

Affordable Multifamily Program Upstate

CLARITY COMPASS TOOL

Tool Training Webinar Series
December 9, 2025



Housekeeping

Introduction to the Affordable Multifamily Program Upstate

Energy Assessment & Scoping Tool (EAST) training

Questions and Answers

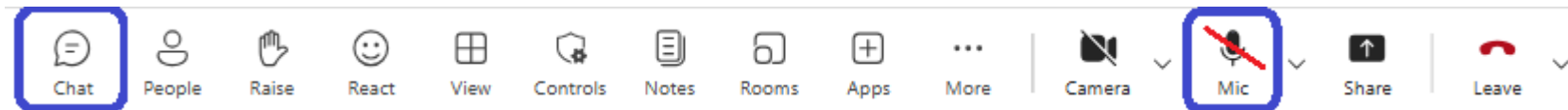
What's Next

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.



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

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)

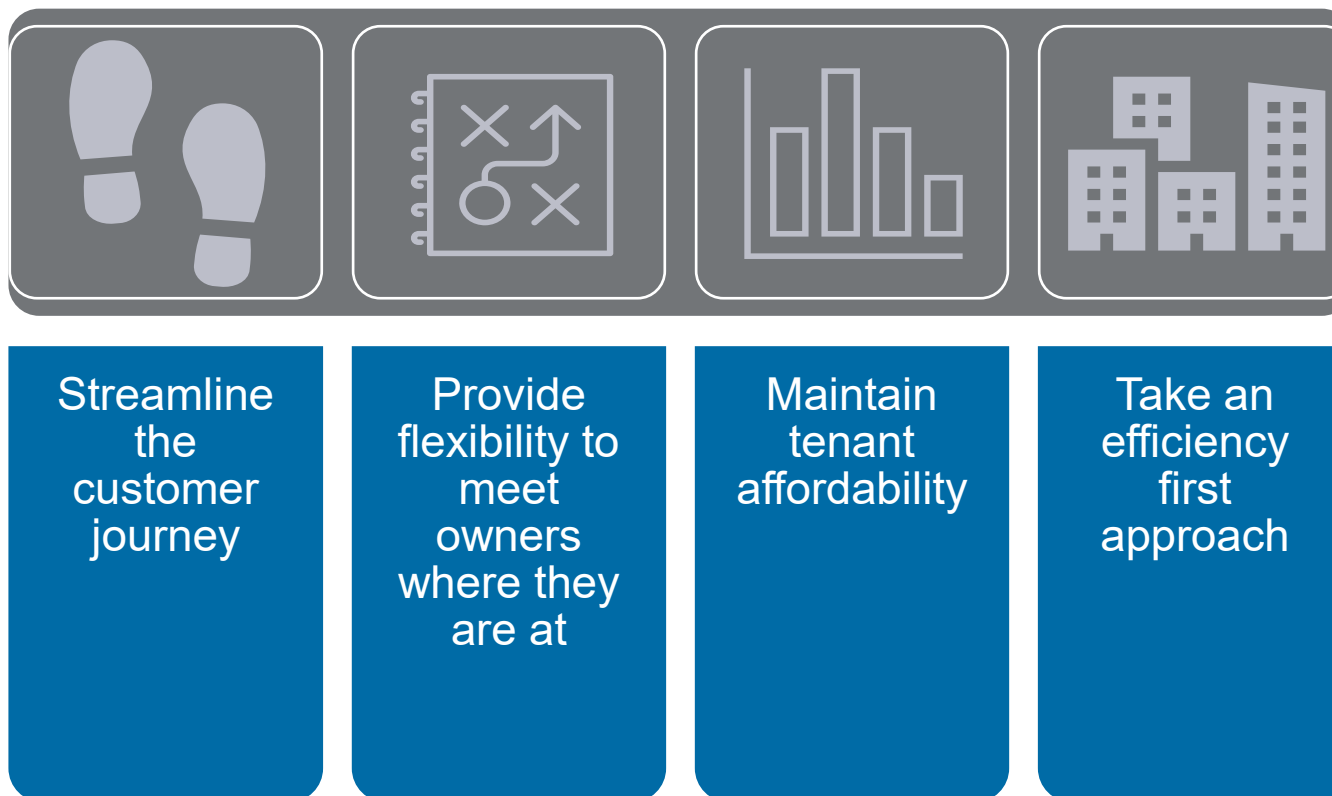
Con Edison & National Grid (Downstate)

Affordable Multifamily Energy Efficiency Program (AMEEP)

NYSERDA (Upstate)

AMP Up
Launch Date Q1 2026

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



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

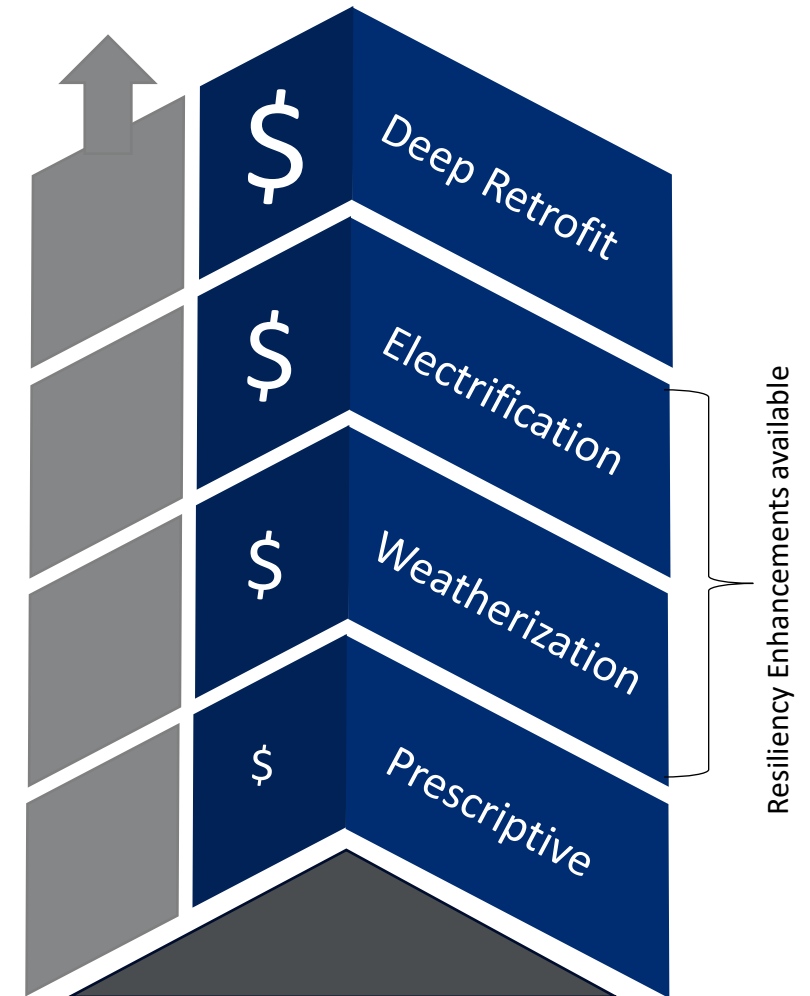
PHA Pathway

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

Launched August 2025

Launching in 2026

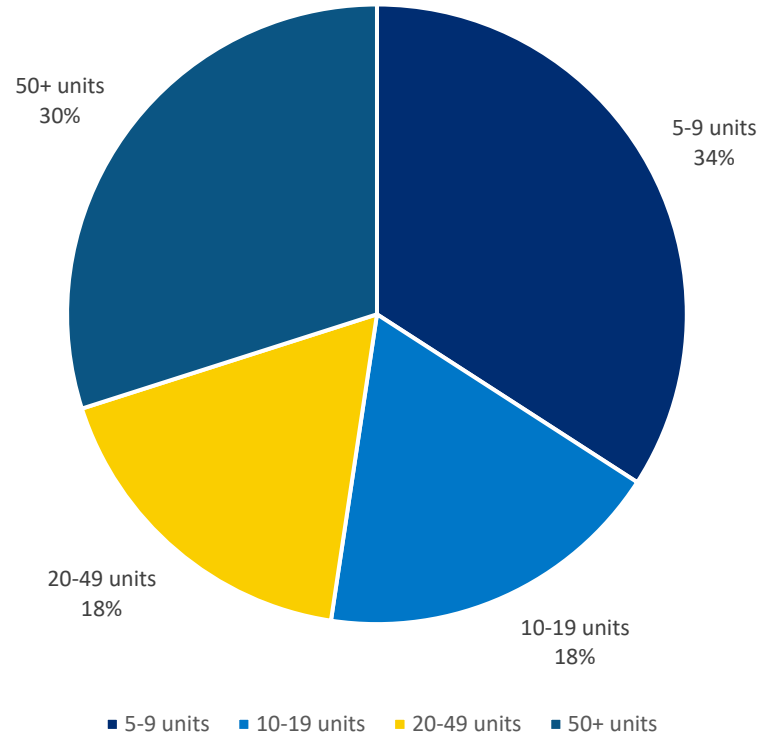
- Expected to offer upstate multifamily buildings with incentives for energy efficiency and building electrification upgrades
- Program will feature a streamlined customer journey with embedded technical assistance and will offer a concierge service
 - For the purposes of this program, technical assistance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



- **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 $\leq 80\%$ AMI or SMI, whichever is higher
 - For buildings with 11+ units: 25% of the building must be $\leq 80\%$ AMI or SMI, whichever is higher
- **Must use a MREP contractor or participate in Concierge Service**

~254K units

Upstate LMI Buildings by Units



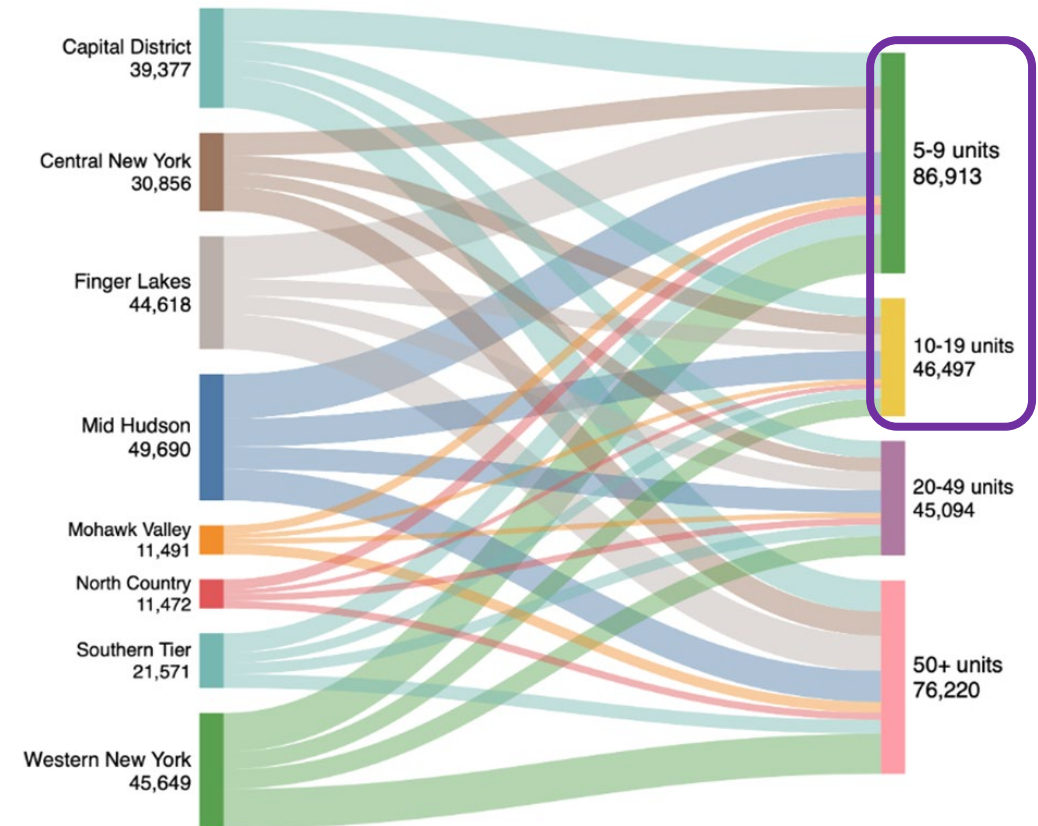
Small Building Obstacles:

- >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

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



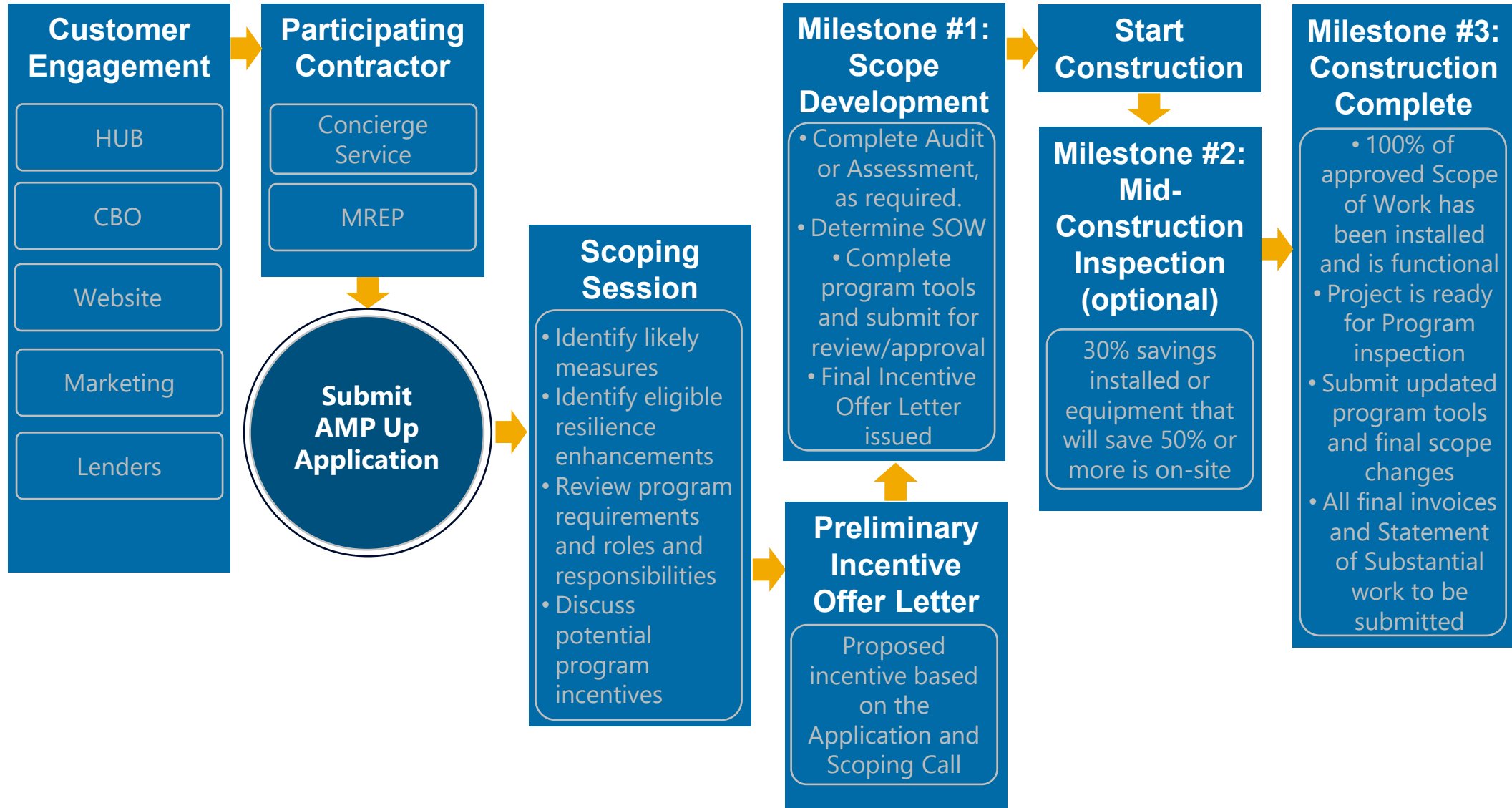
Complimentary Concierge Service

- 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

Customer Journey



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.

