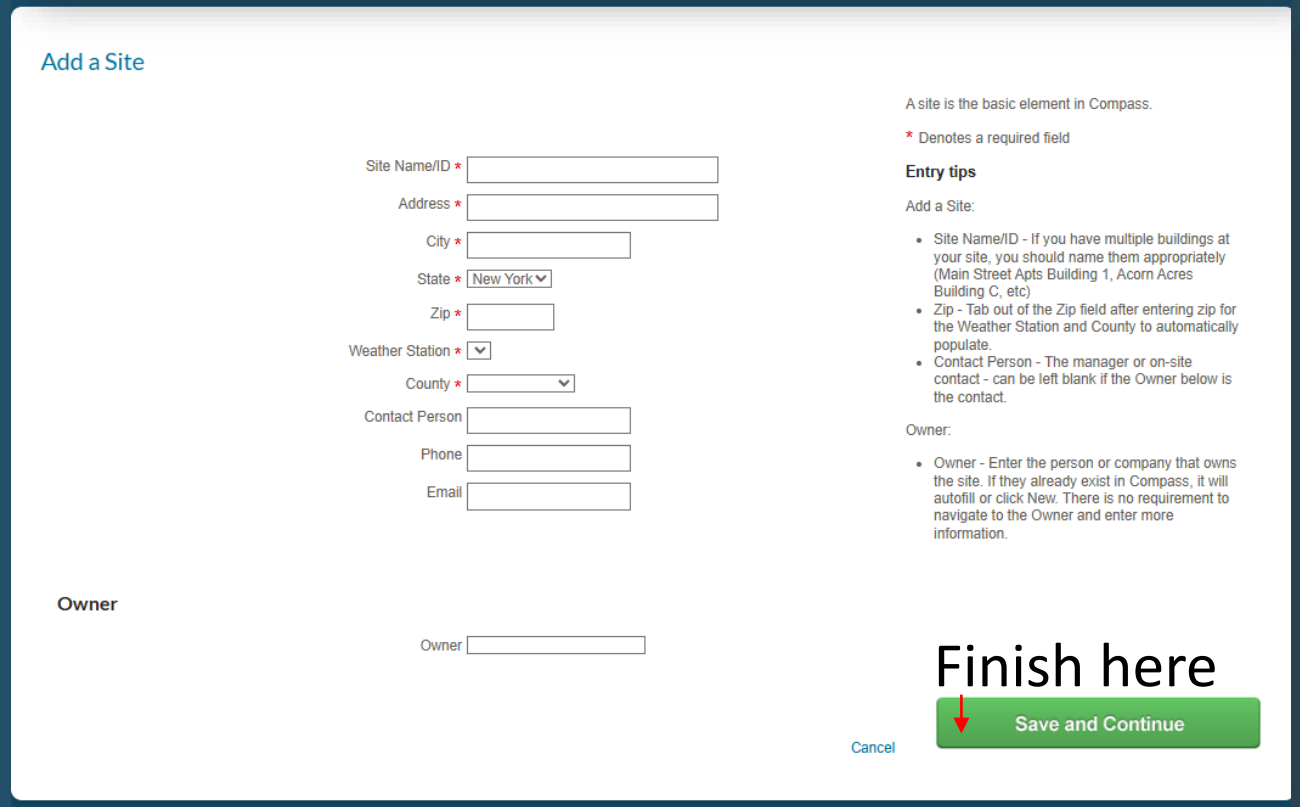
Enroll Customer

"Program Documentation" includes optional but useful files to have at hand:

- The Compass User Guide
- Multifamily Bulk Import

Enrolling a Customer is equivalent to adding a new "Site" and filling in all its main information.

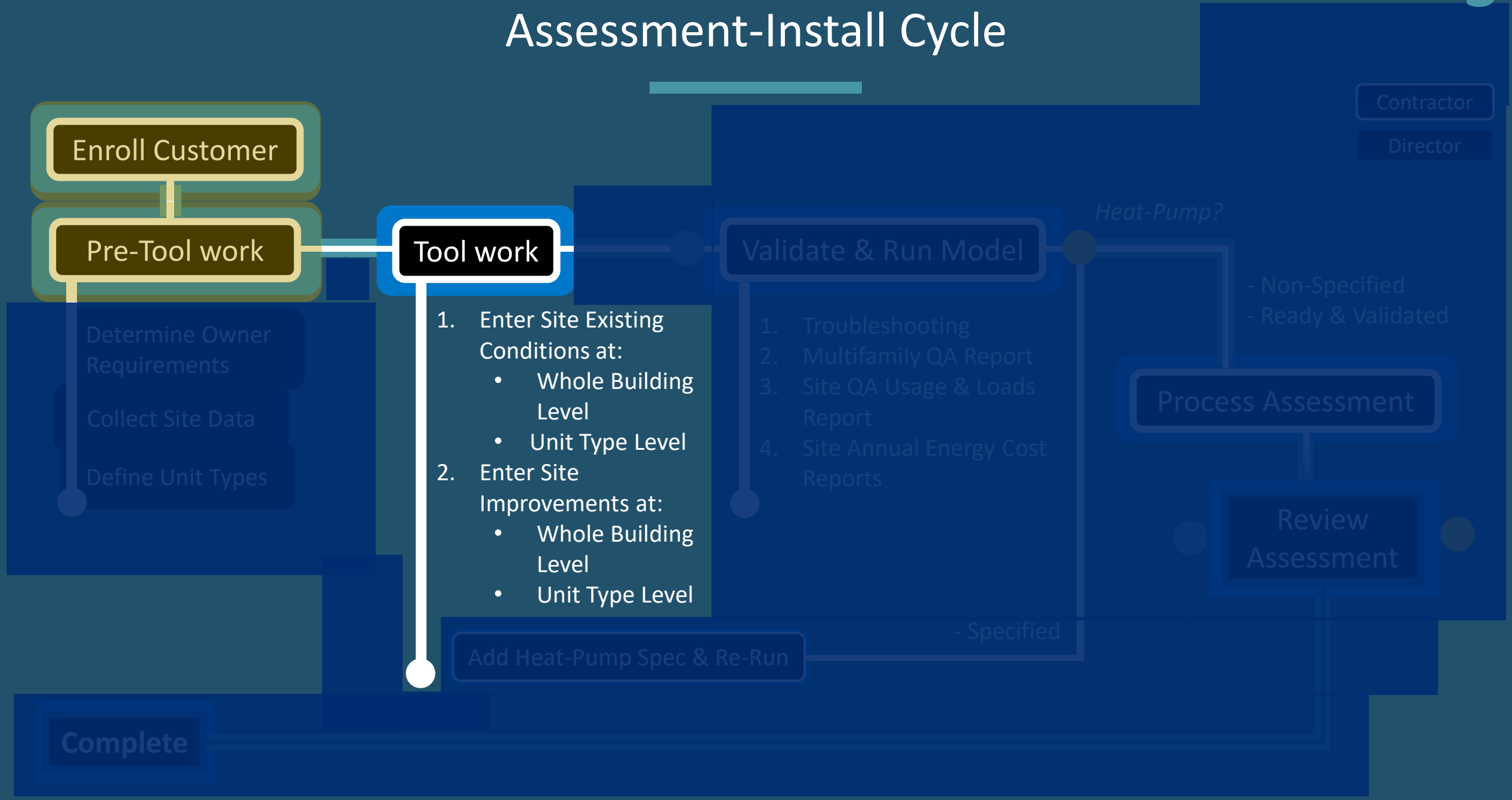




Pre-Tool work

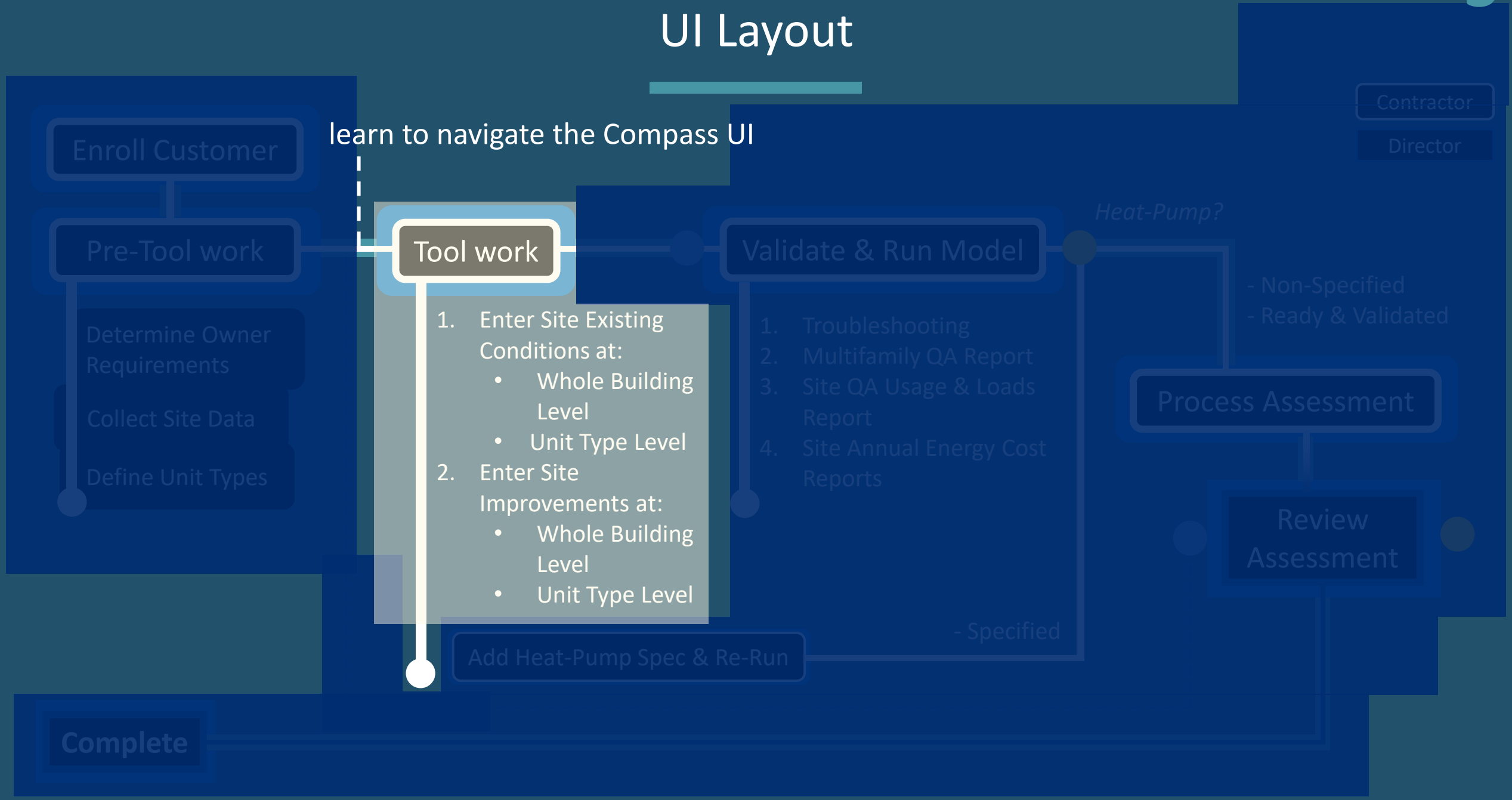
1. **Define** the electrification / deep retrofit **Scope** with the Customer.
2. **Gather** available **documentation and understand the** minimum **inputs** and data points needed, depending on scope.

Assessment-Install Cycle



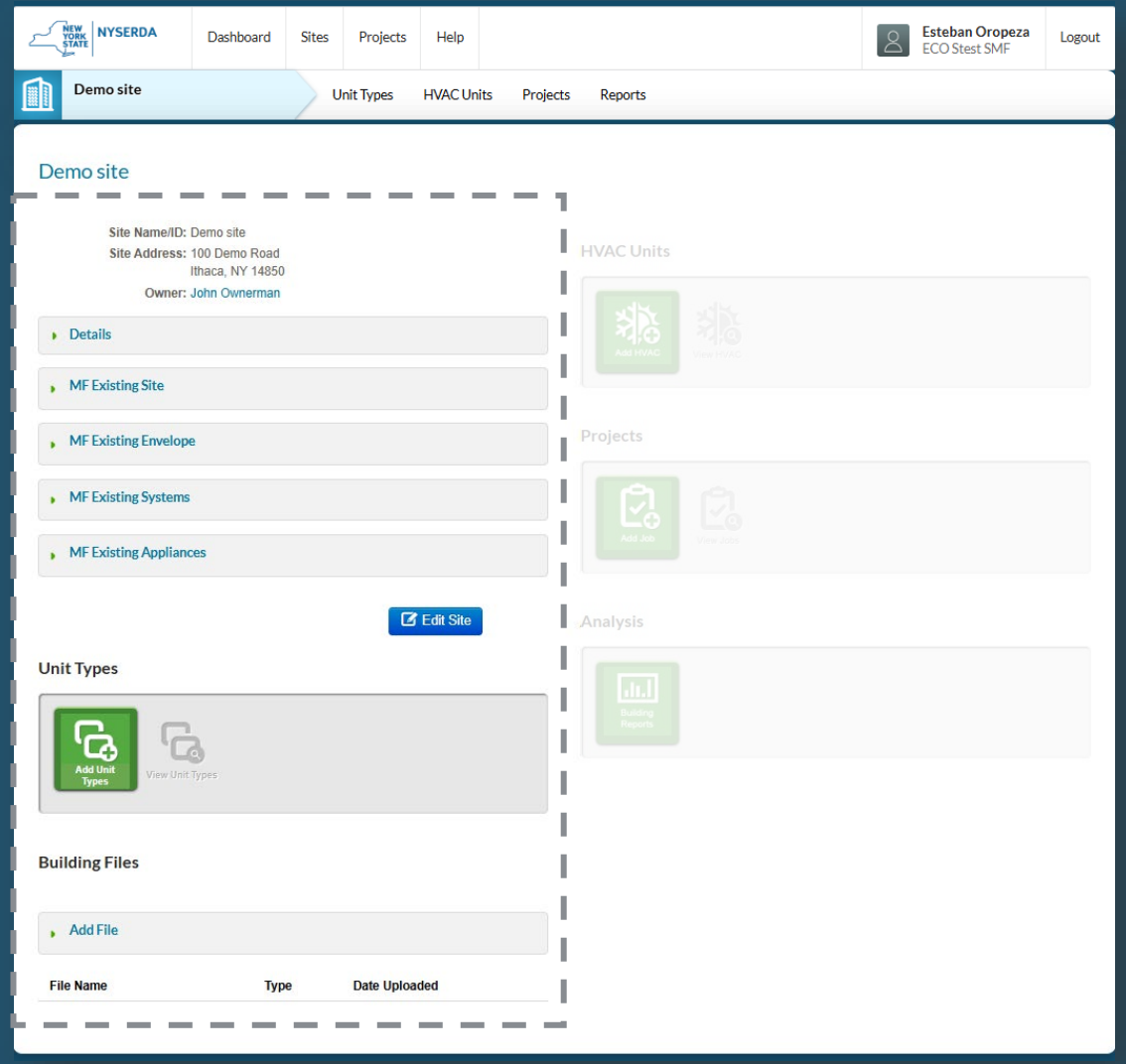
UI Layout

learn to navigate the Compass UI



Building Overview Page

Left side of the page is for setting up the Existing Conditions, both at Whole Building and Unit Type Levels.



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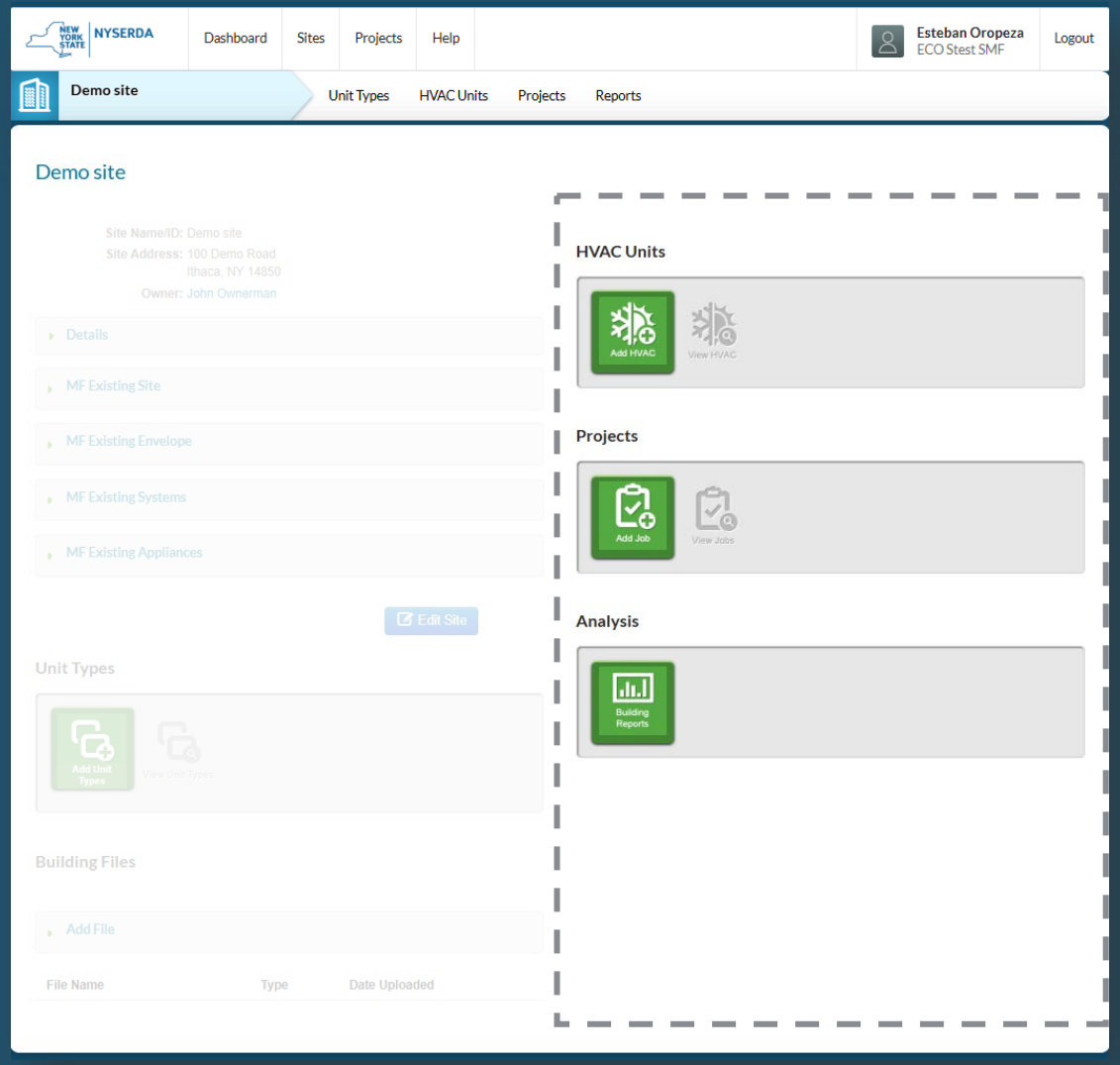
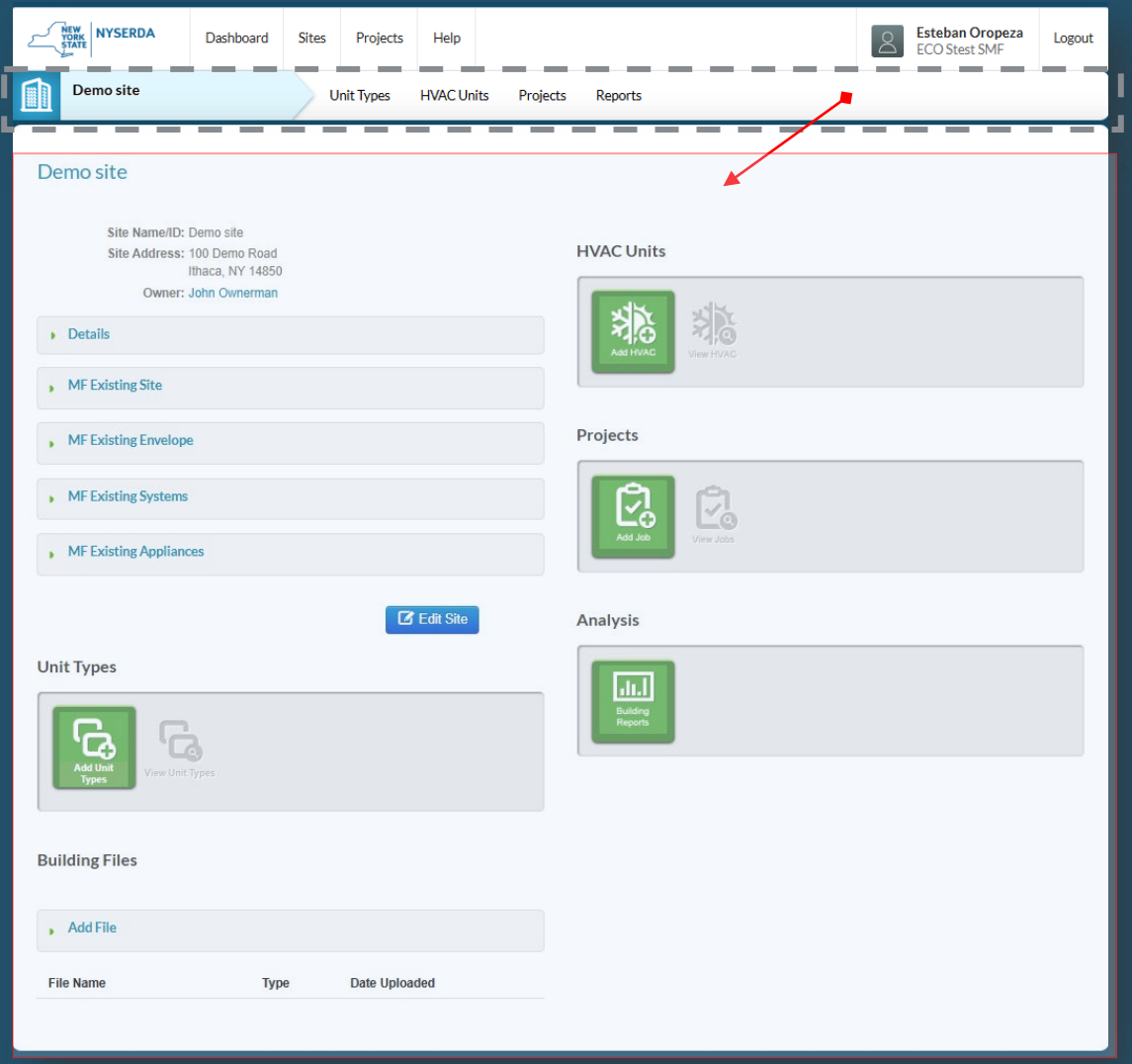
Building Overview Page

Right side of the page is for setting up Improvements, both at Whole Building and Unit Type Levels.



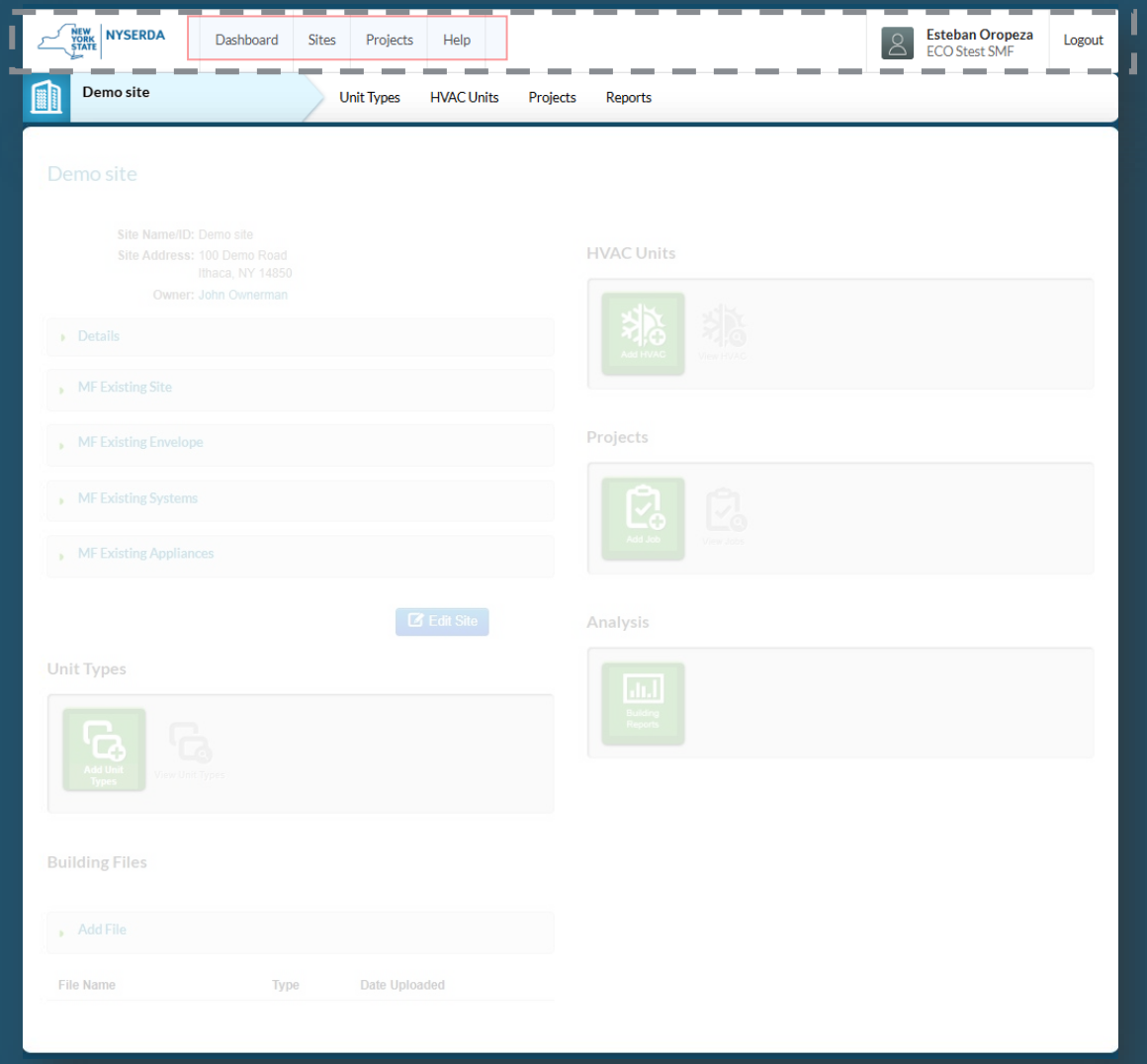
Building Overview Page

The Building Navigation Menu mirrors the tabs below as shown, providing alternative quick navigation at any step of the input process.



Building Overview Page

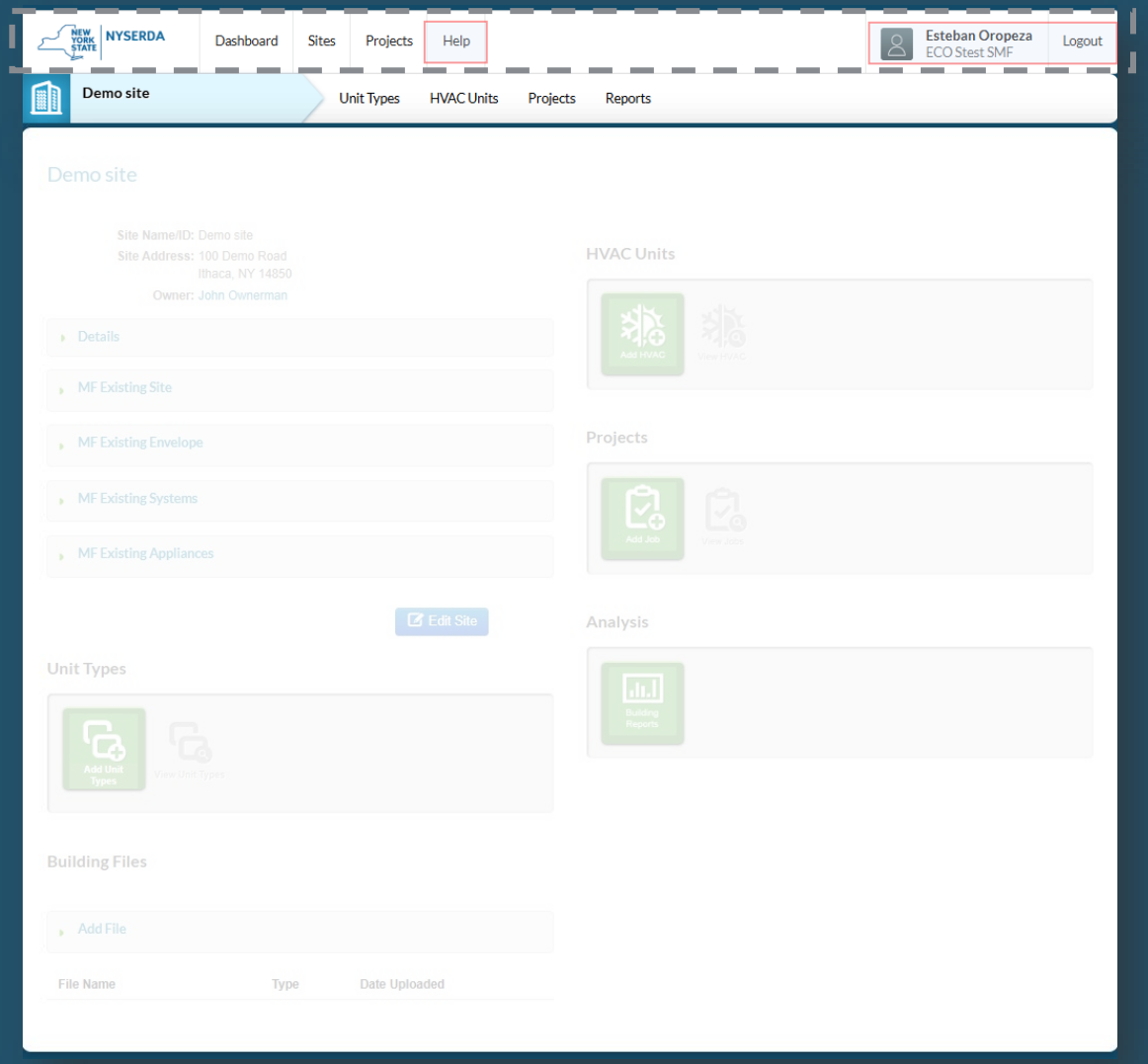
The Site Navigation Menu provides the highest level of navigation to track your “sites” (whole building) and **projects**.



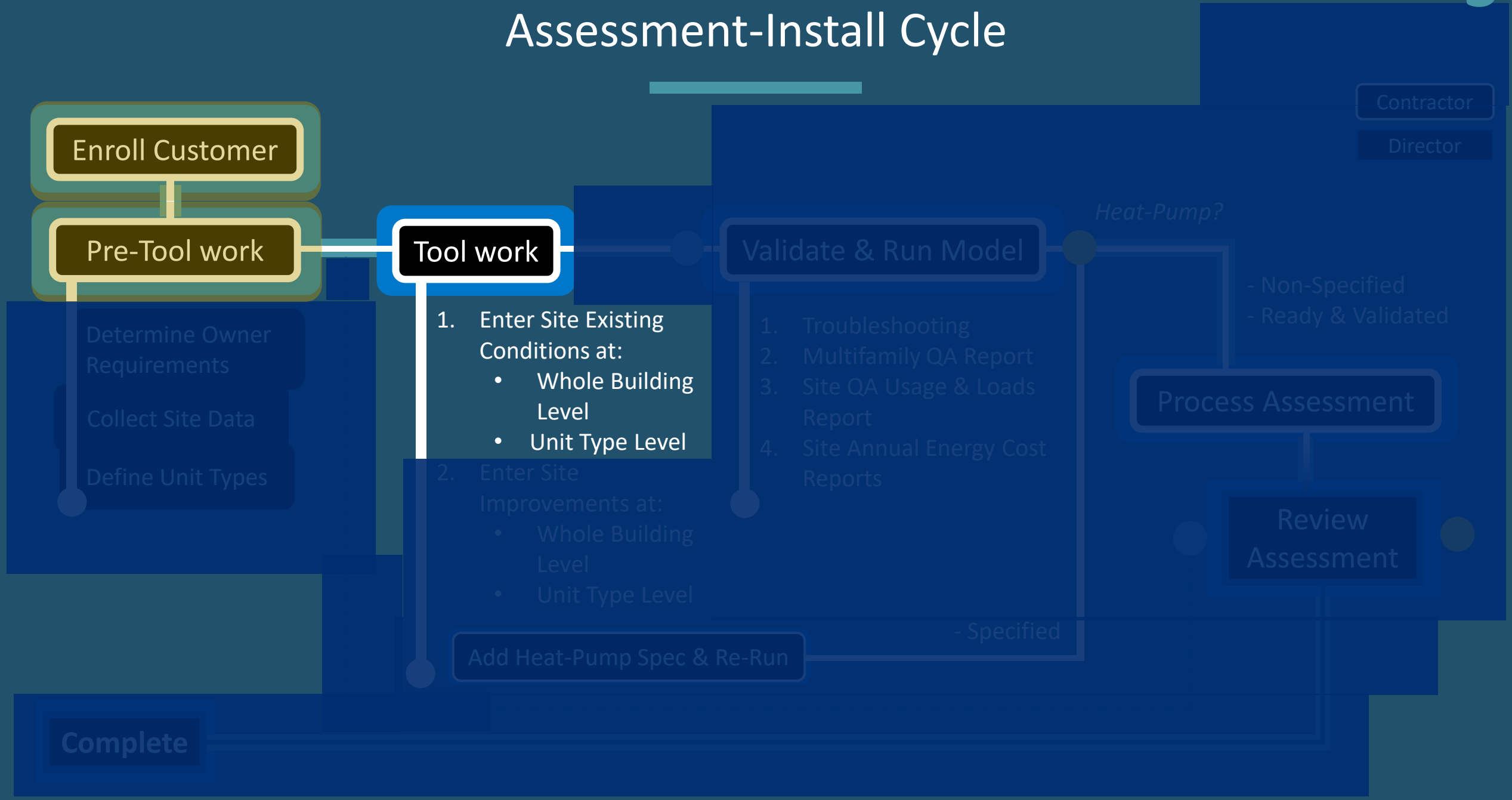
Building Overview Page

The Site Navigation Menu also provides:

- Current login user tag
- Quick access to the Help Desk

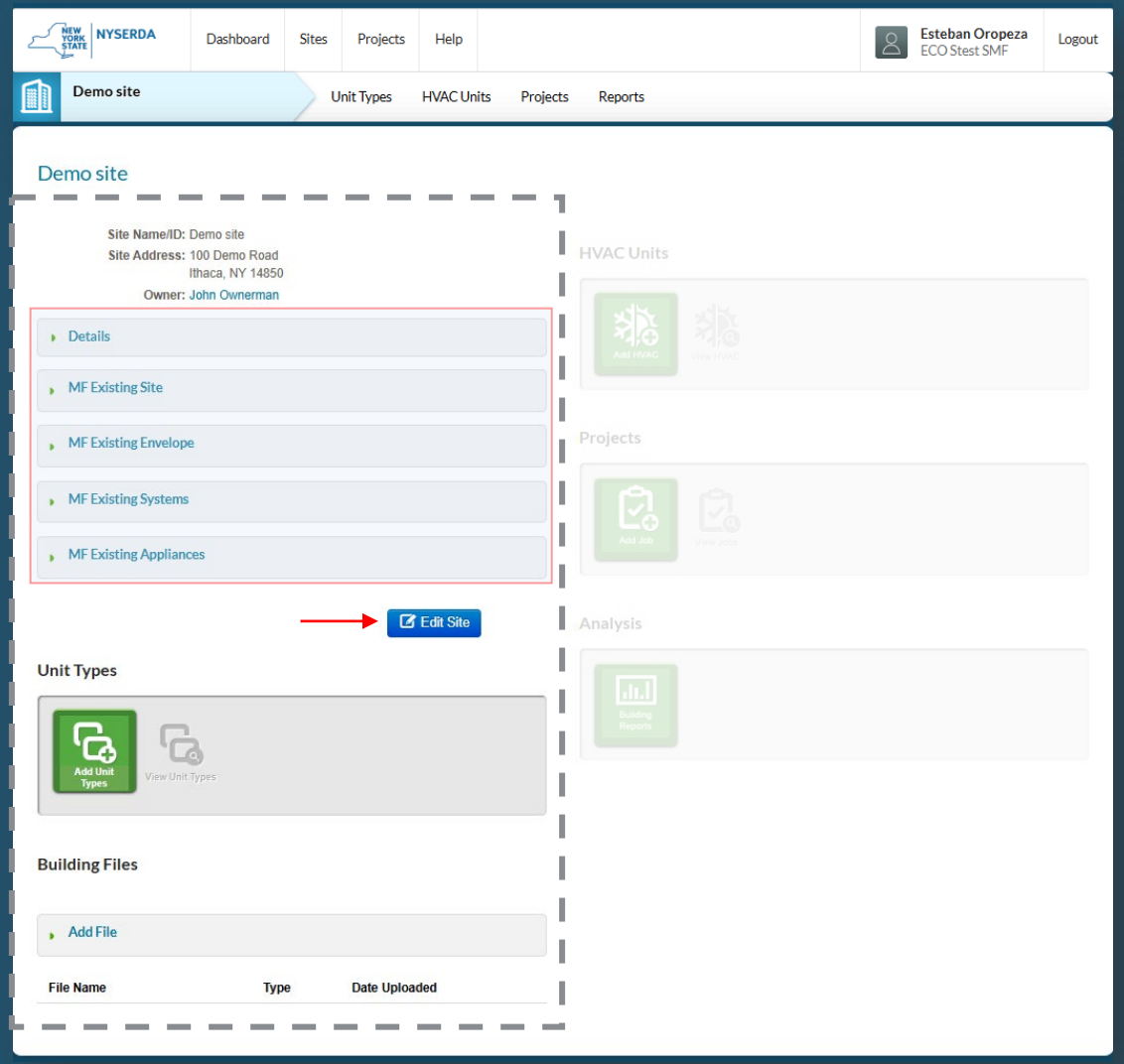


Assessment-Install Cycle



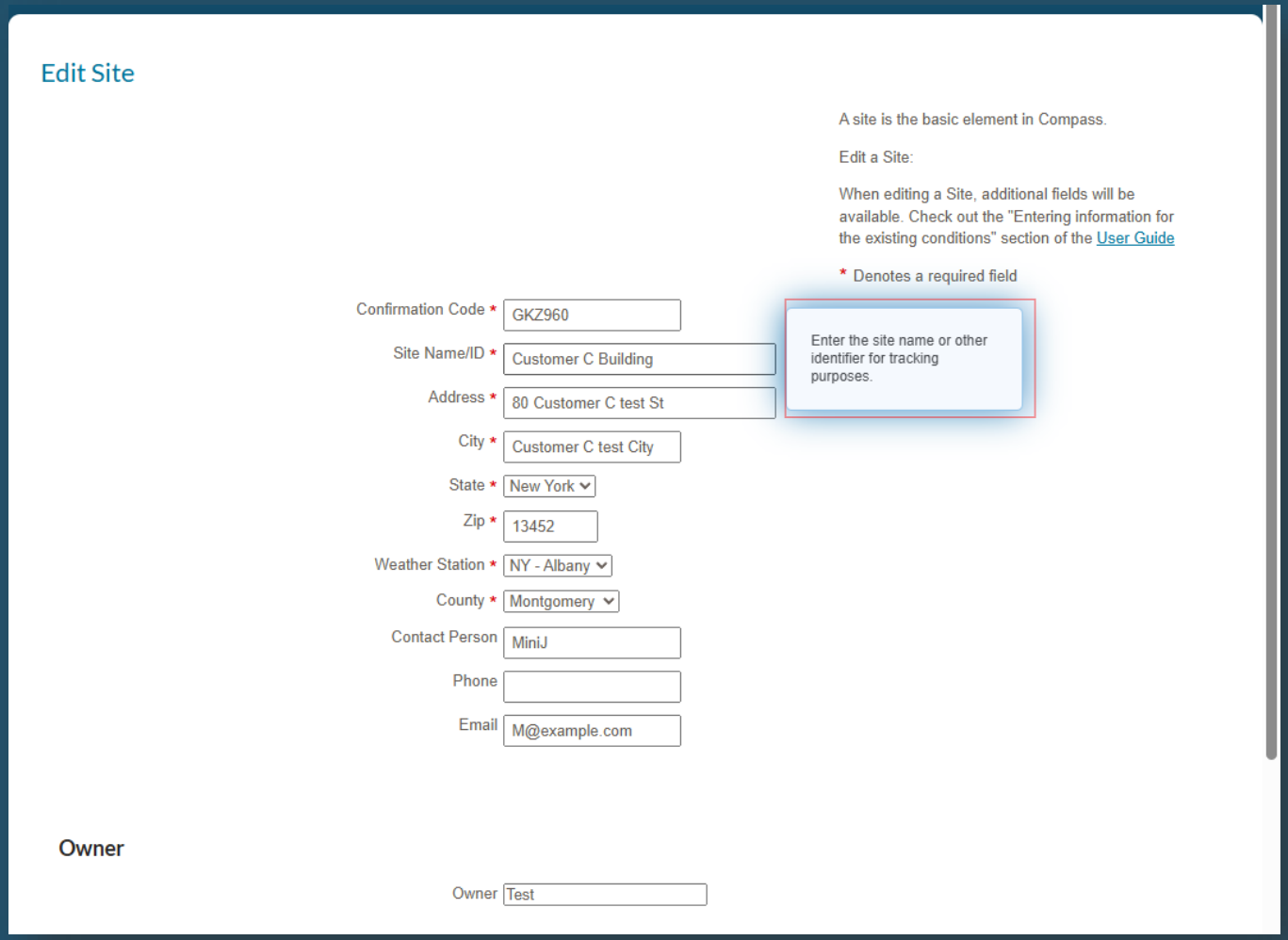
Building Overview Page

- Left side of the page is for the Existing Building.
- Expand tabs to preview Whole Building Level currently entered values.
- “Edit Site” to fill-in or update any value of any of the tabs.