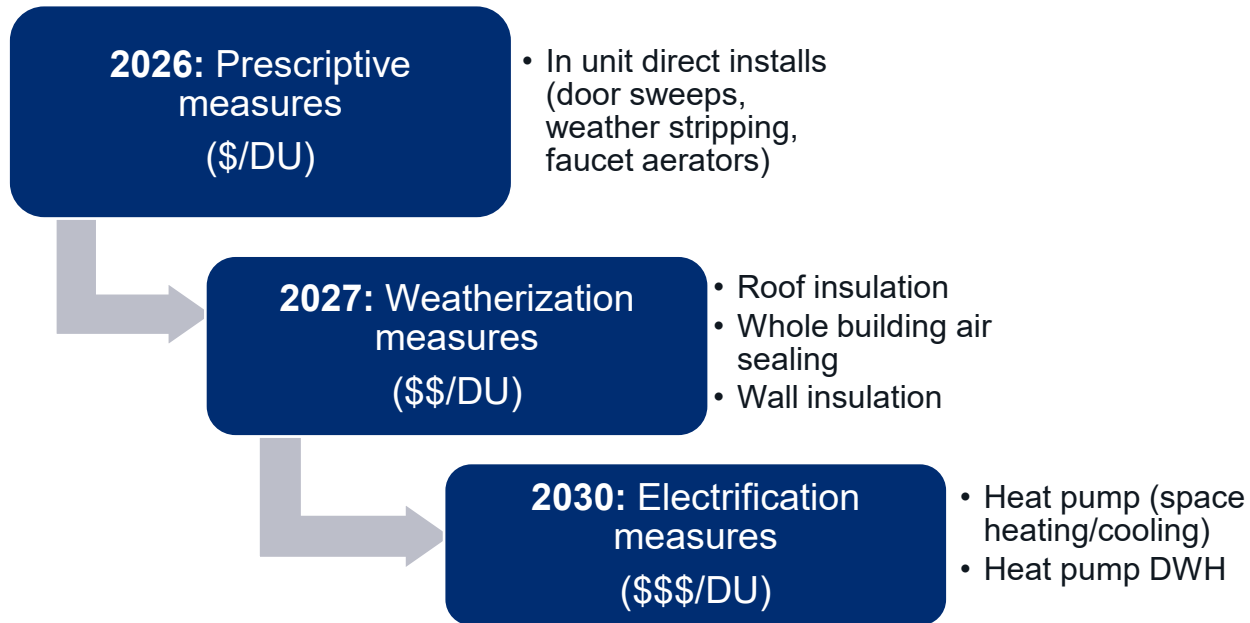
Program details are subject to change before official launch.

Eligible Measures

Measure Category	Measure
Prescriptive	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> H&C Heat Pumps DHW Heat Pumps
Deep Retrofit	<ul style="list-style-type: none"> Advanced Ventilation with Heat Recovery Envelope Over-cladding
Resiliency Enhancements	<ul style="list-style-type: none"> H&C Heat Pump Floodproofing DHW Heat Pump Floodproofing Electrical Panel Elevation Electrification for Heat Vulnerable Population Hurricane Resistant Windows

Phased Scopes and Measure Stacking



- 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



5-MINUTE BREAK



Clarity Compass

TRAINING

For NYSERDA's AMP Up Contractor Network

12/09/25



NYSERDA



Agenda

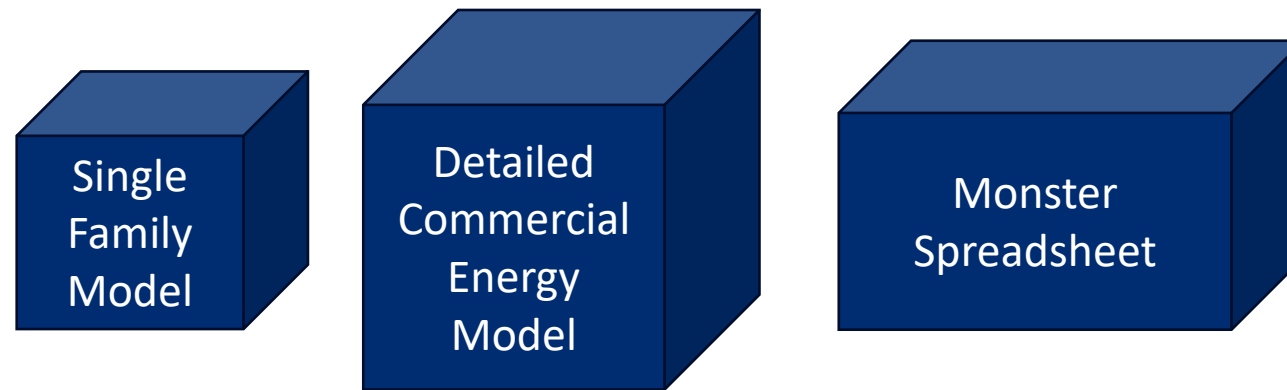
- 1 The Tool Intent
- 2 Modeling Approach
- 3 The Workflow
- 4 Further Help

1

The Tool Intent

Context

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

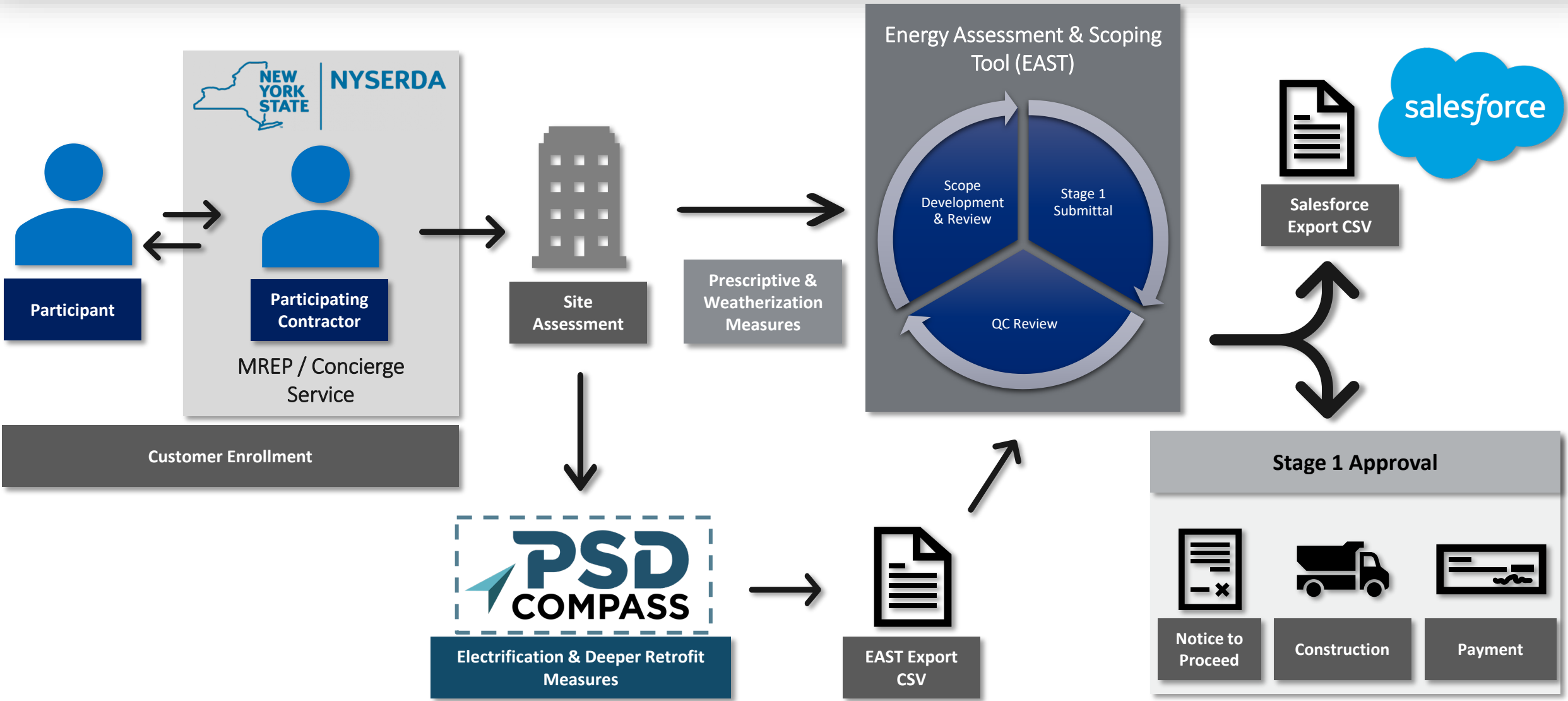


Clarity Compass “The Tool” Goals



- 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.

Clarity Compass Integration with EAST

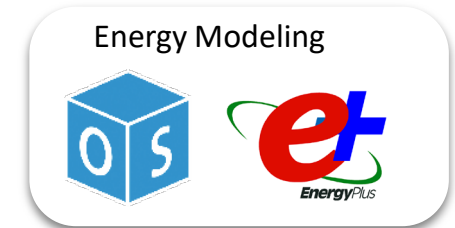


2

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.



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.

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.

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

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

	May or may not Include	Input Type	Package 1	Package 2	Package 3
Optional Measures	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.

Envelope Packages for Masonry-Framed Buildings

	May or may not Include	Input Type	Package 1	Package 2	Package 3
Optional Measures	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

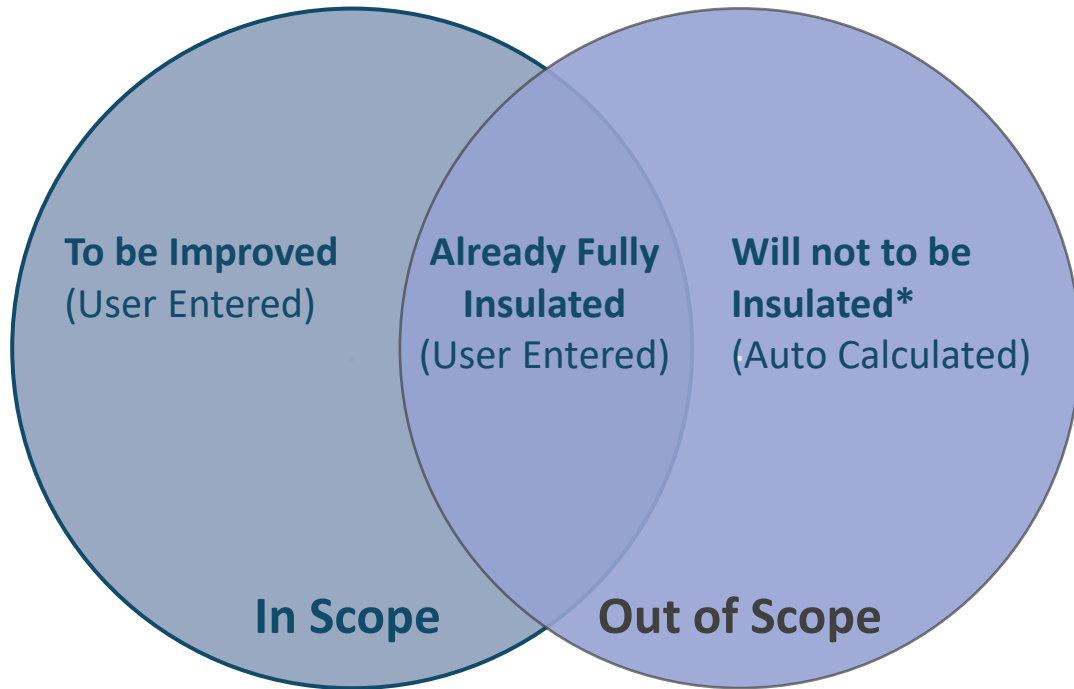


* Only occurs when new HVAC units are added, i.e. improvement to existing air distribution systems maintaining existing HVAC equipment is out of scope.