Edit Site Page

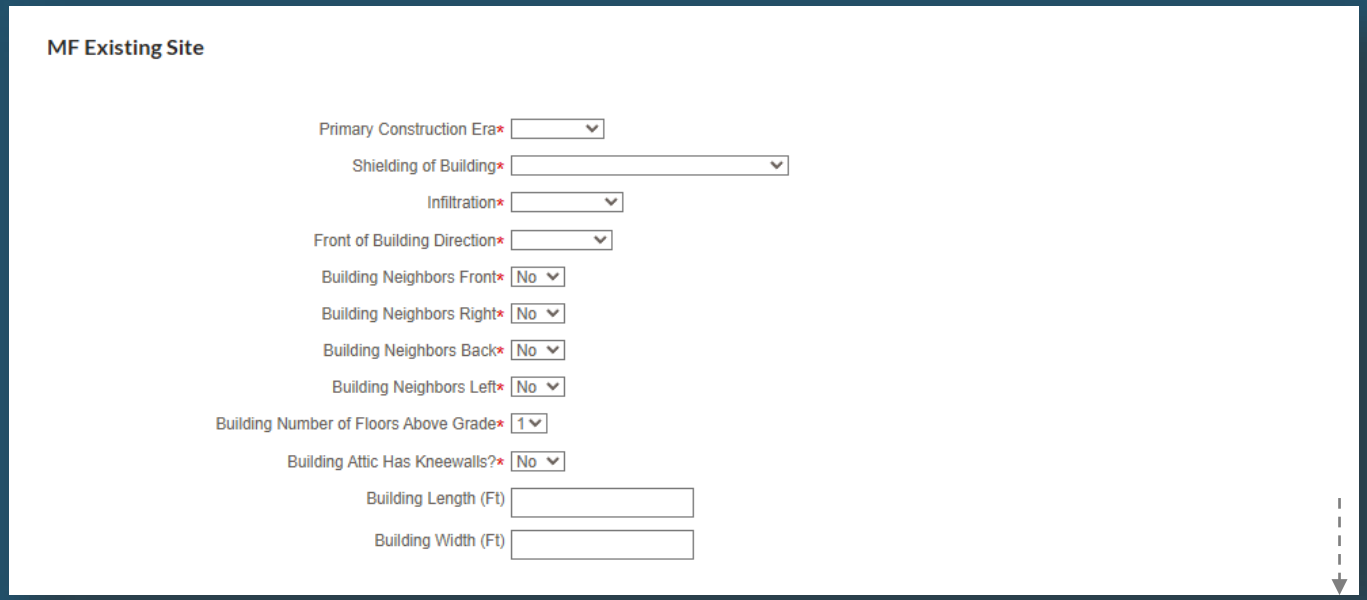
- Make sure you hover over each field to see the pop-up guiding notes.
- Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide***



Existing Conditions - Whole Building Level tabs

Edit Site Page

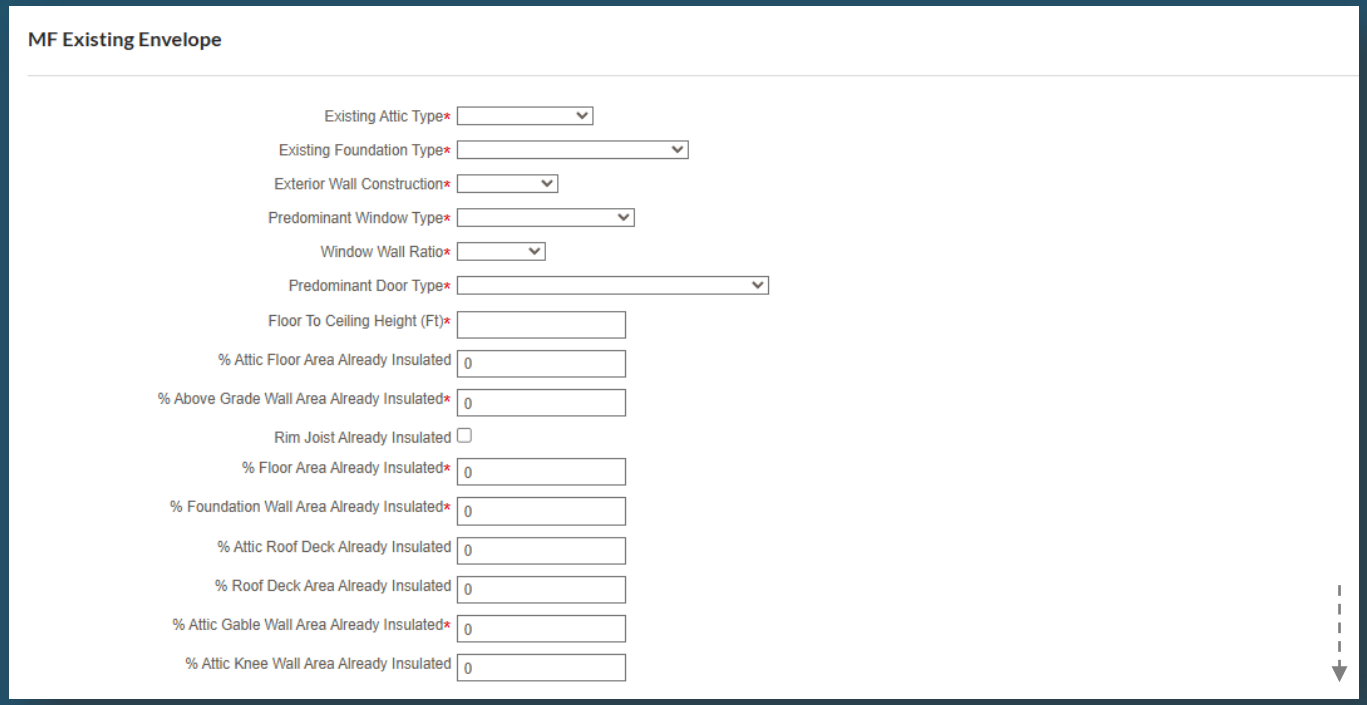
- Make sure you hover over each field to see the pop-up guiding notes.
- Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide***



Existing Conditions - Whole Building Level tabs

Edit Site Page

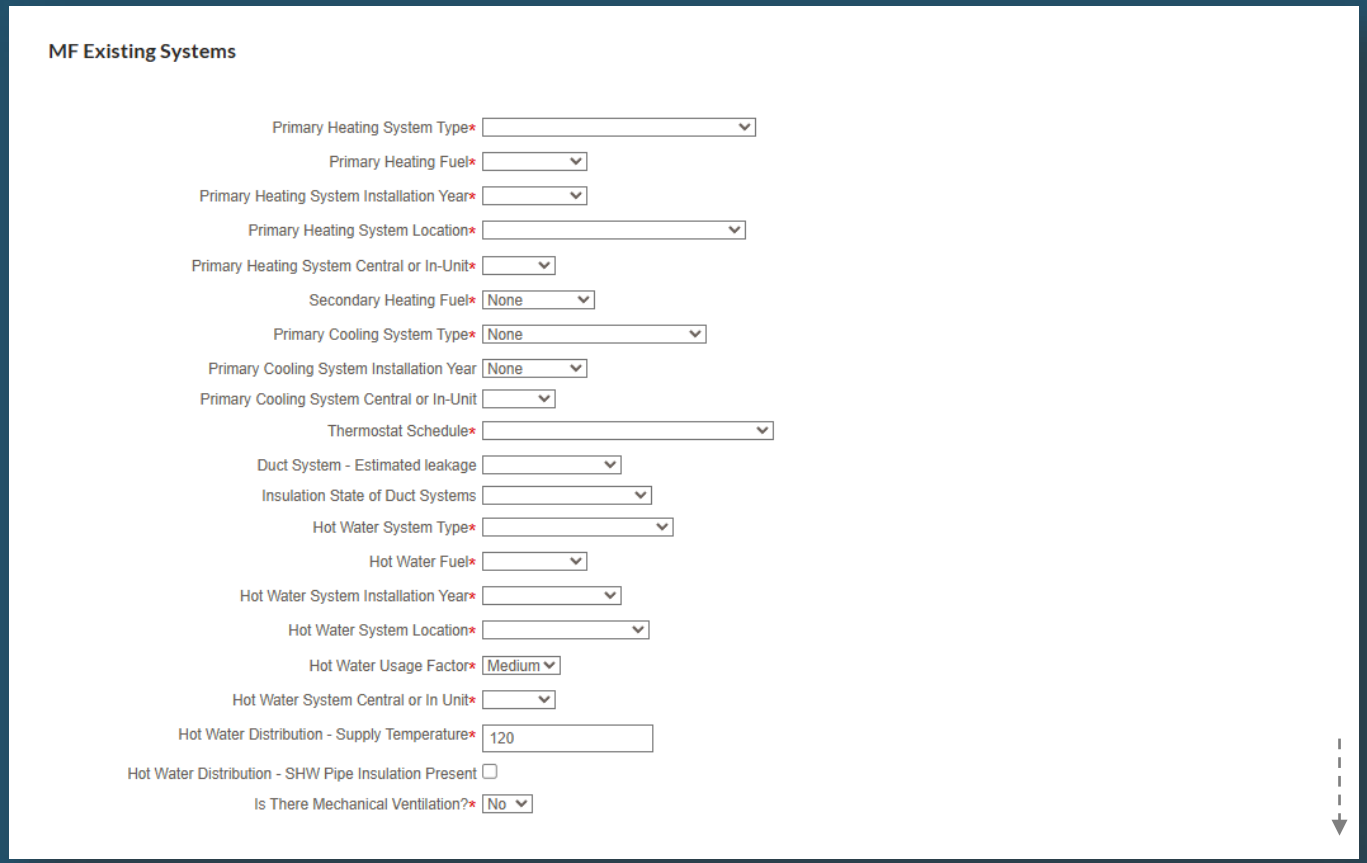
- Make sure you hover over each field to see the pop-up guiding notes.
- Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide***



Existing Conditions - Whole Building Level tabs

Edit Site Page

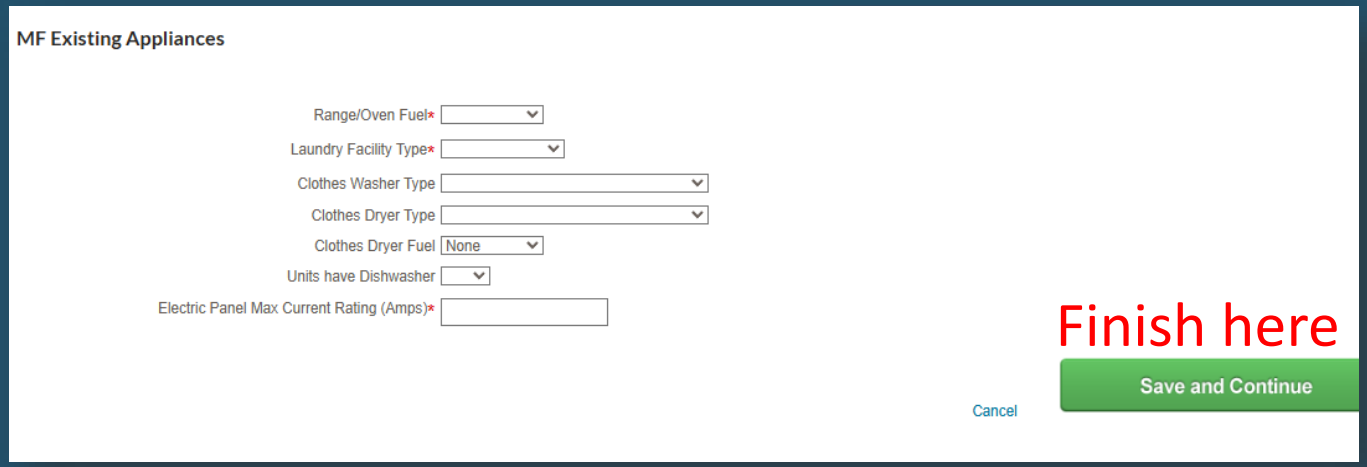
- Make sure you hover over each field to see the pop-up guiding notes.
- Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide***



Existing Conditions - Whole Building Level tabs

Edit Site Page

- Make sure you hover over each field to see the pop-up guiding notes.
- Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide***



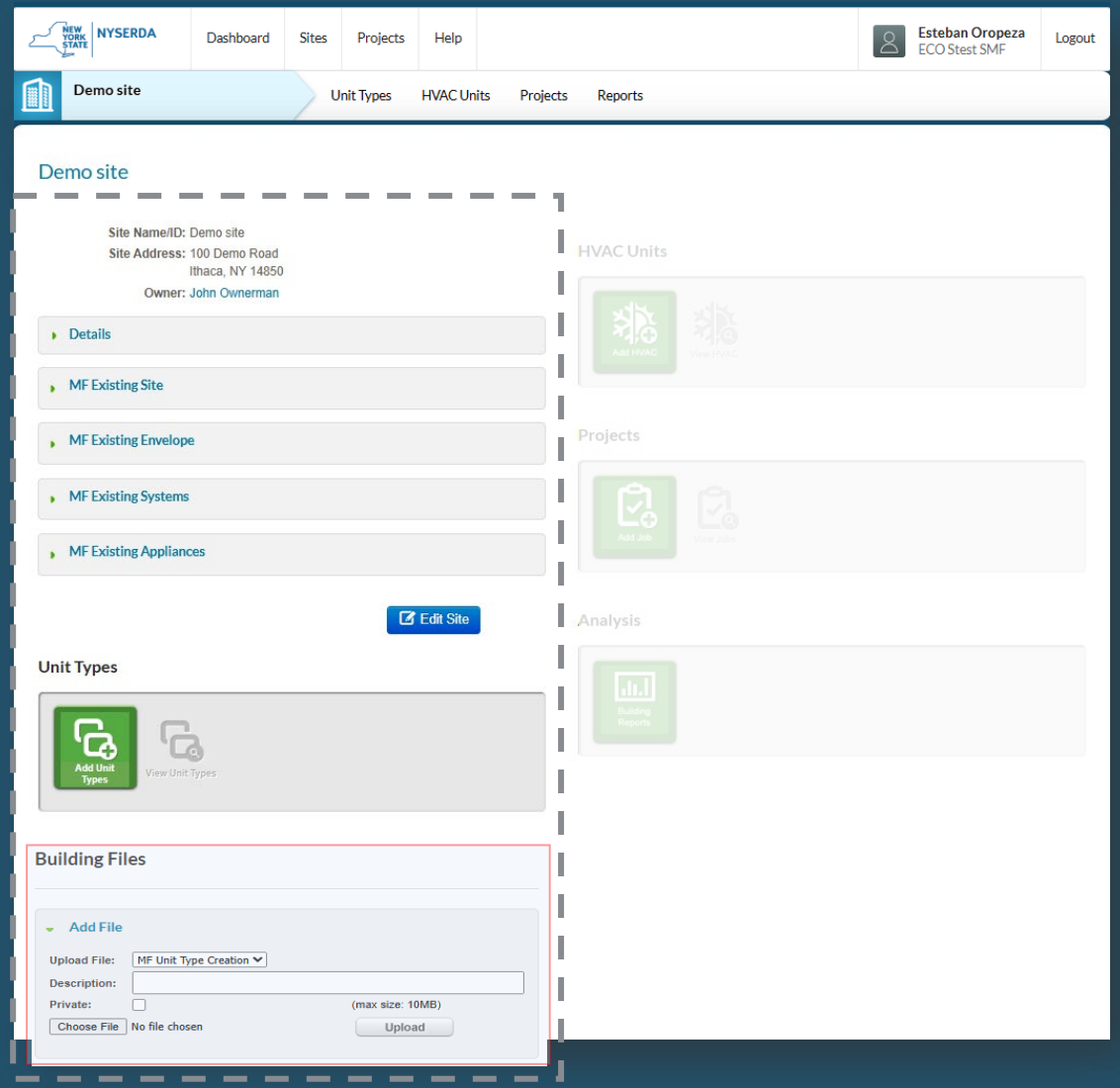
Existing Conditions - Whole Building Level tabs

Building Overview Page

For Unit Types creation:

Building Files tab allows addition through spreadsheet **Bulk Import** for Unit Types, Units, and Projects (Jobs).

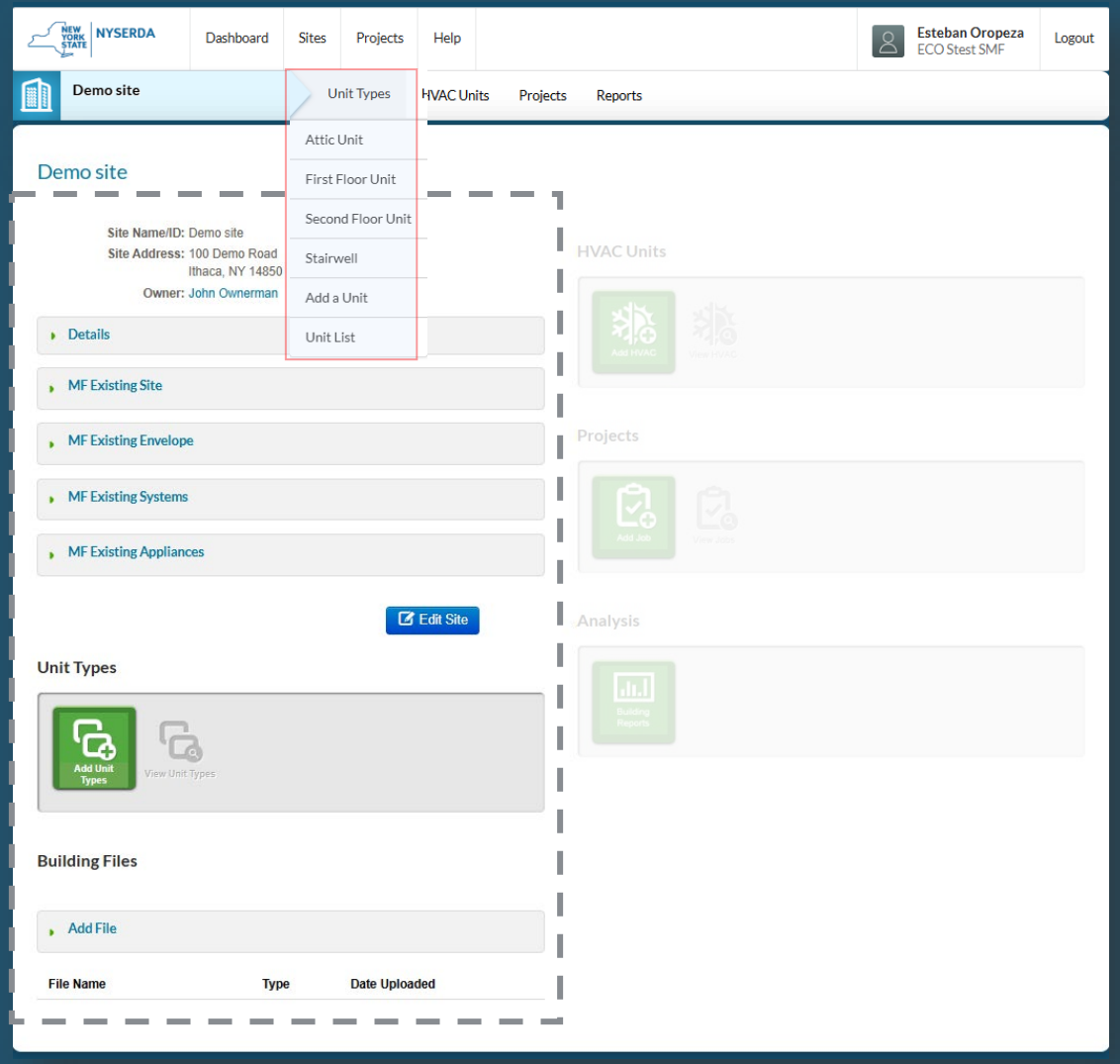
Refer to the *Adding Unit Types* section of the ***User Guide.***



Building Overview Page

For Unit Types creation:

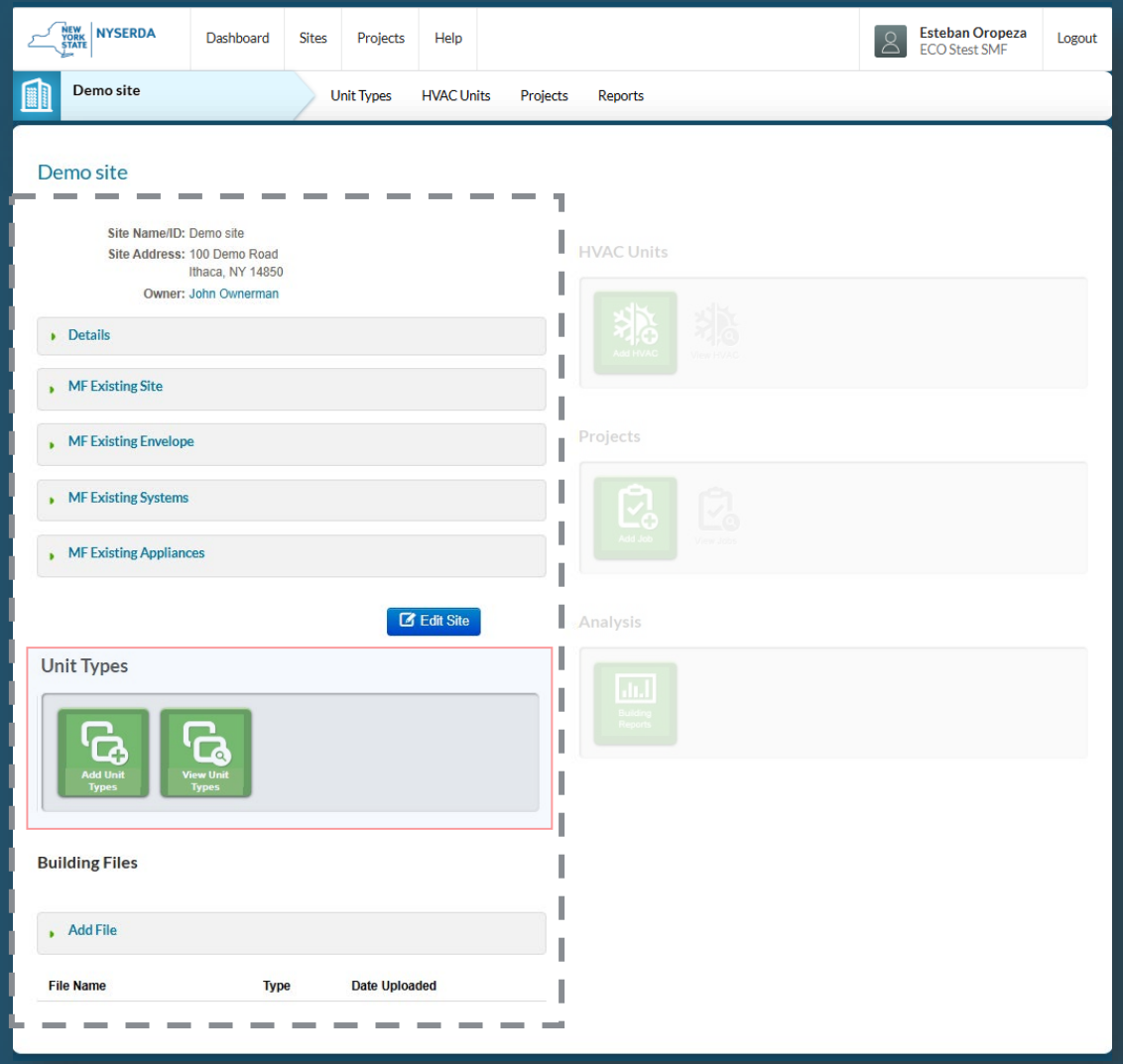
Unit Types in the Site Navigation Menu allows adding and editing, as well as listing previously created Unit Types.



Building Overview Page

For Unit Types creation:

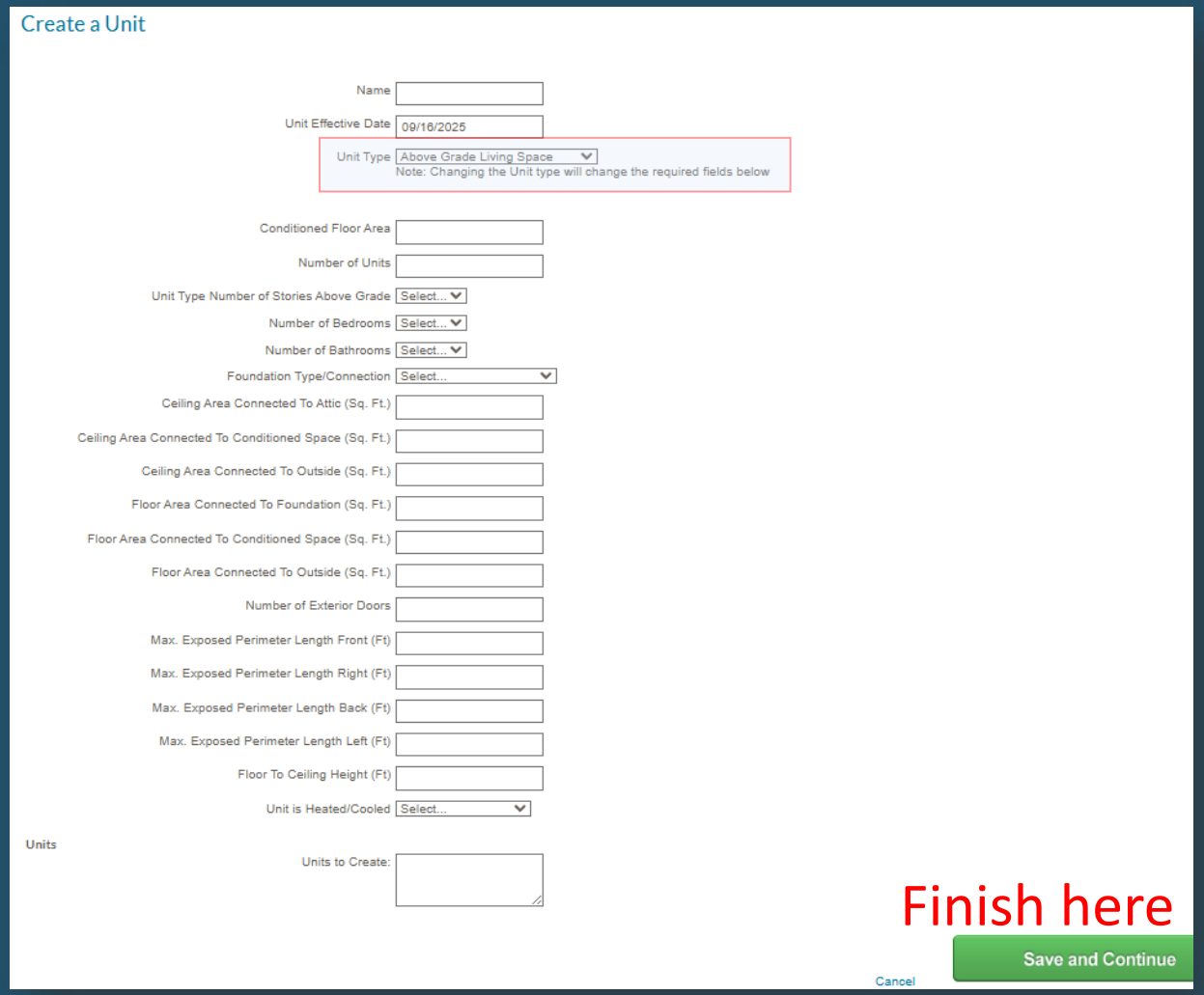
Unit Types tab allows adding and editing, as well as listing (“View”) previously created Unit Types.



Create/Edit Unit Page

Manually adding or editing Unit Types within the tool, before or after Bulk-Import is always possible.

Input fields are dynamic as they vary between different Unit Types. Refer to the corresponding subsection of *Field Entry Guide – Existing condition* of the ***User Guide***

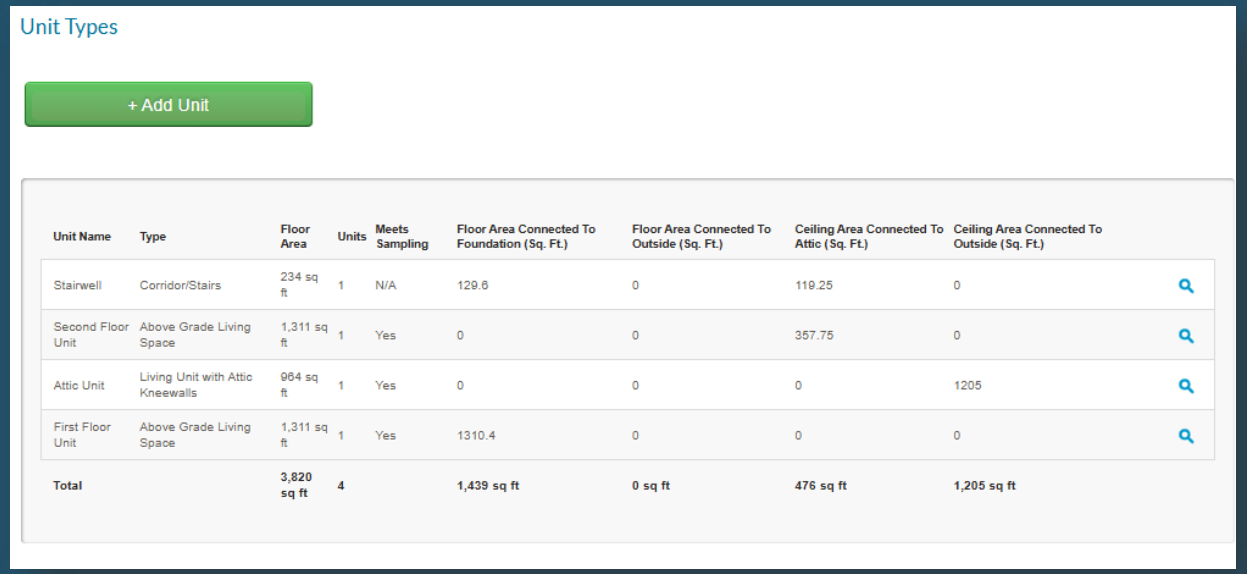


Existing Conditions - Unit Type Level tabs

View Unit Types Page

An overview to confirm horizontal surface conditions at Unit Type Level.

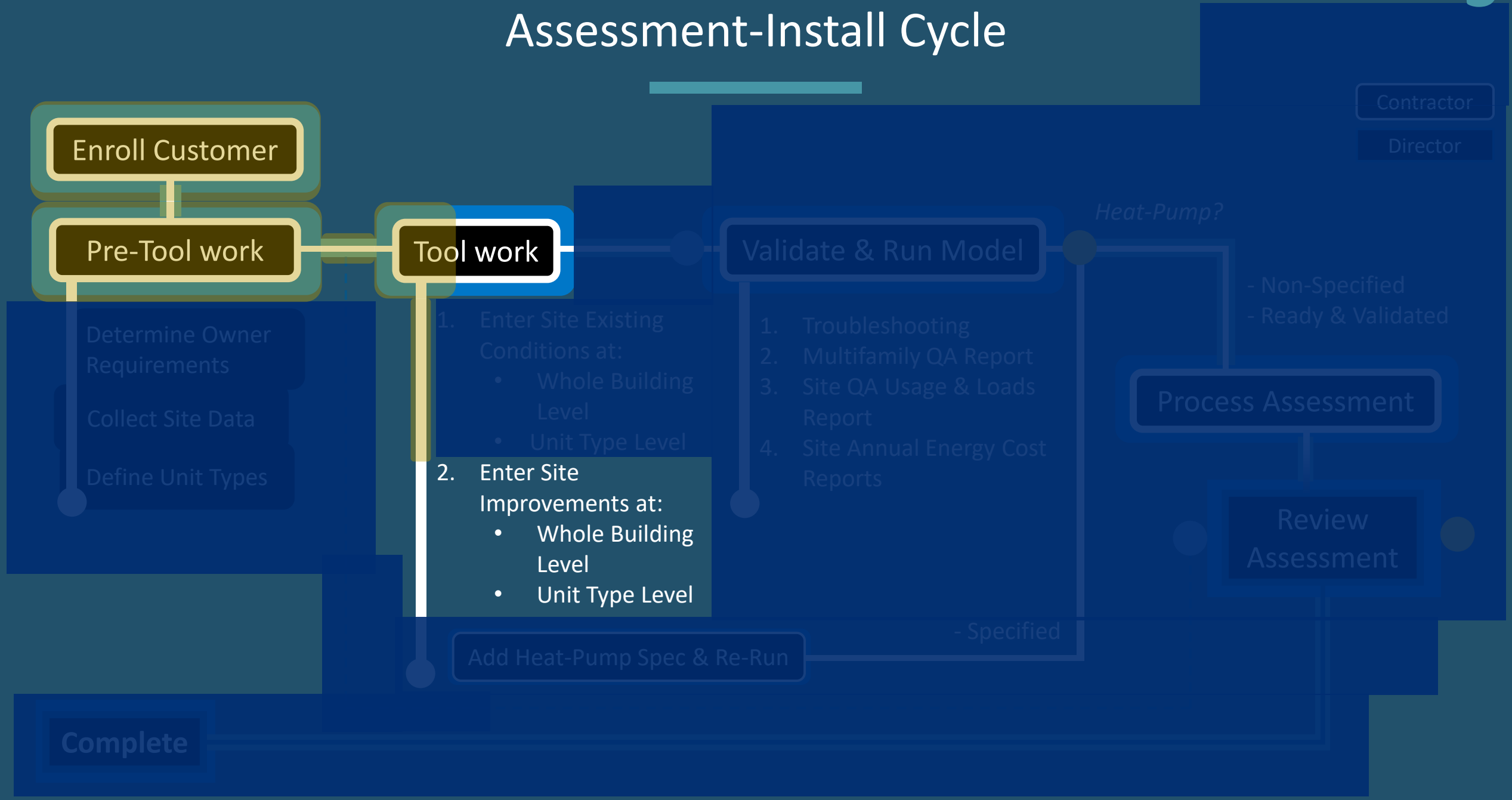
To calculate totals, consider Multipliers.