Envelope Packages

% Area allocation

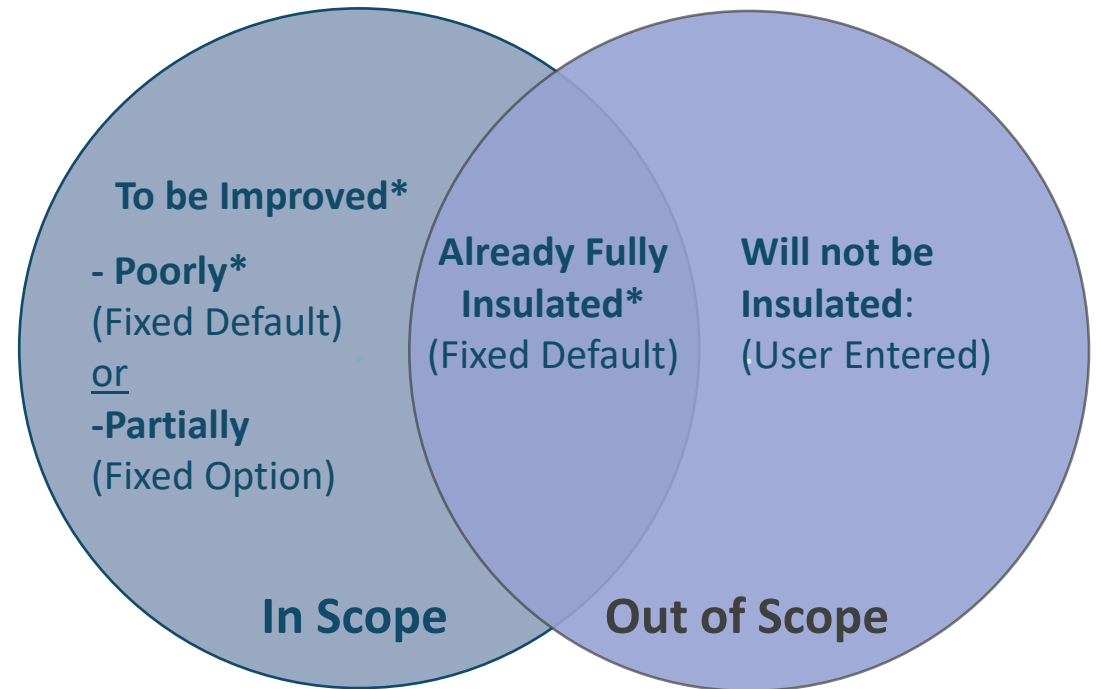
For each applicable Surface Type



**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

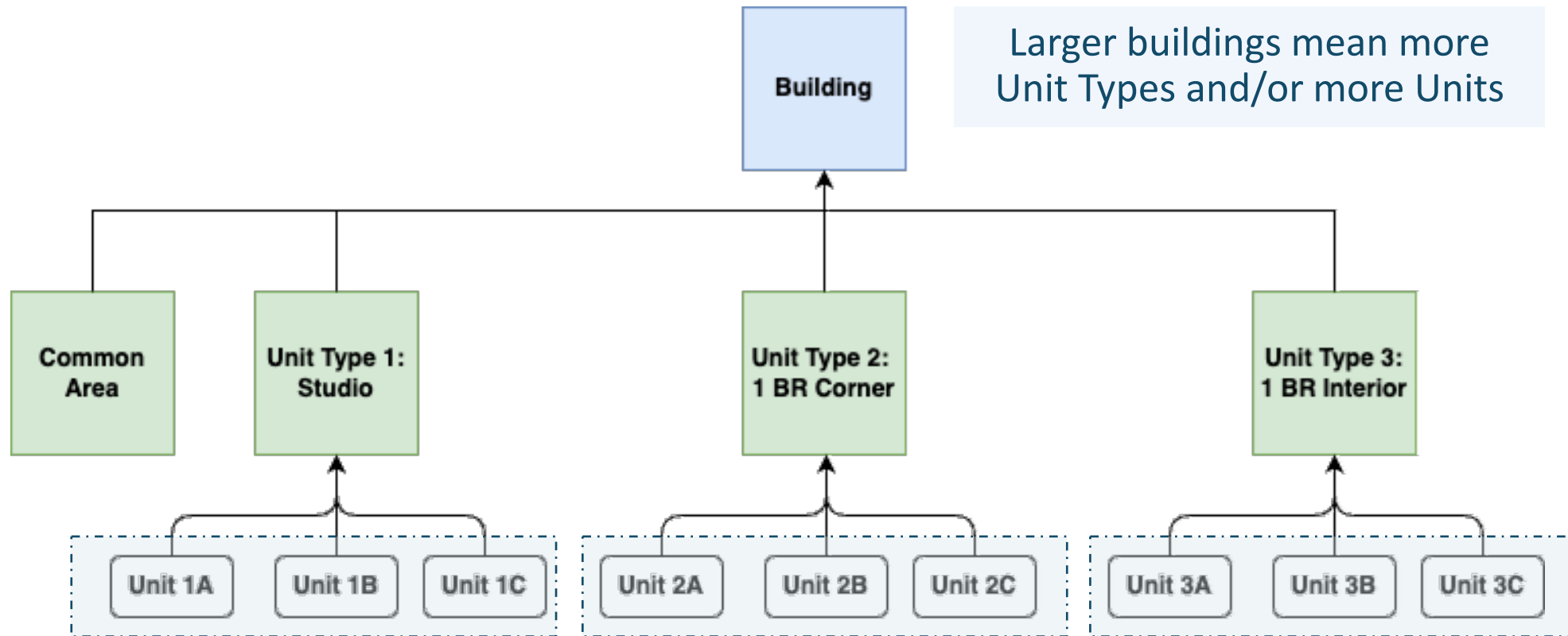
at Unit Type

- Windows Improvement
- Doors Improvement


HVAC

- Install Heat Pump

Unit Type Schematization



- Projects, Improvements and Savings apply equally for these

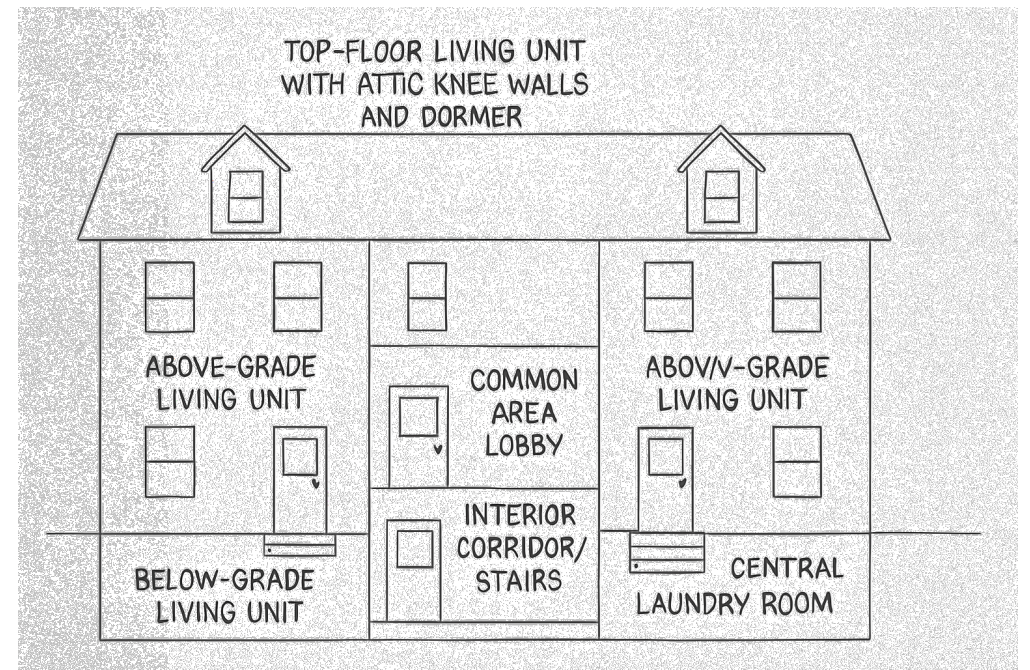
 Calculations and design at this level

 Savings reported at this level

Combining Unit Types

Create different geometrically structured, distributed and attributed multifamily buildings.

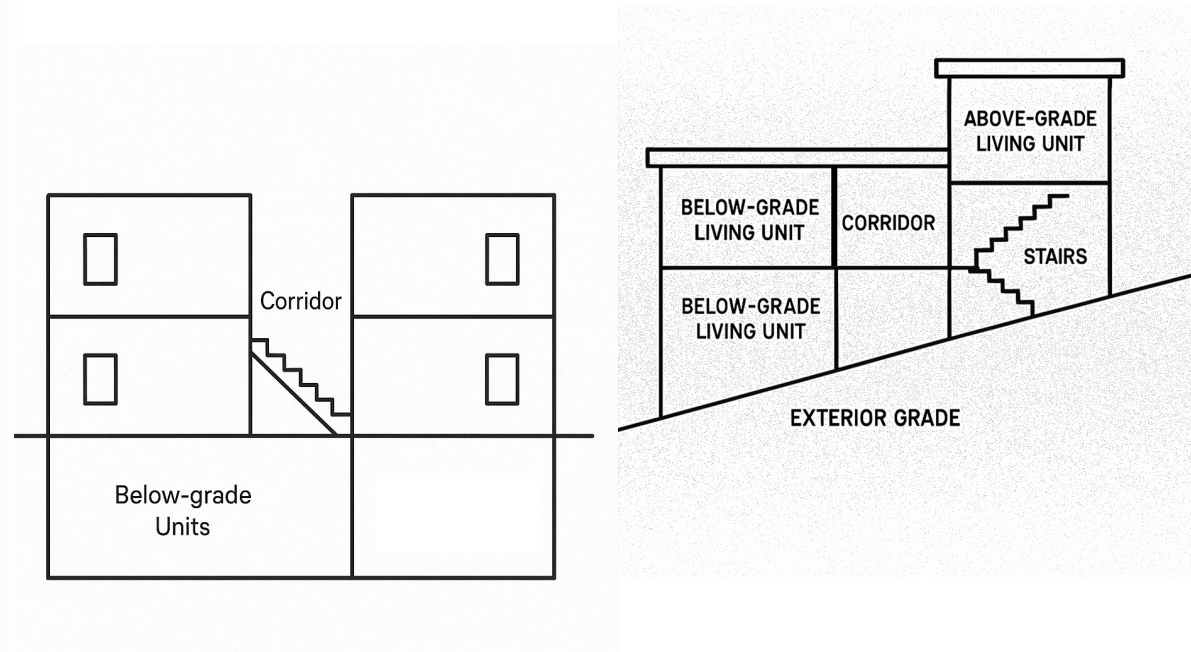
Apartments: 2–N stories with/without corridor, with/without attic (vented/unvented), with/without Attic living space, with/without Below Grade space.



Combining Unit Types

Create different geometrically structured, distributed and attributed multifamily buildings.

Split-Grade or Walkout Basements



3

The Workflow



User Types

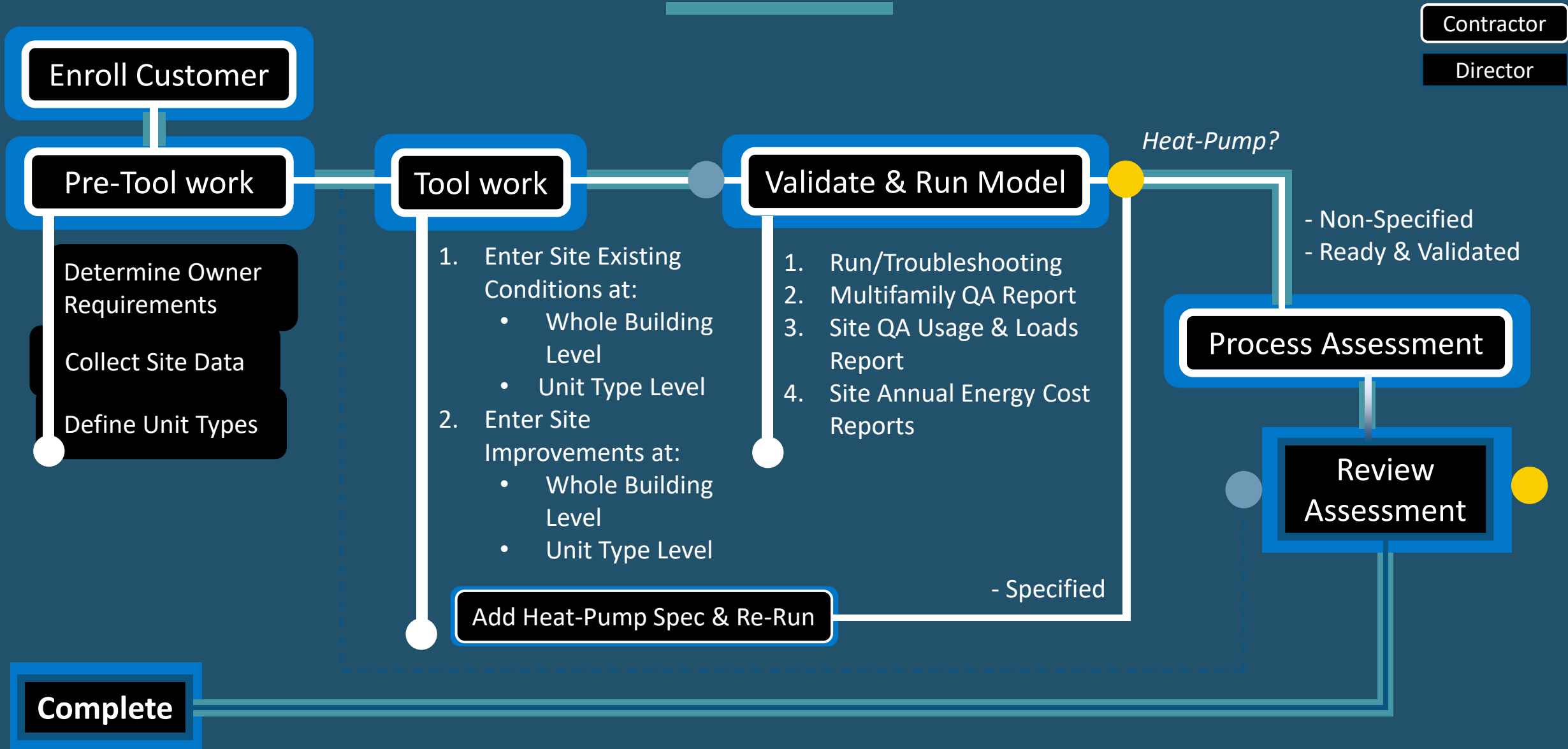
Contractor / Trade Ally

- 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



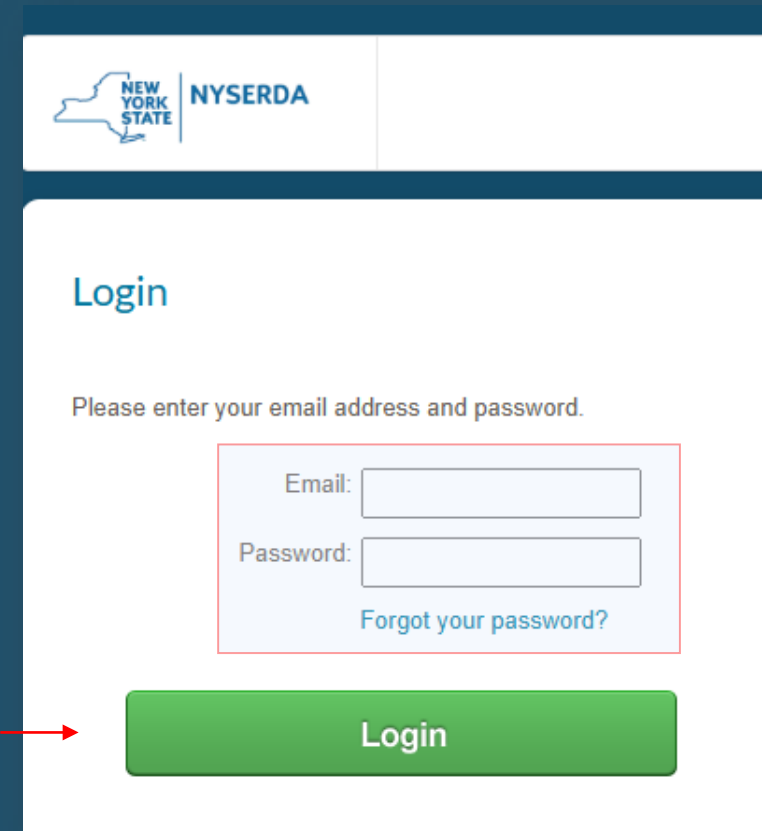
Assessment-Install Cycle



Enroll Customer

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

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



NEW YORK STATE | NYSEERDA

Login

Please enter your email address and password.

Email:

Password:

[Forgot your password?](#)

Login

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.

The screenshot shows the NYSERDA dashboard interface. At the top, there is a navigation bar with the NYSERDA logo, a 'Dashboard' link (highlighted with a red box and labeled '1'), and other menu items like 'Sites' and 'Projects'. On the right side of the navigation bar, there is a user profile for 'Esteban Oropeza ECO Stest SMF' and a 'Logout' link. Below the navigation bar, there are two main buttons: a blue 'Enroll Customer' button (labeled '2') and a grey 'Program Documentation' button (labeled '3'). Below these buttons, the dashboard content is titled 'Dashboard' and 'Projects Overview'. The 'Projects Overview' section features a table with columns for 'Customer Enrolled', 'Assessment Started', 'Assessment Submitted', 'Assessment Completed', 'Install Started', 'Install Submitted', 'Install Completed', and 'Project Type'. The table shows two rows of data: one for 'MUT Multifamily Unit Type' with 9 customers enrolled, and one for 'MWB Multifamily Whole Building' with 1 customer enrolled. Below the table, there is a 'Filter' dropdown, a 'Showing 0 to of 0' indicator, and a search bar. At the bottom of the table, there is a message 'Projects: None Currently Listed' and a table header with columns: Site, Unit, Project, Owner, Type, Status, Updated, and Details. A 'View All Projects' link is located at the bottom right of the table area.

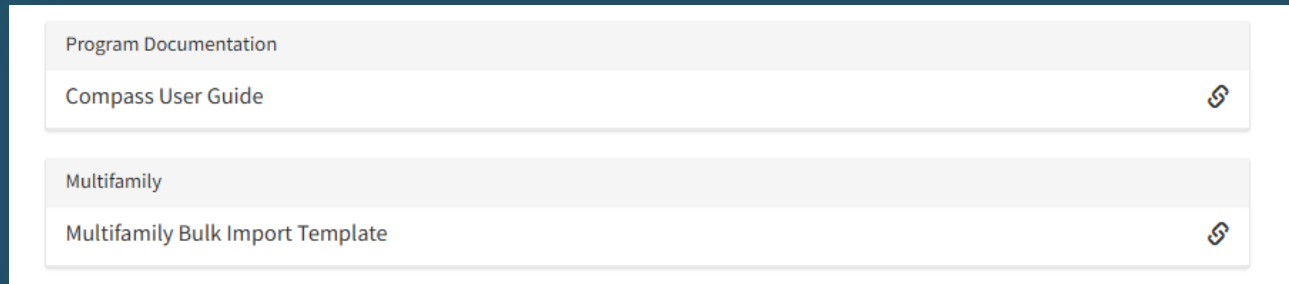
Customer Enrolled	Assessment Started	Assessment Submitted	Assessment Completed	Install Started	Install Submitted	Install Completed	Project Type
9	0	0	0	0	0	0	MUT Multifamily Unit Type
1	0	0	0	0	0	0	MWB Multifamily Whole Building

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.

A screenshot of the 'Add a Site' form. The form is titled 'Add a Site' and includes a header 'A site is the basic element in Compass.' and a note '* Denotes a required field'. The form contains several input fields: 'Site Name/ID *', 'Address *', 'City *', 'State *' (with a dropdown menu showing 'New York'), 'Zip *', 'Weather Station *' (with a dropdown menu), 'County *' (with a dropdown menu), 'Contact Person', 'Phone', and 'Email'. Below these fields is an 'Owner' section with an 'Owner' input field. To the right of the form, there are 'Entry tips' and 'Owner:' instructions. At the bottom right, there is a green 'Save and Continue' button with a red arrow pointing to it, and a 'Cancel' link.

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

Enroll Customer

Pre-Tool work

Determine Owner Requirements

Collect Site Data

Define Unit Types

Tool work

1. Enter Site Existing Conditions at:
 - Whole Building Level
 - Unit Type Level
2. Enter Site Improvements at:
 - Whole Building Level
 - Unit Type Level

Validate & Run Model

1. Troubleshooting
2. Multifamily QA Report
3. Site QA Usage & Loads Report
4. Site Annual Energy Cost Reports

Heat-Pump?