Unit Name	Type	Floor Area	Units	Meets Sampling	Floor Area Connected To Foundation (Sq. Ft.)	Floor Area Connected To Outside (Sq. Ft.)	Ceiling Area Connected To Attic (Sq. Ft.)	Ceiling Area Connected To Outside (Sq. Ft.)	
Stairwell	Corridor/Stairs	234 sq ft	1	N/A	129.6	0	119.25	0	
Second Floor Unit	Above Grade Living Space	1,311 sq ft	1	Yes	0	0	357.75	0	
Attic Unit	Living Unit with Attic Kneewalls	964 sq ft	1	Yes	0	0	0	1205	
First Floor Unit	Above Grade Living Space	1,311 sq ft	1	Yes	1310.4	0	0	0	
Total		**3,820 sq ft**	**4**		**1,439 sq ft**	**0 sq ft**	**476 sq ft**	**1,205 sq ft**	

Existing Conditions - Unit Type Level tabs

Assessment-Install Cycle

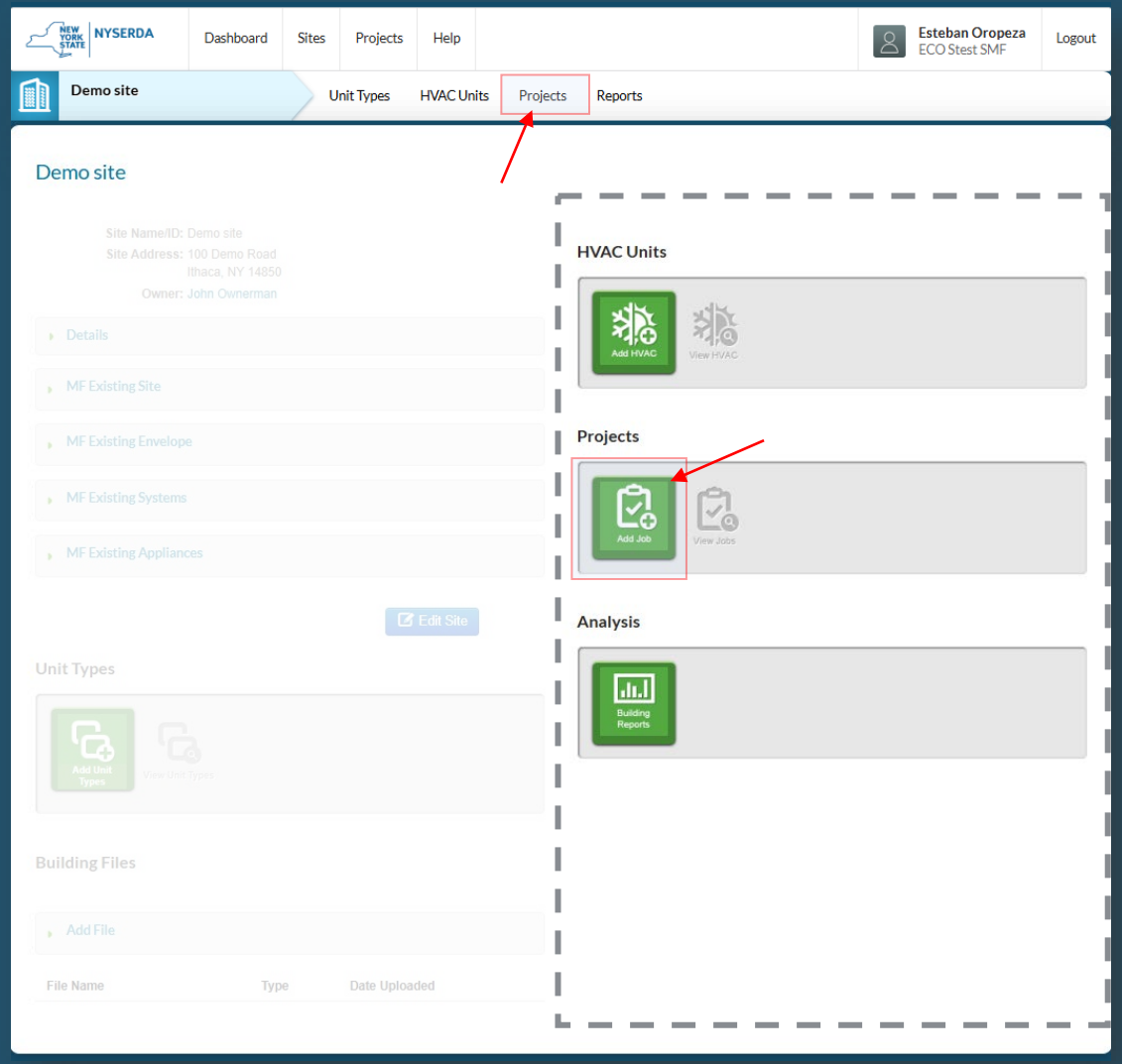


Building Overview Page

For Projects/Jobs creation:

Projects in the Site Navigation Menu or tab allow adding and editing, as well as listing previously created projects.

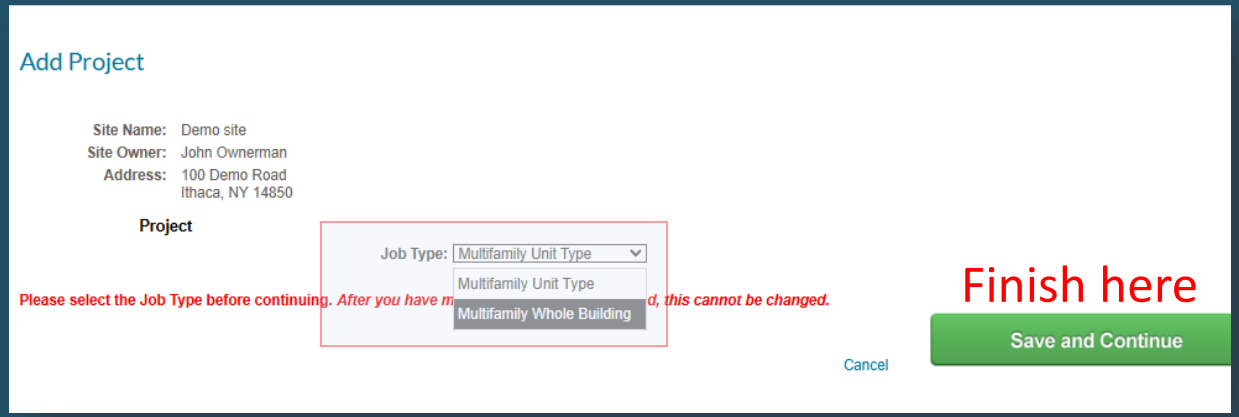
The following steps can be bypassed when using the **Bulk Import** method.



Add Project Page

Add job or Create Project will trigger the Add Project Page.

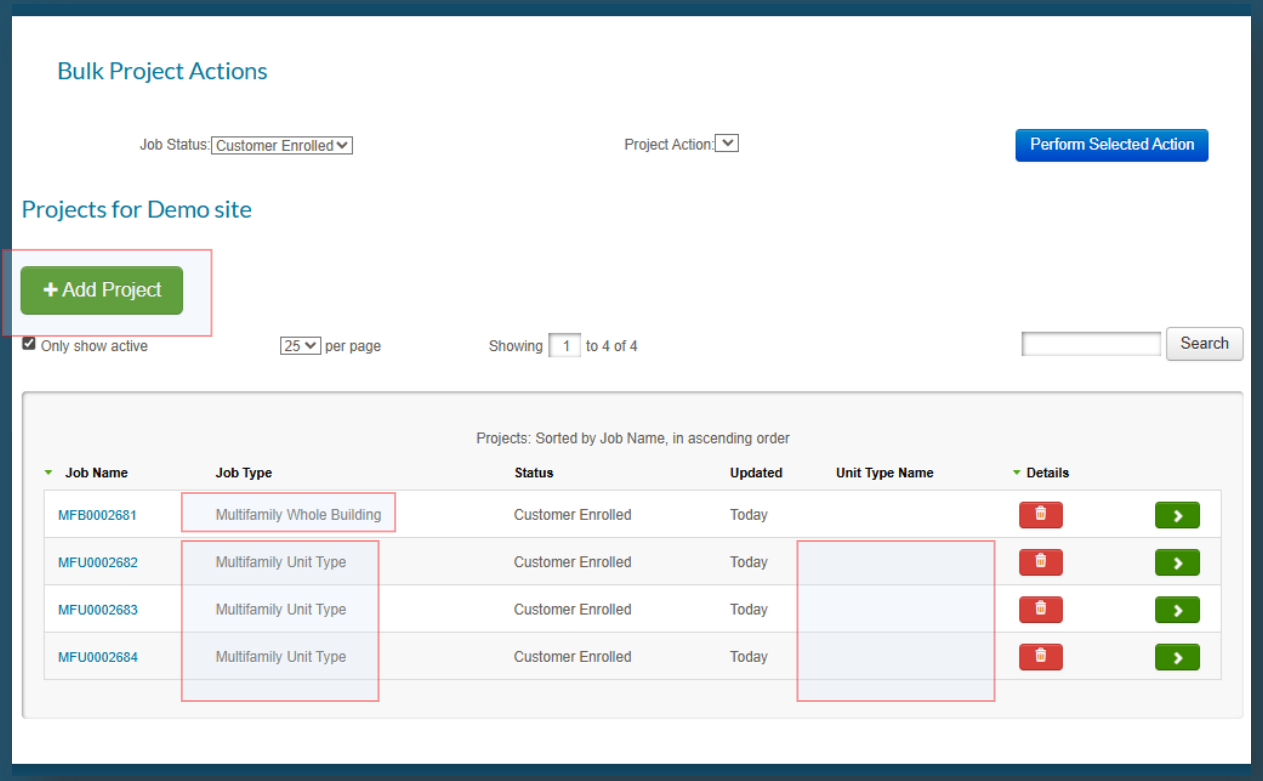
Only one “Whole Building” is modeled. Once created, the Project Details page is triggered directly.



View Projects Page

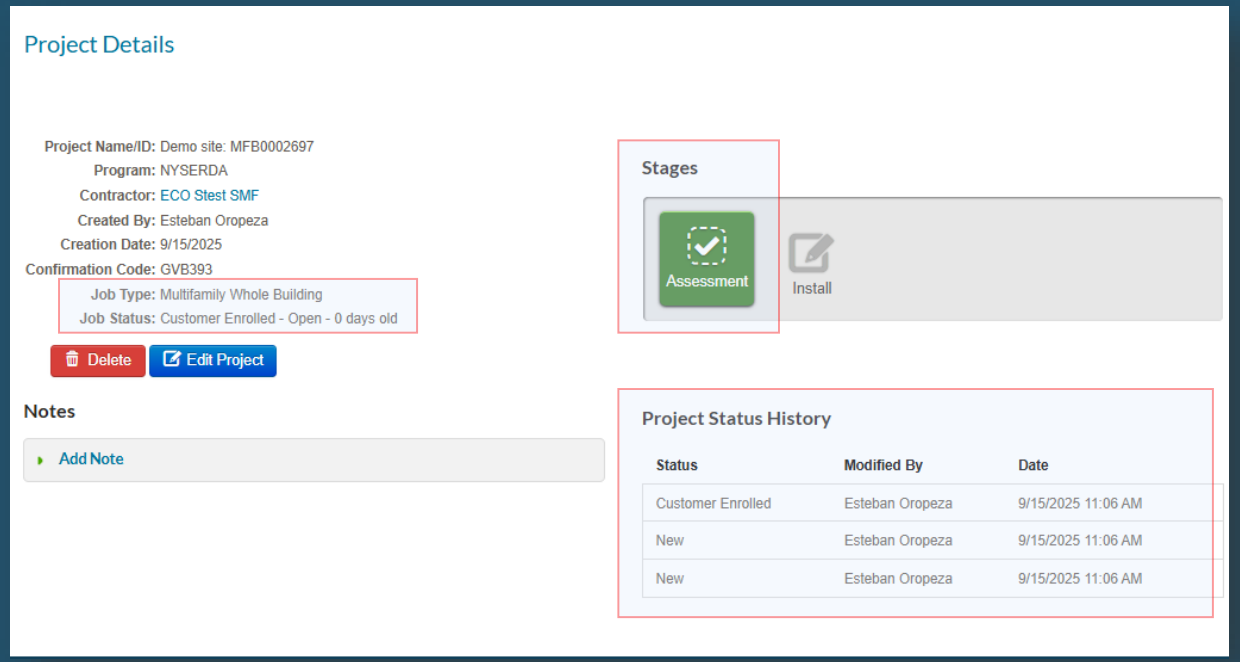
Only one Project for the "Whole Building" Project, and one Project per each Unit Type. Refer to the *Projects* section of the **User Guide**

Assign Unit Type Names from any previously created unit type using the green chevron.



Project Details Page

1. Confirm the **Job Type** in question is “Multifamily Whole Building” and the status is either “Customer Enrolled” or “Assessment Started”.
2. See the **Project Status History** for tracking changes.
3. Enter the **Assessment stage** to input your envelope package and HVAC design Improvements.

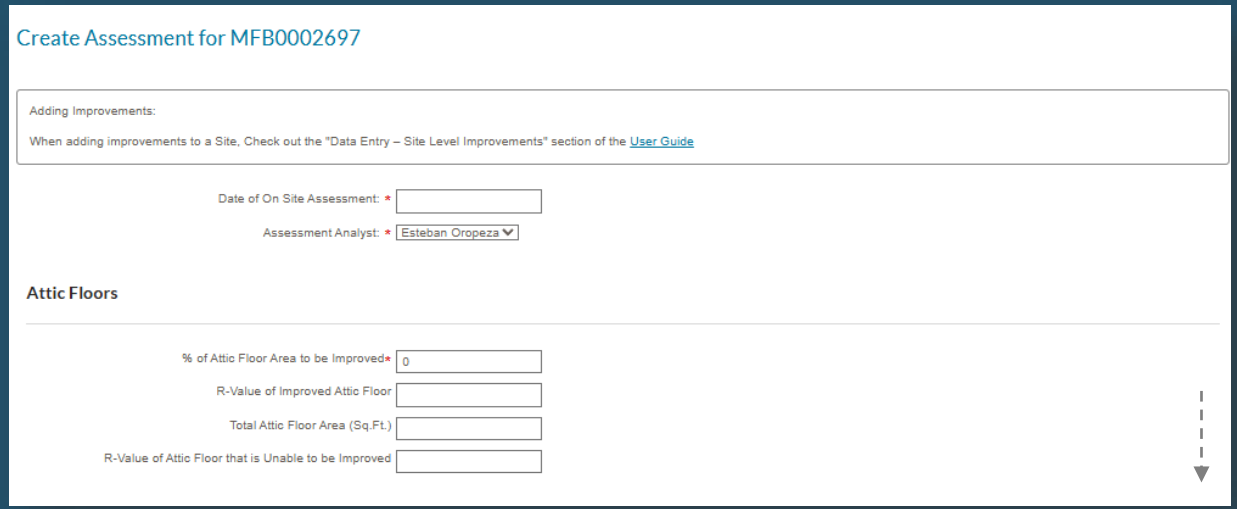


Improvements - Whole Building Level

Assessment Page

Make sure you hover over each field to see the pop-up guiding notes.

Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide.***

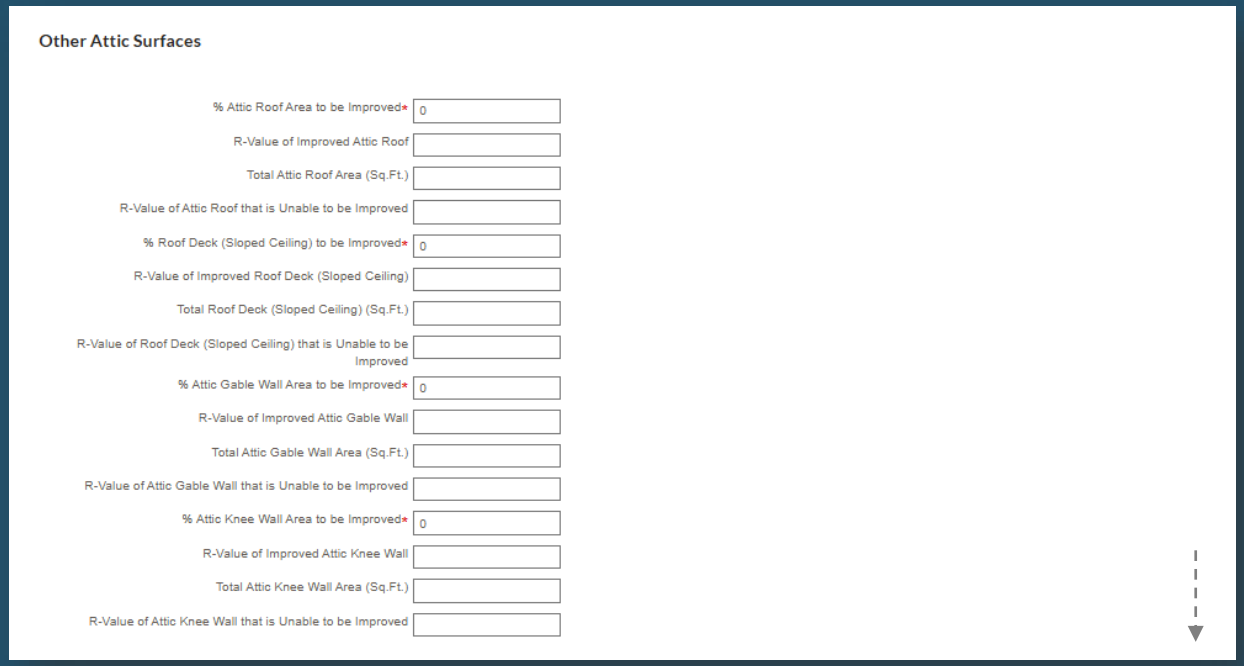


Improvements - Whole Building Assessment

Assessment Page

Make sure you hover over each field to see the pop-up guiding notes.

Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide.***

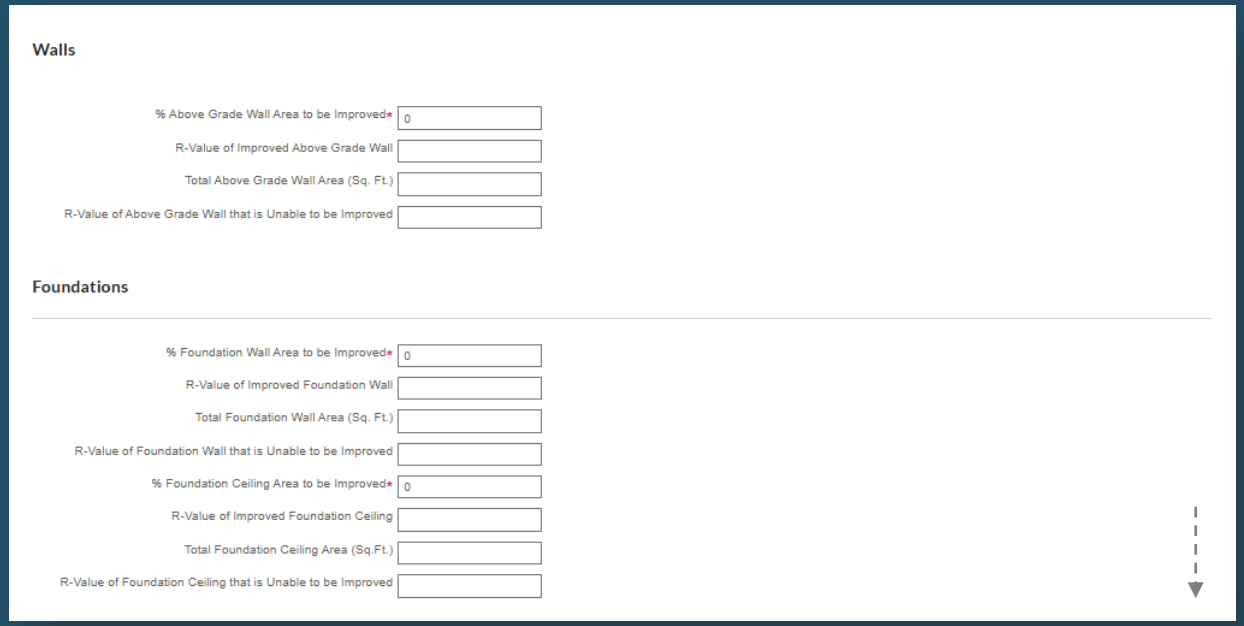


Improvements - Whole Building Assessment

Assessment Page

Make sure you hover over each field to see the pop-up guiding notes.

Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide.***

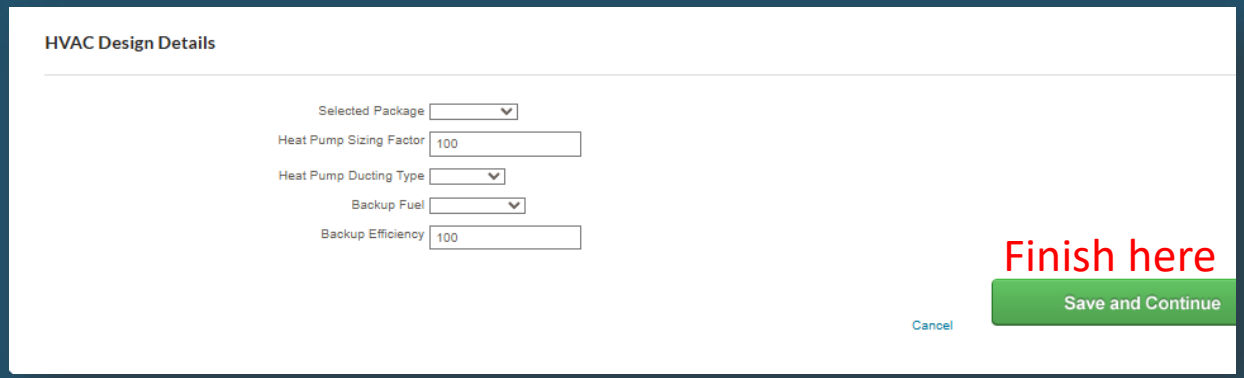


Improvements - Whole Building Assessment

Assessment Page

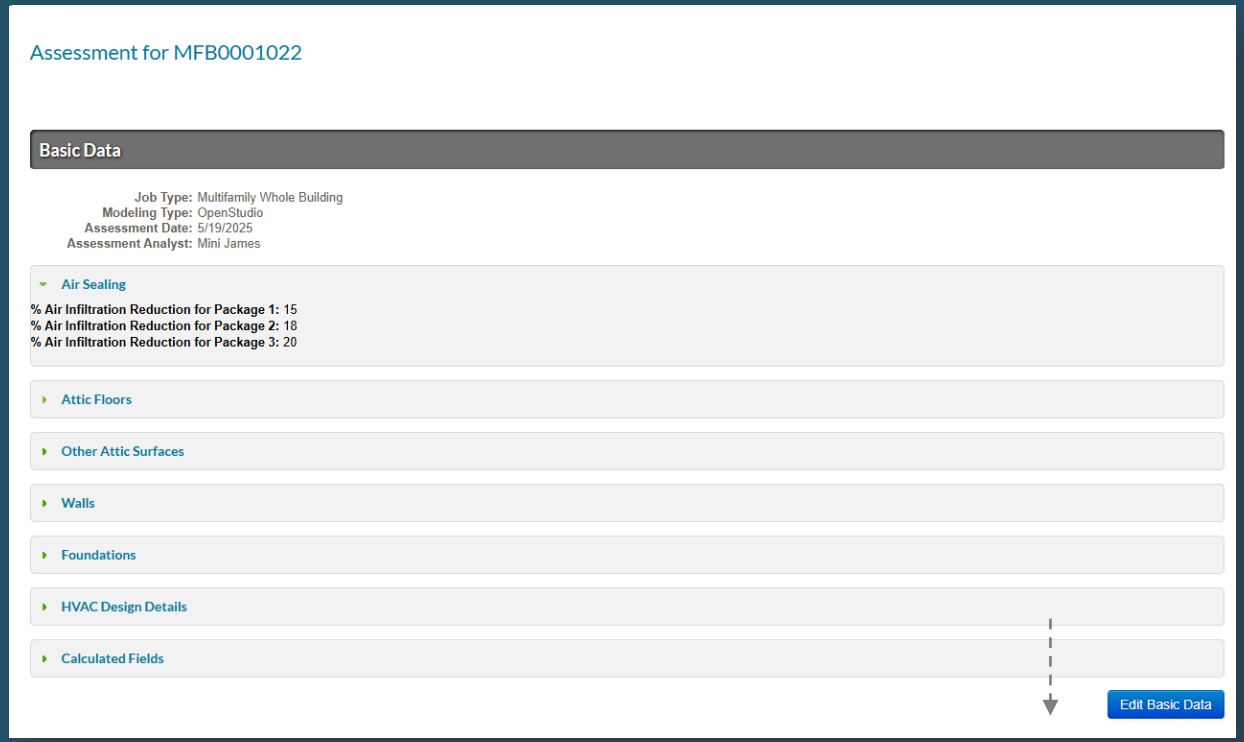
Make sure you hover over each field to see the pop-up guiding notes.

Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide.***



Assessment Overview Page

Upon saving the Assessment Page, the user is directed to the Assessment Overview Page, which provides a summary of the previously filled tabs.



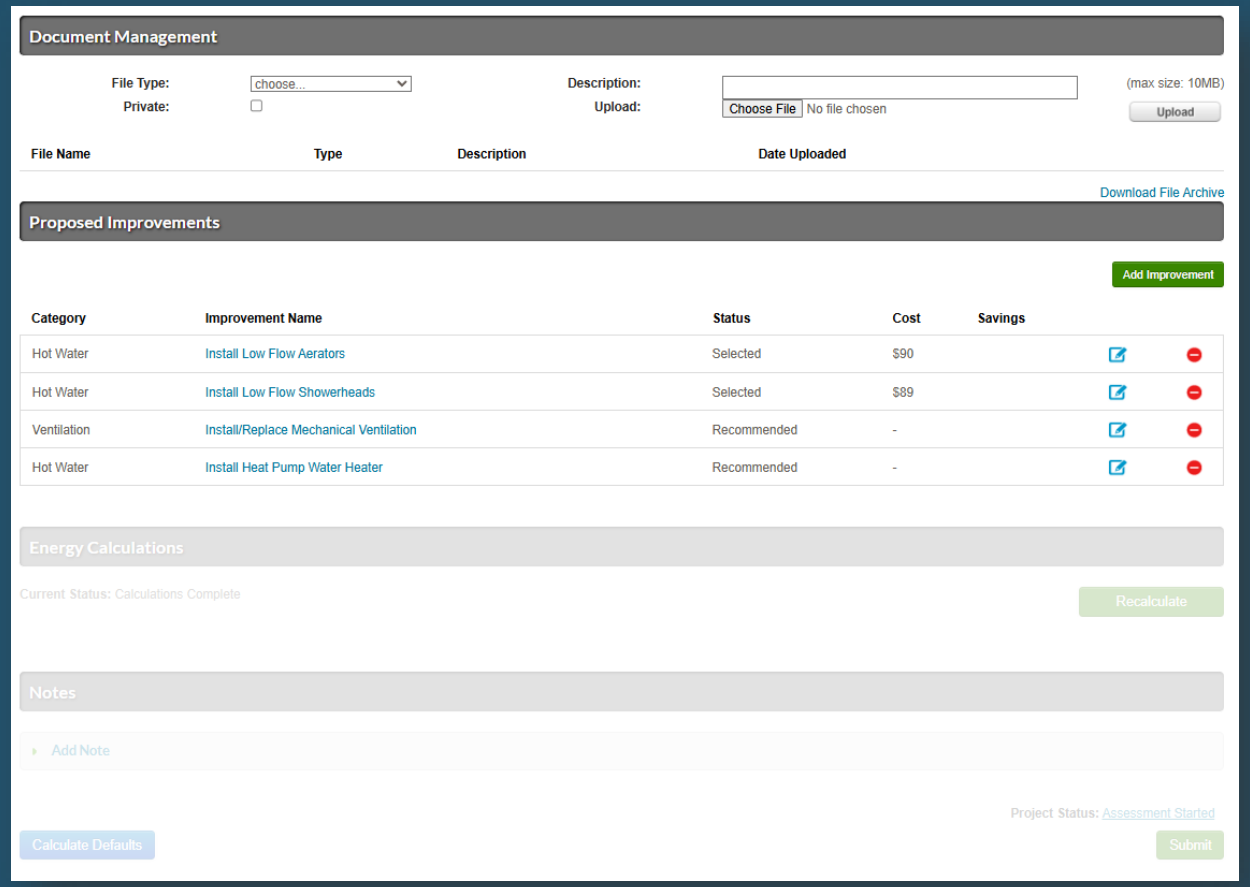
Improvements - Whole Building Assessment

Assessment Overview Page

Add any documentation as needed.

Use the **Proposed Improvements to add Equipment & Appliance measures**.

Measures added at this level will be parsed to Unit Types as appropriate.



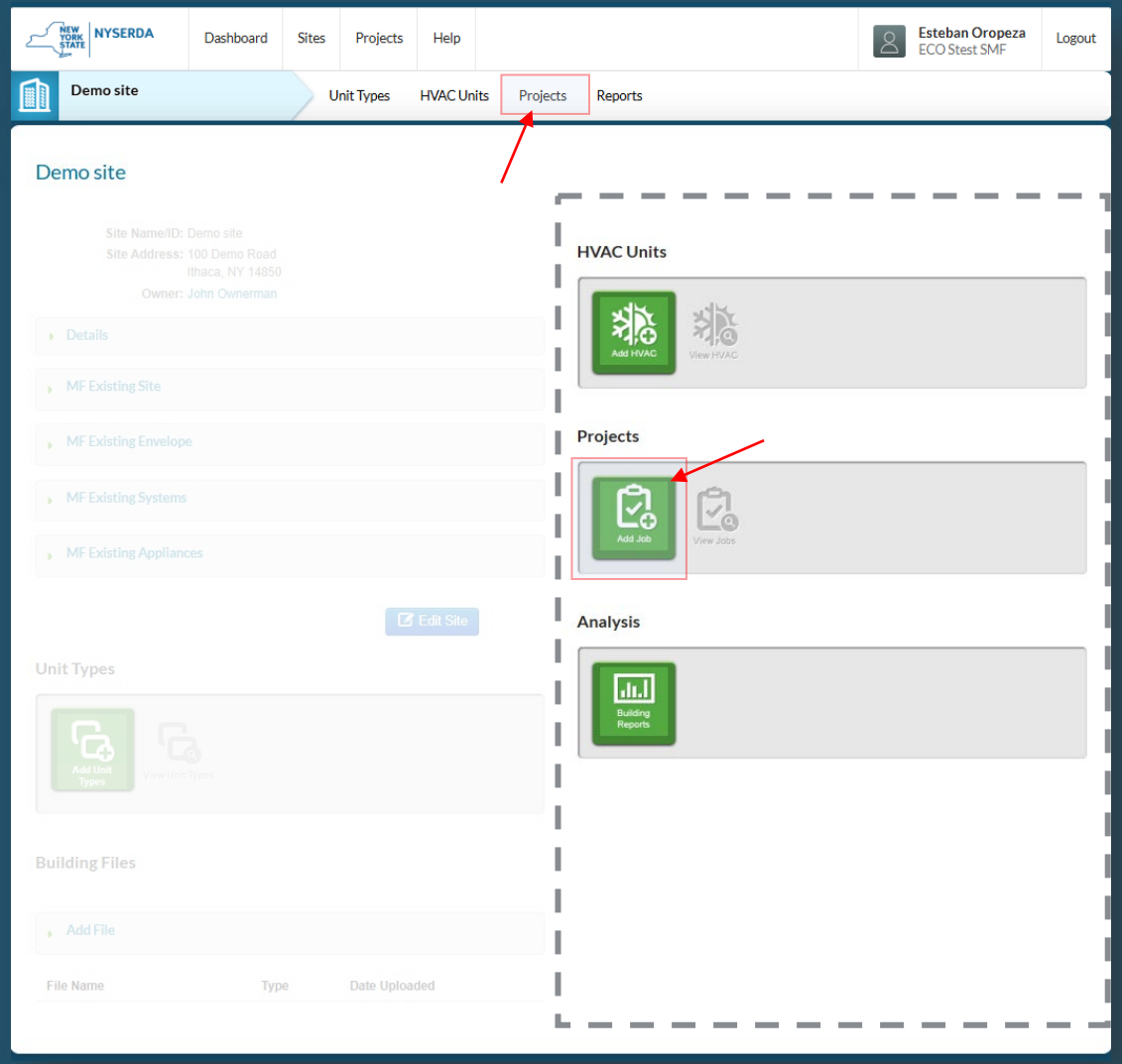
Improvements - Whole Building Assessment

Building Overview Page

Repeat the creation process **for Unit Type** Level **Projects.**

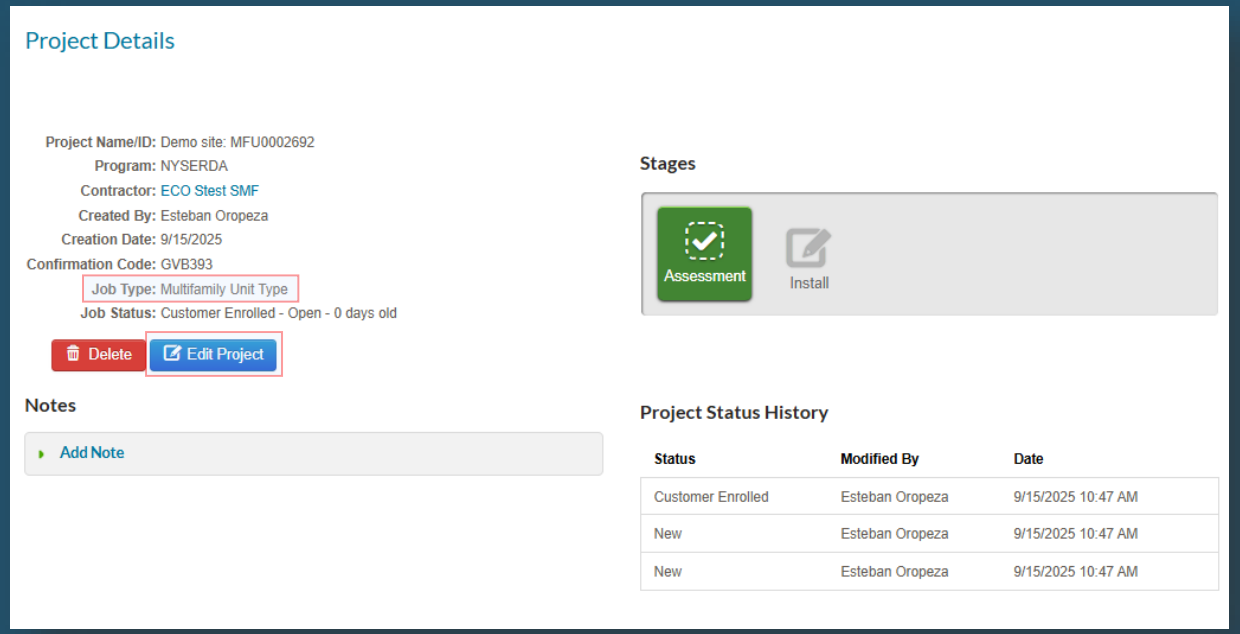
All Unit Types must have at least one associated Project.

The following steps can be bypassed when using the **Bulk Import** method.



Project Details Page

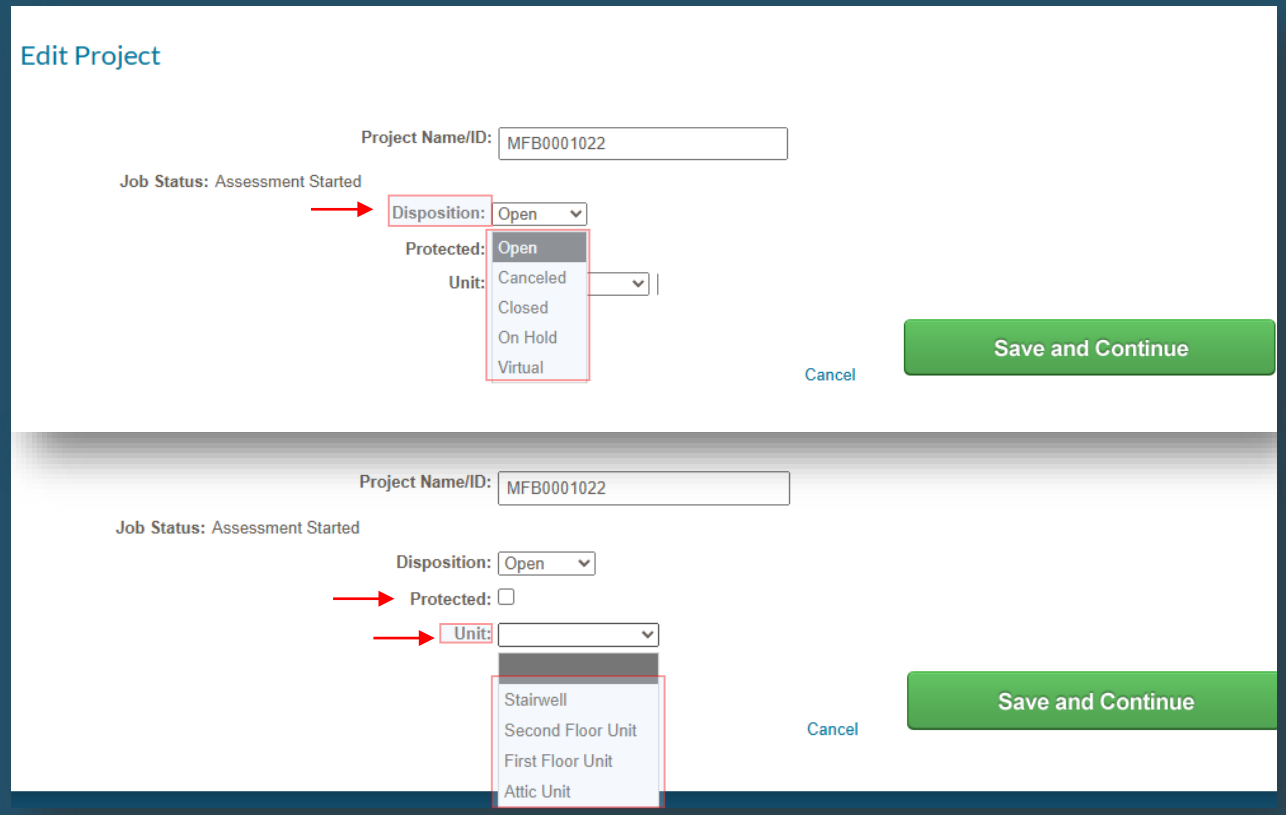
Edit Project status and associated unit as needed.



Improvements - Unit Type Level

Edit Project Page

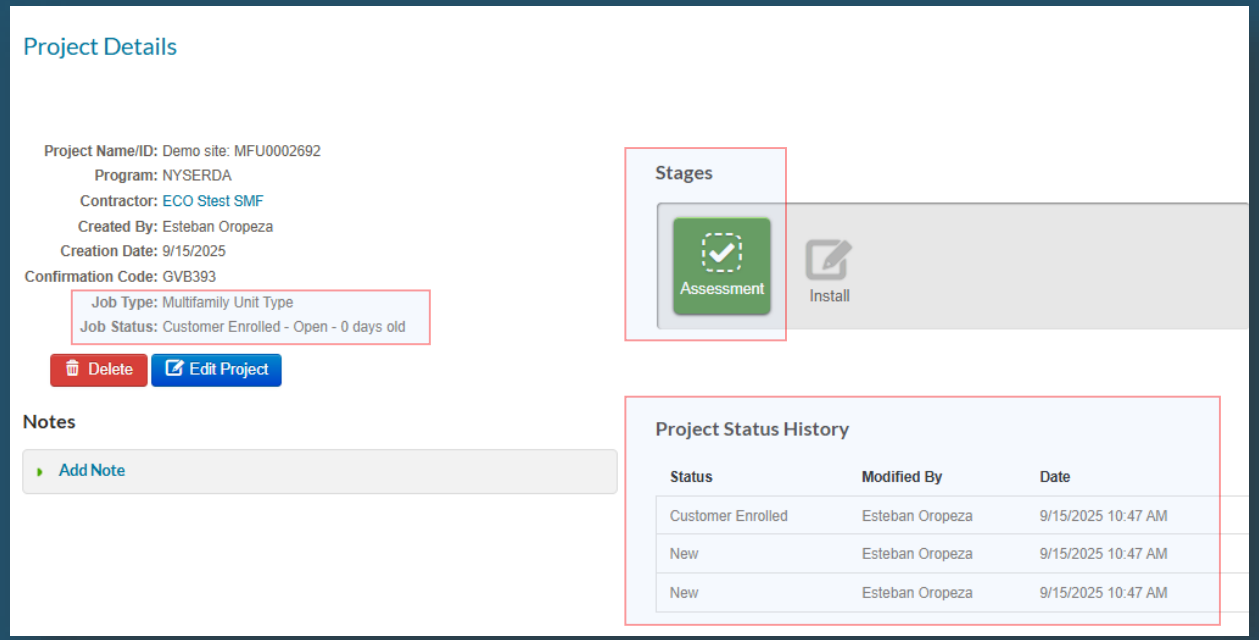
- Disposition
- Protection
- Associated Unit Type



Improvements - Unit Type Level

Project Details Page

1. Confirm the **Job Type** in question is “Multifamily Unit Type” and the status is either “Customer Enrolled” or “Assessment Started”.
2. See the **Project Status History** for tracking.
3. Enter the **Assessment stage** to input your envelope package and HVAC design Improvements.

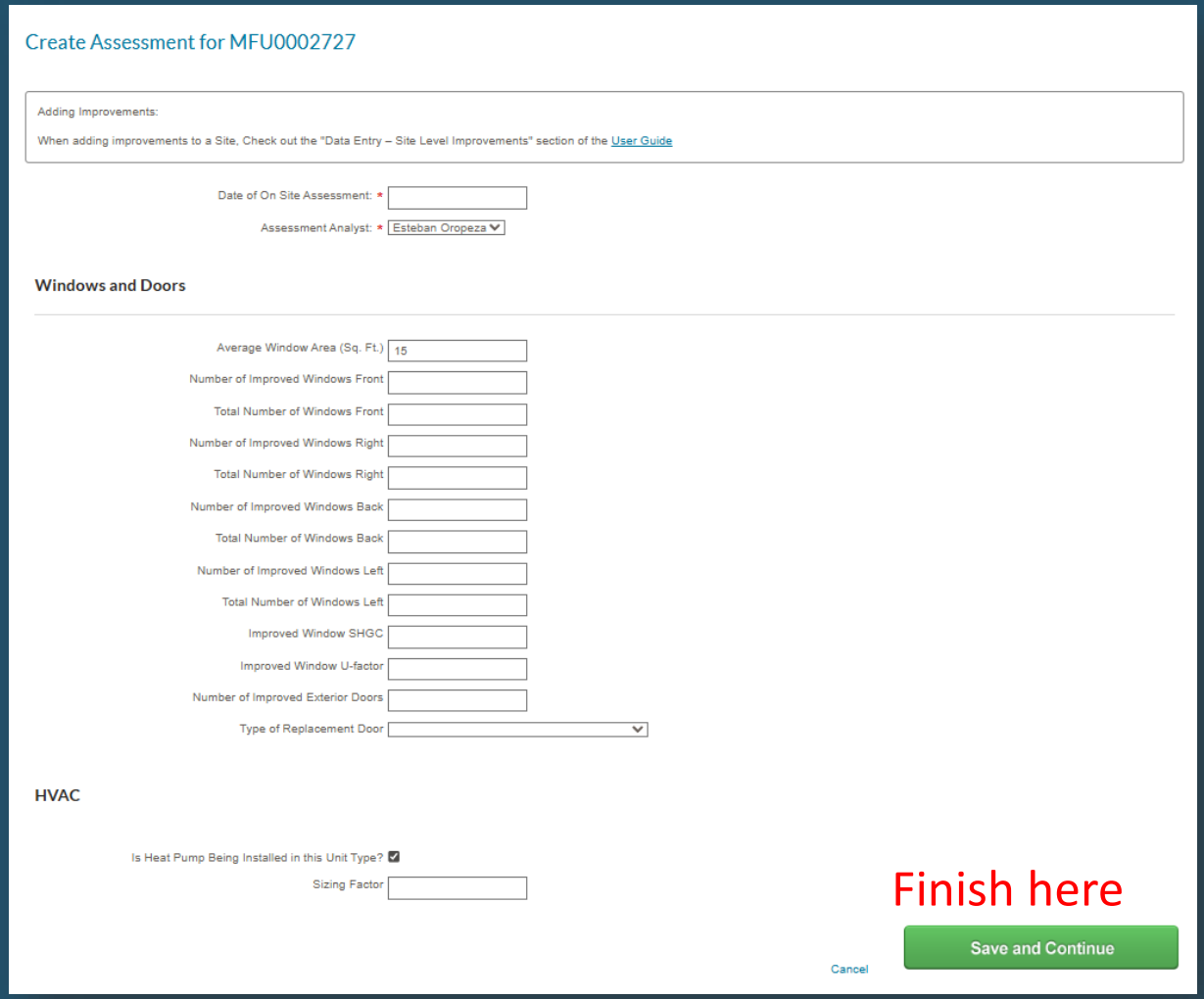


Improvements - Unit Type Level

Assessment Page

Make sure you hover over each field to see the pop-up guiding notes.

Refer to the corresponding subsection of *Field Entry Guide – Existing conditions* of the ***User Guide.***

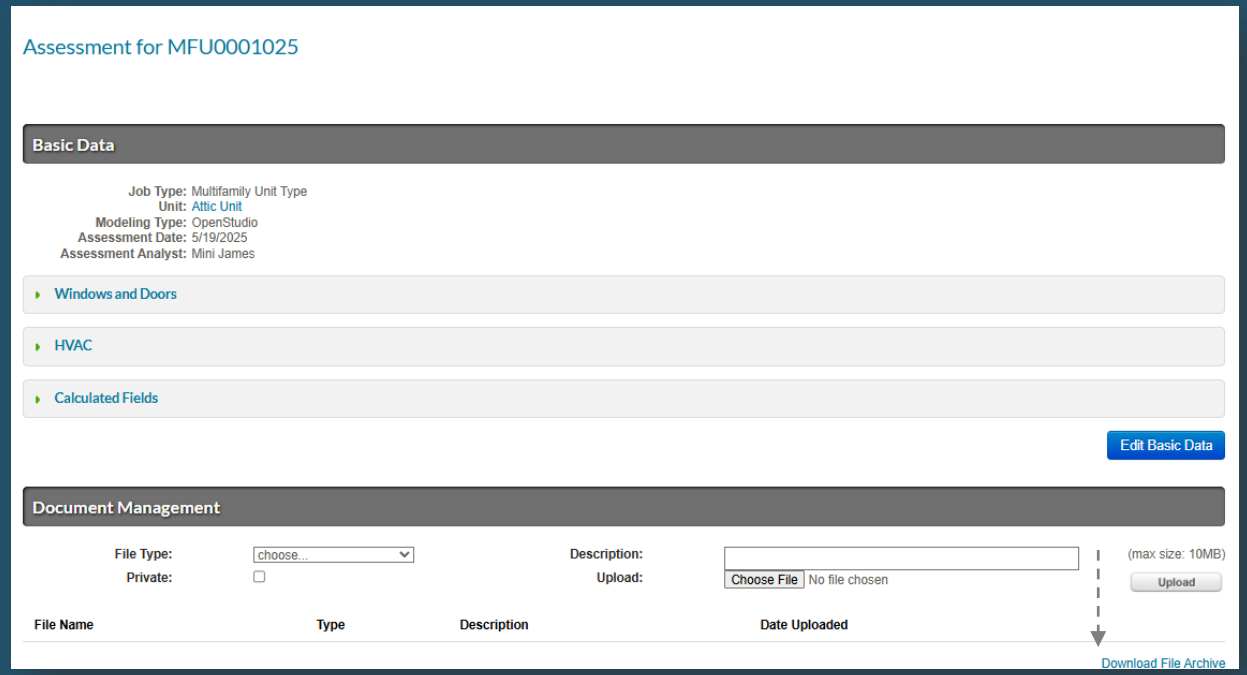


Improvements - Unit Type Assessment

Assessment Overview Page

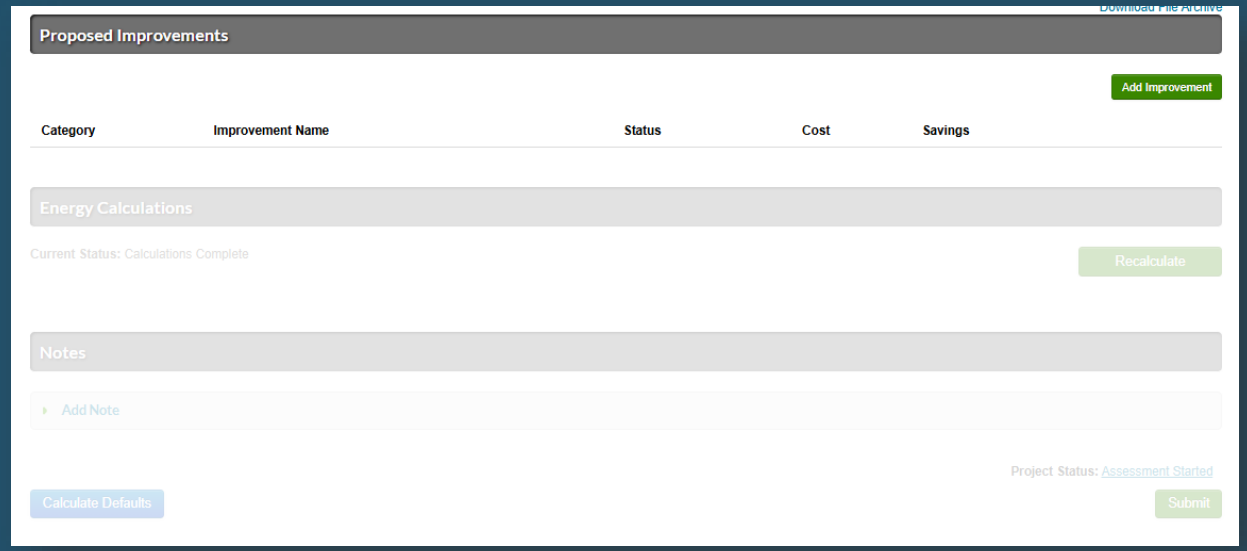
Upon saving the Assessment Page, the user is directed to the Assessment Overview Page, which provides a summary of the previously filled tabs.

Add any piece of documentation as needed.



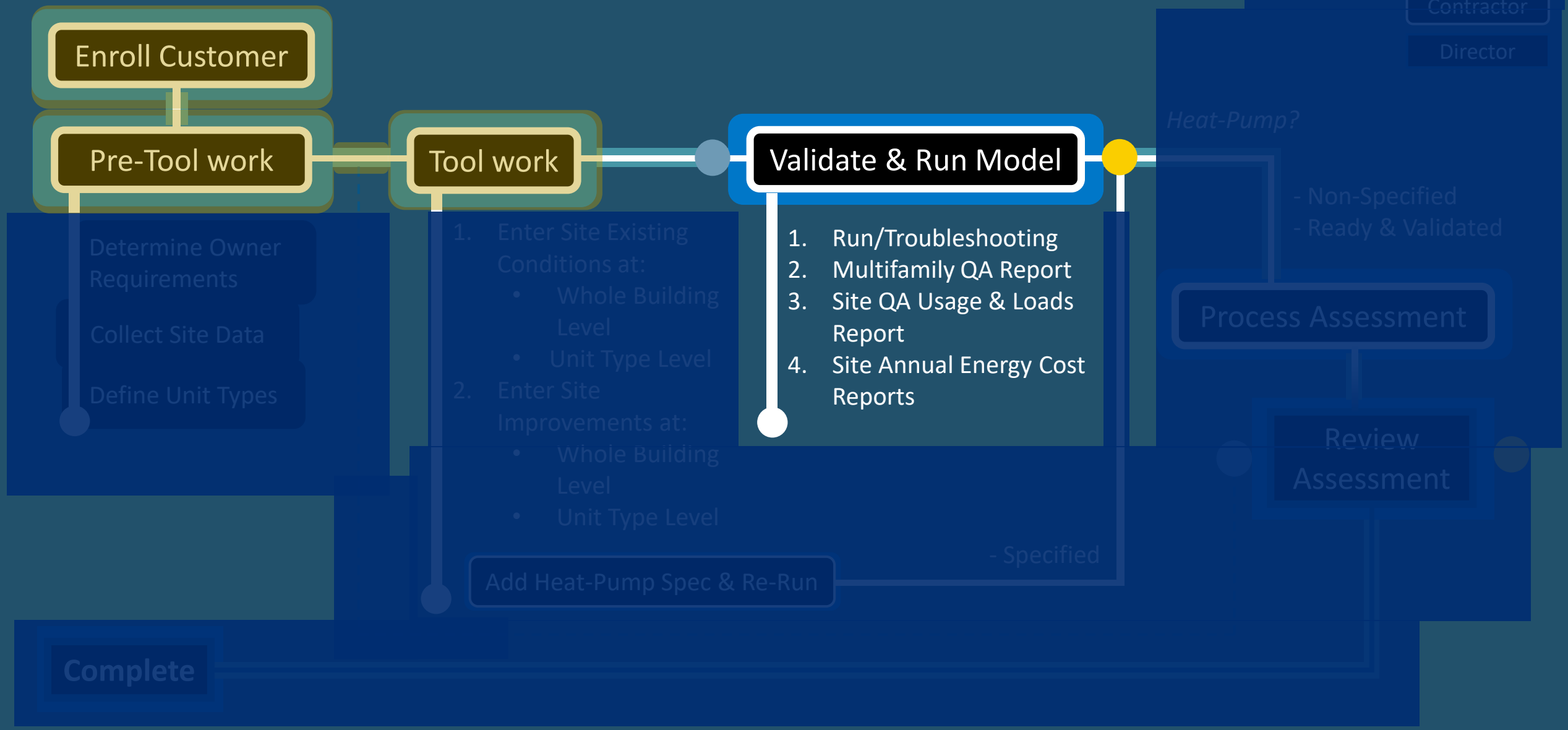
Assessment Overview Page

Use the Proposed Improvements section to add HVAC Heat Pumps. These will only be applied to the Unit Type associated with this Project.