- Non-Specified
- Ready & Validated

Process Assessment

Review Assessment

Contractor
Director

Add Heat-Pump Spec & Re-Run

- Specified

Complete

Building Overview Page

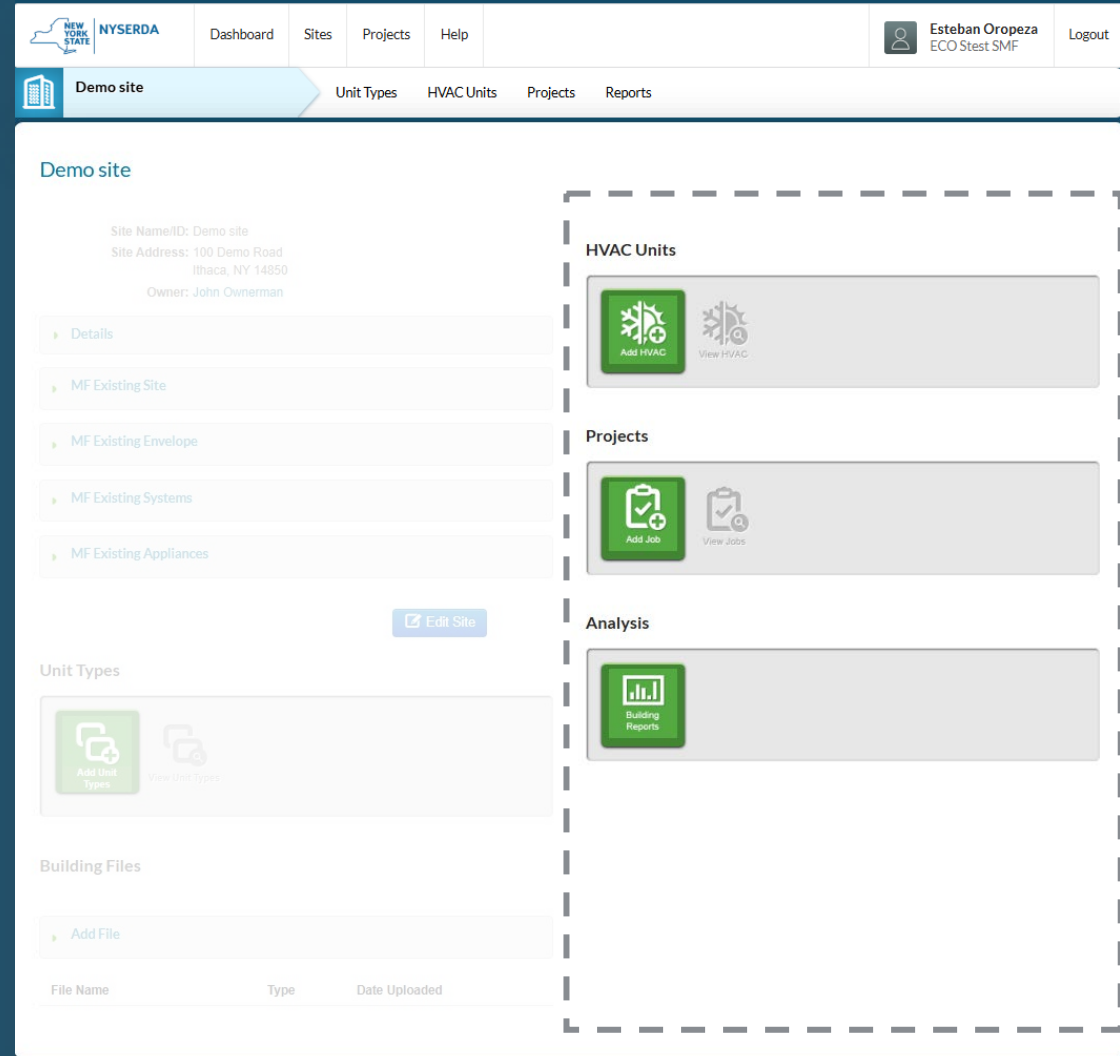
Left side of the page is for setting up the Existing Conditions, both at Whole Building and Unit Type Levels.

The screenshot shows the 'Building Overview Page' for a 'Demo site' in the NYSERDA system. The page is divided into several sections:

- Header:** Includes the NYSERDA logo, navigation links (Dashboard, Sites, Projects, Help), and user information (Esteban Oropeza, ECO Stest SMF, Logout).
- Sub-headers:** 'Demo site' (highlighted), 'Unit Types', 'HVAC Units', 'Projects', and 'Reports'.
- Site Information:** Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, Owner: John Ownerman.
- Actions:** A list of actions for setting up existing conditions: Details, MF Existing Site, MF Existing Envelope, MF Existing Systems, and MF Existing Appliances. An 'Edit Site' button is also present.
- Unit Types:** A section with 'Add Unit Types' and 'View Unit Types' buttons.
- Building Files:** An 'Add File' button and a table with columns for File Name, Type, and Date Uploaded.
- Right Sidebar:** Contains three sections: 'HVAC Units' with 'Add HVAC' and 'View HVAC' buttons; 'Projects' with 'Add Job' and 'View Job' buttons; and 'Analysis' with a 'Building Reports' button.

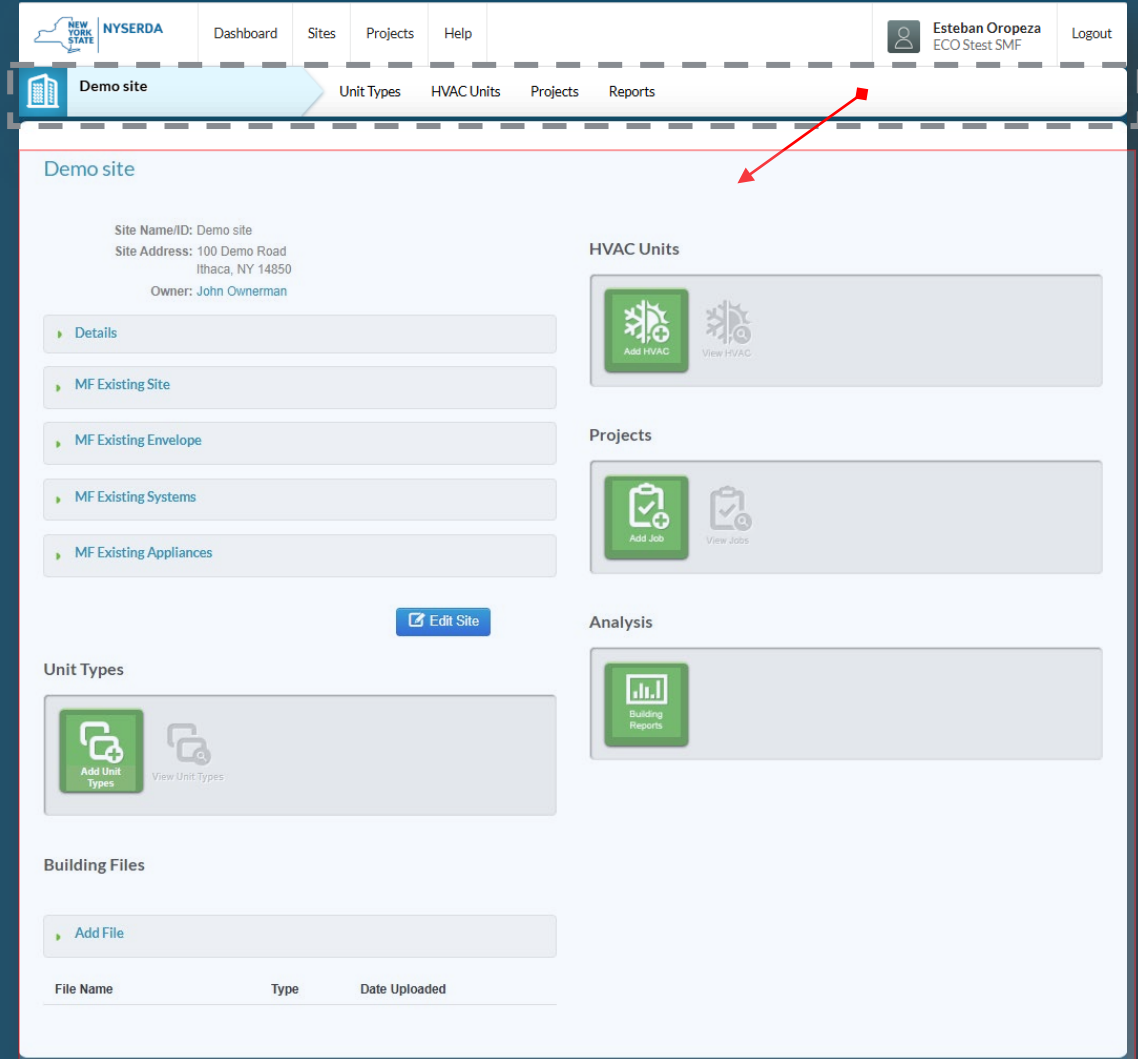
Building Overview Page

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



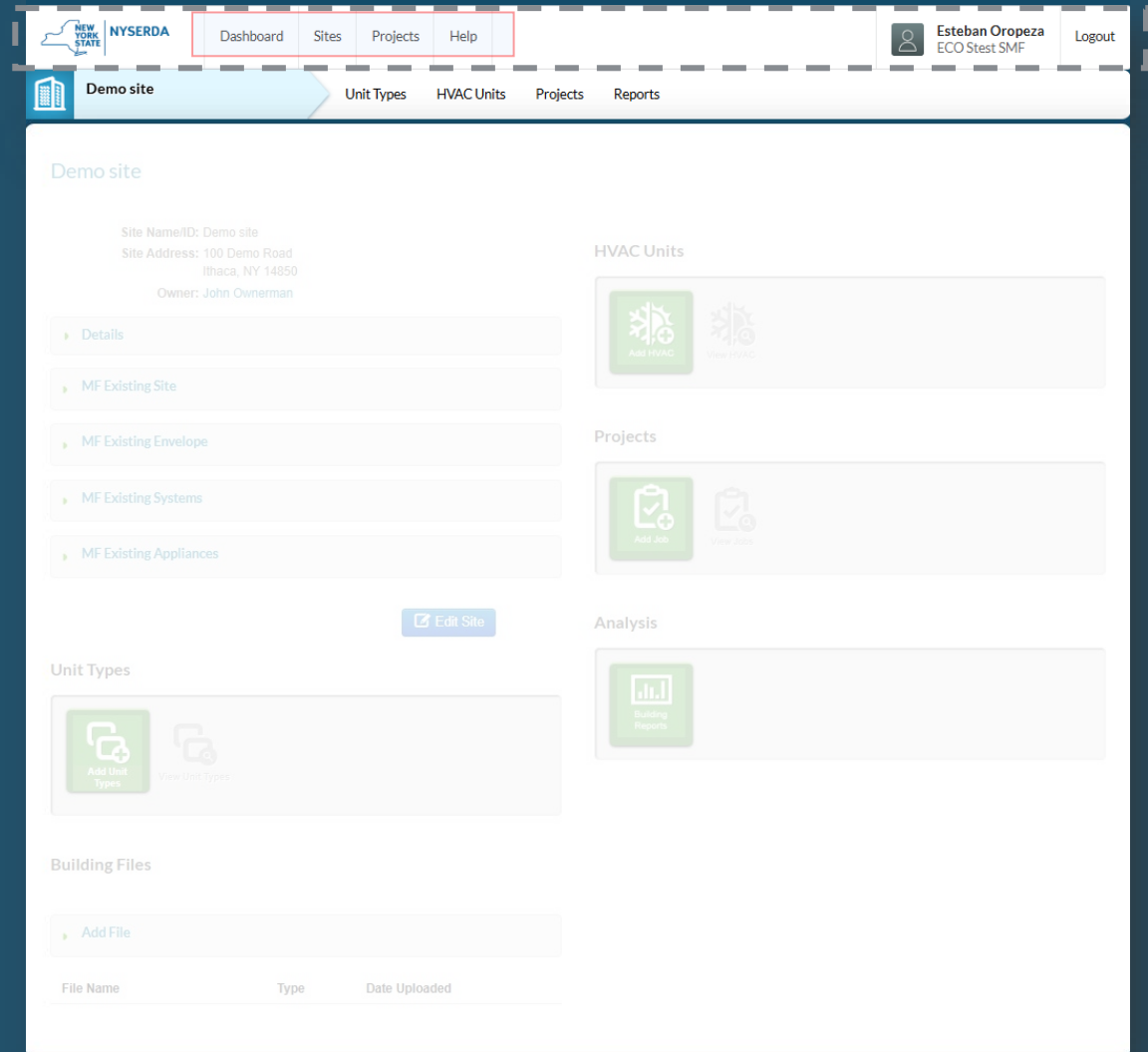
Building Overview Page

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.



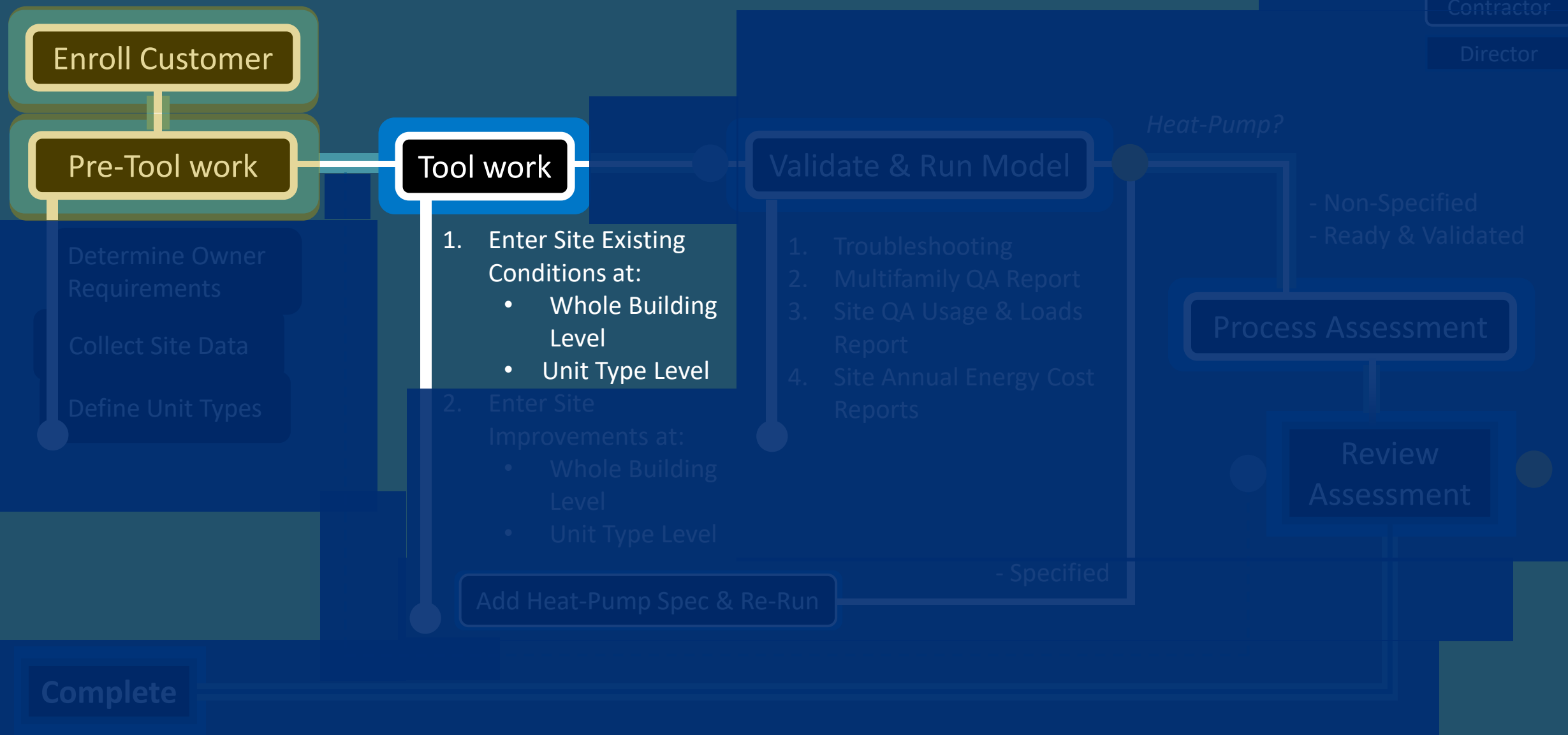
Building Overview Page

The Site Navigation Menu also provides:

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

The screenshot displays the 'Building Overview Page' for a 'Demo site'. The page features a top navigation bar with the NYSERDA logo and menu items: Dashboard, Sites, Projects, and Help. A user profile tag for 'Esteban Oropeza ECO Stest SMF' and a 'Logout' button are visible in the top right. Below the navigation bar, a secondary menu includes 'Demo site', 'Unit Types', 'HVAC Units', 'Projects', and 'Reports'. The main content area is titled 'Demo site' and provides site details: Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, and Owner: John Ownerman. A navigation menu on the left includes 'Details', 'MF Existing Site', 'MF Existing Envelope', 'MF Existing Systems', and 'MF Existing Appliances'. An 'Edit Site' button is located below this menu. The page is divided into several functional sections: 'HVAC Units' with 'Add HVAC' and 'View HVAC' buttons; 'Projects' with 'Add job' and 'View jobs' buttons; 'Unit Types' with 'Add Unit Types' and 'View Unit Types' buttons; 'Building Files' with an 'Add File' button and a table with columns for 'File Name', 'Type', and 'Date Uploaded'; and 'Analysis' with a 'Building Reports' button. A large blue number '3' is positioned in the top right corner of the slide.

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.

The screenshot shows the NYSEDA Building Overview Page for a "Demo site". The page is divided into several sections:

- Header:** NYSEDA logo, navigation tabs (Dashboard, Sites, Projects, Help), and user information (Esteban Oropeza, ECO Stest SMF, Logout).
- Sub-headers:** Demo site, Unit Types, HVAC Units, Projects, Reports.
- Site Information:** Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, Owner: John Ownerman.
- Left Side (Existing Building):** A list of tabs: Details, MF Existing Site, MF Existing Envelope, MF Existing Systems, and MF Existing Appliances. A red box highlights these tabs, and a red arrow points to the "Edit Site" button.
- Right Side (HVAC Units, Projects, Analysis):** Three sections with "Add" and "View" buttons for each.
- Unit Types:** A section with "Add Unit Types" and "View Unit Types" buttons.
- Building Files:** A section with an "Add File" button and a table with columns for File Name, Type, and Date Uploaded.