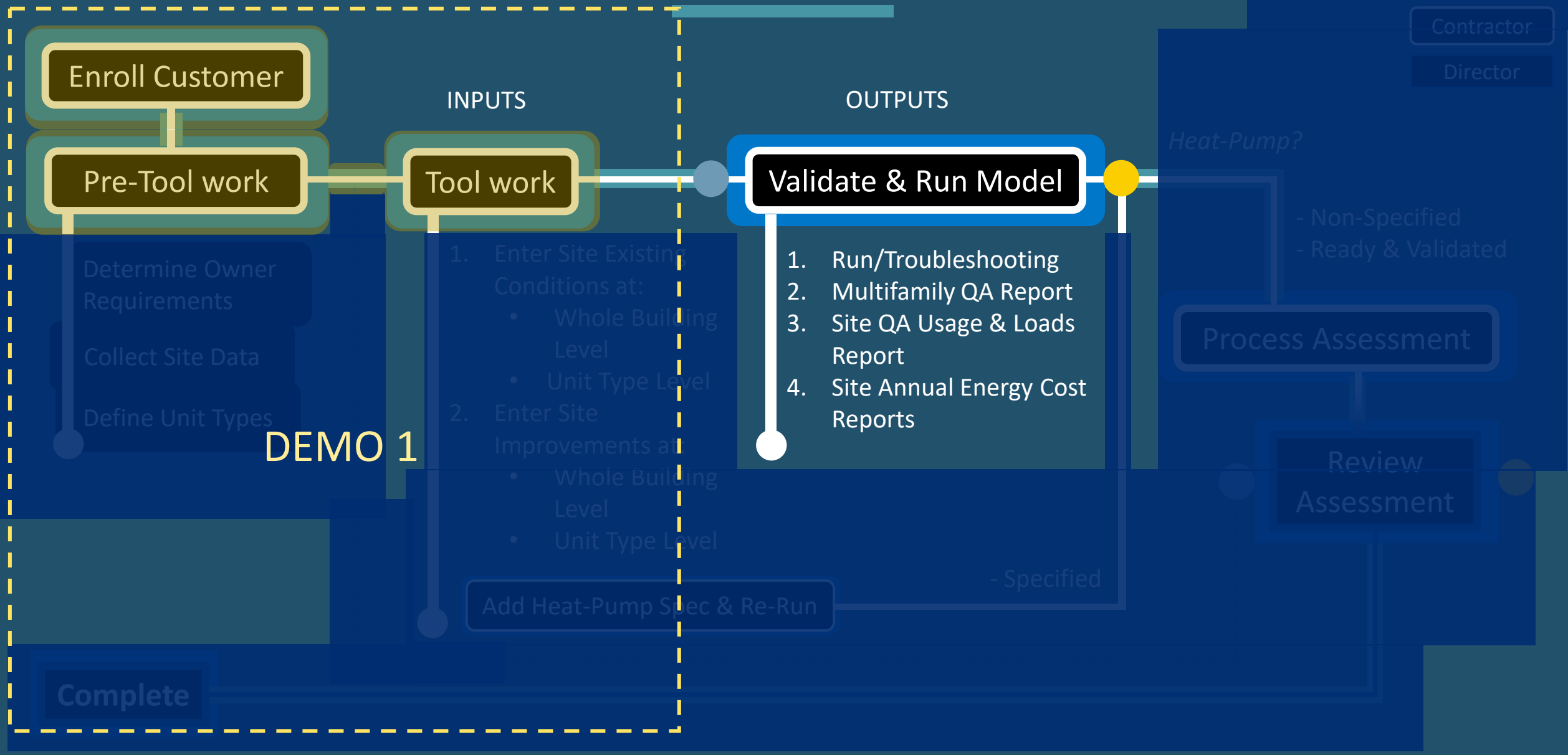


Improvements - Unit Type Assessment

Assessment-Install Cycle



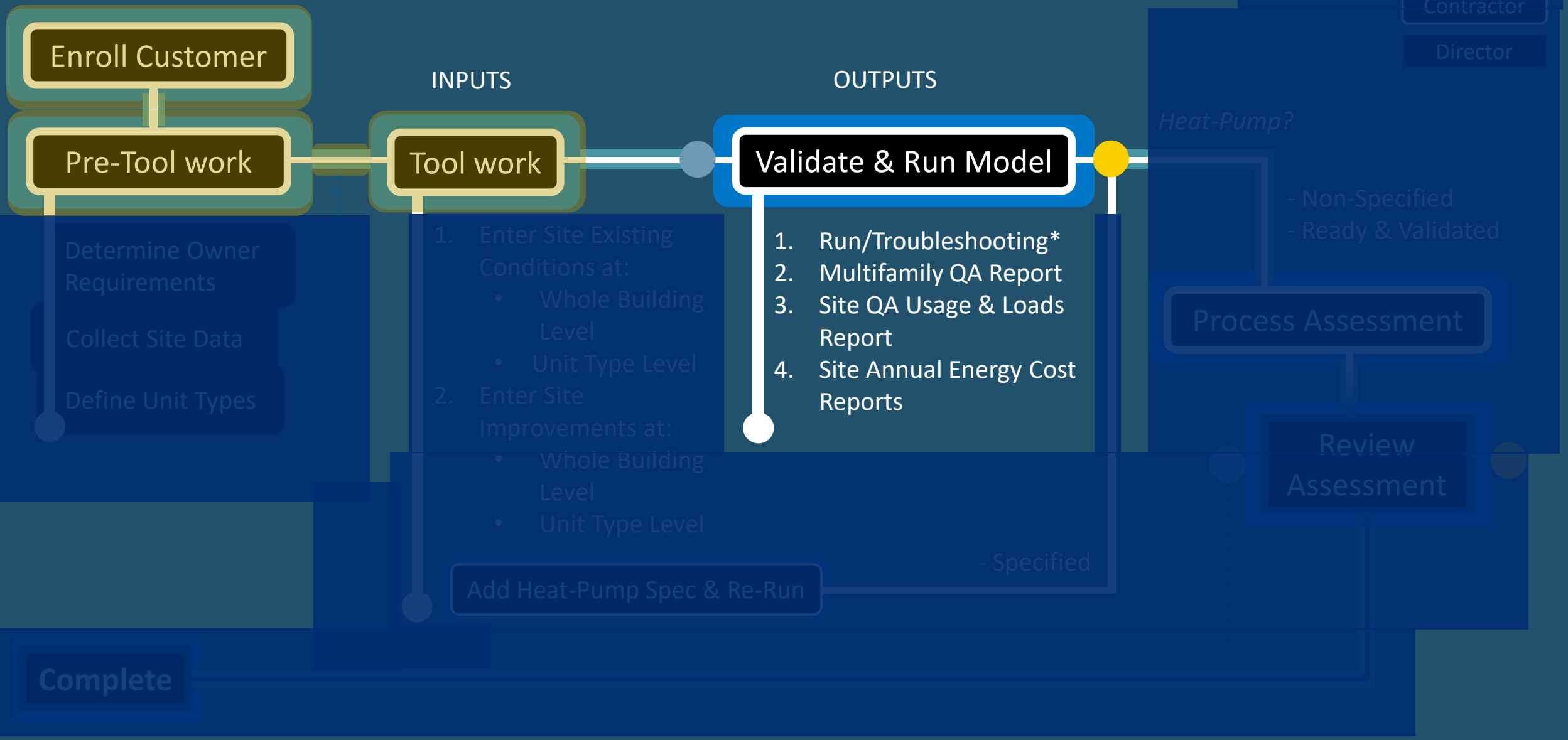
Assessment-Install Cycle



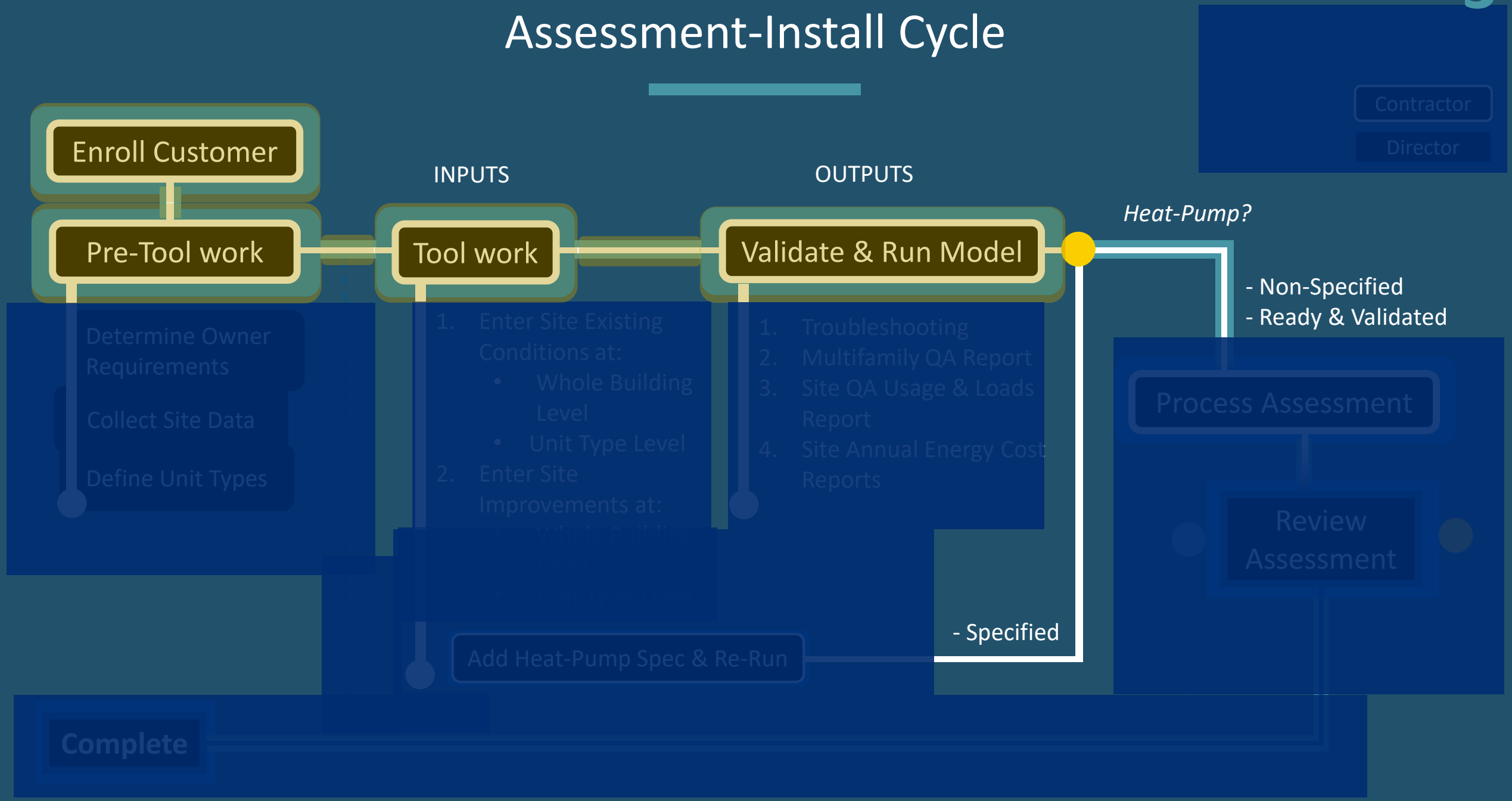
5 min break

DEMO Time

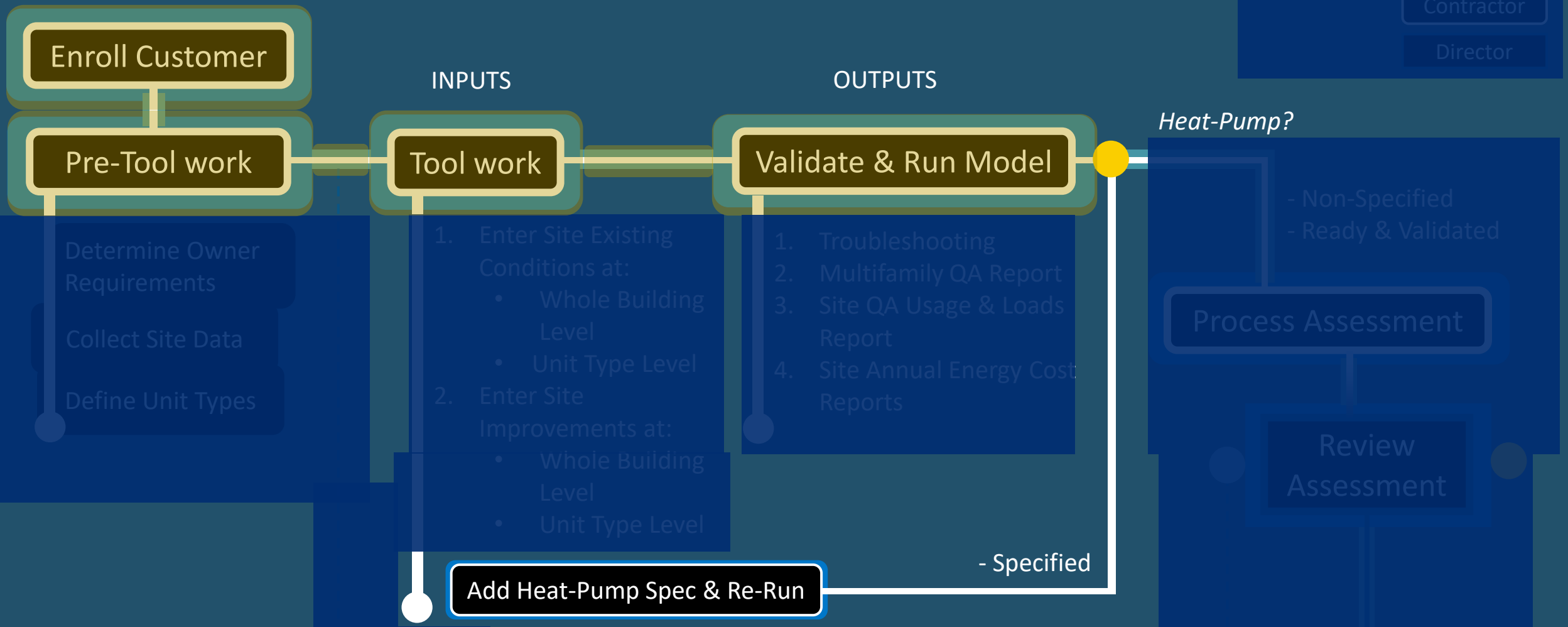
Assessment-Install Cycle



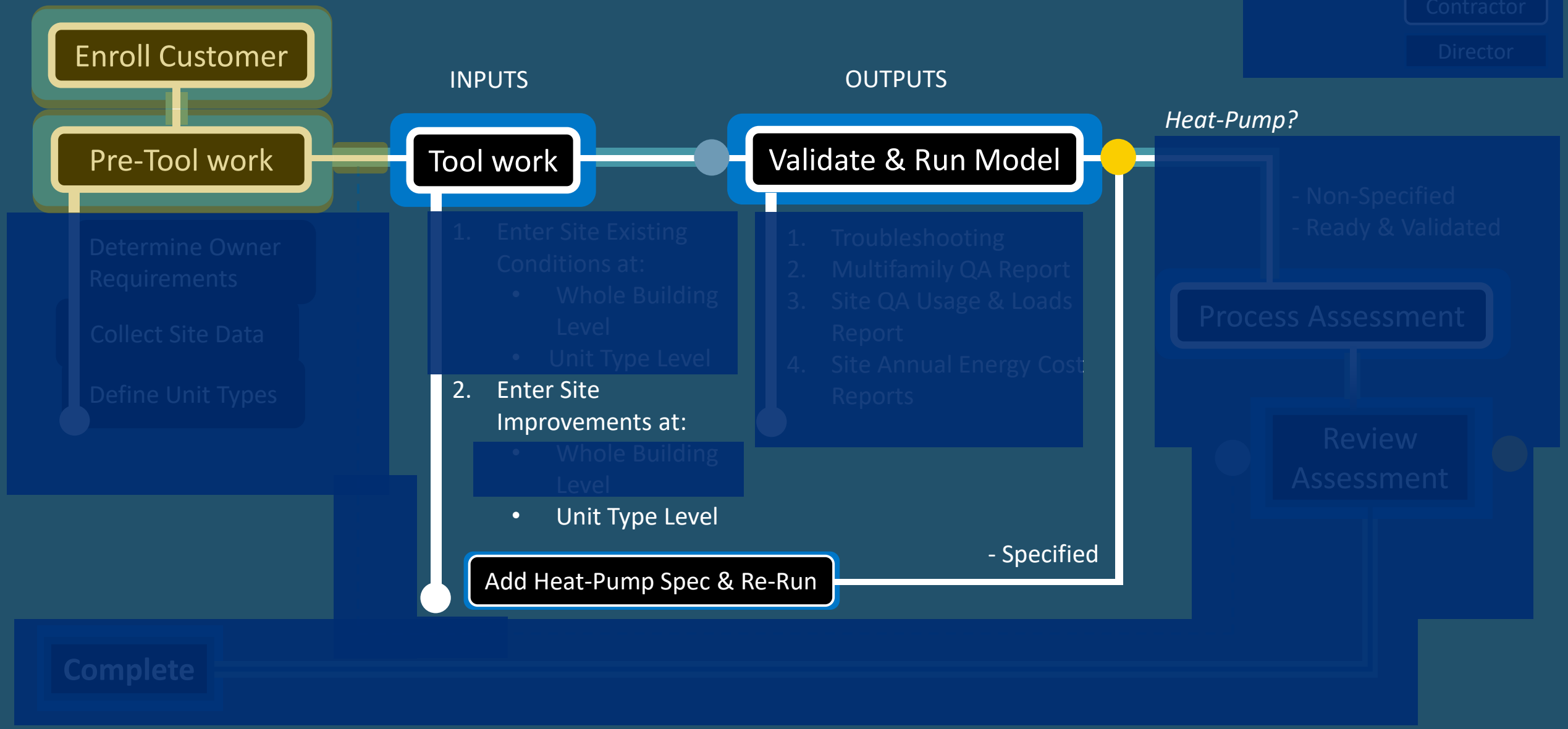
Assessment-Install Cycle



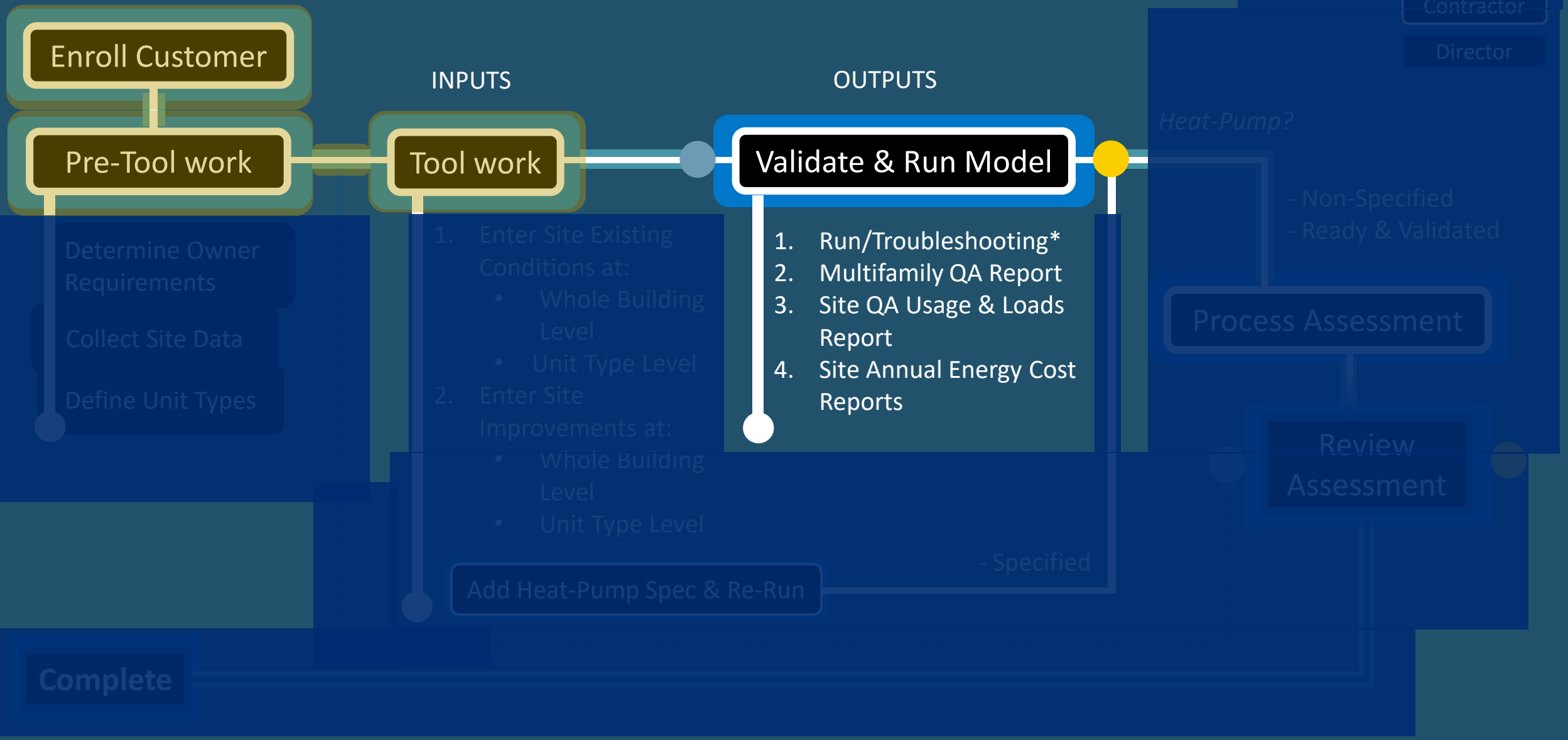
Assessment-Install Cycle



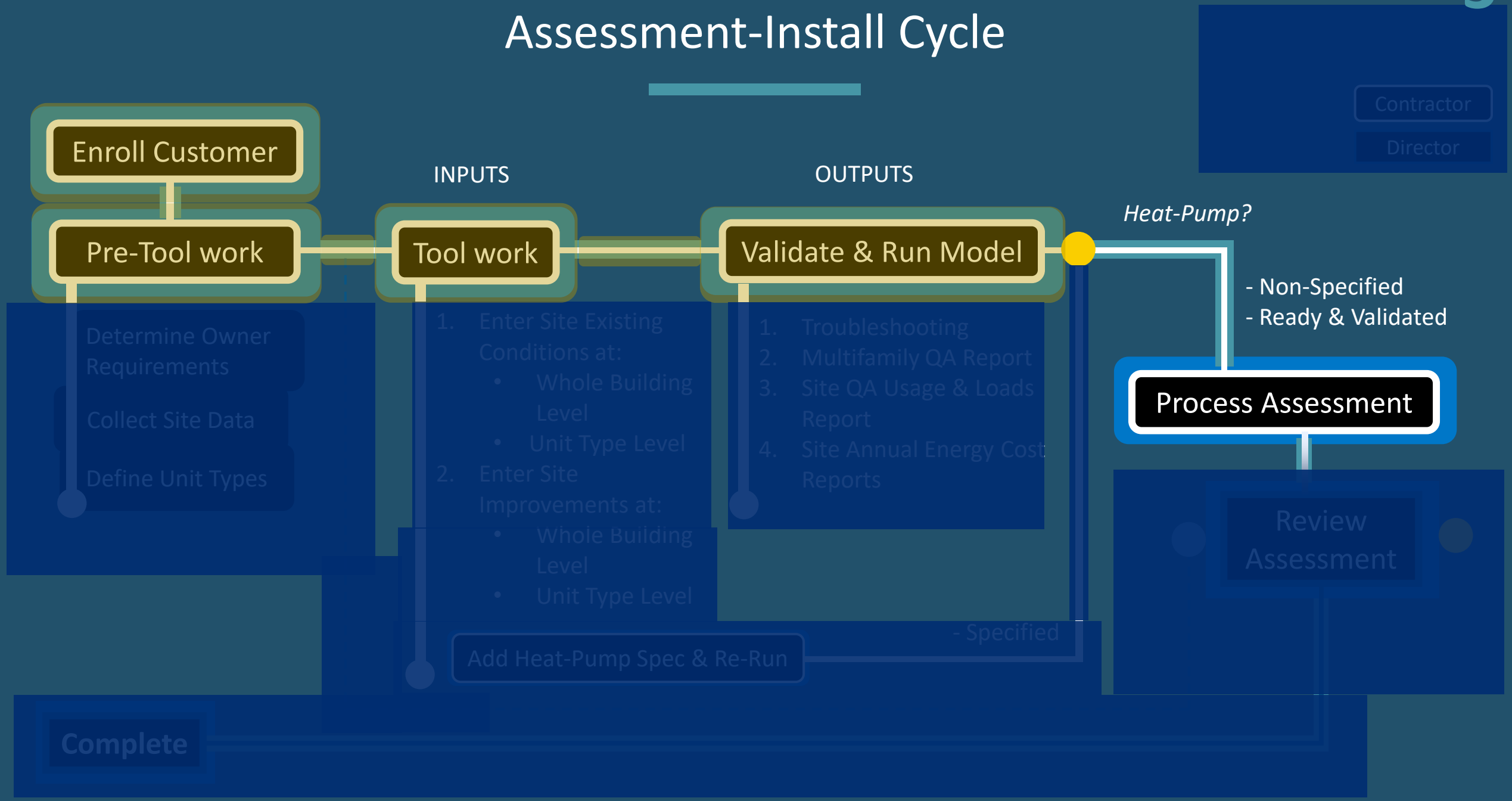
Assessment-Install Cycle



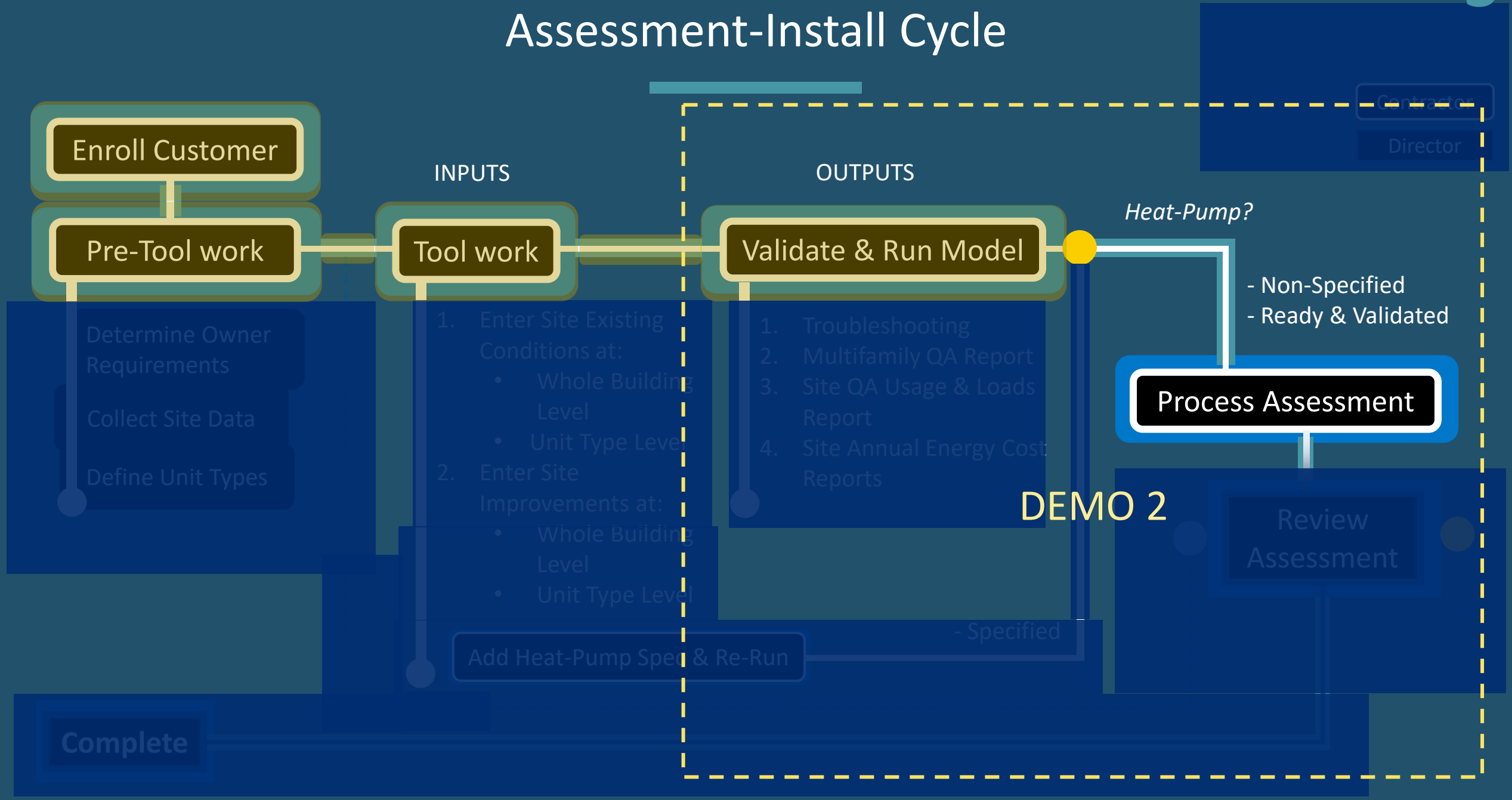
Assessment-Install Cycle



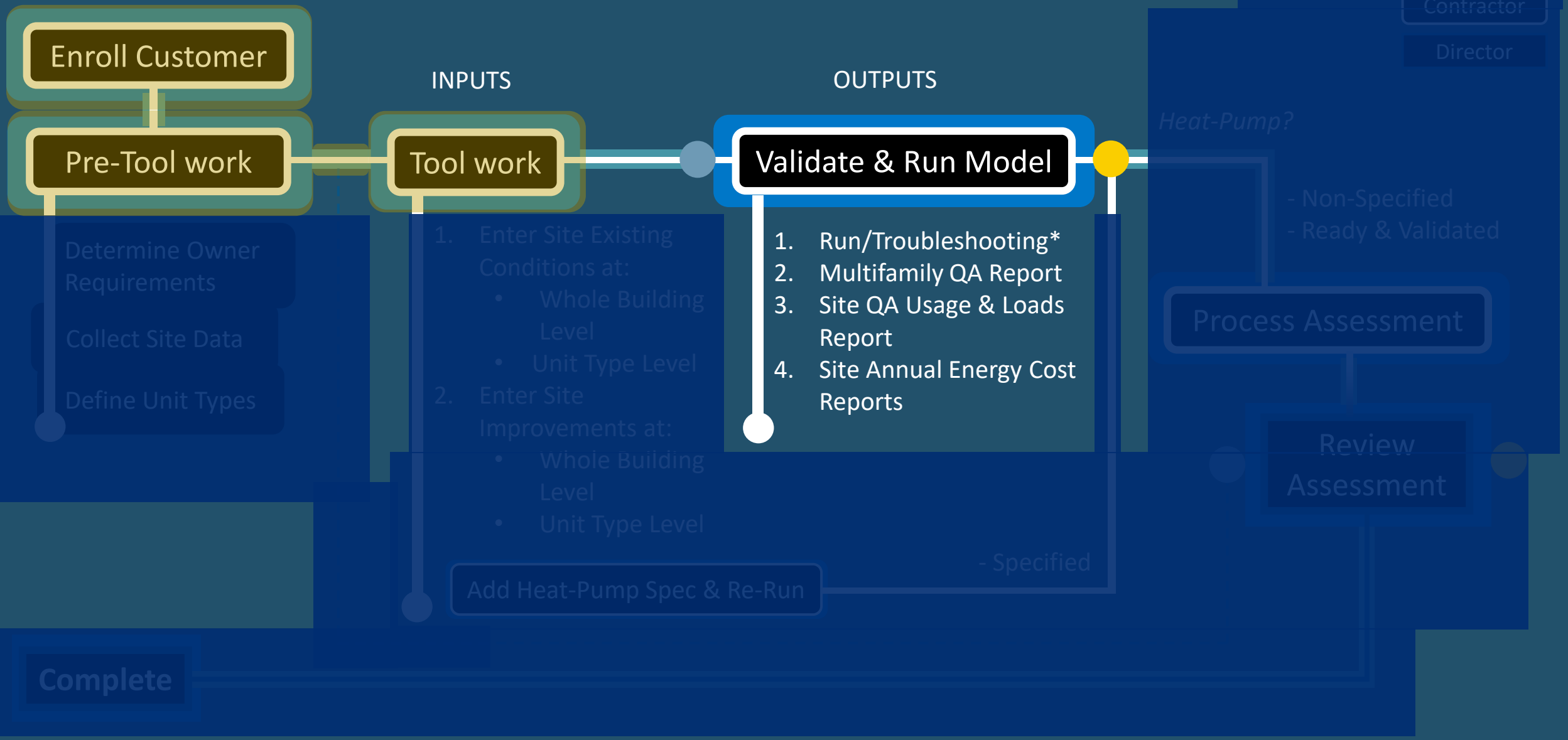
Assessment-Install Cycle



Assessment-Install Cycle

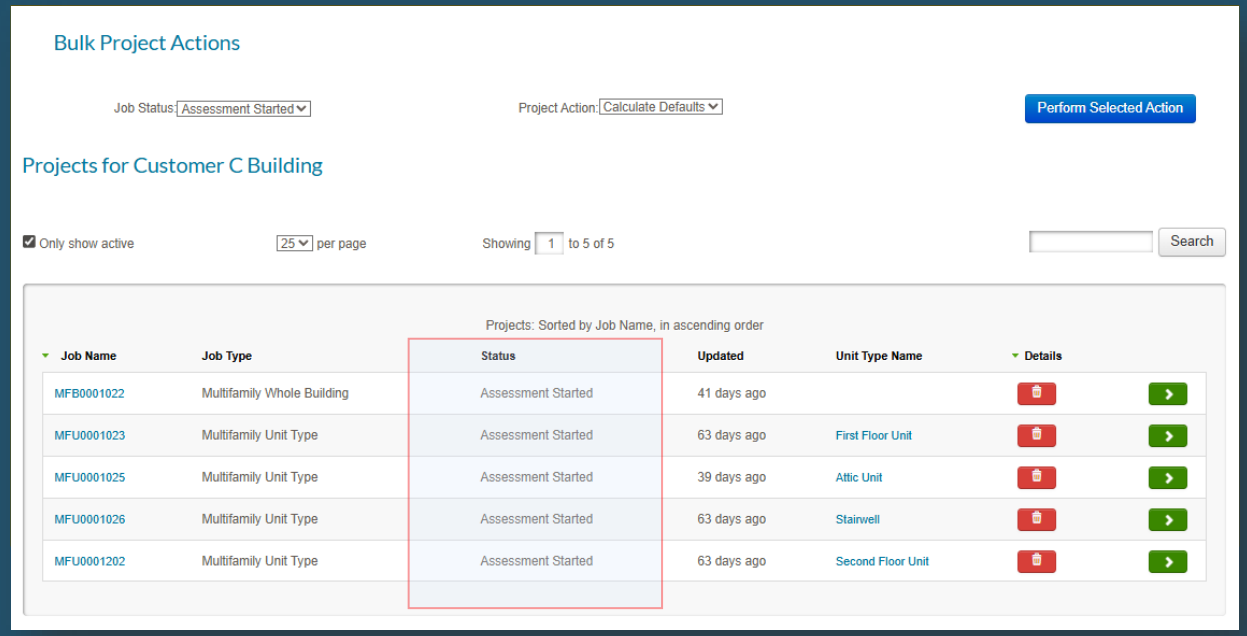


Assessment-Install Cycle



View Projects Page

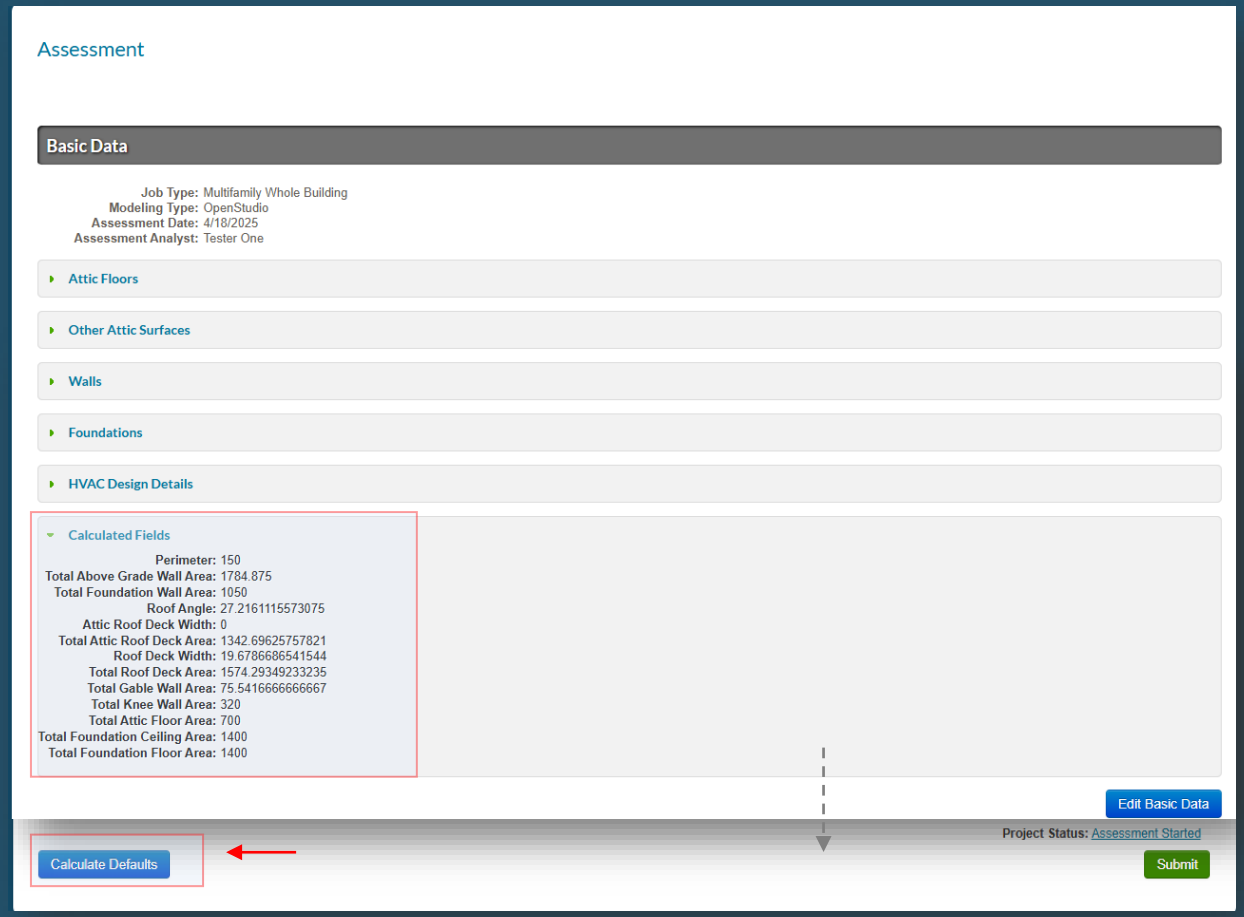
Before running the simulation, confirm all (or the relevant) projects are in **Assessment Started** status.



Assessment Overview Page

Calculate Defaults allows quick update to **Calculated Fields** prior to running the simulation.

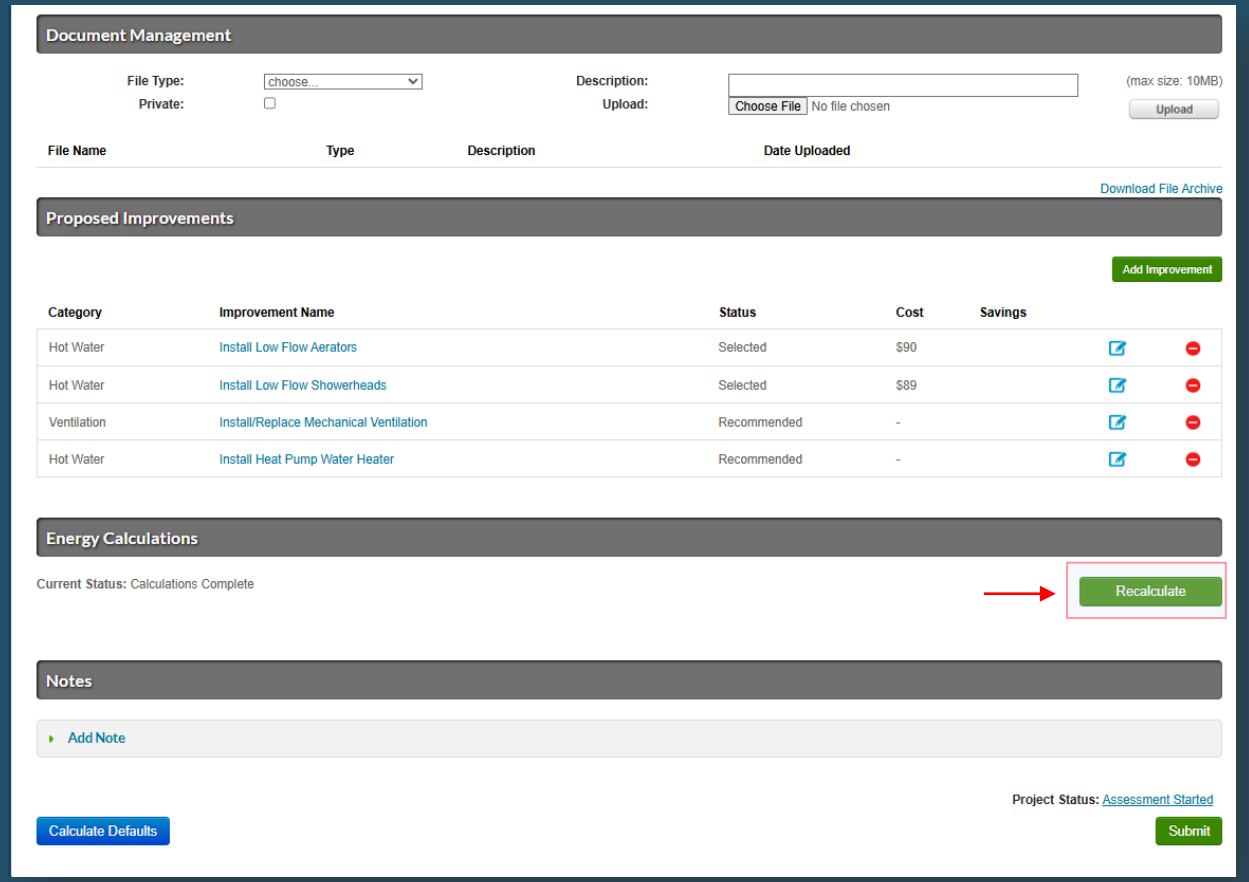
This is an optional QA step, and it is not required to run simulations.



Assessment Overview Page

Recalculate = Run Simulation

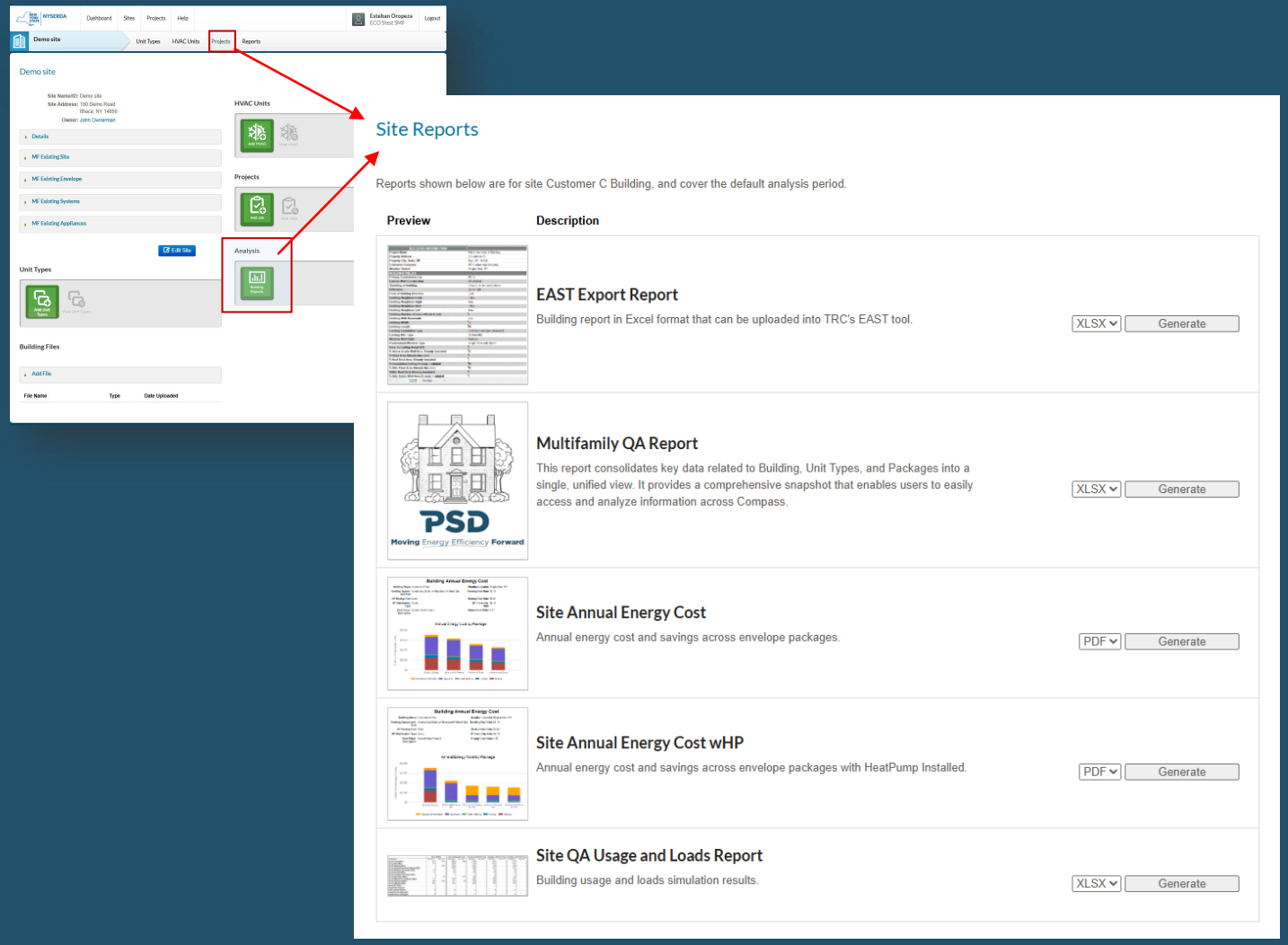
- Integration with Openstudio server.
- Auto **calculates Defaults** to work with latest input changes.
- Calculation is the same when done from the Whole Building or Unit Type Level Projects.



Reporting

Site Reports Page

- Multifamily QA
  - All your inputs & Calculated Values in one place
- Site QA Usage & Loads
  - End-use Annual Energy and Thermal Loads comparison across packages and improvements
- Site Annual Energy Cost /wHP
  - Bill outputs, including total energy, emissions and cost savings; mapped to project scenarios (Packages with improvements) and Unit Types.



Multifamily QA Report

This table gives you a snapshot of all your inputs at Whole building (site) Level

Multifamily QA Report v1.2

	BUILDING INFORMATION	
Project Name	Customer C Building	
Property Address	Customer C Building	
Property City, State, ZIP	Customer C test City , NY , 13452	
Contractor Company	MF Contracting Company	
Weather Station	Albany, NY	
	BUILDING FIELDS	
MF Existing Site	Primary Construction Era	1960s
	Shielding of Building	Class 2: A few obstructions
	Infiltration	Semi-Loose
	Front of Building Direction	East
	Building Neighbors Front	False
	Building Neighbors Right	False
	Building Neighbors Back	False
	Building Neighbors Left	False
	Building Number of Floors Above Grade	2
	Building Attic Has Kneewalls?	Yes
	Building Length (Ft)	40
	Building Width (Ft)	35
MF Existing Envelope	Existing Attic Type	Vented Attic
	Existing Foundation Type	Cold Unconditioned Basement
	Exterior Wall Construction	Masonry
	Predominant Window Type	Single Pane
	Window Wall Ratio	Medium
	Predominant Door Type	Metal Door w/ Polyurethane Core, No Storm
	Floor To Ceiling Height (Ft)	9
	% Attic Floor Area Already Insulated	10
	% Above Grade Wall Area Already Insulated	5
	Rim Joist Already Insulated	False
	% Floor Area Already Insulated	10
	% Foundation Wall Area Already Insulated	7
	% Attic Roof Deck Already Insulated	7
	% Roof Deck Area Already Insulated	5
	% Attic Gable Wall Area Already Insulated	5
	% Attic Knee Wall Area Already Insulated	15
	Primary Heating System Type	Non-Condensing Boiler w/ Baseboard

Summary | Details | +

Summary Tab

Multifamily QA Report

This table gives you a snapshot of all your inputs at Unit Type Level.

	UNIT TYPE ATTRIBUTES				BUILDING TOTALS
	Attic Unit - Living Unit with Attic Kneewalls	First Floor Unit - Above Grade Living Space	Second Floor Unit - Above Grade Living Space	Stairwell - Corridor/Stairs	
Conditioned Floor Area	964	1311	1311	234	3820
Number of Units	1	1	1	1	4
Unit Type Number of Stories Above Grade	1	1	1	2	-
Number of Bedrooms	2	2	2	-	6
Foundation Type/Connection	Another PDU	Same as Building	Another PDU	Same as Building	-
Number of Bathrooms	1	1	1	-	3
% of Attic Knee Wall Area	100	-	-	0	100.00%
% of Connected Area to Attic	0	0	75	25	100.00%
% of Attic Gable Wall Area	50	-	-	25	75.00%
% of Connected Area to Foundation	0	91	0	9	100.00%
% of Attic Roof Deck Area	0	-	-	27	27.00%
% of Roof Deck (Slope Ceiling) Area	100	-	-	0	100.00%
Number of Exterior Doors	0	1	1	1	3
Max. Exposed Perimeter Length Front (Ft)	16	20	20	4	60
Max. Exposed Perimeter Length Right (Ft)	0	60	60	0	120
Max. Exposed Perimeter Length Back (Ft)	16	24	24	0	64
Floor To Ceiling Height (Ft)	9	9	9	9	-
Max. Exposed Perimeter Length Left (Ft)	0	27.6	27.6	32.5	87.7
Attic Knee Wall Height	3	-	-		-
Unit is Heated/Cooled	Heated and Cooled	Heated only	Heated only	Heated only	-
Heating System Type	-	-	-		-
Cooling System Type	-	-	-	None	-
Heating System Fuel	-	-	-		-
Heating System Age	-	-	-		-
Cooling System Age	-	-	-		-

Summary Tab

PSD

Multifamily QA Report

1. This table gives you a summary of the Envelope Component values as rolled up from the Unit Type Level Calculated Values
2. This table Compares your input Totals at Whole Building Improvement Level with the above totals.

1

COMPONENT DIMENSIONS				
Component	Total Area	Improved Area	Already Meets Requirements Area	Does Not Meet Requirements Area
Exterior Above Grade Walls	2,963.08	2,666.78	133.34	162.97
Windows	377.76	147.00	0.00	0.00
Doors	60	80	0	-20
Attic Floor	477.00	405.45	47.70	23.85
Attic Roof	593.98	534.58	41.58	17.82
Roof Deck (Sloped Ceiling)	1,205.00	1,084.50	60.25	60.25
Attic Kneewalls	358.56	286.85	53.78	17.93
Attic Gable Walls	23.59	21.23	1.18	1.18
Ceiling Above Unconditioned Space	1442.000031	1225.69997	144.1999933	72.09999666
Foundation Walls	1,344.80	1,210.32	94.14	40.34
Rim Joist	168.10	168.10	0.00	0.00

2

ENTERED VS CALCULATED			
Component	Total Area	Calculated Area	Estimated Area
Exterior Above Grade Walls	2,881.00	2,963.08	10,310.40
Attic Floor	476.00	477.00	
Attic Roof	595.00	593.98	
Roof Deck (Sloped Ceiling)	1,205.00	1,205.00	
Attic Kneewalls	360.00	358.56	
Attic Gable Walls	23.60	23.59	
Foundation Ceiling	1440	1442.000031	
Foundation Walls	1,440.00	1,344.80	
Windows	147	377.7600002	

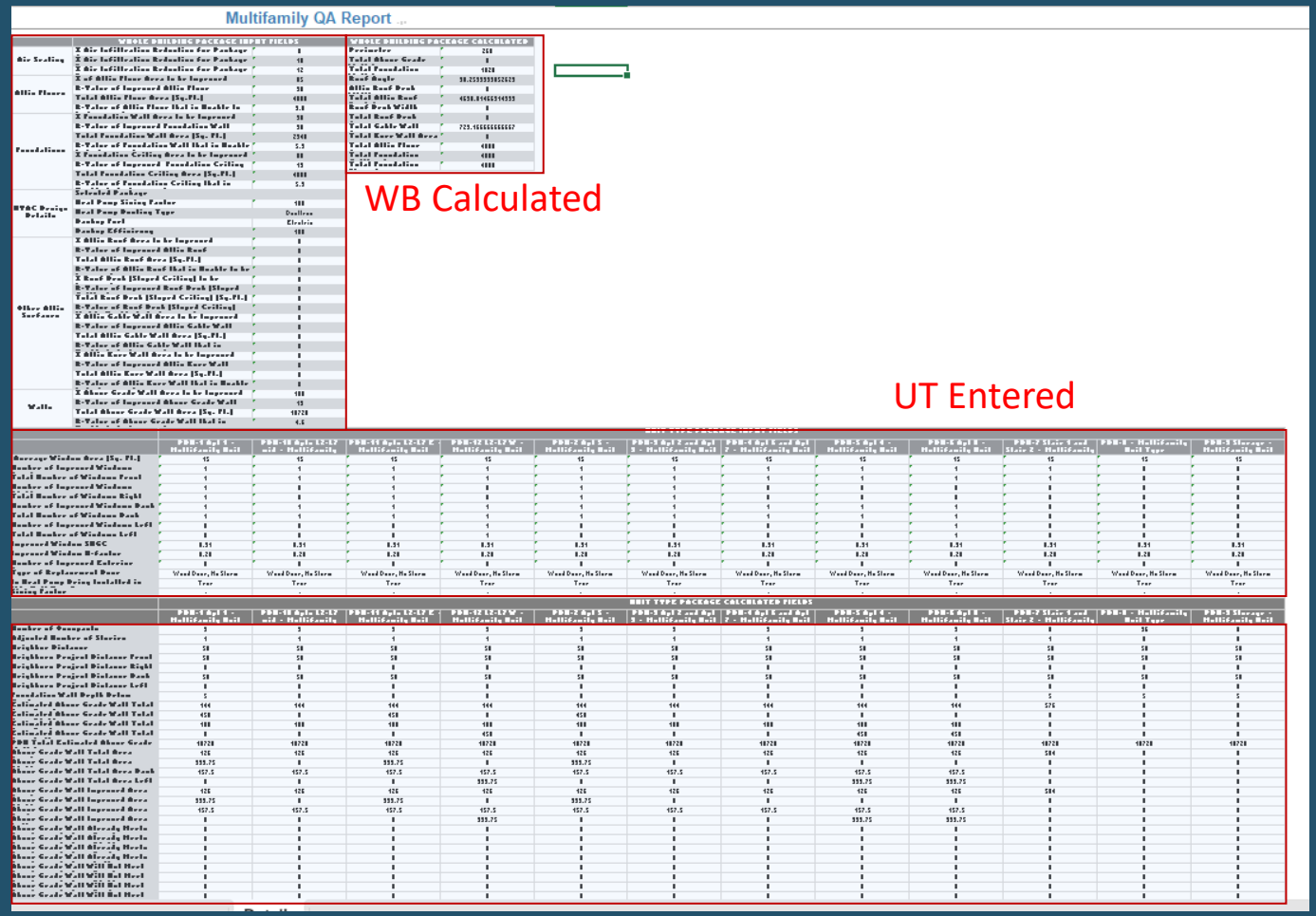
Input

Summary Tab

Multifamily QA Report

The tables within the “Details” tab show you the Improved entered vs calculated inputs at Whole Building and Unit Type level, respectively.

WB Entered



Details Tab

Site QA Usage & Loads

Annual kBTUs per end use and applicable fuel type, shows the progressive impact of envelope packages and equipment improvements

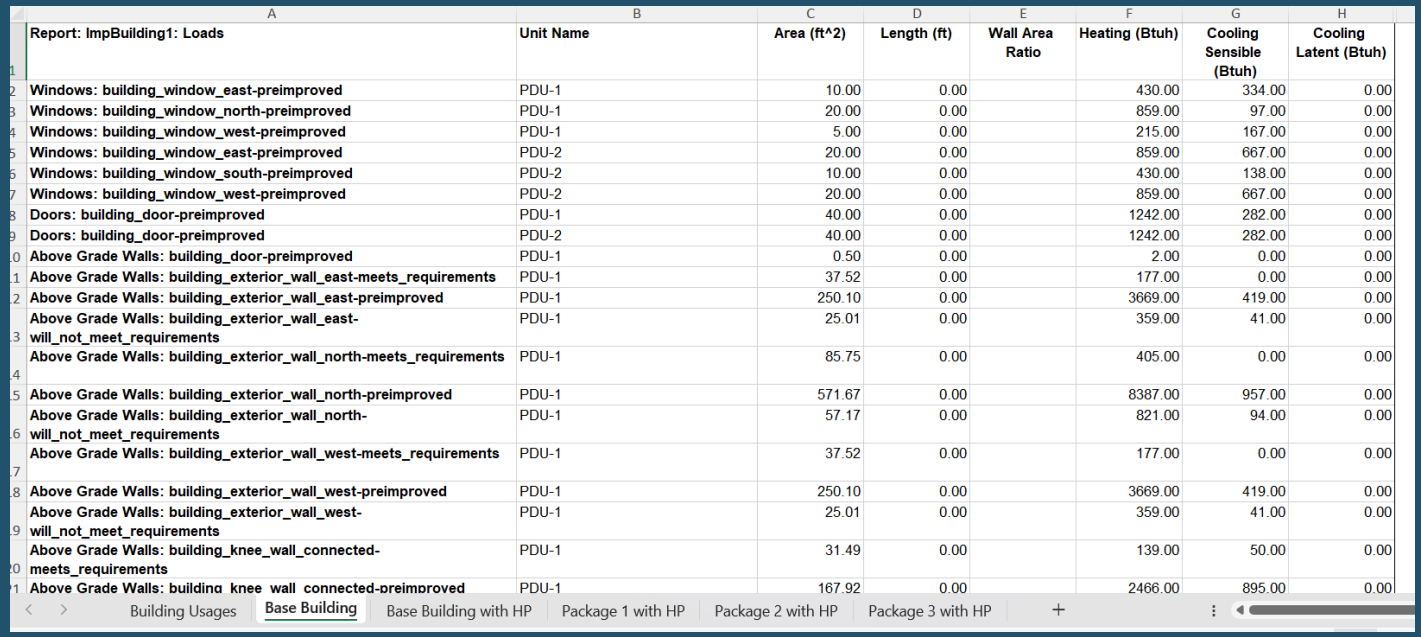
	Base Building		Base Building with HP		Package 1 with HP		Package 2 with HP		Package 3 with HP	
Component	Electricity	Natural Gas	Electricity	Natural Gas	Electricity	Natural Gas	Electricity	Natural Gas	Electricity	Natural Gas
Annual Total (kBtu)	47823	282881	95469	52367	93619	5890	77043	5890	75266	5890
Annual Net (kBtu)	47823	0	95469	0	93619	0	77043	0	75266	0
Annual Heating (kBtu)	0	231769	52587	0	45281	0	28733	0	27134	0
Annual Heating Heat Pump Backup (kBtu)	0	0	84	0	170	0	259	0	305	0
Annual Heating Fans Pumps (kBtu)	4846	0	3008	0	2692	0	1639	0	1558	0
Annual Cooling (kBtu)	5572	0	2368	0	1773	0	1847	0	1701	0
Annual Cooling Fans Pumps (kBtu)	0	0	58	0	38	0	44	0	39	0
Annual Hot Water (kBtu)	0	45167	0	46423	6281	0	7105	0	7113	0
Annual Mechanical Ventilation (kBtu)	0	0	0	0	0	0	0	0	0	0
Annual Appliance (kBtu)	16435	5946	16395	5946	16417	5890	16447	5890	16448	5890
Annual Lighting (kBtu)	20972	0	20972	0	20972	0	20972	0	20972	0
Annual PV (kBtu)	0	0	0	0	0	0	0	0	0	0
Peak Winter Demand	0	0	0	0	0	0	0	0	0	0
Peak Summer Demand	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Unmet Hours Heating (hr)	0	0	0	0	0	0	0	0	0	0
Unmet Hours Cooling (hr)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

Building Usages Tab

Site QA Usage & Loads

Shows All the thermal loads at surface or component level.

Provides granular view of the impact of packages and measures.



Report: ImpBuilding1: Loads	Unit Name	Area (ft^2)	Length (ft)	Wall Area Ratio	Heating (Btuh)	Cooling Sensible (Btuh)	Cooling Latent (Btuh)
Windows: building_window_east-preimproved	PDU-1	10.00	0.00		430.00	334.00	0.00
Windows: building_window_north-preimproved	PDU-1	20.00	0.00		859.00	97.00	0.00
Windows: building_window_west-preimproved	PDU-1	5.00	0.00		215.00	167.00	0.00
Windows: building_window_east-preimproved	PDU-2	20.00	0.00		859.00	667.00	0.00
Windows: building_window_south-preimproved	PDU-2	10.00	0.00		430.00	138.00	0.00
Windows: building_window_west-preimproved	PDU-2	20.00	0.00		859.00	667.00	0.00
Doors: building_door-preimproved	PDU-1	40.00	0.00		1242.00	282.00	0.00
Doors: building_door-preimproved	PDU-2	40.00	0.00		1242.00	282.00	0.00
Above Grade Walls: building_door-preimproved	PDU-1	0.50	0.00		2.00	0.00	0.00
Above Grade Walls: building_exterior_wall_east-meets_requirements	PDU-1	37.52	0.00		177.00	0.00	0.00
Above Grade Walls: building_exterior_wall_east-preimproved	PDU-1	250.10	0.00		3669.00	419.00	0.00
Above Grade Walls: building_exterior_wall_east-will_not_meet_requirements	PDU-1	25.01	0.00		359.00	41.00	0.00
Above Grade Walls: building_exterior_wall_north-meets_requirements	PDU-1	85.75	0.00		405.00	0.00	0.00
Above Grade Walls: building_exterior_wall_north-preimproved	PDU-1	571.67	0.00		8387.00	957.00	0.00
Above Grade Walls: building_exterior_wall_north-will_not_meet_requirements	PDU-1	57.17	0.00		821.00	94.00	0.00
Above Grade Walls: building_exterior_wall_west-meets_requirements	PDU-1	37.52	0.00		177.00	0.00	0.00
Above Grade Walls: building_exterior_wall_west-preimproved	PDU-1	250.10	0.00		3669.00	419.00	0.00
Above Grade Walls: building_exterior_wall_west-will_not_meet_requirements	PDU-1	25.01	0.00		359.00	41.00	0.00
Above Grade Walls: building_knee_wall_connected-meets_requirements	PDU-1	31.49	0.00		139.00	50.00	0.00
Above Grade Walls: building_knee_wall_connected-preimproved	PDU-1	167.92	0.00		2466.00	895.00	0.00

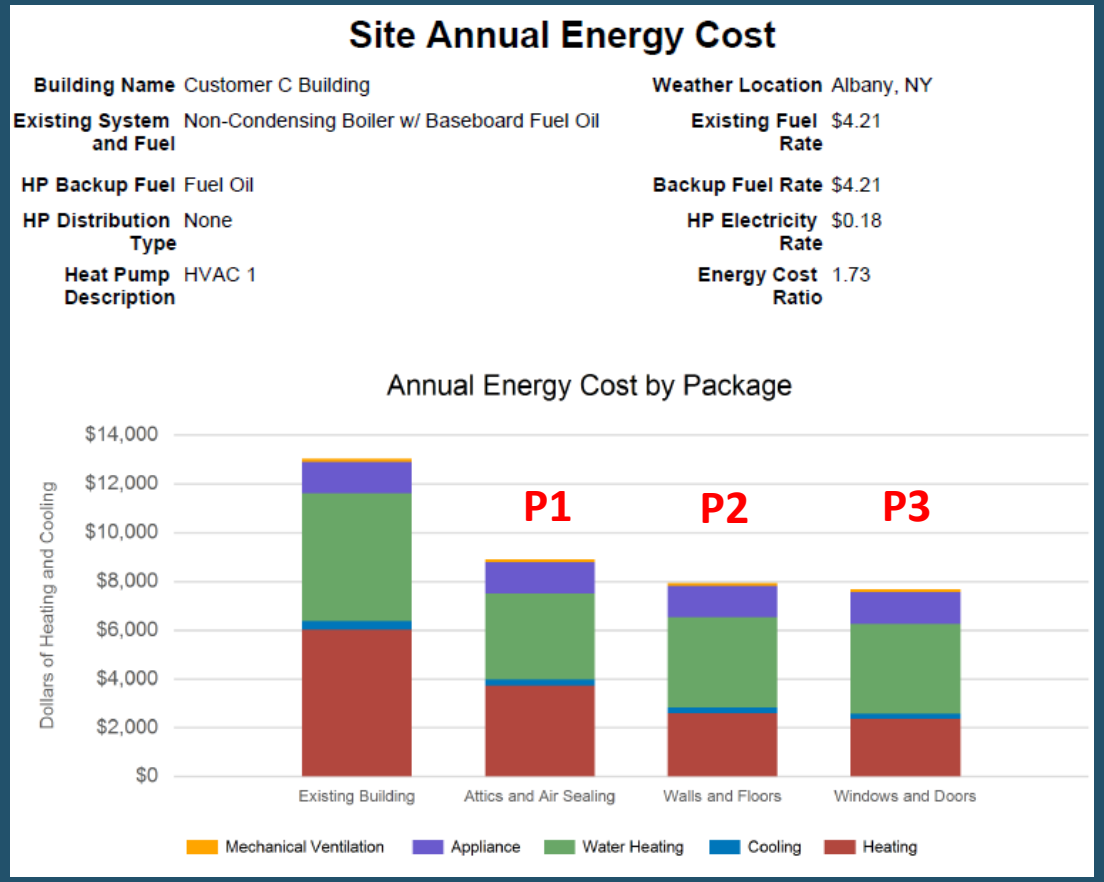
Building Usages | Base Building | Base Building with HP | Package 1 with HP | Package 2 with HP | Package 3 with HP

Base Building & Packages tabs

Energy Cost Report

Summary of existing location, systems and fuel sources as well as proposed HVAC improvements

- Shows the energy breakdown comparison between baseline and all three packages with improvements but without HP



Summary Graph page

Energy Cost Report

Summary of annual bills for *general end-use concepts and totals savings, including energy and load sizing.

- Costs
- Energy
- HP load sizing

*End-use concepts may differ from those in Building Usages tab within the **Site QA Usage & Loads Report,** as the latest provides a more granular (subcomponent level) view of the energy use. i.e, the concepts shown here are overarching

		P1	P2	P3
	Existing Building	Attics and Air Sealing	Walls and Floors	Windows and Doors
Existing Heating ($)	$6,009			
Existing Water Heating ($)	$5,252			
Cooling ($)	$358	$240	$248	$228
Heat Pump Water Heater ($)		$3,533	$3,695	$3,693
Appliances ($)	$1,290	$1,288	$1,293	$1,293
Mechanical Ventilation ($)	$140	$112	$112	$112
Total ($)	$13,048	$8,906	$7,935	$7,668
Savings ($)		$4,142	$5,112	$5,379
Savings (kBtu)		156,333	190,649	199,202
Savings (%)		31.7%	39.2%	41.2%
CO2e Savings (Metric Tons)		11	13	14
Design Load Savings (Btus/hour)		35,757	60,174	67,094
HP Equipment Size at Design (tons)	10.7	7.7	5.7	5.1
Summer Peak Impact w/ Avg. HP (kW)	0.0	0.0	0.0	0.0
Winter Peak Impact w/ Avg. HP (kW)	0.0	0.0	0.0	0.0

Whole Building Level Table

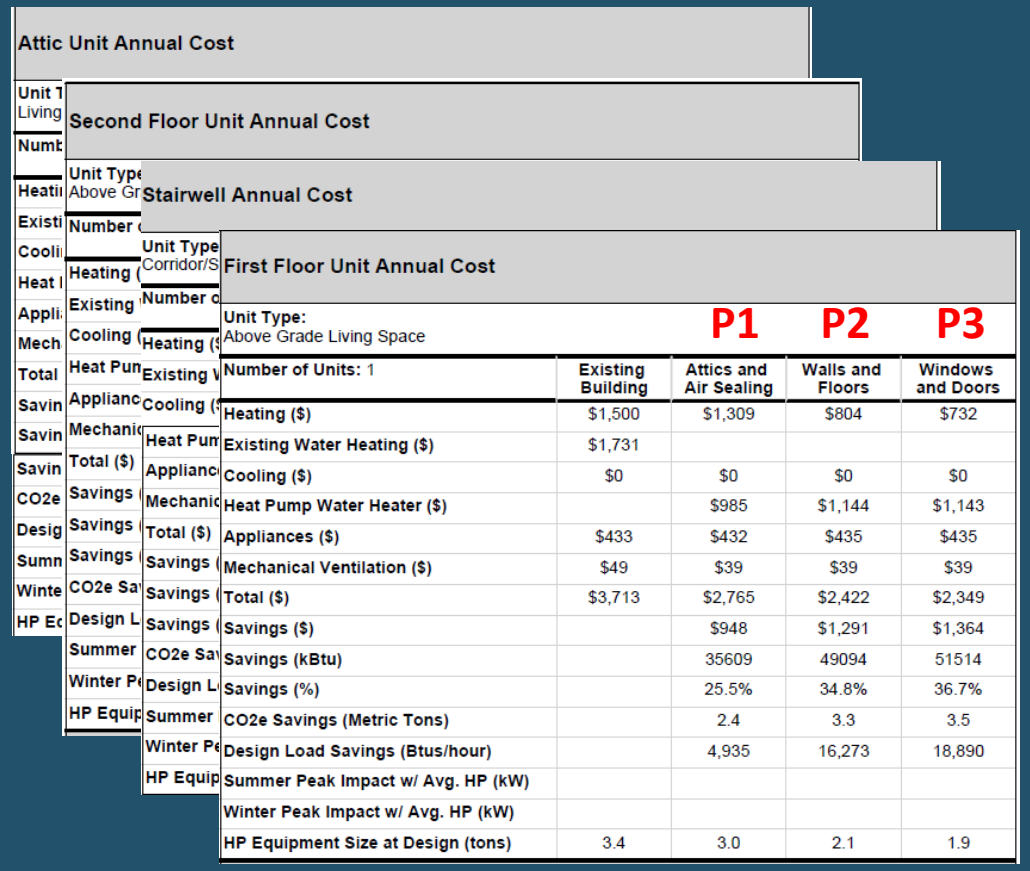
PSD

Energy Cost Report

Summary of Unit Type annual bills for *general end-use concepts and totals savings, including energy and load sizing.

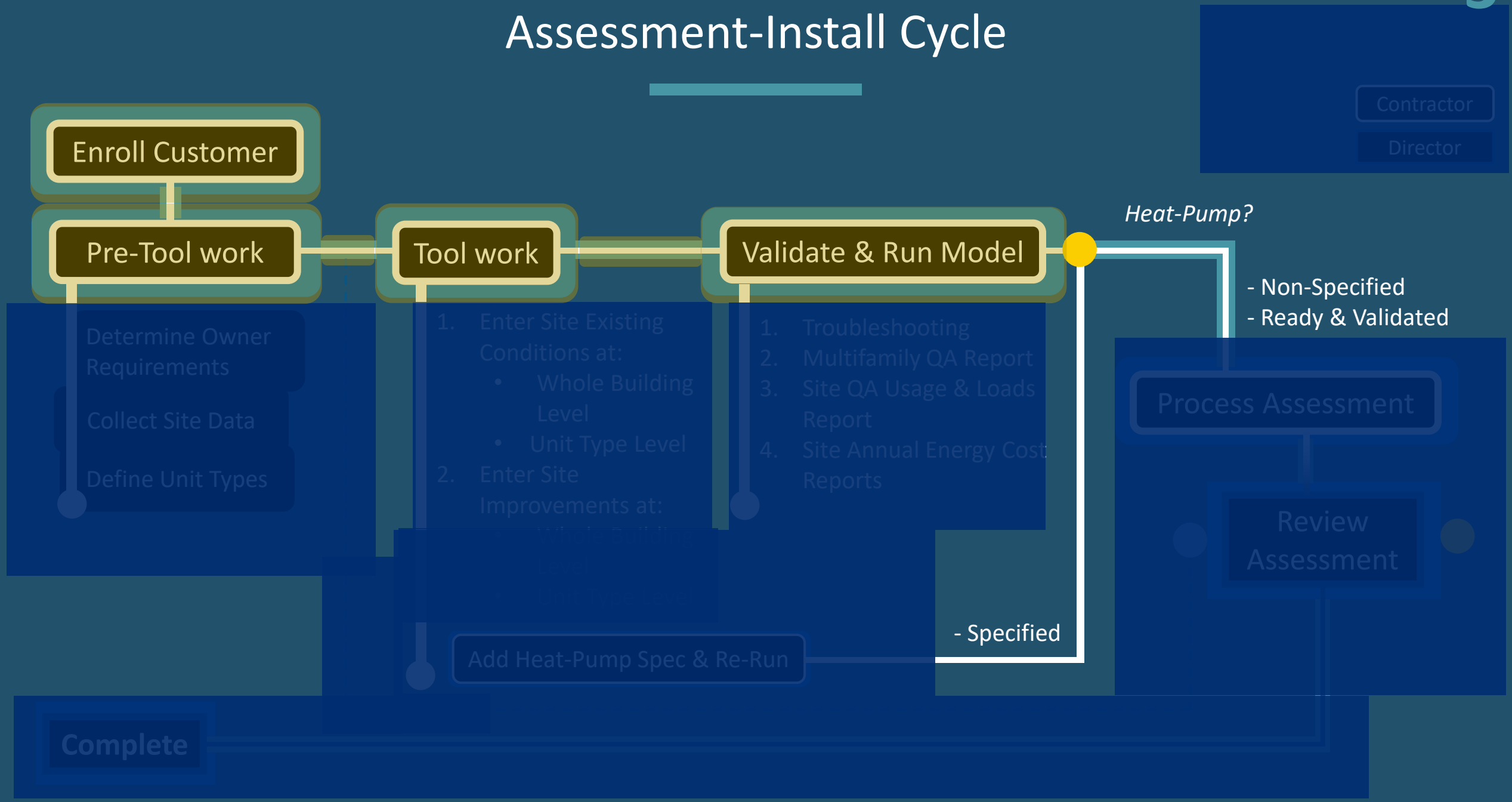
- Costs
- Energy
- HP load sizing

*End-use concepts may differ from those in Building Usages tab within the **Site QA Usage & Loads Report,** as the latest provides a more granular (subcomponent level) view of the energy use. i.e, the concepts shown here are overarching

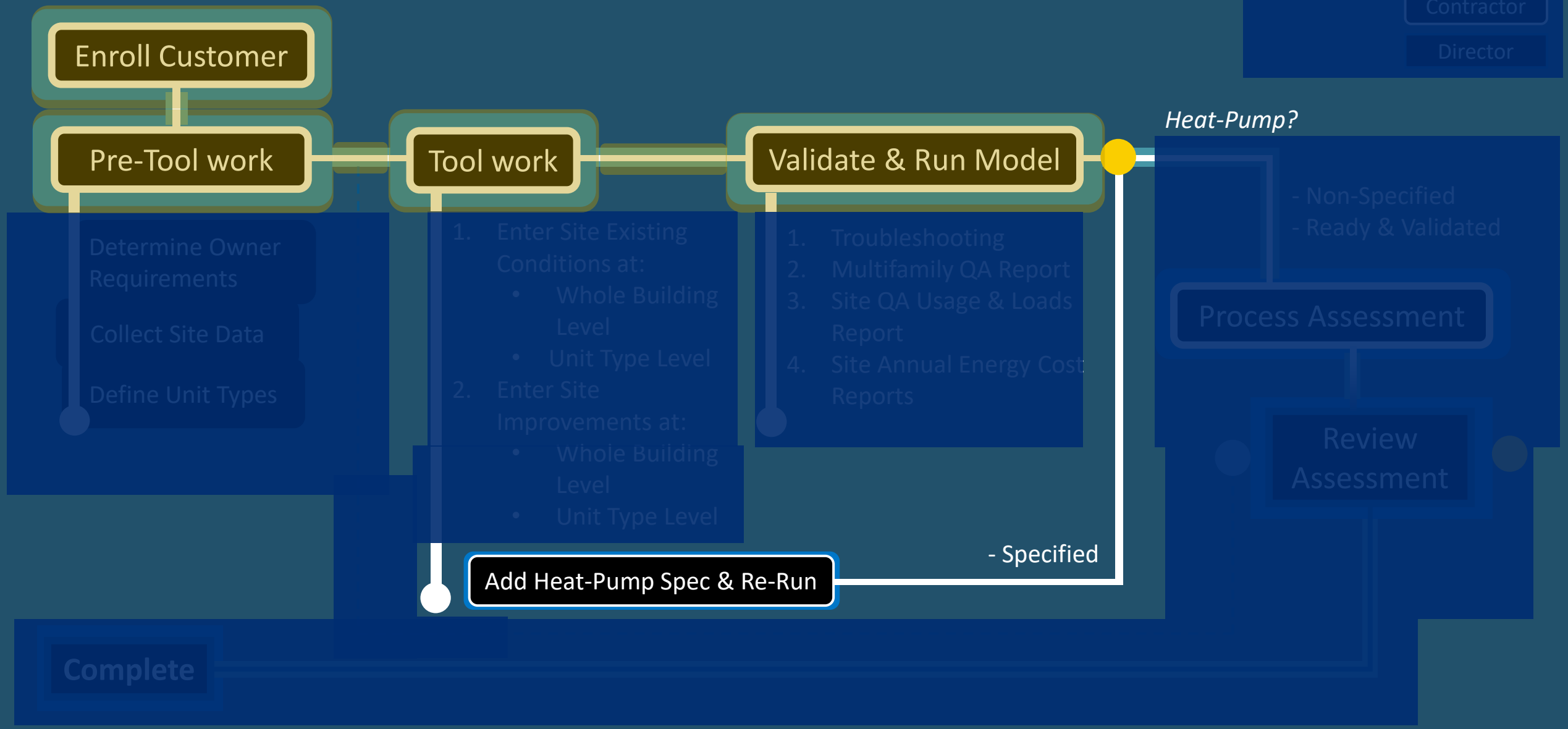


Unit Type Level Tables

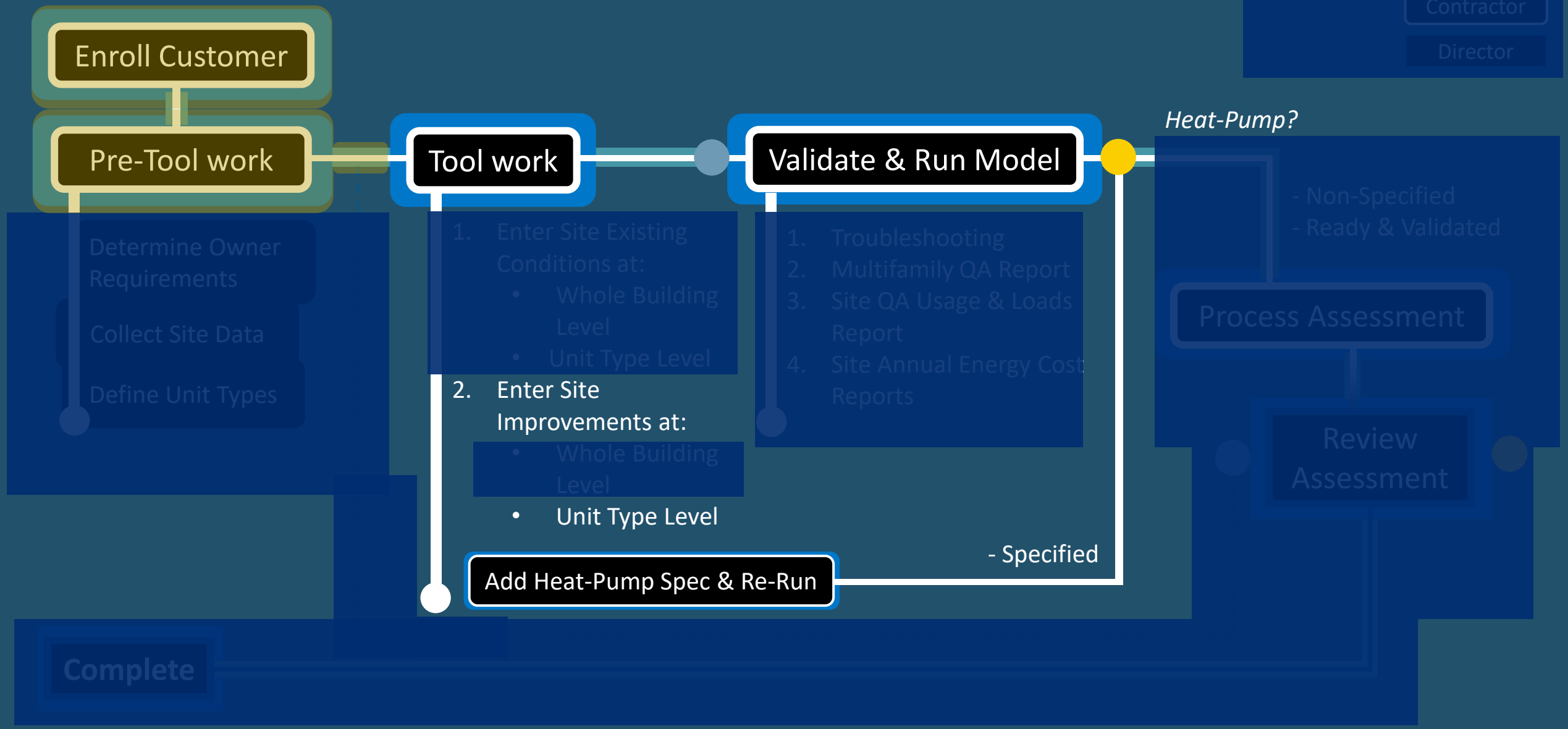
Assessment-Install Cycle



Assessment-Install Cycle

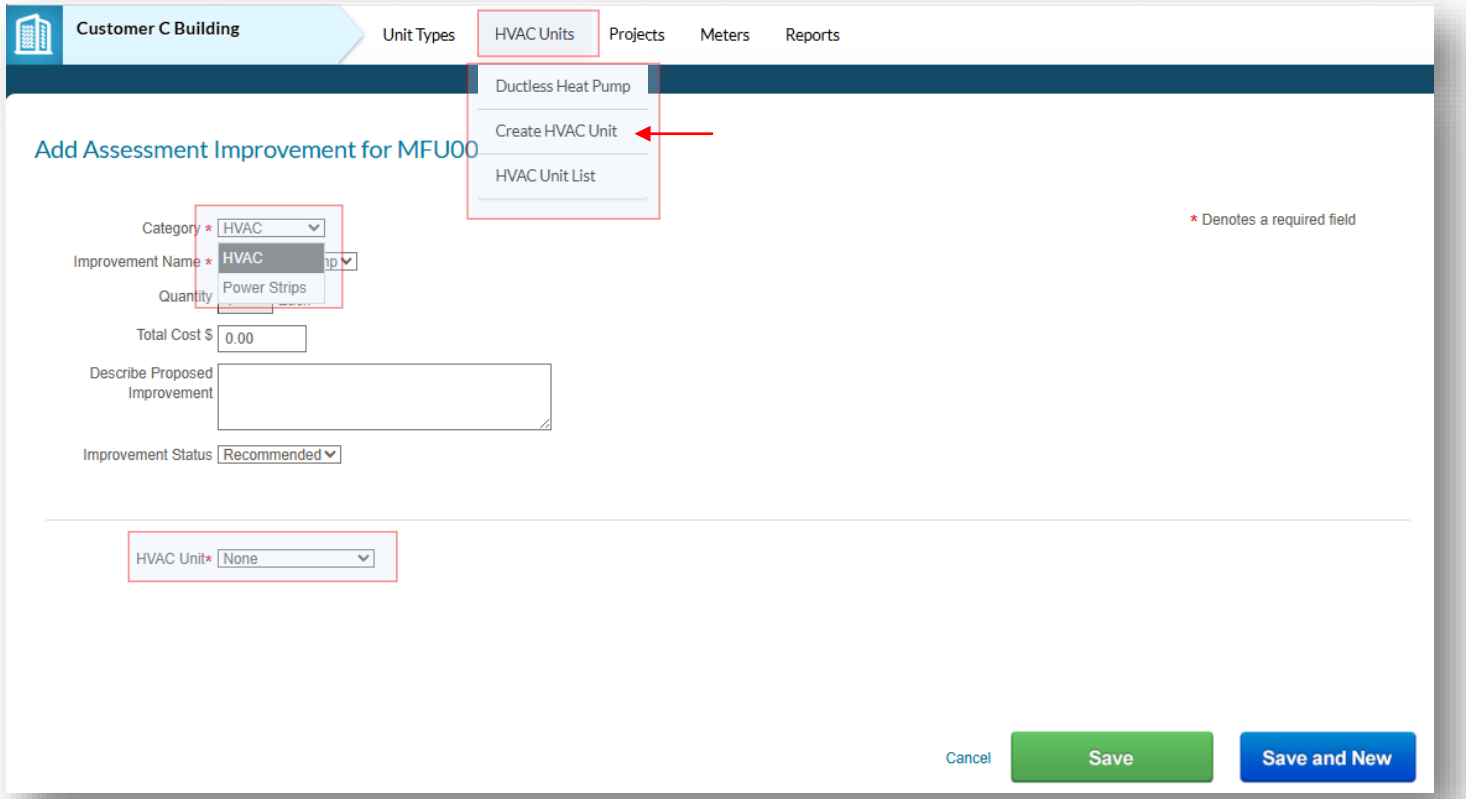


Assessment-Install Cycle



Building **Overview Page**

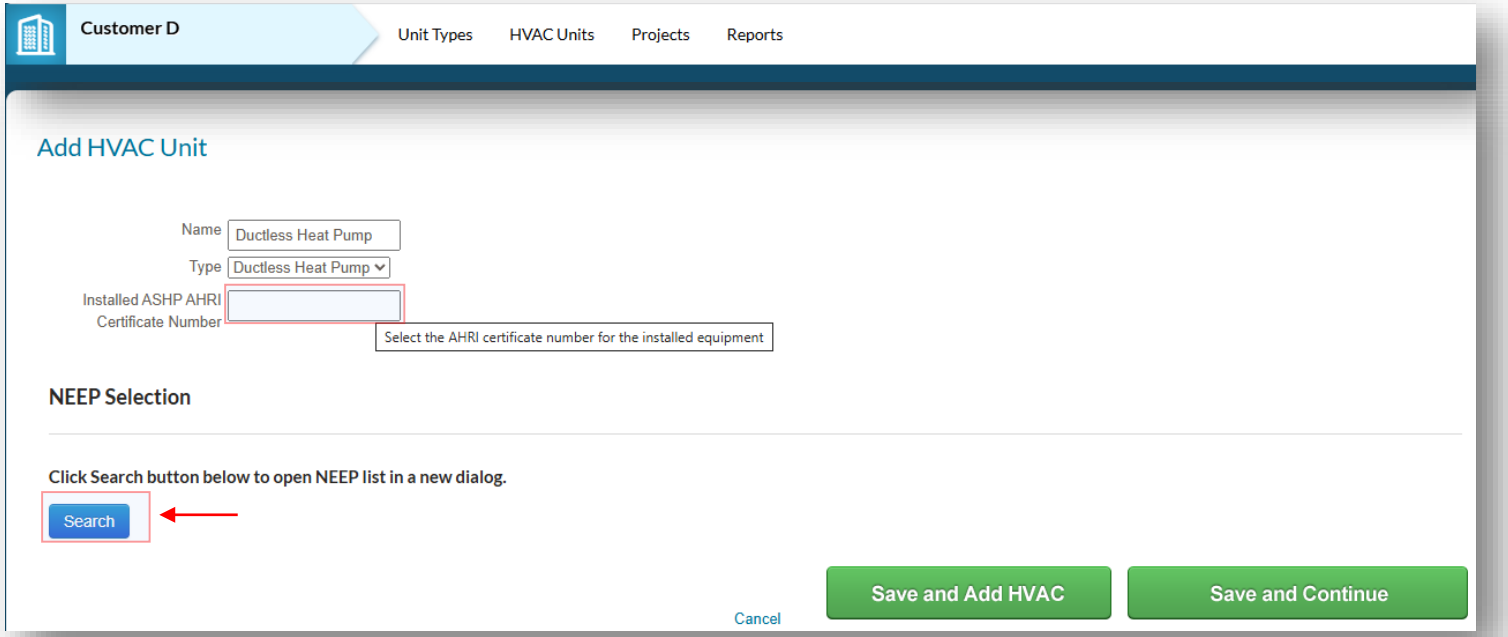
- Before Implementing HVAC Heat Pump Improvements, one or more new HVAC Units must be created.
- Note that existing Whole Building or Unit Type Level HVAC models cannot be specified at this level of detail. Baseline equipment is prototypical.



Add Heat-Pump Spec & Re-Run

ADD HVAC PAGE

- Name your new Heat Pump, select type (ducted/ductless) and auto-find by AHRI Certificate number.
- NEEP Database available for in dept search, If AHRI Cert# not at hand.



Add Heat-Pump Spec & Re-Run

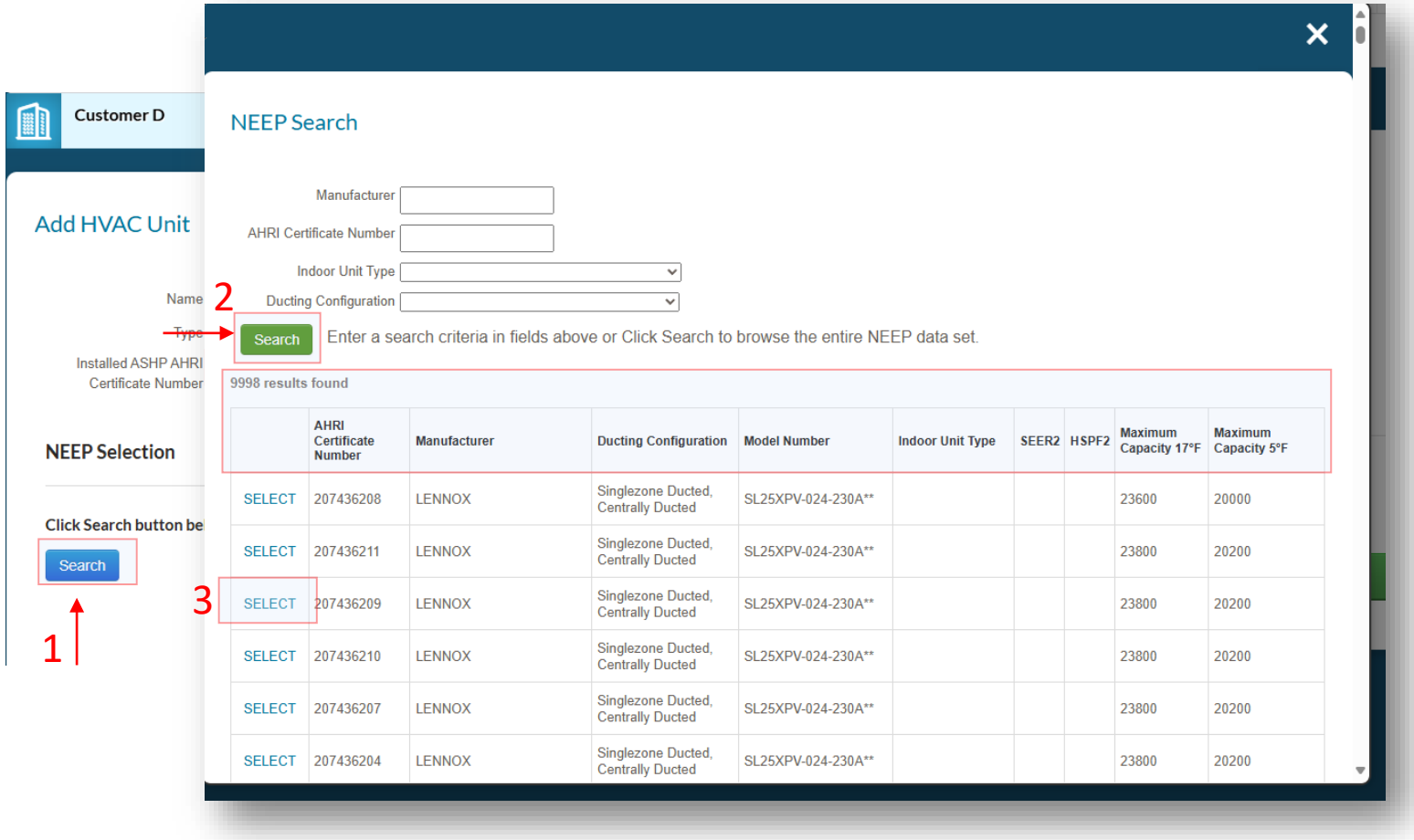
ADD HVAC PAGE

Unfiltered (9998 results) search or narrow list by:

- Manufacturer
- Indoor Unit Type
- Ducting Configuration

Use “SELECT” for auto-filling AHRI Cert # in the Add HVAC Page.

NEEP SEARCH TAB



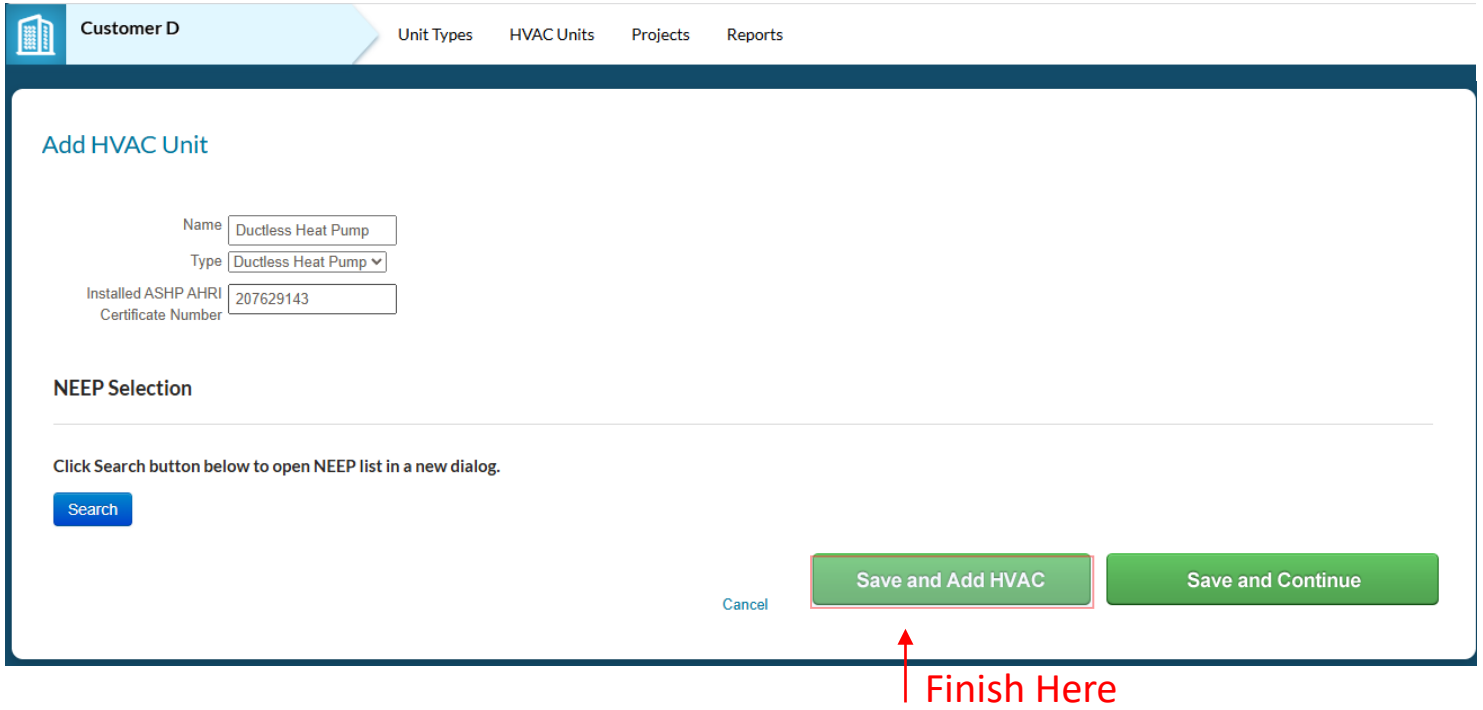
Add Heat-Pump Spec & Re-Run

ADD HVAC PAGE

Unfiltered (9998 results) search or narrow list by:

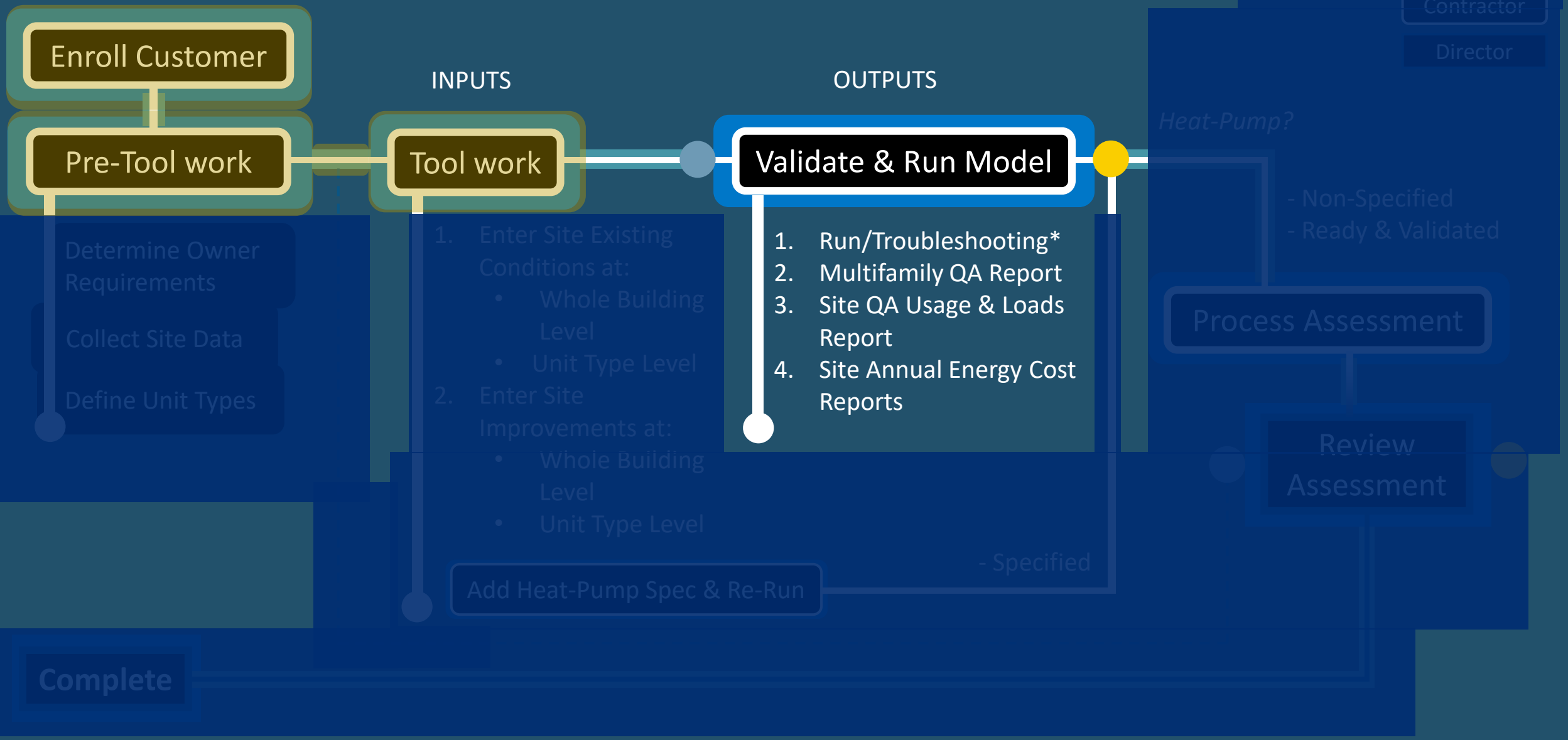
- Manufacturer
- Indoor Unit Type
- Ducting Configuration

Use “SELECT” for auto-filling AHRI Cert # in the Add HVAC Page.



Add Heat-Pump Spec & Re-Run

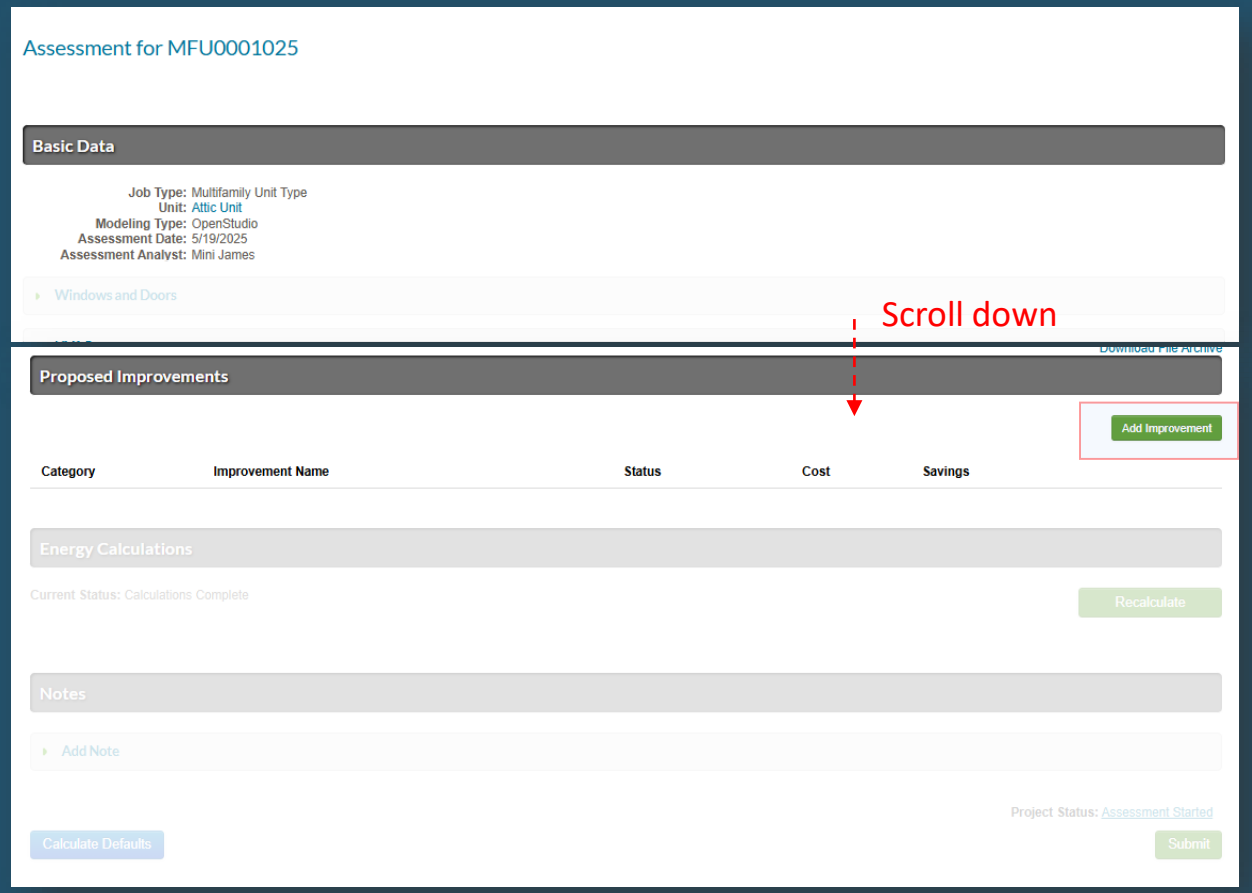
Assessment-Install Cycle



Assessment Overview Page

Upon saving the HVAC unit, use the Proposed Improvements section to add an HVAC Heat Pump. This will be applied to the project in question only.

Ensure all Unit Type Level projects have their corresponding HP assignments if applicable.