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***

Edit Site

A site is the basic element in Compass.

Edit a Site:

When editing a Site, additional fields will be available. Check out the "Entering information for the existing conditions" section of the [User Guide](#)

* Denotes a required field

Confirmation Code *

Site Name/ID *

Address *

City *

State *

Zip *

Weather Station *

County *

Contact Person

Phone

Email

Owner

Enter the site name or other identifier for tracking purposes.

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*

MF Existing Site

Primary Construction Era*

Shielding of Building*

Infiltration*

Front of Building Direction*

Building Neighbors Front*

Building Neighbors Right*

Building Neighbors Back*

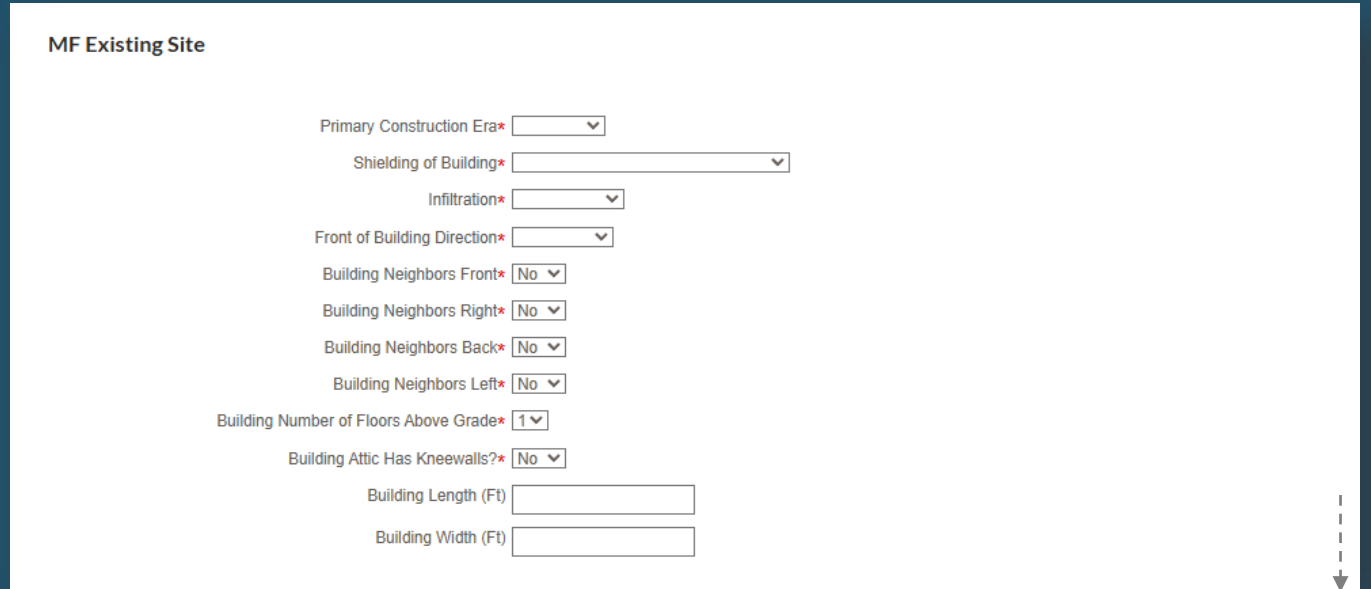
Building Neighbors Left*

Building Number of Floors Above Grade*

Building Attic Has Kneewalls?*

Building Length (Ft)

Building Width (Ft)



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*

MF Existing Envelope

Existing Attic Type*	<input type="text"/>
Existing Foundation Type*	<input type="text"/>
Exterior Wall Construction*	<input type="text"/>
Predominant Window Type*	<input type="text"/>
Window Wall Ratio*	<input type="text"/>
Predominant Door Type*	<input type="text"/>
Floor To Ceiling Height (Ft)*	<input type="text"/>
% Attic Floor Area Already Insulated	<input type="text" value="0"/>
% Above Grade Wall Area Already Insulated*	<input type="text" value="0"/>
Rim Joist Already Insulated	<input type="checkbox"/>
% Floor Area Already Insulated*	<input type="text" value="0"/>
% Foundation Wall Area Already Insulated*	<input type="text" value="0"/>
% Attic Roof Deck Already Insulated	<input type="text" value="0"/>
% Roof Deck Area Already Insulated	<input type="text" value="0"/>
% Attic Gable Wall Area Already Insulated*	<input type="text" value="0"/>
% Attic Knee Wall Area Already Insulated	<input type="text" value="0"/>

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*

MF Existing Systems

Primary Heating System Type*

Primary Heating Fuel*

Primary Heating System Installation Year*

Primary Heating System Location*

Primary Heating System Central or In-Unit*

Secondary Heating Fuel*

Primary Cooling System Type*

Primary Cooling System Installation Year

Primary Cooling System Central or In-Unit

Thermostat Schedule*

Duct System - Estimated leakage

Insulation State of Duct Systems

Hot Water System Type*

Hot Water Fuel*

Hot Water System Installation Year*

Hot Water System Location*

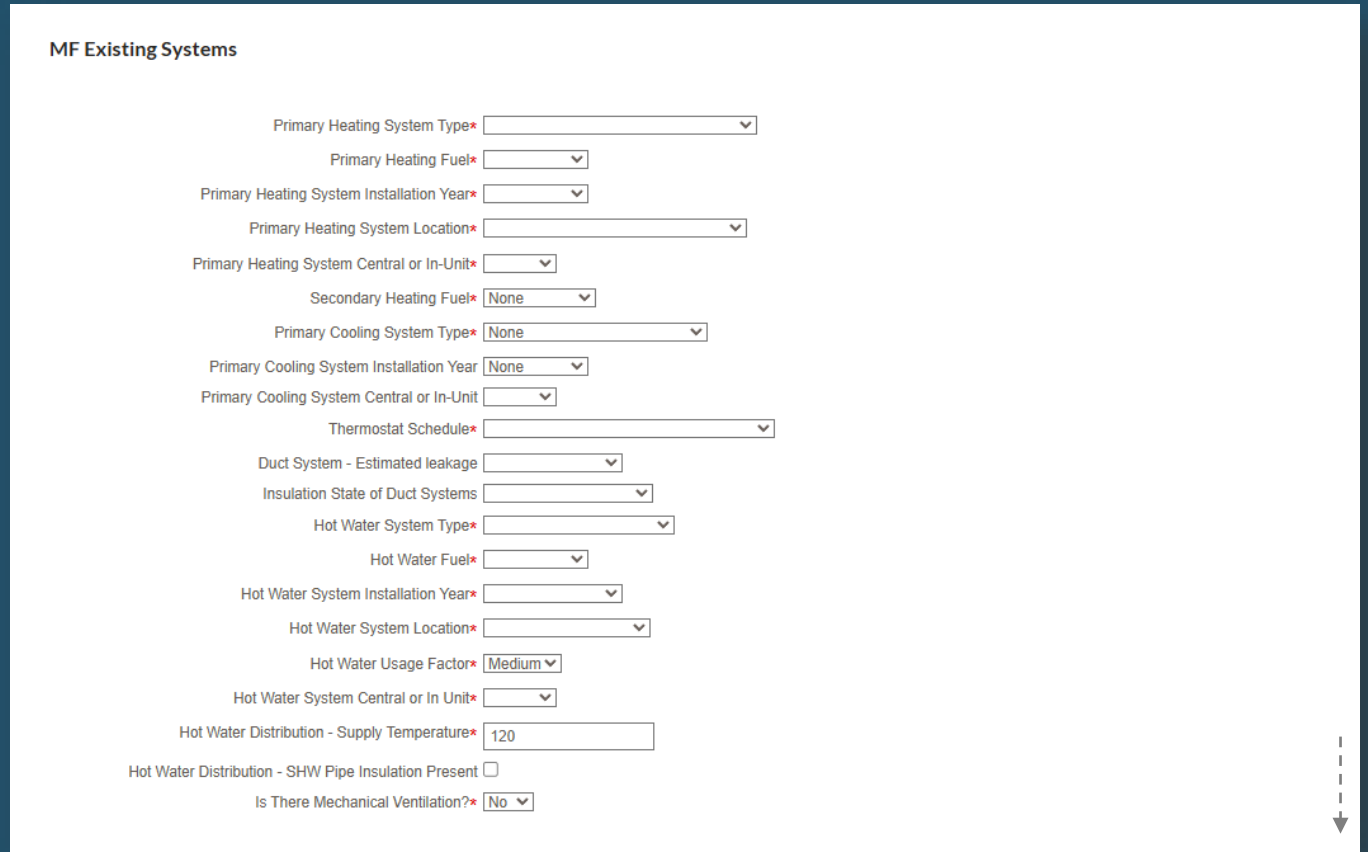
Hot Water Usage Factor*

Hot Water System Central or In Unit*

Hot Water Distribution - Supply Temperature*

Hot Water Distribution - SHW Pipe Insulation Present

Is There Mechanical Ventilation?*



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*

MF Existing Appliances

Range/Oven Fuel*

Laundry Facility Type*

Clothes Washer Type

Clothes Dryer Type

Clothes Dryer Fuel

Units have Dishwasher

Electric Panel Max Current Rating (Amps)*

Cancel **Finish here**
Save and Continue

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).

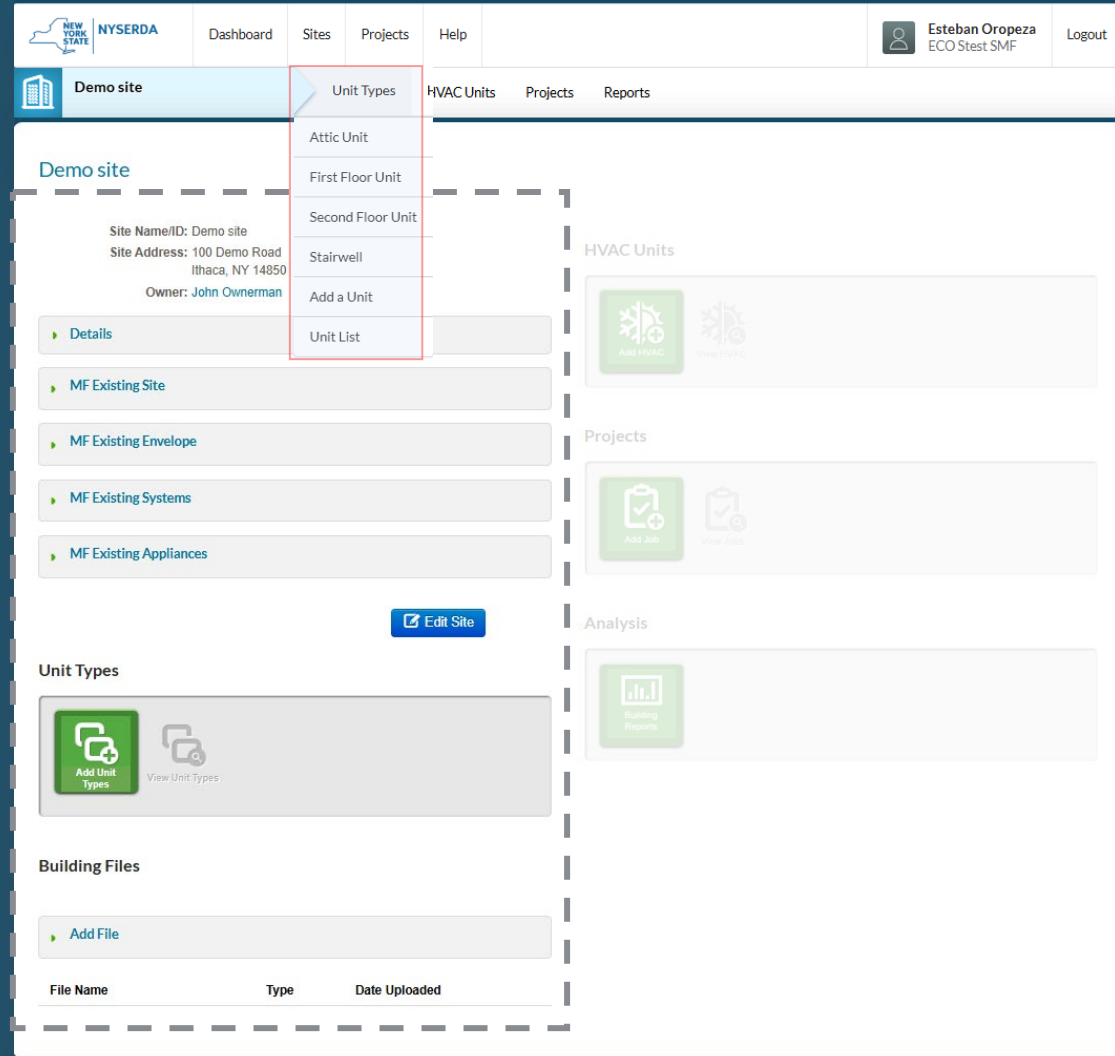
Refer to the *Adding Unit Types* section of the *User Guide*.

The screenshot shows the NYSERDA Building Overview Page for a demo site. The page is titled "Demo site" and features a navigation bar with "Dashboard", "Sites", "Projects", and "Help". The user is logged in as "Esteban Oropeza ECO Stest SMF". The main content area is divided into several sections:

- Site Information:** Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, Owner: John Ownerman.
- Actions:** Details, MF Existing Site, MF Existing Envelope, MF Existing Systems, MF Existing Appliances, and an Edit Site button.
- Unit Types:** Add Unit Types and View Unit Types buttons.
- Building Files:** A form for adding files, including fields for Upload File (MF Unit Type Creation), Description, Private checkbox, and an Upload button. The file size limit is 10MB.
- HVAC Units:** Add HVAC and View HVAC buttons.
- Projects:** Add Job and View Job buttons.
- Analysis:** Building Reports button.

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.

The screenshot displays the 'Building Overview Page' for a 'Demo site'. The top navigation bar includes the NYSERDA logo, 'Dashboard', 'Sites', 'Projects', and 'Help' menus. The user 'Esteban Oropeza' is logged in as 'ECO Stest SMF'. The 'Demo site' tab is active, showing site information: Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, and Owner: John Ownerman. Below this, there are five expandable sections: Details, MF Existing Site, MF Existing Envelope, MF Existing Systems, and MF Existing Appliances. A blue 'Edit Site' button is located below these sections. The 'Unit Types' section is highlighted with a red box and contains two buttons: 'Add Unit Types' and 'View Unit Types'. Other sections include 'HVAC Units' with 'Add HVAC' and 'View HVAC' buttons, 'Projects' with 'Add Job' and 'View Job' buttons, 'Analysis' with a 'Building Reports' button, and 'Building Files' with an 'Add File' button and a table with columns for File Name, Type, and Date Uploaded.

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**

Create a Unit

Name

Unit Effective Date

Unit Type Note: Changing the Unit type will change the required fields below

Conditioned Floor Area

Number of Units

Unit Type Number of Stories Above Grade

Number of Bedrooms

Number of Bathrooms

Foundation Type/Connection

Ceiling Area Connected To Attic (Sq. Ft.)

Ceiling Area Connected To Conditioned Space (Sq. Ft.)

Ceiling Area Connected To Outside (Sq. Ft.)

Floor Area Connected To Foundation (Sq. Ft.)

Floor Area Connected To Conditioned Space (Sq. Ft.)

Floor Area Connected To Outside (Sq. Ft.)

Number of Exterior Doors

Max. Exposed Perimeter Length Front (Ft)

Max. Exposed Perimeter Length Right (Ft)

Max. Exposed Perimeter Length Back (Ft)

Max. Exposed Perimeter Length Left (Ft)

Floor To Ceiling Height (Ft)

Unit is Heated/Cooled

Units

Units to Create:

Cancel

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 Types

[+ Add Unit](#)

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	Q
Second Floor Unit	Above Grade Living Space	1,311 sq ft	1	Yes	0	0	357.75	0	Q
Attic Unit	Living Unit with Attic Kneewalls	964 sq ft	1	Yes	0	0	0	1205	Q
First Floor Unit	Above Grade Living Space	1,311 sq ft	1	Yes	1310.4	0	0	0	Q
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.

The screenshot displays the NYSERDA Building Overview Page for a 'Demo site'. The top navigation bar includes 'Dashboard', 'Sites', 'Projects', and 'Help'. The 'Projects' tab is highlighted with a red box and a red arrow. Below the navigation, the 'Demo site' section shows site details: Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, and Owner: John Ownerman. A list of options includes 'Details', 'MF Existing Site', 'MF Existing Envelope', 'MF Existing Systems', and 'MF Existing Appliances', with an 'Edit Site' button. The 'Unit Types' section has 'Add Unit Types' and 'View Unit Types' buttons. The 'Building Files' section has an 'Add File' button and a table with columns for File Name, Type, and Date Uploaded. On the right, three sections are highlighted with a dashed box: 'HVAC Units' with 'Add HVAC' and 'View HVAC' buttons; 'Projects' with 'Add Job' and 'View Jobs' buttons (the 'Add Job' button is highlighted with a red box and a red arrow); and 'Analysis' with a 'Building Reports' button.

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.

Add Project

Site Name: Demo site
Site Owner: John Ownerman
Address: 100 Demo Road
Ithaca, NY 14850

Project

Job Type: Multifamily Unit Type

Please select the Job Type before continuing. After you have made a selection, this cannot be changed.

Cancel **Save and Continue**

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.

Bulk Project Actions

Job Status: Project Action:

Projects for Demo site

Only show active per page Showing to 4 of 4

Projects: Sorted by Job Name, in ascending order

Job Name	Job Type	Status	Updated	Unit Type Name	Details
MFB0002681	Multifamily Whole Building	Customer Enrolled	Today		<input type="button" value="🗑️"/> <input type="button" value="➔"/>
MFU0002682	Multifamily Unit Type	Customer Enrolled	Today		<input type="button" value="🗑️"/> <input type="button" value="➔"/>
MFU0002683	Multifamily Unit Type	Customer Enrolled	Today		<input type="button" value="🗑️"/> <input type="button" value="➔"/>
MFU0002684	Multifamily Unit Type	Customer Enrolled	Today		<input type="button" value="🗑️"/> <input type="button" value="➔"/>

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.

Project Details

Project Name/ID: Demo site: MFB0002697
 Program: NYSERDA
 Contractor: ECO Stest SMF
 Created By: Esteban Oropeza
 Creation Date: 9/15/2025
 Confirmation Code: GVB393

Job Type: Multifamily Whole Building
 Job Status: Customer Enrolled - Open - 0 days old

[Delete](#) [Edit Project](#)

Notes

[Add Note](#)

Stages

Assessment [Install](#)

Project Status History

Status	Modified By	Date
Customer Enrolled	Esteban Oropeza	9/15/2025 11:06 AM
New	Esteban Oropeza	9/15/2025 11:06 AM
New	Esteban Oropeza	9/15/2025 11:06 AM

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***.

Create Assessment for MFB0002697

Adding Improvements:

When adding improvements to a Site, Check out the "Data Entry – Site Level Improvements" section of the [User Guide](#)

Date of On Site Assessment: *

Assessment Analyst: *

Attic Floors

% of Attic Floor Area to be Improved *

R-Value of Improved Attic Floor

Total Attic Floor Area (Sq.Ft.)

R-Value of Attic Floor that is Unable to be Improved

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*.

Other Attic Surfaces

% Attic Roof Area to be Improved*	<input type="text" value="0"/>
R-Value of Improved Attic Roof	<input type="text"/>
Total Attic Roof Area (Sq.Ft.)	<input type="text"/>
R-Value of Attic Roof that is Unable to be Improved	<input type="text"/>
% Roof Deck (Sloped Ceiling) to be Improved*	<input type="text" value="0"/>
R-Value of Improved Roof Deck (Sloped Ceiling)	<input type="text"/>
Total Roof Deck (Sloped Ceiling) (Sq.Ft.)	<input type="text"/>
R-Value of Roof Deck (Sloped Ceiling) that is Unable to be Improved	<input type="text"/>
% Attic Gable Wall Area to be Improved*	<input type="text" value="0"/>
R-Value of Improved Attic Gable Wall	<input type="text"/>
Total Attic Gable Wall Area (Sq.Ft.)	<input type="text"/>
R-Value of Attic Gable Wall that is Unable to be Improved	<input type="text"/>
% Attic Knee Wall Area to be Improved*	<input type="text" value="0"/>
R-Value of Improved Attic Knee Wall	<input type="text"/>
Total Attic Knee Wall Area (Sq.Ft.)	<input type="text"/>
R-Value of Attic Knee Wall that is Unable to be Improved	<input type="text"/>

⋮

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*.

The screenshot displays a form titled "Assessment Page" with two main sections: "Walls" and "Foundations".

Walls Section:

- % Above Grade Wall Area to be Improved*
- R-Value of Improved Above Grade Wall
- Total Above Grade Wall Area (Sq. Ft.)
- R-Value of Above Grade Wall that is Unable to be Improved

Foundations Section:

- % Foundation Wall Area to be Improved*
- R-Value of Improved Foundation Wall
- Total Foundation Wall Area (Sq. Ft.)
- R-Value of Foundation Wall that is Unable to be Improved
- % Foundation Ceiling Area to be Improved*
- R-Value of Improved Foundation Ceiling
- Total Foundation Ceiling Area (Sq.Ft.)
- R-Value of Foundation Ceiling that is Unable to be Improved

A vertical dashed line with a downward arrow is visible on the right side of the Foundations section.

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**.

The screenshot shows a form titled "HVAC Design Details" with the following fields:

- Selected Package:
- Heat Pump Sizing Factor:
- Heat Pump Ducting Type:
- Backup Fuel:
- Backup Efficiency:

At the bottom right of the form, there is a "Cancel" link and a green "Save and Continue" button. Above the button, the text "Finish here" is displayed in red.

Improvements - Whole Building 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.

Assessment for MFB0001022

Basic Data

Job Type: Multifamily Whole Building
Modeling Type: OpenStudio
Assessment Date: 5/19/2025
Assessment Analyst: Mini James

▼ Air Sealing
% Air Infiltration Reduction for Package 1: 15
% Air Infiltration Reduction for Package 2: 18
% Air Infiltration Reduction for Package 3: 20

▶ Attic Floors

▶ Other Attic Surfaces

▶ Walls

▶ Foundations

▶ HVAC Design Details

▶ Calculated Fields

[Edit Basic Data](#)

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.

Document Management

File Type: Description: (max size: 10MB)
 Private: Upload: No file chosen

File Name	Type	Description	Date Uploaded
Download File Archive			

Proposed Improvements

Category	Improvement Name	Status	Cost	Savings		
Hot Water	Install Low Flow Aerators	Selected	\$90		<input type="checkbox"/>	<input type="checkbox"/>
Hot Water	Install Low Flow Showerheads	Selected	\$89		<input type="checkbox"/>	<input type="checkbox"/>
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-		<input type="checkbox"/>	<input type="checkbox"/>
Hot Water	Install Heat Pump Water Heater	Recommended	-		<input type="checkbox"/>	<input type="checkbox"/>

Energy Calculations

Current Status: Calculations Complete

Notes

Project Status: [Assessment Started](#)

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.

The screenshot shows the NYSERDA Building Overview Page for a 'Demo site'. The page is divided into several sections:

- Header:** Includes the NYSERDA logo, navigation tabs (Dashboard, Sites, Projects, Help), and user information (Esteban Oropeza, ECO Stest SMF, Logout).
- Site Information:** Displays 'Demo site' with details: Site Name/ID: Demo site, Site Address: 100 Demo Road, Ithaca, NY 14850, and Owner: John Ownerman.
- Actions:** A list of actions for the site: Details, MF Existing Site, MF Existing Envelope, MF Existing Systems, and MF Existing Appliances. An 'Edit Site' button is also present.
- Unit Types:** A section with 'Add Unit Types' and 'View Unit Types' buttons.
- Building Files:** A section with an 'Add File' button and a table with columns for File Name, Type, and Date Uploaded.
- Right Sidebar (dashed box):** Contains three main sections:
 - HVAC Units:** 'Add HVAC' and 'View HVAC' buttons.
 - Projects:** 'Add Job' and 'View Jobs' buttons. The 'Add Job' button is highlighted with a red box and a red arrow.
 - Analysis:** 'Building Reports' button.

Red arrows point to the 'Projects' tab in the top navigation and the 'Add Job' button in the Projects section of the sidebar.

Project Details Page

Edit Project status and associated unit as needed.

Project Details

Project Name/ID: Demo site: MFU0002692
Program: NYSERDA
Contractor: ECO Stest SMF
Created By: Esteban Oropeza
Creation Date: 9/15/2025
Confirmation Code: GVB393
Job Type: Multifamily Unit Type
Job Status: Customer Enrolled - Open - 0 days old

[Delete](#) [Edit Project](#)

Notes

[Add Note](#)

Stages

[Assessment](#) [Install](#)

Project Status History

Status	Modified By	Date
Customer Enrolled	Esteban Oropeza	9/15/2025 10:47 AM
New	Esteban Oropeza	9/15/2025 10:47 AM
New	Esteban Oropeza	9/15/2025 10:47 AM

Improvements - Unit Type Level

Edit Project Page

- Disposition
- Protection
- Associated Unit Type

The image displays two screenshots of the 'Edit Project' form, illustrating improvements to the unit type selection process.

Top Screenshot: Shows the 'Edit Project' form with the following fields: 'Project Name/ID: MFB0001022', 'Job Status: Assessment Started', 'Disposition: Open', 'Protected: Open', and 'Unit: Canceled'. A red arrow points to the 'Disposition' dropdown menu, which is open, showing options: Open, Canceled, Closed, On Hold, and Virtual. A 'Cancel' button and a green 'Save and Continue' button are visible.

Bottom Screenshot: Shows the same form with improvements. The 'Disposition' dropdown is now a simple 'Open' dropdown. The 'Protected' field is now a checkbox, which is unchecked. The 'Unit' dropdown is open, showing options: Stairwell, Second Floor Unit, First Floor Unit, and Attic Unit. A red arrow points to the 'Unit' dropdown menu. A 'Cancel' button and a green 'Save and Continue' button are visible.

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.

Project Details

Project Name/ID: Demo site: MFU0002692
Program: NYSERDA
Contractor: ECO Stest SMF
Created By: Esteban Oropeza
Creation Date: 9/15/2025
Confirmation Code: GVB393

Job Type: Multifamily Unit Type
Job Status: Customer Enrolled - Open - 0 days old

[Delete](#) [Edit Project](#)

Stages

Assessment Install

Notes

[Add Note](#)

Project Status History

Status	Modified By	Date
Customer Enrolled	Esteban Oropeza	9/15/2025 10:47 AM
New	Esteban Oropeza	9/15/2025 10:47 AM
New	Esteban Oropeza	9/15/2025 10:47 AM

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**.

Create Assessment for MFU0002727

Adding Improvements:
When adding improvements to a Site, Check out the "Data Entry – Site Level Improvements" section of the [User Guide](#)

Date of On Site Assessment: *

Assessment Analyst: *

Windows and Doors

Average Window Area (Sq. Ft.)

Number of Improved Windows Front

Total Number of Windows Front

Number of Improved Windows Right

Total Number of Windows Right

Number of Improved Windows Back

Total Number of Windows Back

Number of Improved Windows Left

Total Number of Windows Left

Improved Window SHGC

Improved Window U-factor

Number of Improved Exterior Doors

Type of Replacement Door

HVAC

Is Heat Pump Being Installed in this Unit Type?

Sizing Factor

Cancel

Finish here

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 for MFU0001025

Basic Data

Job Type: Multifamily Unit Type
Unit: [Attic Unit](#)
Modeling Type: OpenStudio
Assessment Date: 5/19/2025
Assessment Analyst: Mini James

▶ [Windows and Doors](#)

▶ [HVAC](#)

▶ [Calculated Fields](#)

[Edit Basic Data](#)

Document Management

File Type: Description:
Private: Upload: No file chosen (max size: 10MB)

File Name	Type	Description	Date Uploaded
-----------	------	-------------	---------------

[Download File Archive](#)

Improvements - Unit Type Assessment

PSD

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.

The screenshot displays a web interface for managing project improvements. At the top, there is a header bar labeled "Proposed Improvements" with a "Download File Archive" link on the right. Below this is a table with columns for "Category", "Improvement Name", "Status", "Cost", and "Savings". A green "Add Improvement" button is located in the top right corner of the table area. Underneath the table is a section titled "Energy Calculations" with a "Recalculate" button. Below that is a "Notes" section with an "Add Note" button. At the bottom left is a "Calculate Defaults" button, and at the bottom right is a "Submit" button. The current status is shown as "Calculations Complete" and "Project Status: Assessment Started".

Category	Improvement Name	Status	Cost	Savings
----------	------------------	--------	------	---------

Energy Calculations
Current Status: Calculations Complete

Notes
Add Note

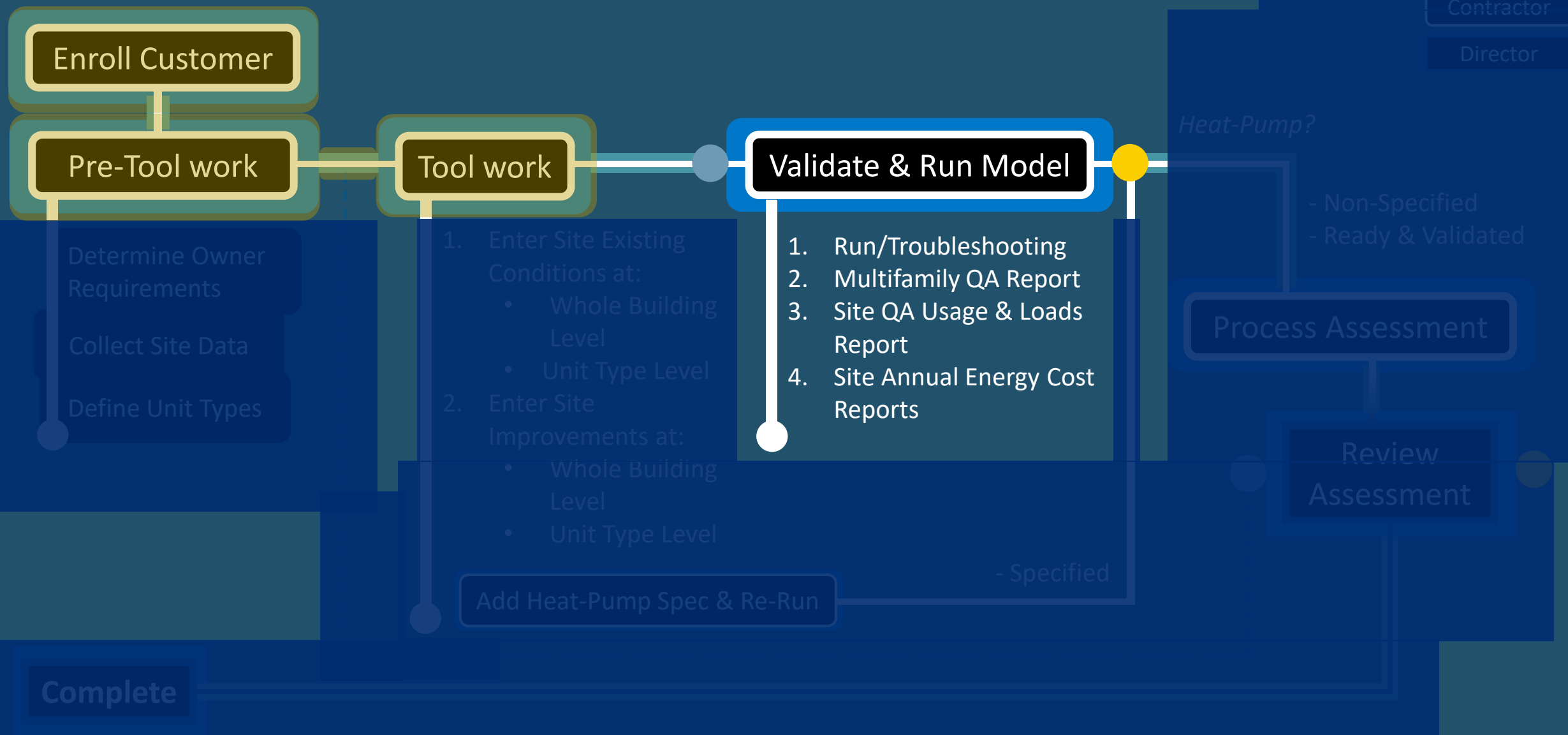
Calculate Defaults

Project Status: [Assessment Started](#)