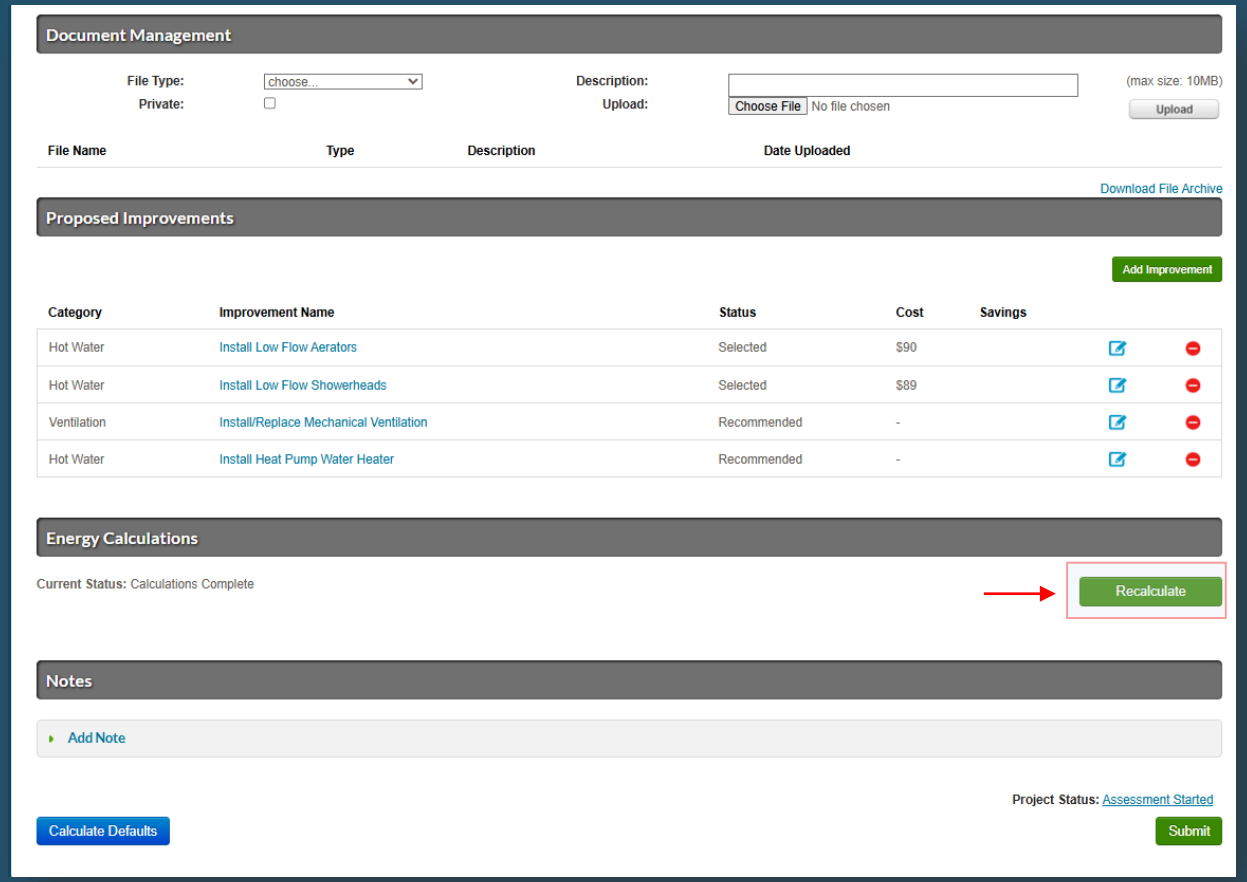


Improvements - Unit Type Assessment

Assessment Overview Page

Recalculate = Run Simulation

- Integration with Openstudio server.
- Auto **Calculate Defaults** to work with latest input changes.
- One can also manually **Calculate Defaults** prior to running the simulation.
- Calculation is the same when done from the Whole Building or Unit Type Level Projects



Improvements - Unit Type Assessment

Reporting (with Heat-Pumps)

Site QA Usage & Loads

Annual kBTUs per end use and applicable fuel type, shows the progressive impact of envelope packages and equipment improvements

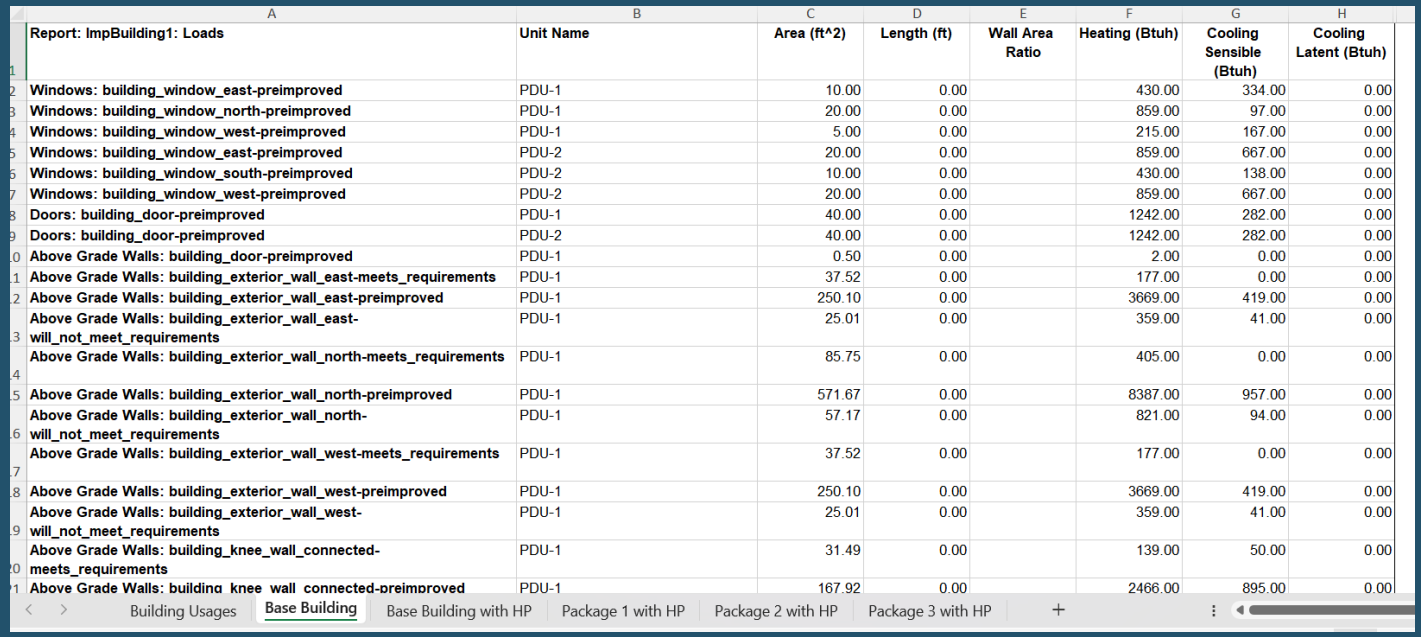
	Base Building		Base Building with HP		Package 1 with HP		Package 2 with HP		Package 3 with HP	
Component	Electricity	Natural Gas	Electricity	Natural Gas	Electricity	Natural Gas	Electricity	Natural Gas	Electricity	Natural Gas
Annual Total (kBtu)	47823	282881	95469	52367	93619	5890	77043	5890	75266	5890
Annual Net (kBtu)	47823	0	95469	0	93619	0	77043	0	75266	0
Annual Heating (kBtu)	0	231769	52587	0	45281	0	28733	0	27134	0
Annual Heating Heat Pump Backup (kBtu)	0	0	84	0	170	0	259	0	305	0
Annual Heating Fans Pumps (kBtu)	4846	0	3008	0	2692	0	1639	0	1558	0
Annual Cooling (kBtu)	5572	0	2368	0	1773	0	1847	0	1701	0
Annual Cooling Fans Pumps (kBtu)	0	0	58	0	38	0	44	0	39	0
Annual Hot Water (kBtu)	0	45167	0	46423	6281	0	7105	0	7113	0
Annual Mechanical Ventilation (kBtu)	0	0	0	0	0	0	0	0	0	0
Annual Appliance (kBtu)	16435	5946	16395	5946	16417	5890	16447	5890	16448	5890
Annual Lighting (kBtu)	20972	0	20972	0	20972	0	20972	0	20972	0
Annual PV (kBtu)	0	0	0	0	0	0	0	0	0	0
Peak Winter Demand	0	0	0	0	0	0	0	0	0	0
Peak Summer Demand	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Unmet Hours Heating (hr)	0	0	0	0	0	0	0	0	0	0
Unmet Hours Cooling (hr)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

Building Usages Tab

Site QA Usage & Loads

Shows All the thermal loads at surface or component level.

Provides granular view of the impact of packages and measures.



Report: ImpBuilding1: Loads	Unit Name	Area (ft^2)	Length (ft)	Wall Area Ratio	Heating (Btuh)	Cooling Sensible (Btuh)	Cooling Latent (Btuh)
Windows: building_window_east-preimproved	PDU-1	10.00	0.00		430.00	334.00	0.00
Windows: building_window_north-preimproved	PDU-1	20.00	0.00		859.00	97.00	0.00
Windows: building_window_west-preimproved	PDU-1	5.00	0.00		215.00	167.00	0.00
Windows: building_window_east-preimproved	PDU-2	20.00	0.00		859.00	667.00	0.00
Windows: building_window_south-preimproved	PDU-2	10.00	0.00		430.00	138.00	0.00
Windows: building_window_west-preimproved	PDU-2	20.00	0.00		859.00	667.00	0.00
Doors: building_door-preimproved	PDU-1	40.00	0.00		1242.00	282.00	0.00
Doors: building_door-preimproved	PDU-2	40.00	0.00		1242.00	282.00	0.00
Above Grade Walls: building_door-preimproved	PDU-1	0.50	0.00		2.00	0.00	0.00
Above Grade Walls: building_exterior_wall_east-meets_requirements	PDU-1	37.52	0.00		177.00	0.00	0.00
Above Grade Walls: building_exterior_wall_east-preimproved	PDU-1	250.10	0.00		3669.00	419.00	0.00
Above Grade Walls: building_exterior_wall_east-will_not_meet_requirements	PDU-1	25.01	0.00		359.00	41.00	0.00
Above Grade Walls: building_exterior_wall_north-meets_requirements	PDU-1	85.75	0.00		405.00	0.00	0.00
Above Grade Walls: building_exterior_wall_north-preimproved	PDU-1	571.67	0.00		8387.00	957.00	0.00
Above Grade Walls: building_exterior_wall_north-will_not_meet_requirements	PDU-1	57.17	0.00		821.00	94.00	0.00
Above Grade Walls: building_exterior_wall_west-meets_requirements	PDU-1	37.52	0.00		177.00	0.00	0.00
Above Grade Walls: building_exterior_wall_west-preimproved	PDU-1	250.10	0.00		3669.00	419.00	0.00
Above Grade Walls: building_exterior_wall_west-will_not_meet_requirements	PDU-1	25.01	0.00		359.00	41.00	0.00
Above Grade Walls: building_knee_wall_connected-meets_requirements	PDU-1	31.49	0.00		139.00	50.00	0.00
Above Grade Walls: building_knee_wall_connected-preimproved	PDU-1	167.92	0.00		2466.00	895.00	0.00

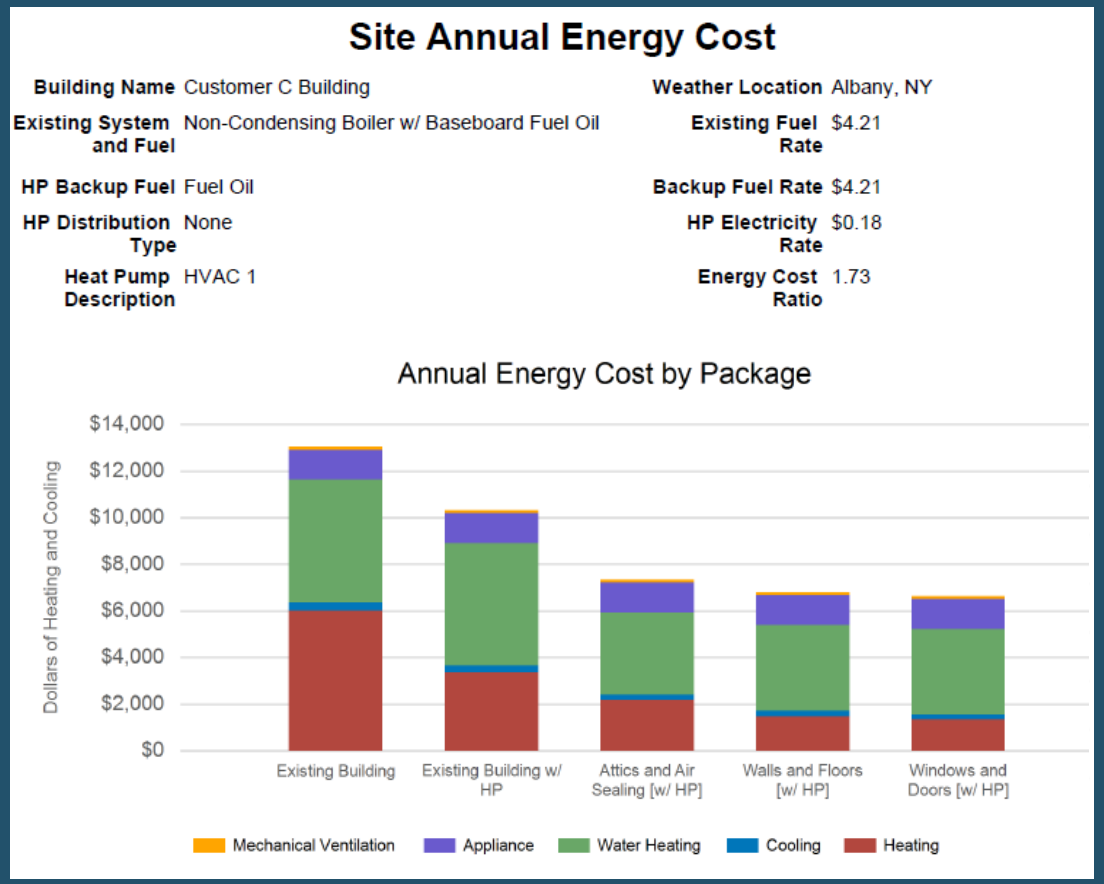
Building Usages | Base Building | Base Building with HP | Package 1 with HP | Package 2 with HP | Package 3 with HP

Base Building & Packages tabs

Energy Cost Report wHP

Summary of existing location, systems and fuel sources as well as proposed HVAC improvements

- Shows the energy breakdown comparison between baseline and all three envelope packages with improvements and HVAC implementation.



Summary Graph page

Energy Cost Report wHP

Summary of annual bills for *general end-use concepts and totals savings, including energy and load sizing.

- Costs
- Energy
- HP load sizing

*End-use concepts may differ from those in Building Usages tab within the **Site QA Usage & Loads Report,** as that report provides a more granular (subcomponent level) view of the energy use, i.e, the concepts shown here are overarching

			P1	P2	P3
	Existing Building	Existing Building w/ HP	Attics and Air Sealing [w/ HP]	Walls and Floors [w/ HP]	Windows and Doors [w/ HP]
Existing Heating ($)	$6,009				
Existing Water Heating ($)	$5,252				
Cooling ($)	$358	$298	$223	$222	$197
Heat Pump ($)		$3,361	$2,185	$1,489	$1,344
Heat Pump Water Heater ($)		$5,243	$3,534	$3,690	$3,690
Appliances ($)	$1,290	$1,290	$1,286	$1,290	$1,290
Mechanical Ventilation ($)	$140	$140	$112	$112	$112
Total ($)	$13,048	$10,332	$7,339	$6,803	$6,633
Savings ($)		$2,036	$5,046	$5,607	$5,786
Savings (kBtu)		121,185	224,013	234,836	238,294
Savings (%)		15.6%	38.7%	43.0%	44.3%
CO2e Savings (Metric Tons)		6	14	15	15
Design Load Savings (Btus/hour)		0	35,757	60,174	67,094
HP Equipment Size at Design (tons)	10.7	10.7	7.7	5.7	5.1
Summer Peak Impact w/ Avg. HP (kW)	0.0	0.0	0.0	0.0	0.0
Winter Peak Impact w/ Avg. HP (kW)	0.0	0.0	0.0	0.0	0.0

Whole Building Level Table

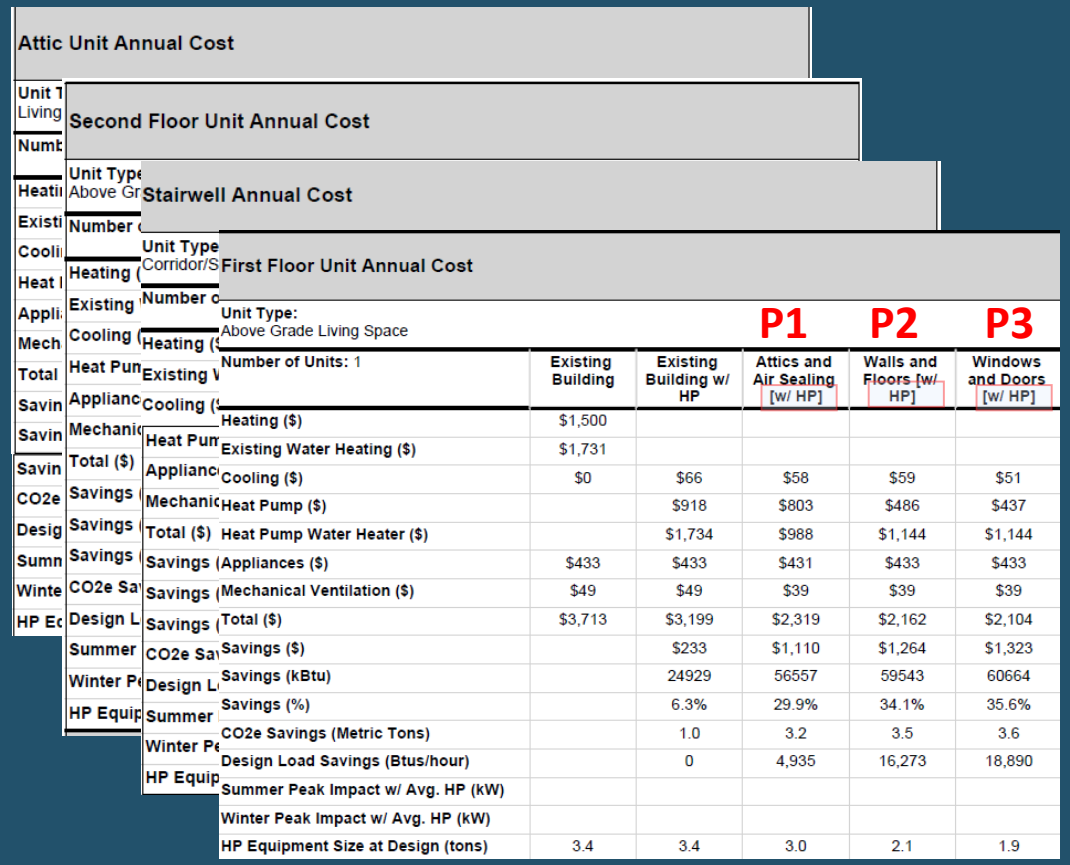
PSD

Energy Cost Report wHP

Summary of Unit Type annual bills for *general end-use concepts and totals savings, including energy and load sizing.

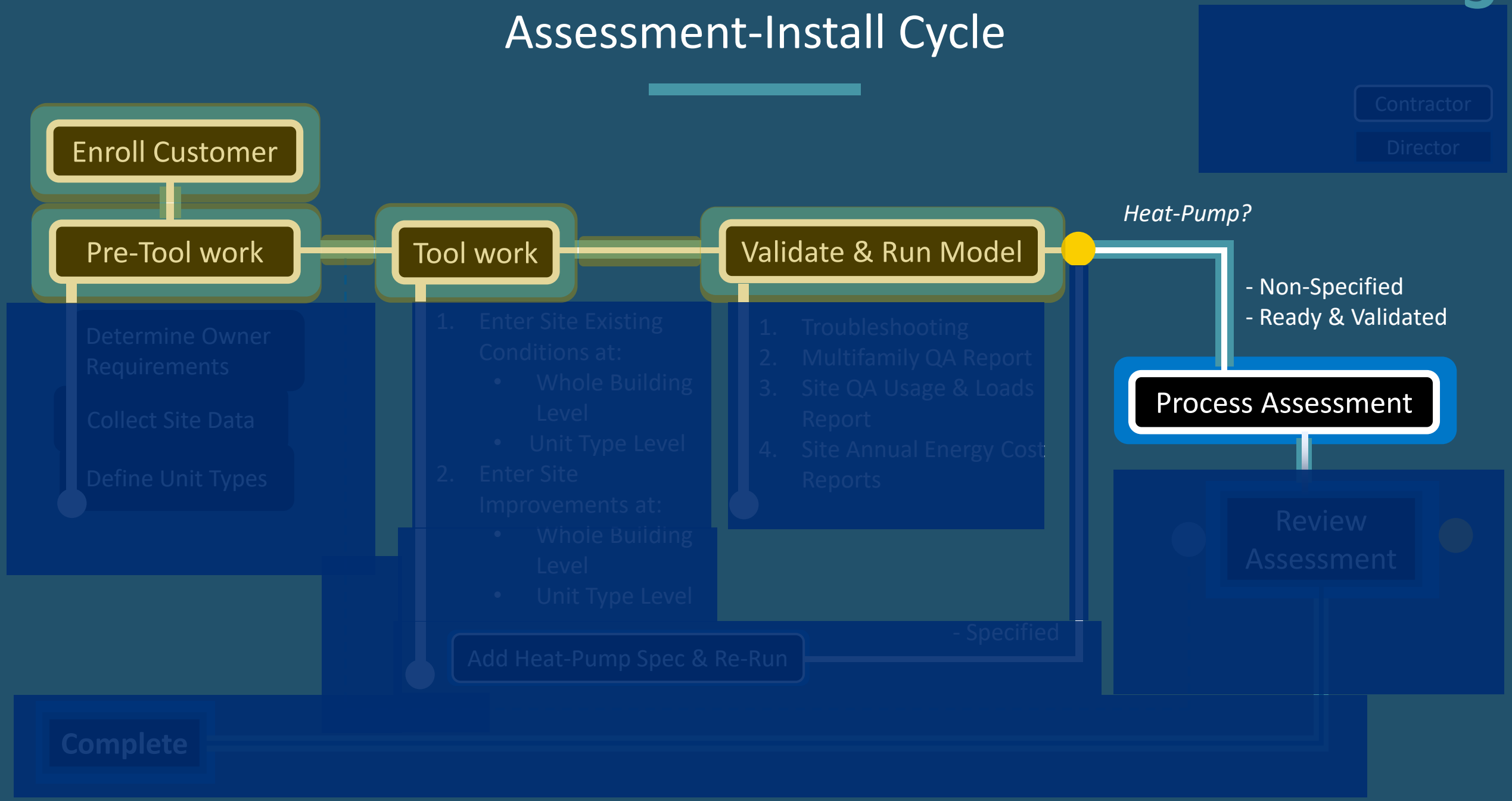
- Costs
- Energy
- HP load sizing

*End-use concepts may differ from those in Building Usages tab within the **Site QA Usage & Loads Report,** as the latest provides a more granular (subcomponent level) view of the energy use. i.e, the concepts shown here are overarching

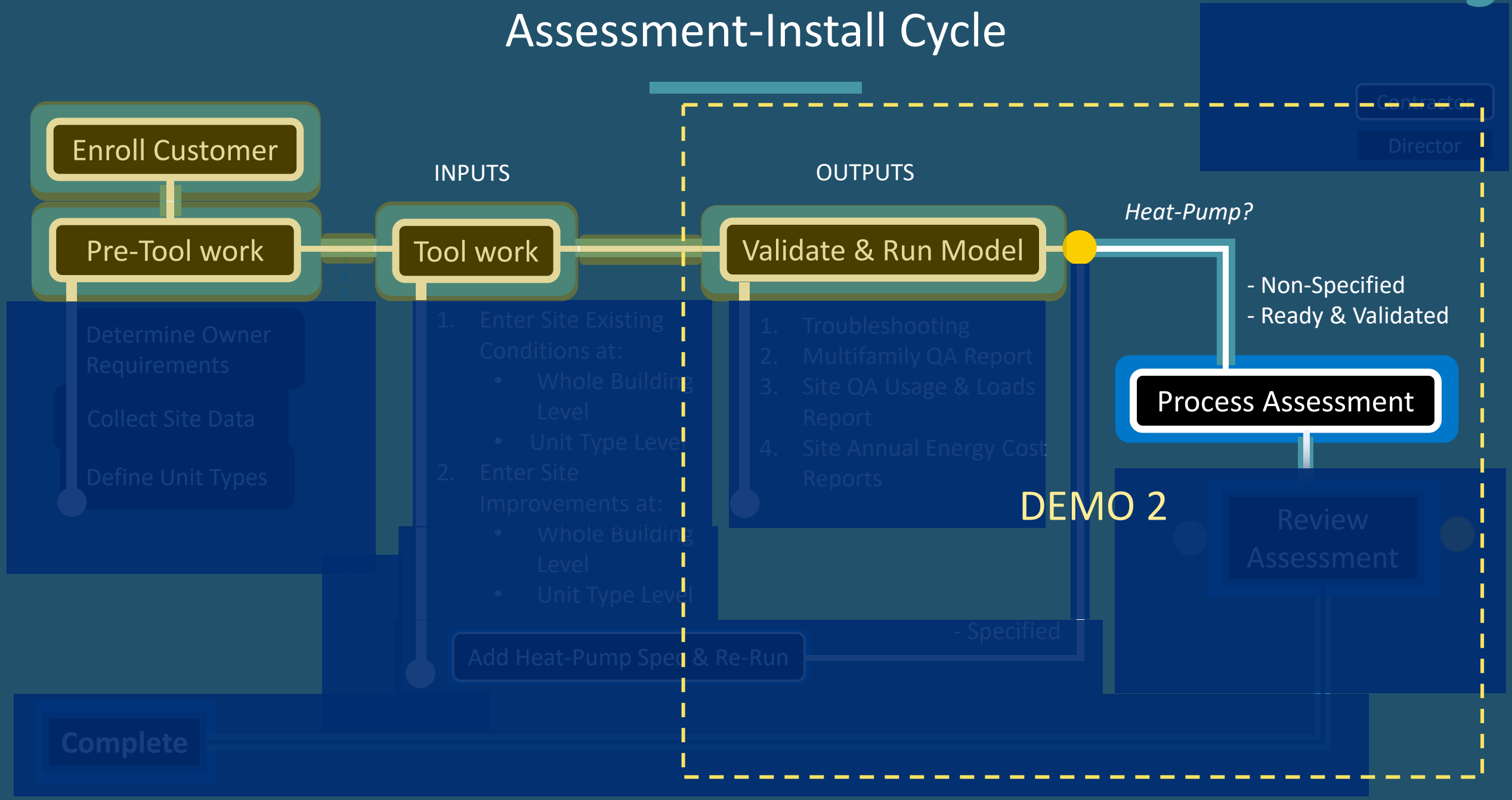


Unit Type Level Tables

Assessment-Install Cycle



Assessment-Install Cycle



5 min break

DEMO time

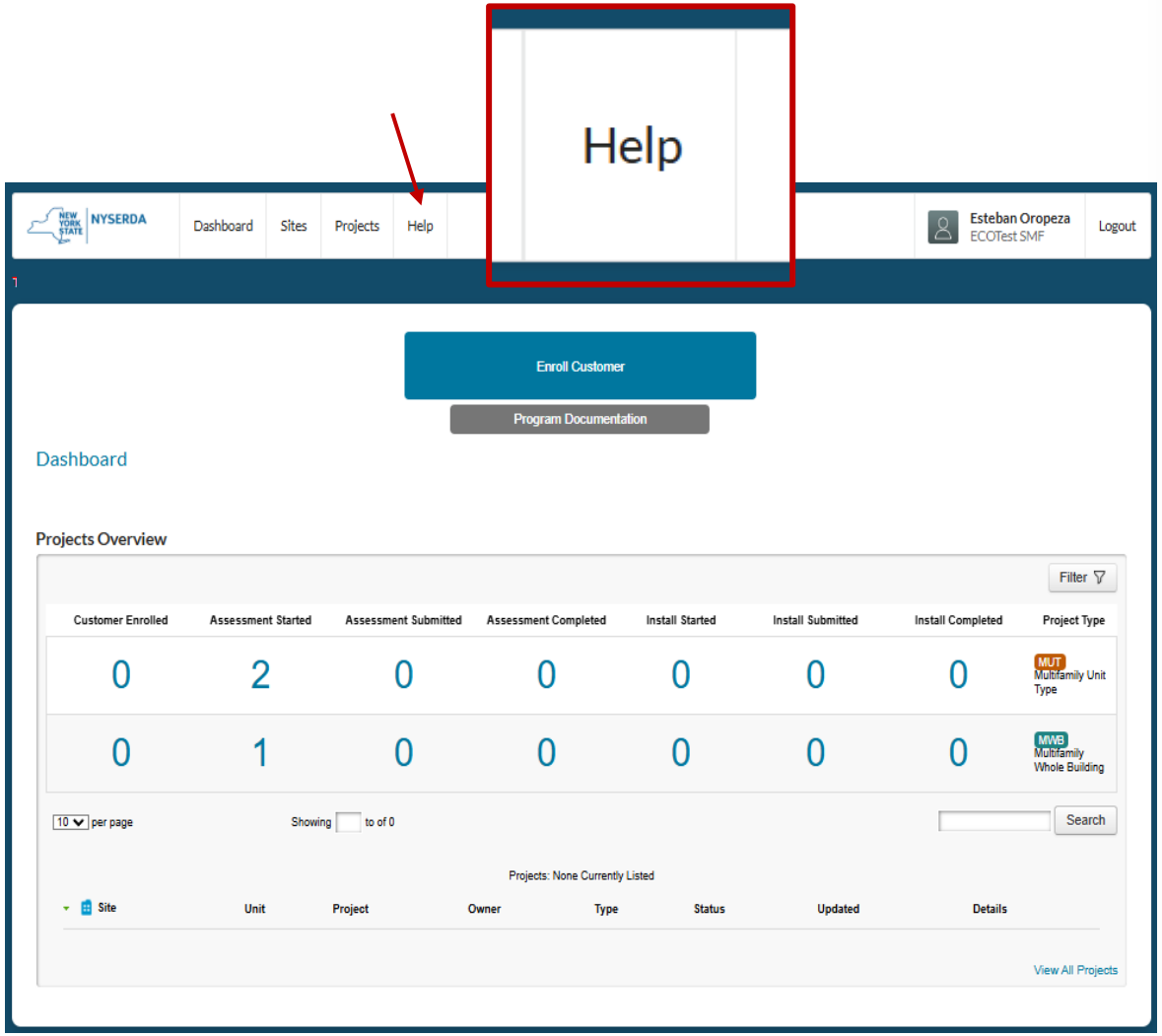
Get Started Today

- Please submit the list of names and emails to be added to your contracting company to:

  support@psdnyserda.freshdesk.com

- Your new Clarity Compass Credentials and instructions for next steps will come from the same email address.

PSD



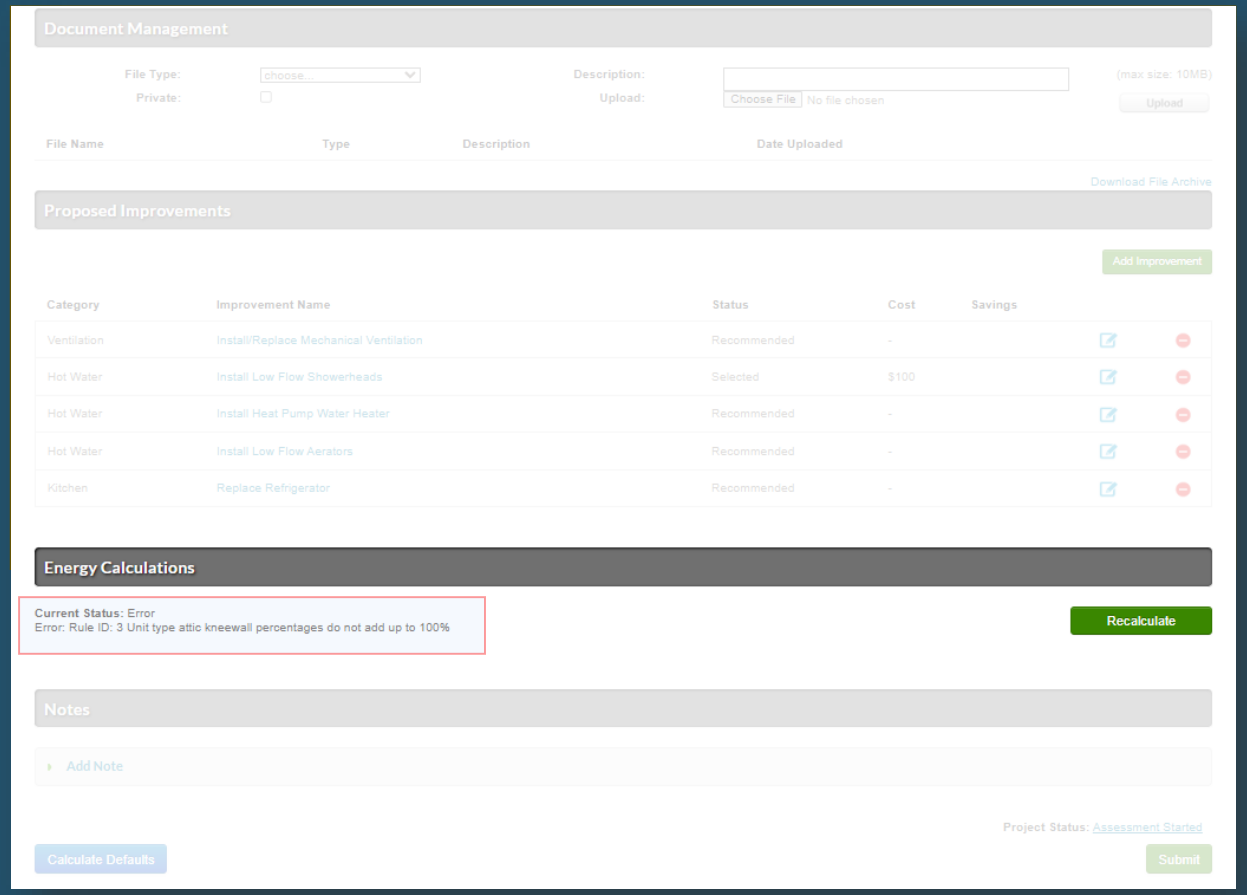
Need Help?

- NYSERDA hosts monthly calls, which will be informed by Feedback and FAQs from Clarity Compass.
- PSD will support Clarity Compass Users through Scheduled “Office Hours” and the Live Help Desk:
  - Ticket System
  - Knowledge Base (including FAQs)
  - Modeling Guidance

Basic Troubleshooting

Validation: Surfaces

Ensure that you have allocated no more and no less than 100% of surface areas across all Unit Types.



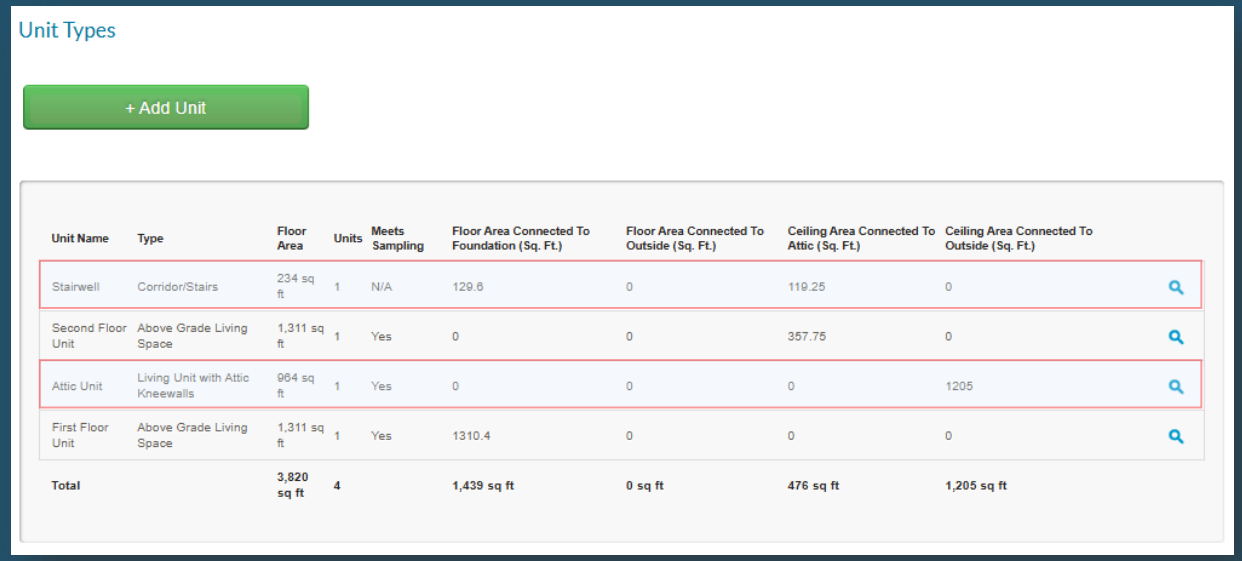
Troubleshooting

Error Rule ID3

Validation: Surfaces

Ensure that you have allocated no more and no less than 100% across all Unit Types.

- Look in any Common Area, Corridor/Stairs and Living Unit with Attic Knee walls.



Unit Name	Type	Floor Area	Units	Meets Sampling	Floor Area Connected To Foundation (Sq. Ft.)	Floor Area Connected To Outside (Sq. Ft.)	Ceiling Area Connected To Attic (Sq. Ft.)	Ceiling Area Connected To Outside (Sq. Ft.)
Stairwell	Corridor/Stairs	234 sq ft	1	N/A	129.6	0	119.25	0
Second Floor Unit	Above Grade Living Space	1,311 sq ft	1	Yes	0	0	357.75	0
Attic Unit	Living Unit with Attic Kneewalls	964 sq ft	1	Yes	0	0	0	1205
First Floor Unit	Above Grade Living Space	1,311 sq ft	1	Yes	1310.4	0	0	0
Total		**3,820 sq ft**	**4**		**1,439 sq ft**	**0 sq ft**	**476 sq ft**	**1,205 sq ft**

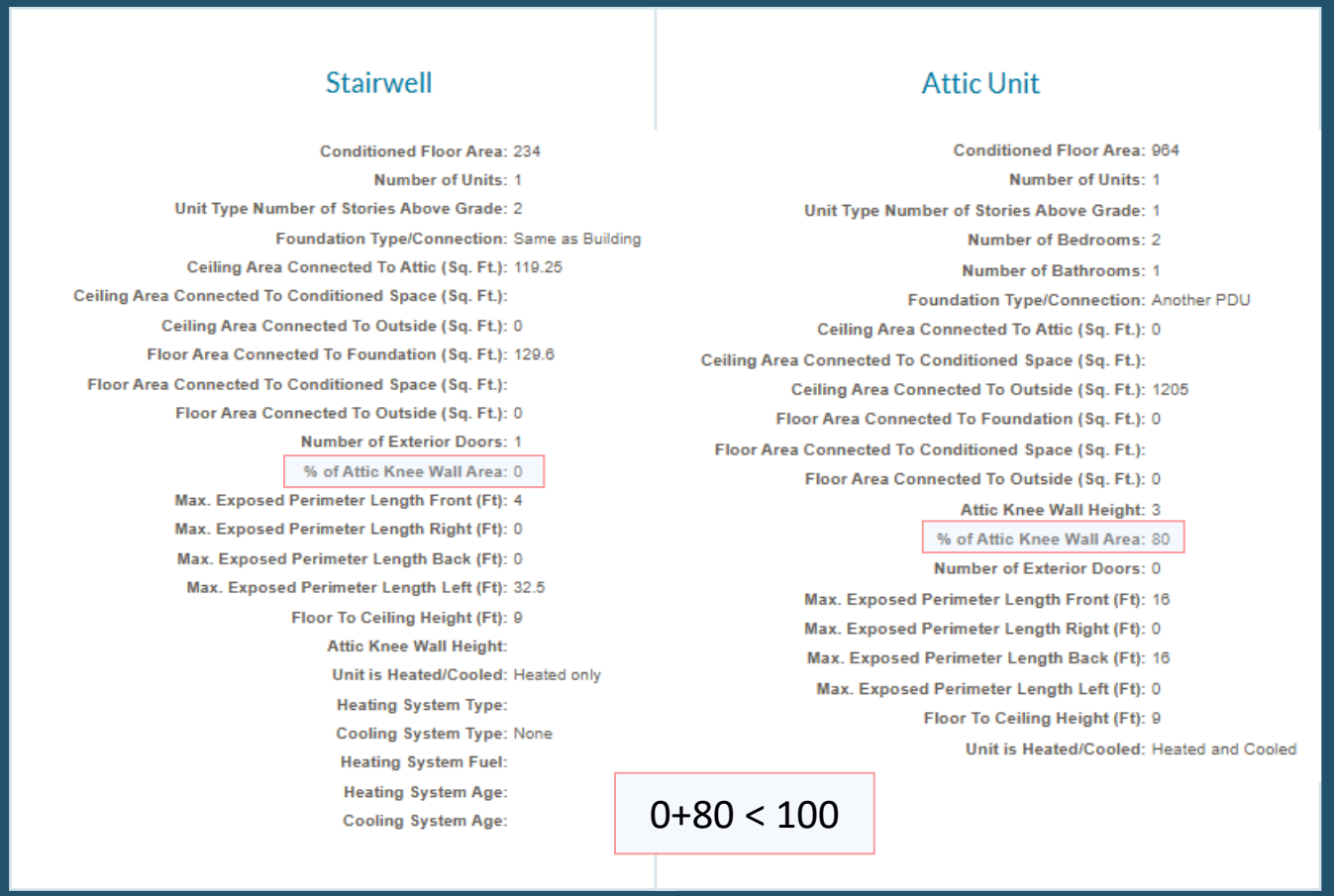
Troubleshooting

Error Rule ID3

Validation: Surfaces

Ensure that you have allocated no more and no less than 100% across all Unit Types.

- Look in any Common Area, Corridor/Stairs and Living Unit with attic Knee walls.
- % of Attic Knee Wall Area is that attributed to all units of that type.



Stairwell

Conditioned Floor Area:	234
Number of Units:	1
Unit Type Number of Stories Above Grade:	2
Foundation Type/Connection:	Same as Building
Ceiling Area Connected To Attic (Sq. Ft.):	119.25
Ceiling Area Connected To Conditioned Space (Sq. Ft.):	
Ceiling Area Connected To Outside (Sq. Ft.):	0
Floor Area Connected To Foundation (Sq. Ft.):	129.6
Floor Area Connected To Conditioned Space (Sq. Ft.):	
Floor Area Connected To Outside (Sq. Ft.):	0
Number of Exterior Doors:	1
% of Attic Knee Wall Area:	0
Max. Exposed Perimeter Length Front (Ft):	4
Max. Exposed Perimeter Length Right (Ft):	0
Max. Exposed Perimeter Length Back (Ft):	0
Max. Exposed Perimeter Length Left (Ft):	32.5
Floor To Ceiling Height (Ft):	9
Attic Knee Wall Height:	
Unit is Heated/Cooled:	Heated only
Heating System Type:	
Cooling System Type:	None
Heating System Fuel:	
Heating System Age:	
Cooling System Age:	

Attic Unit

Conditioned Floor Area:	964
Number of Units:	1
Unit Type Number of Stories Above Grade:	1
Number of Bedrooms:	2
Number of Bathrooms:	1
Foundation Type/Connection:	Another PDU
Ceiling Area Connected To Attic (Sq. Ft.):	0
Ceiling Area Connected To Conditioned Space (Sq. Ft.):	
Ceiling Area Connected To Outside (Sq. Ft.):	1205
Floor Area Connected To Foundation (Sq. Ft.):	0
Floor Area Connected To Conditioned Space (Sq. Ft.):	
Floor Area Connected To Outside (Sq. Ft.):	0
Attic Knee Wall Height:	3
% of Attic Knee Wall Area:	80
Number of Exterior Doors:	0
Max. Exposed Perimeter Length Front (Ft):	16
Max. Exposed Perimeter Length Right (Ft):	0
Max. Exposed Perimeter Length Back (Ft):	16
Max. Exposed Perimeter Length Left (Ft):	0
Floor To Ceiling Height (Ft):	9
Unit is Heated/Cooled:	Heated and Cooled

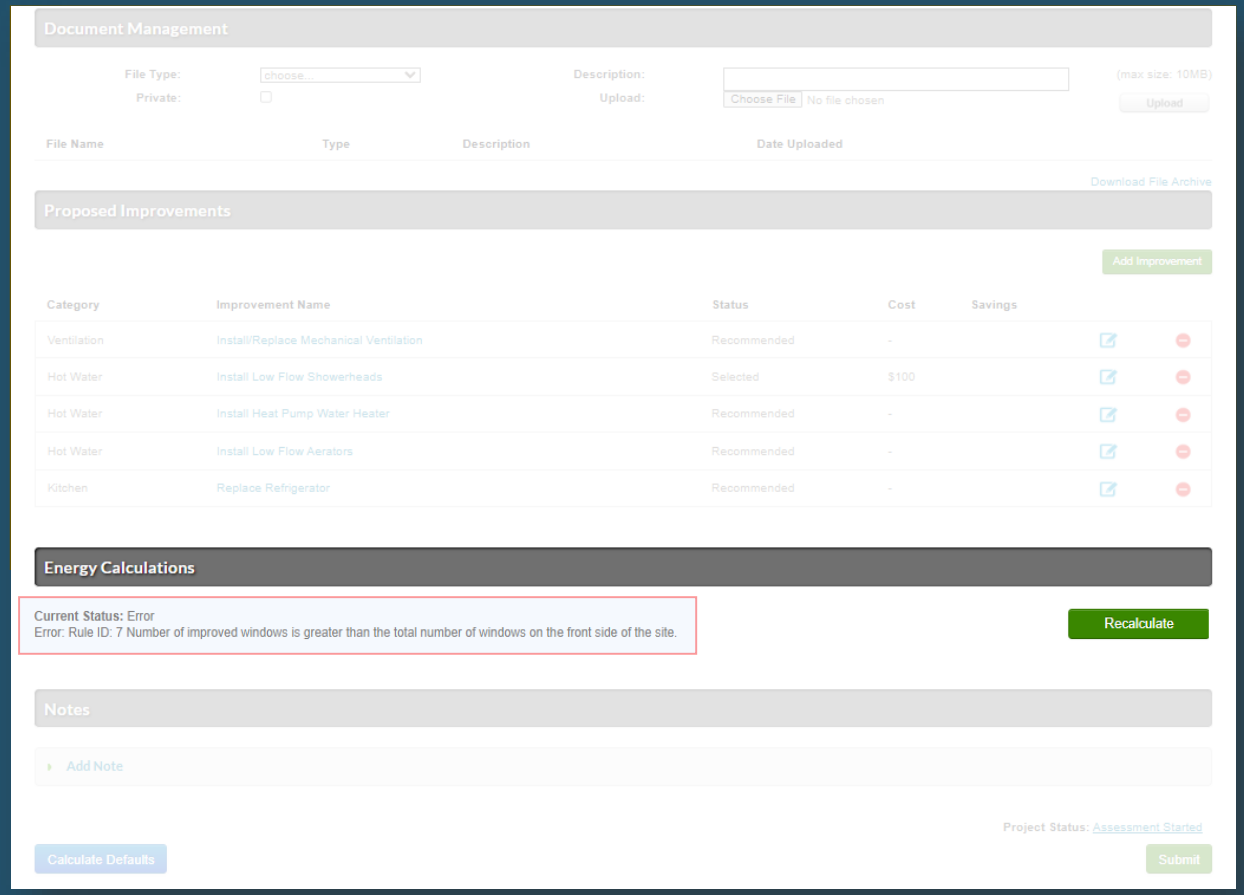
0+80 < 100

Troubleshooting

Error Rule ID3

Validation: Windows

Ensure that the # of improved windows is < or = to the # of total windows in each façade, across all Unit Types.



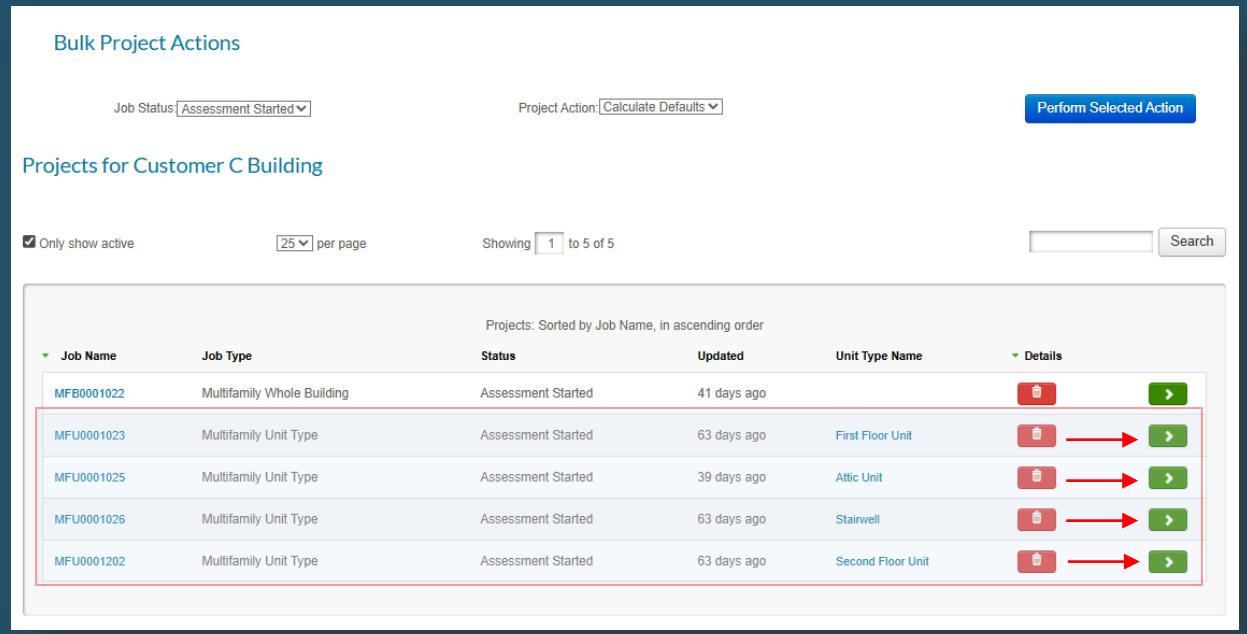
Troubleshooting

Error Rule IDs 7-10

Validation: Windows

Ensure that the # of improved windows is < or = to the # of total windows in each façade, across all Unit Types.

- Look in Window and Doors for all Unit Type Projects/Jobs.



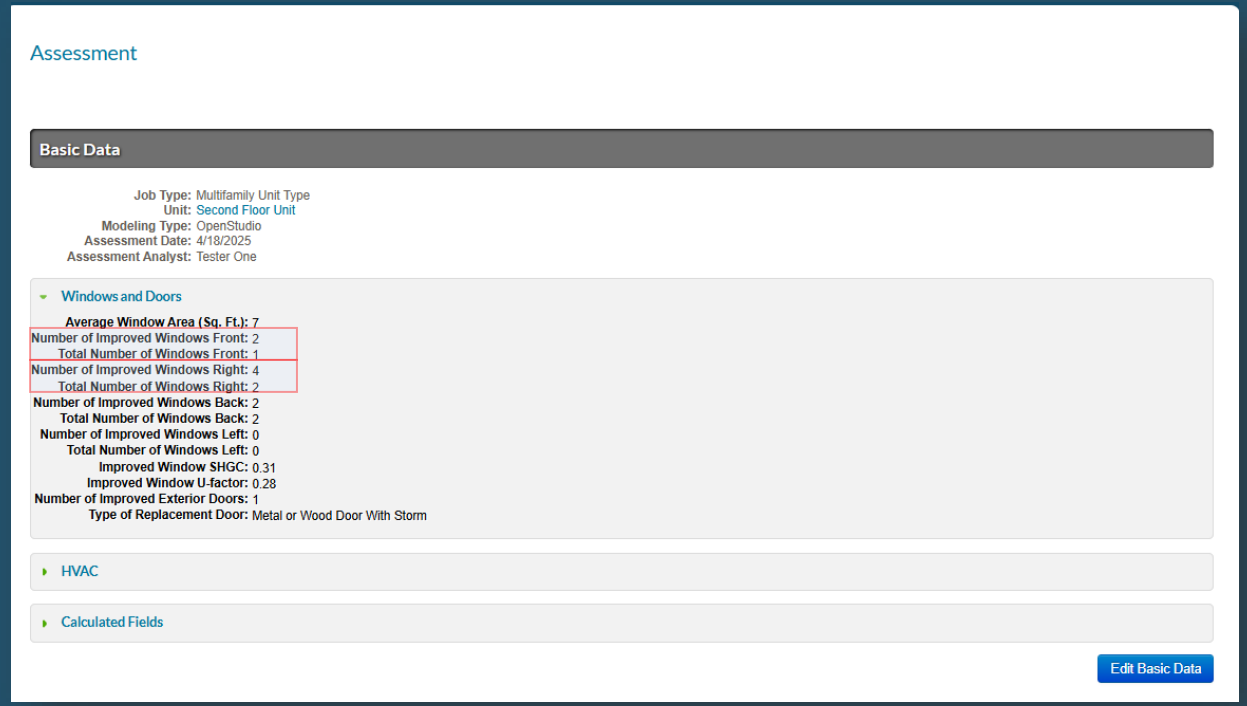
Troubleshooting

Error Rule IDs 7-10

Validation: Windows

Ensure that the # of improved windows is < or = to the # of total windows in each façade, across all Unit Types.

- Look in Window and Doors for all Unit Type Projects/Jobs.
- Check all the orientations prompted in the error.

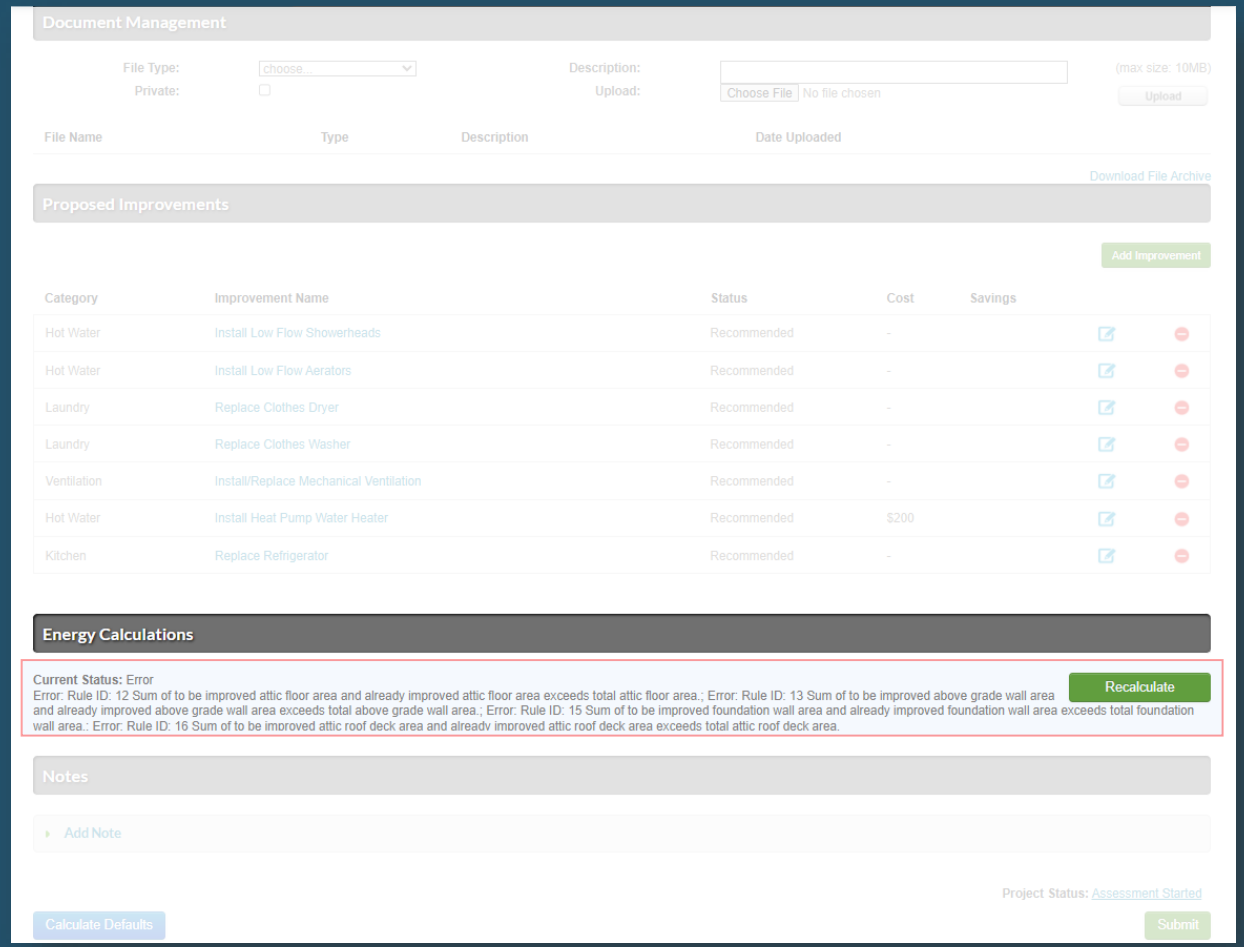


Troubleshooting

Error Rule IDs 7-10

Validation: % Areas

For all envelope surfaces, ensure that the sum of the %Area Already Insulated and %Area Improved is less than or equal to 100%.



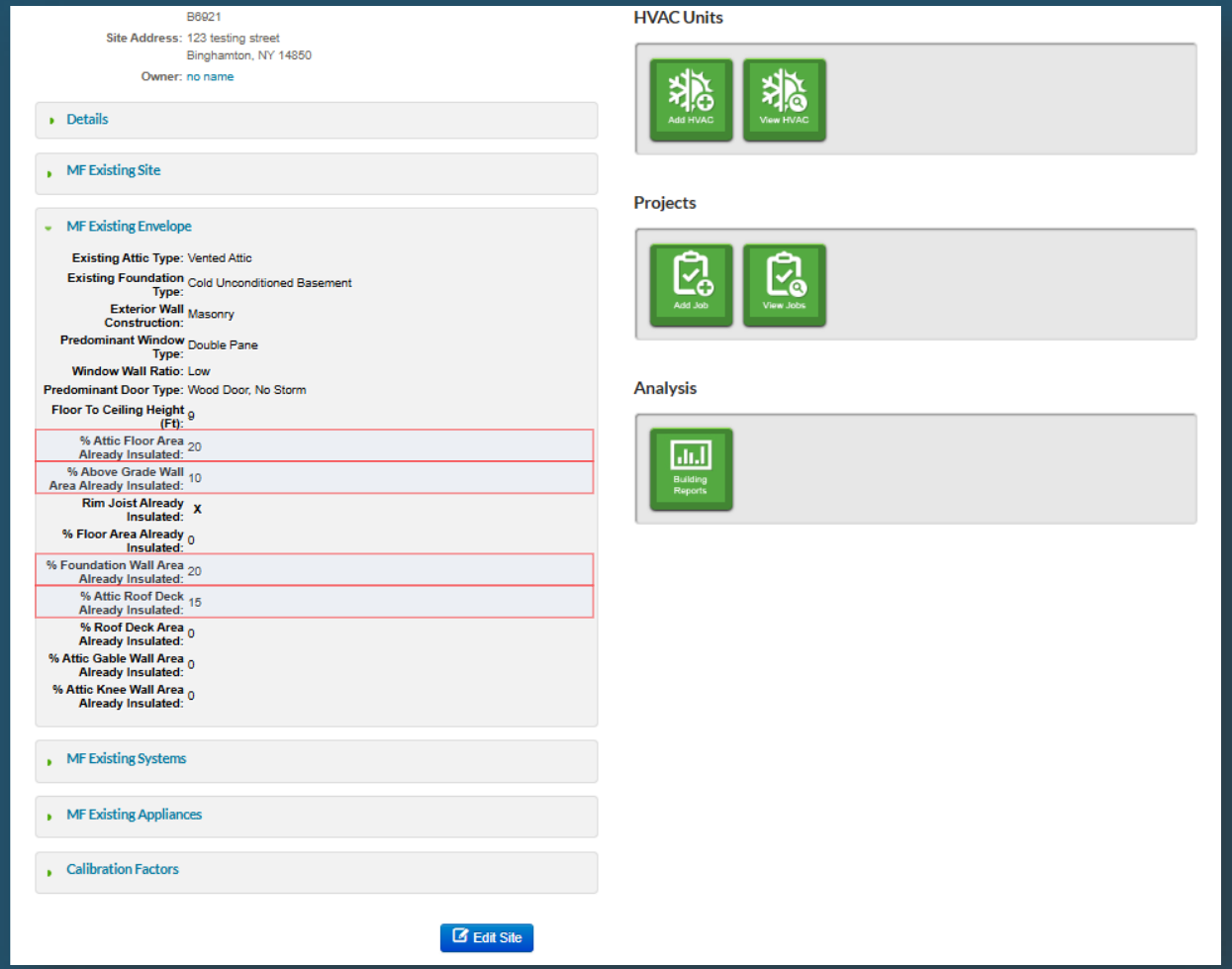
Troubleshooting

Error Rule IDs 12-19

Validation: % Areas

For all envelope surfaces, ensure that the sum of the %Area Already Insulated and %Area Improved is less than or equal to 100%.

- Look into “MF Existing Envelope”.



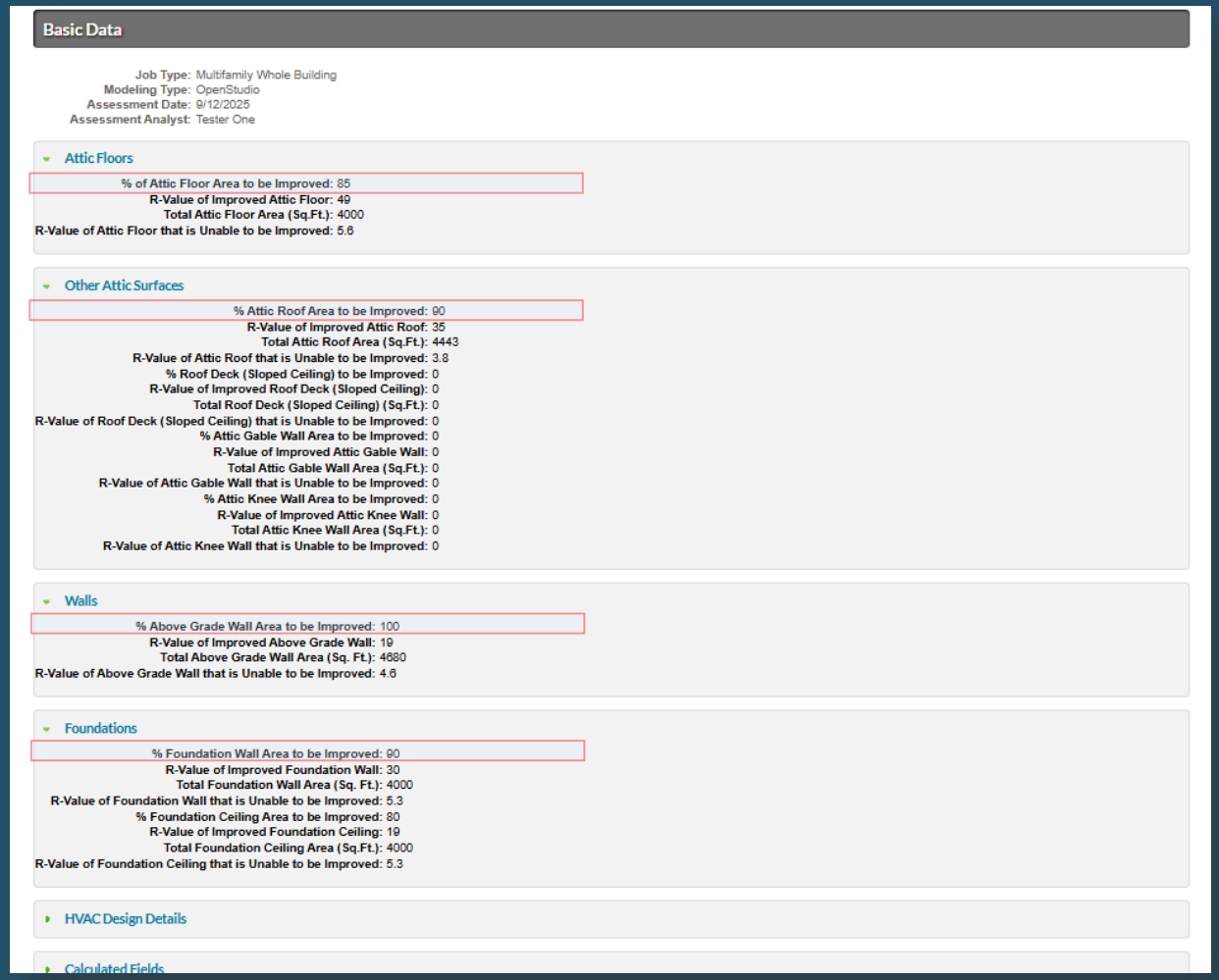
Troubleshooting

Error Rule IDs 12-19

Validation: % Areas

For all envelope surfaces, ensure that the sum of the %Area Already Insulated and %Area Improved is less than or equal to 100%.

- Look into “MF Existing Envelope”.
- Then into “Basic Data” at the Whole Building Project (assessment).



Basic Data

Job Type: Multifamily Whole Building
Modeling Type: OpenStudio
Assessment Date: 9/12/2025
Assessment Analyst: Tester One

Attic Floors

% of Attic Floor Area to be Improved: 85
R-Value of Improved Attic Floor: 49
Total Attic Floor Area (Sq.Ft.): 4000
R-Value of Attic Floor that is Unable to be Improved: 5.6

Other Attic Surfaces

% Attic Roof Area to be Improved: 90
R-Value of Improved Attic Roof: 35
Total Attic Roof Area (Sq.Ft.): 4443
R-Value of Attic Roof that is Unable to be Improved: 3.8
% Roof Deck (Sloped Ceiling) to be Improved: 0
R-Value of Improved Roof Deck (Sloped Ceiling): 0
Total Roof Deck (Sloped Ceiling) (Sq.Ft.): 0
R-Value of Roof Deck (Sloped Ceiling) that is Unable to be Improved: 0
% Attic Gable Wall Area to be Improved: 0
R-Value of Improved Attic Gable Wall: 0
Total Attic Gable Wall Area (Sq.Ft.): 0
R-Value of Attic Gable Wall that is Unable to be Improved: 0
% Attic Knee Wall Area to be Improved: 0
R-Value of Improved Attic Knee Wall: 0
Total Attic Knee Wall Area (Sq.Ft.): 0
R-Value of Attic Knee Wall that is Unable to be Improved: 0

Walls

% Above Grade Wall Area to be Improved: 100
R-Value of Improved Above Grade Wall: 19
Total Above Grade Wall Area (Sq. Ft.): 4680
R-Value of Above Grade Wall that is Unable to be Improved: 4.6

Foundations

% Foundation Wall Area to be Improved: 90
R-Value of Improved Foundation Wall: 30
Total Foundation Wall Area (Sq. Ft.): 4000
R-Value of Foundation Wall that is Unable to be Improved: 5.3
% Foundation Ceiling Area to be Improved: 80
R-Value of Improved Foundation Ceiling: 19
Total Foundation Ceiling Area (Sq.Ft.): 4000
R-Value of Foundation Ceiling that is Unable to be Improved: 5.3

HVAC Design Details

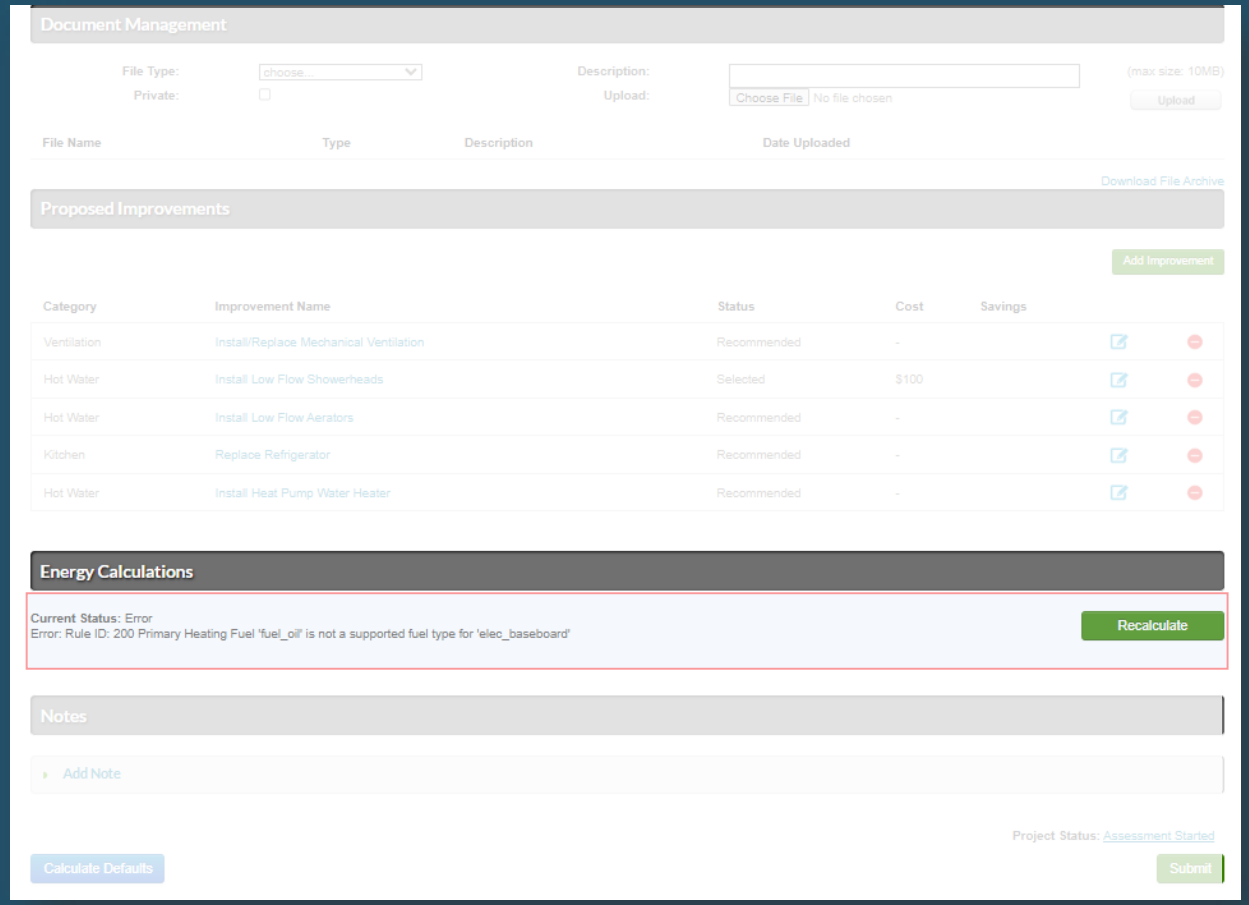
Calculated Fields

Troubleshooting

Error Rule IDs 12-19

Validations: Systems

Ensure the selected Fuel Source is consistent with the System Type.



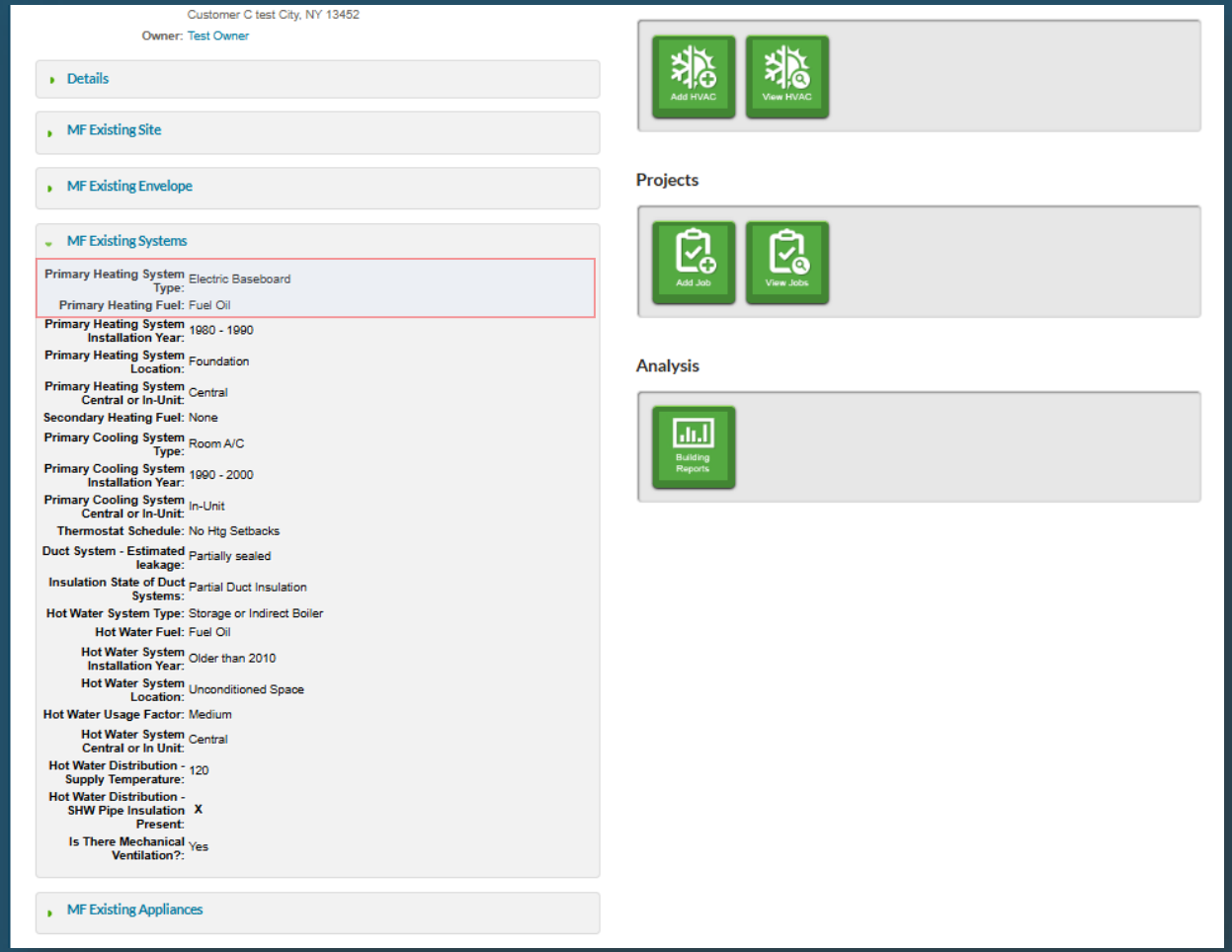
Troubleshooting

Error Rule ID 200

Validations: Systems

Ensure the selected Fuel Source is consistent with the System Type.

1. Look into “MF Existing Systems”.



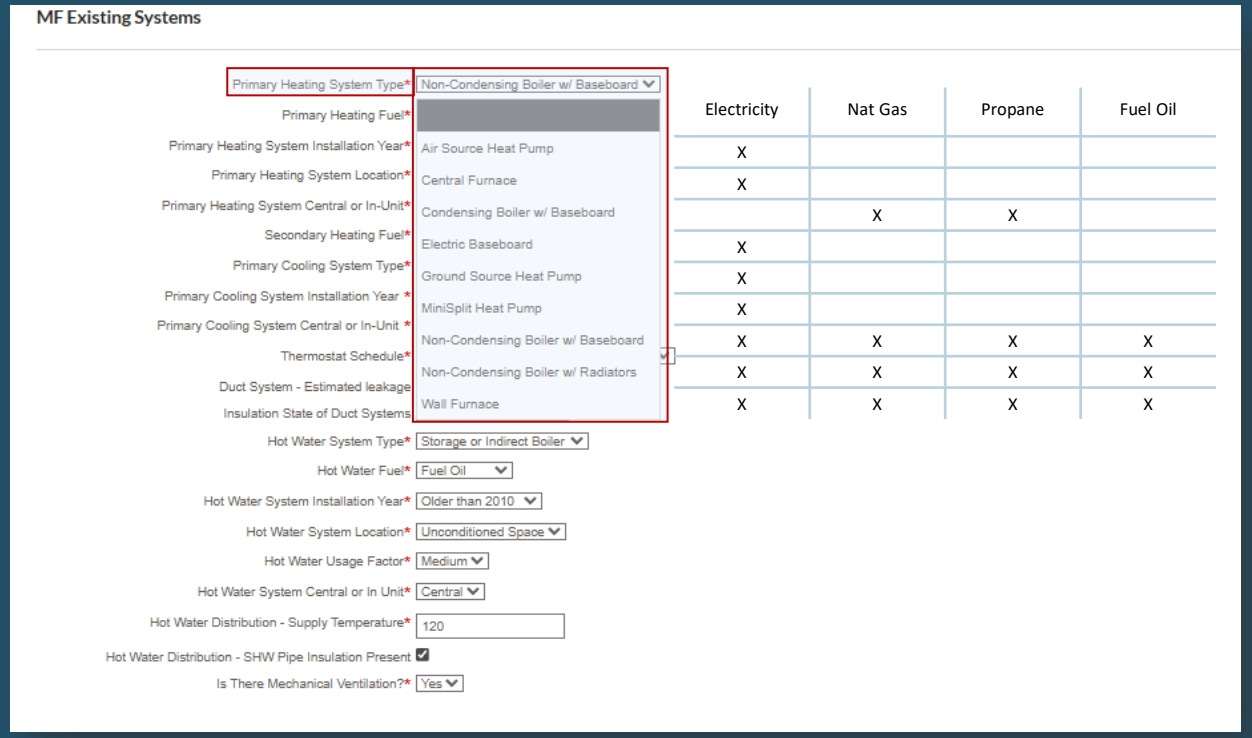
Troubleshooting

Error Rule ID 200

Validations: Systems

Ensure the selected Fuel Source is consistent with the System Type.

1. Look into “MF Existing Systems”.
2. Ensure Selected Fuel is supported.



Troubleshooting

Error Rule ID 200

Thank You

Questions?