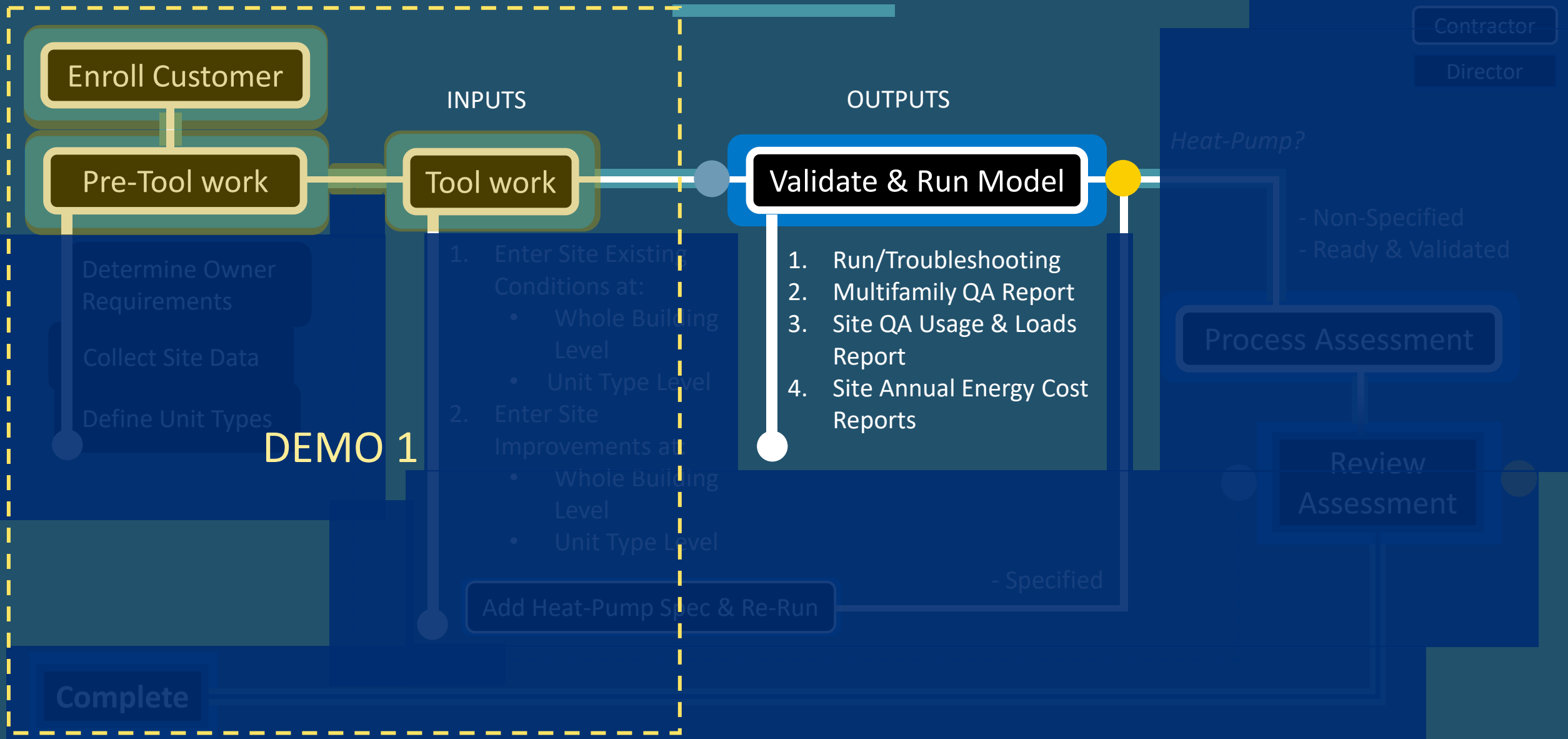
Submit

Improvements - Unit Type Assessment

Assessment-Install Cycle



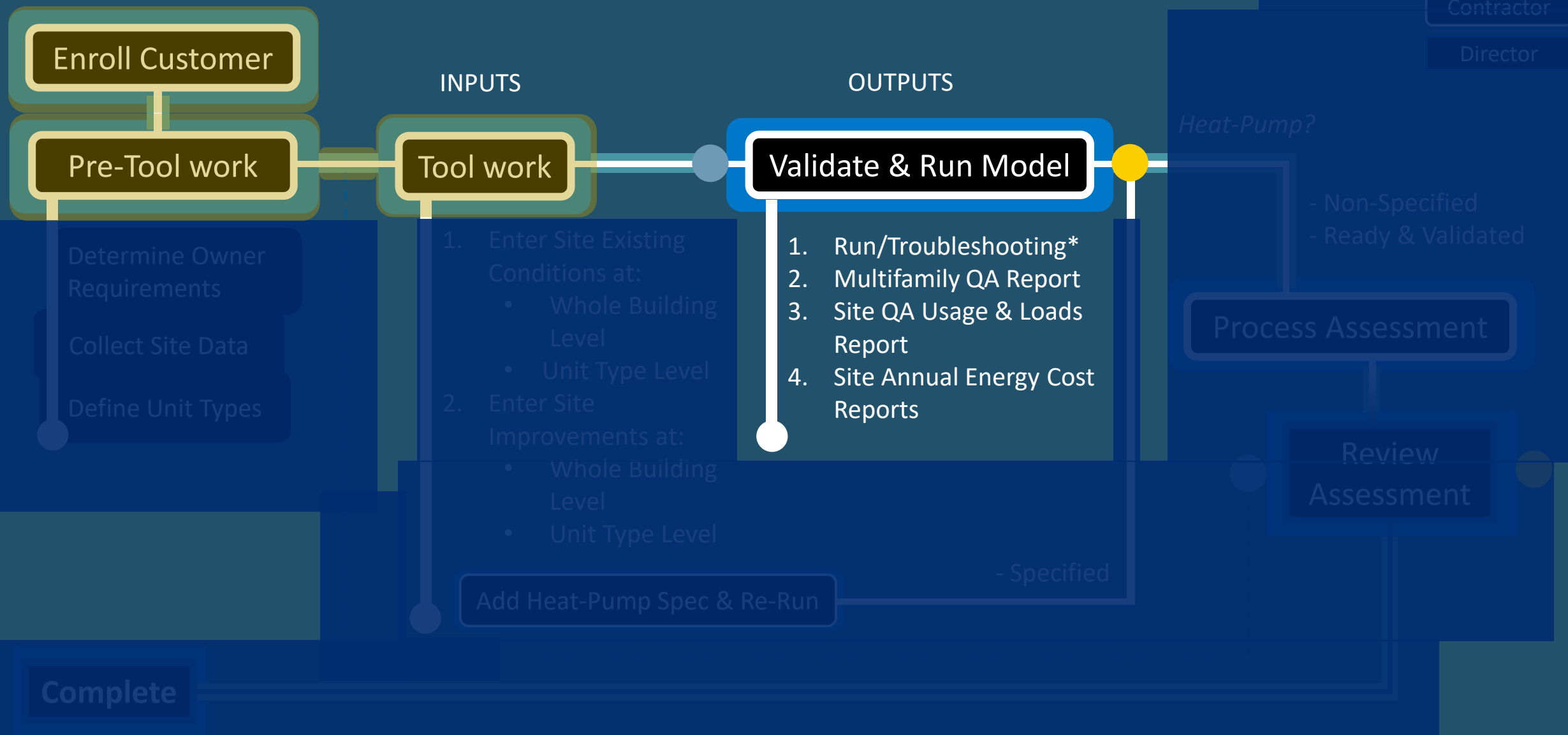
Assessment-Install Cycle



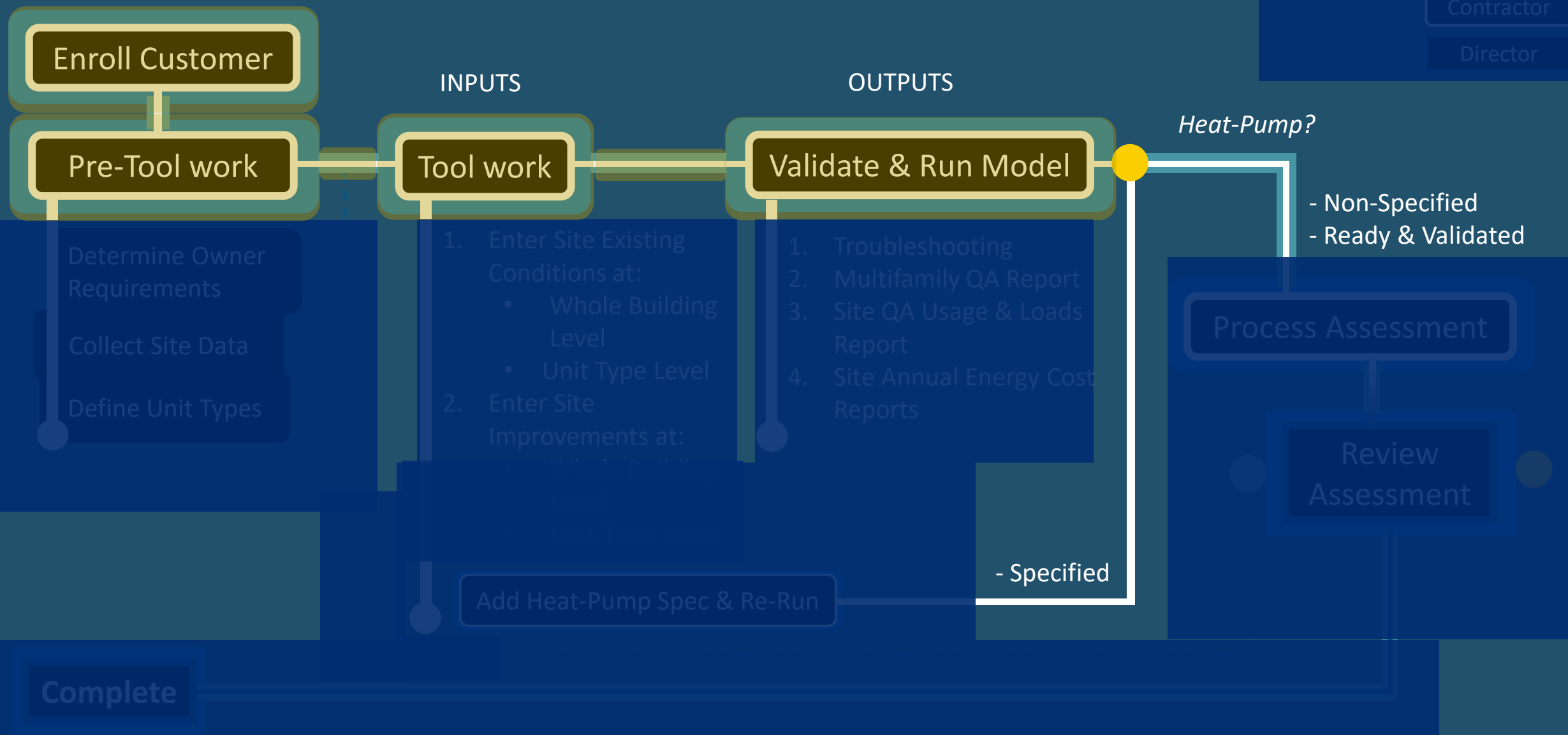
5 min break

DEMO Time

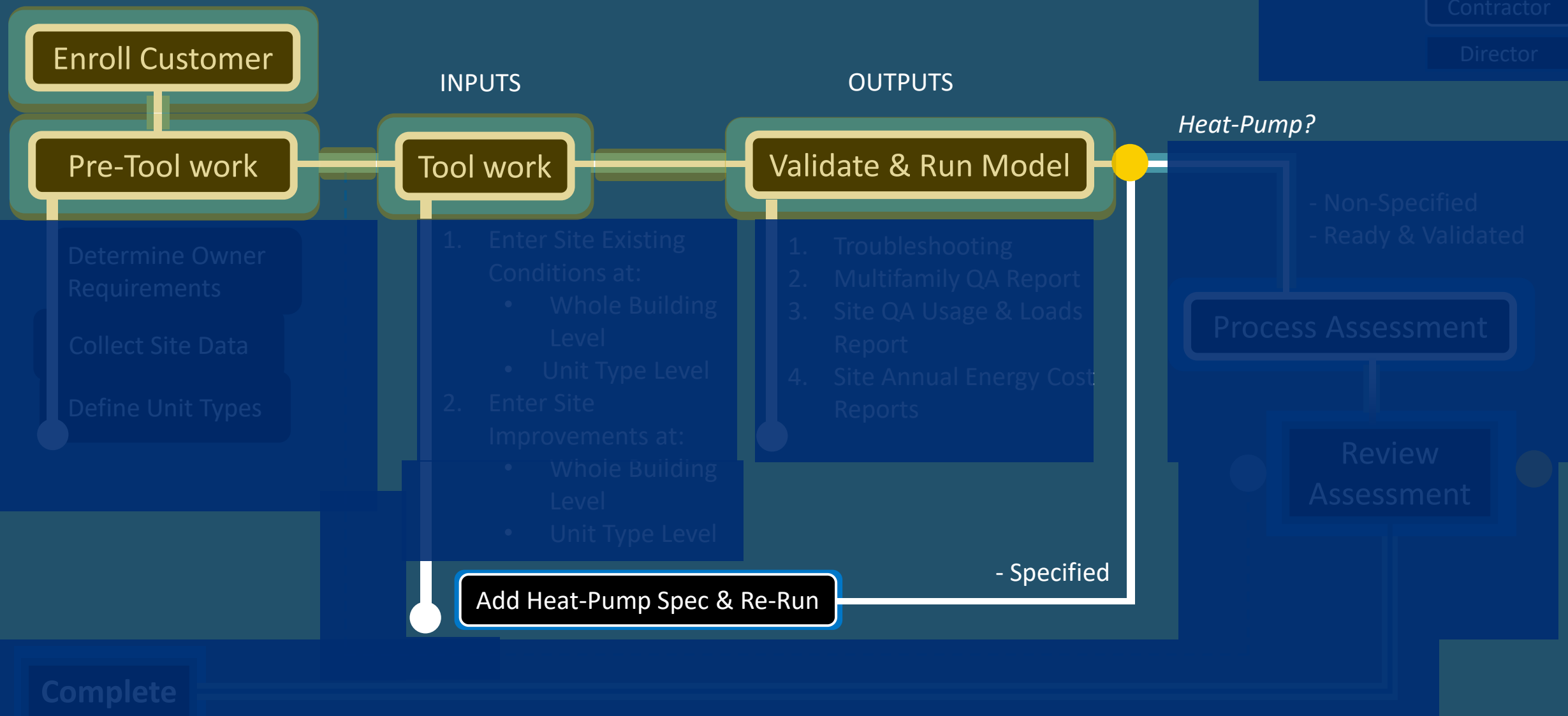
Assessment-Install Cycle



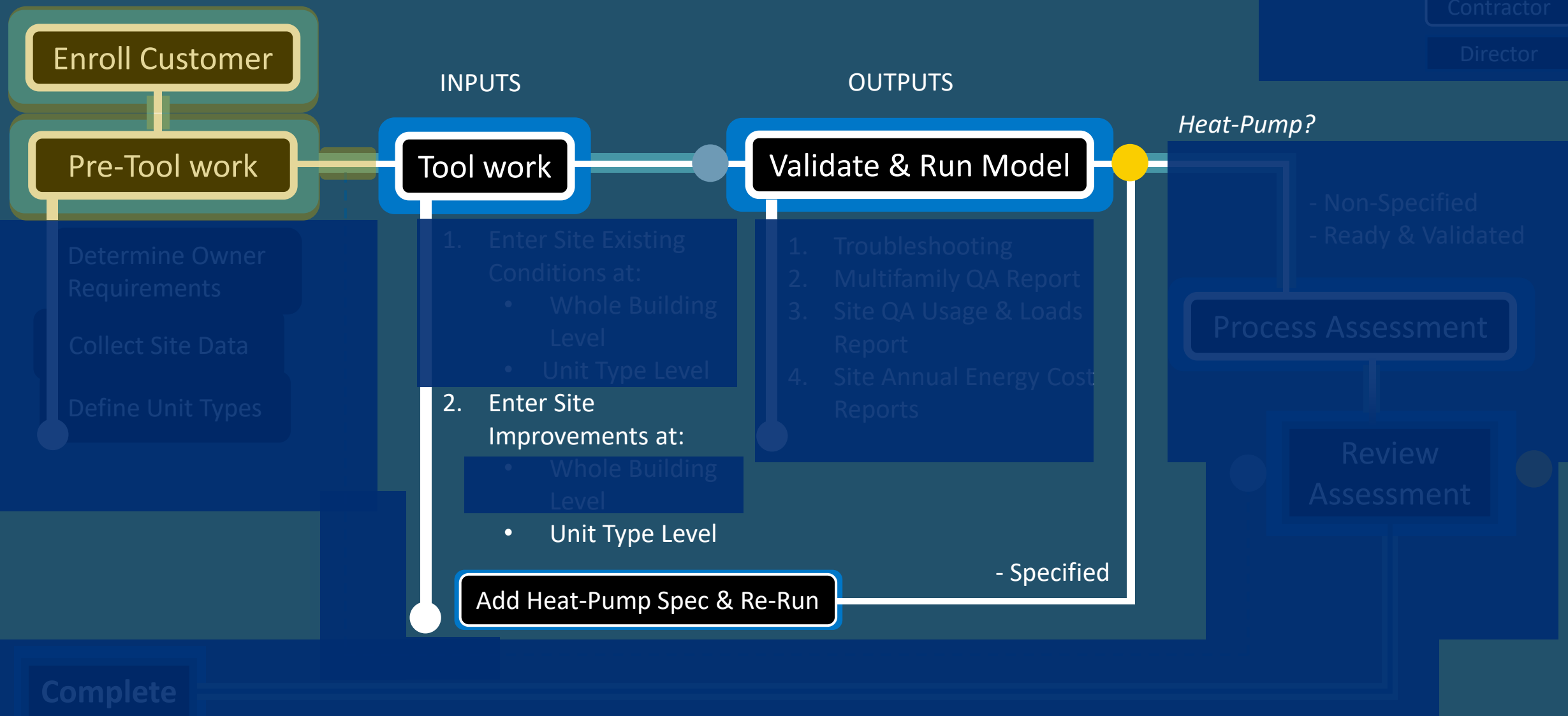
Assessment-Install Cycle



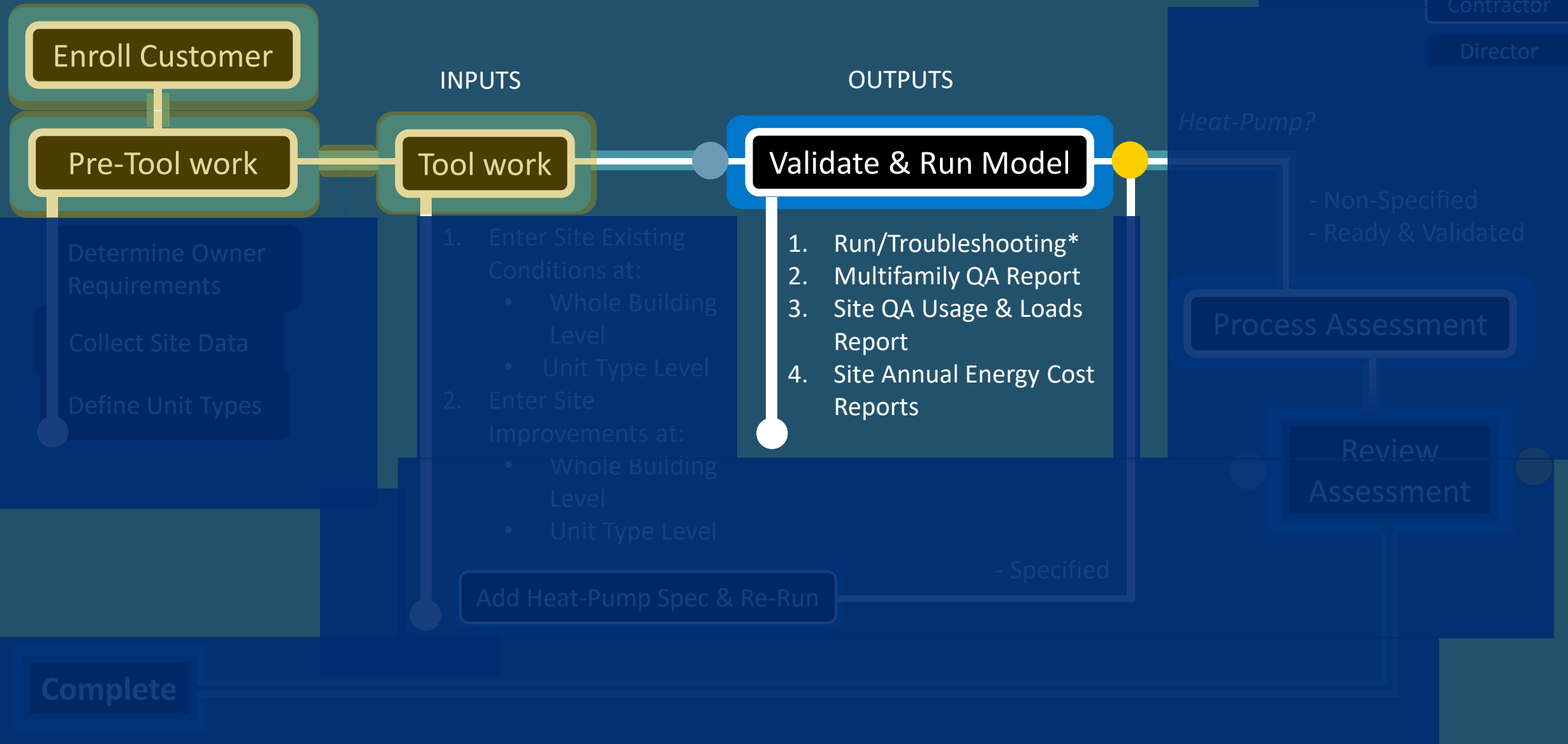
Assessment-Install Cycle



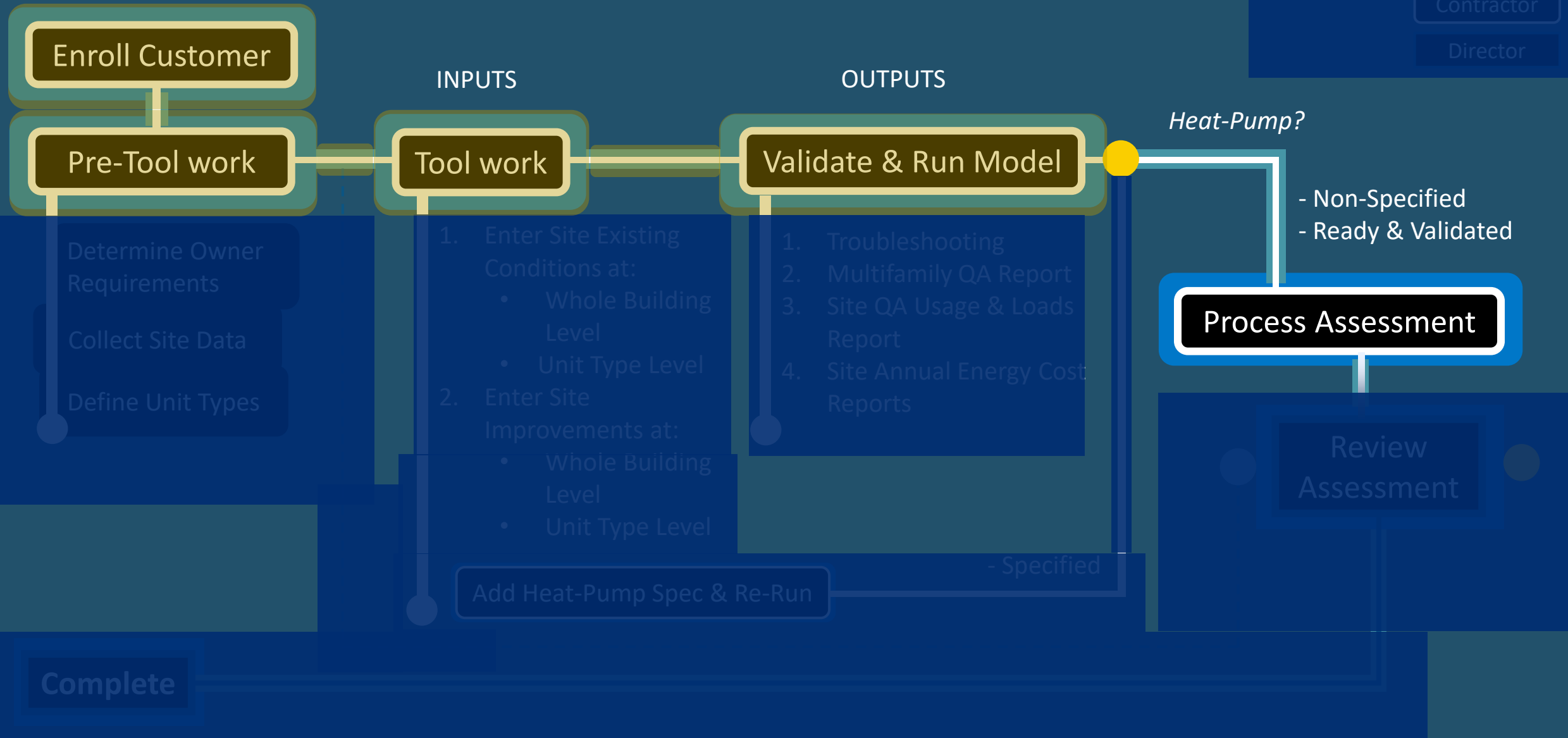
Assessment-Install Cycle



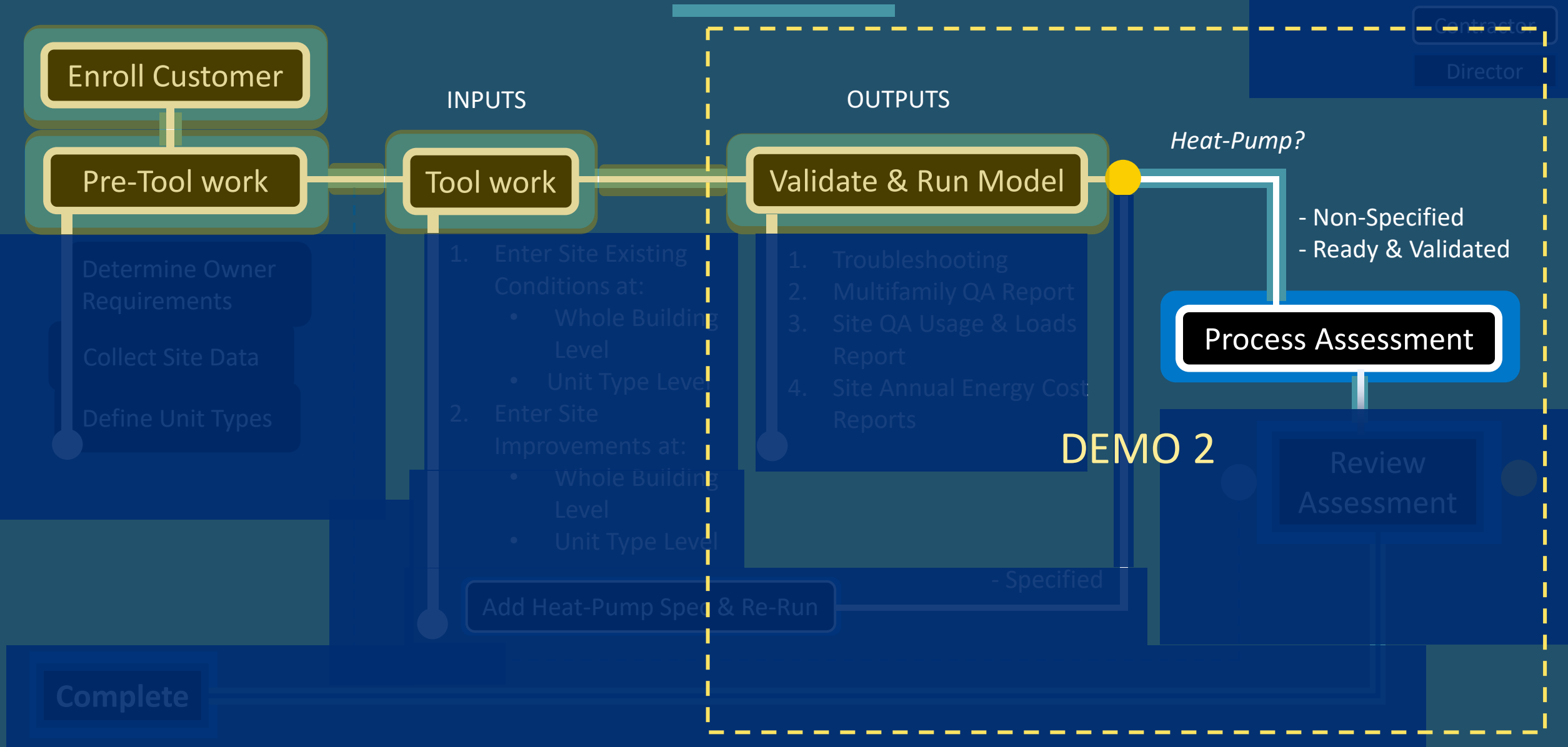
Assessment-Install Cycle



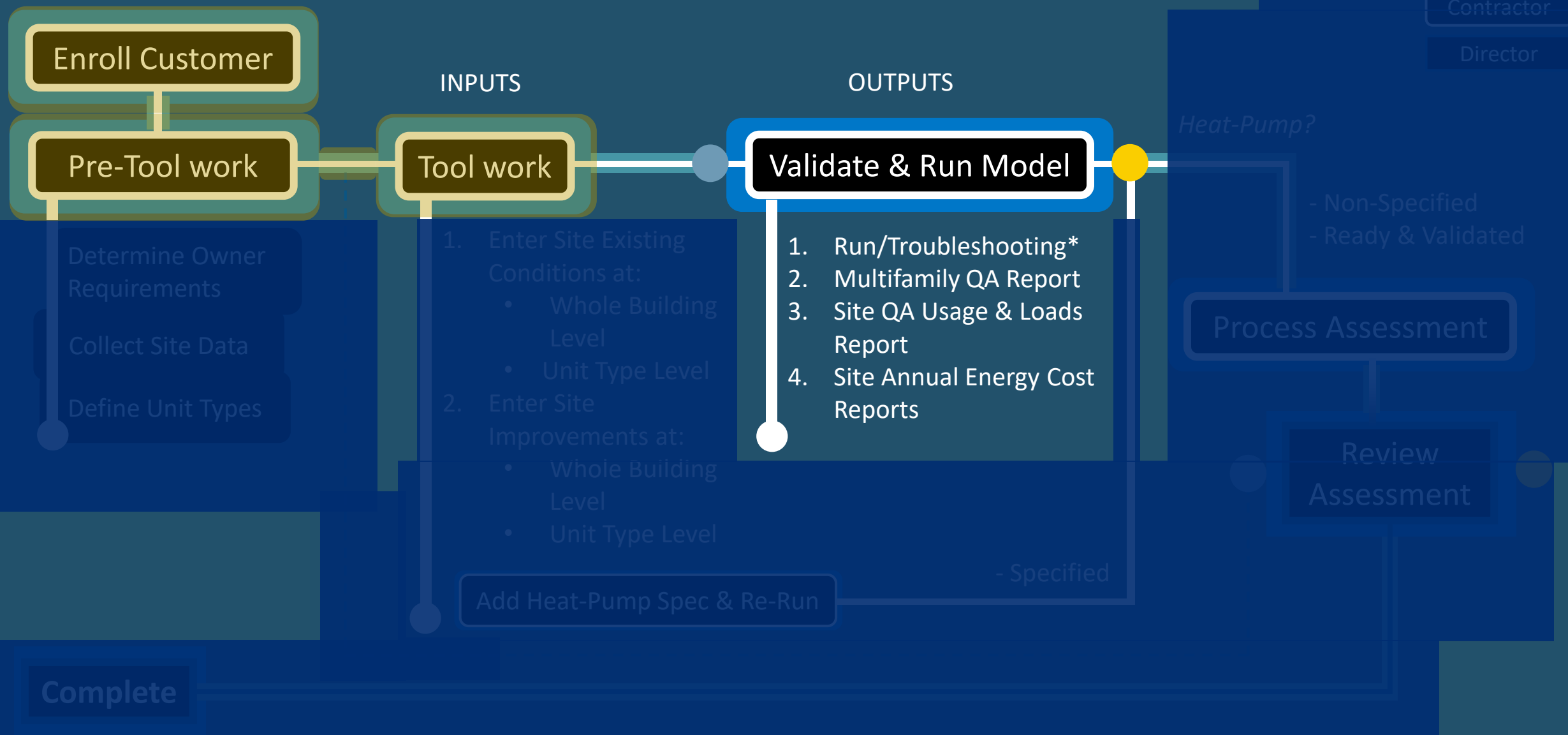
Assessment-Install Cycle



Assessment-Install Cycle



Assessment-Install Cycle



View Projects Page

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

The screenshot displays the 'Bulk Project Actions' interface. At the top, there are dropdown menus for 'Job Status' (set to 'Assessment Started') and 'Project Action' (set to 'Calculate Defaults'), along with a 'Perform Selected Action' button. Below this, the page title is 'Projects for Customer C Building'. There are filters for 'Only show active' (checked), '25 per page', and 'Showing 1 to 5 of 5'. A search bar is also present. The main content is a table of projects, sorted by Job Name in ascending order. The 'Status' column is highlighted with a red box, showing all projects are in 'Assessment Started' status. Each row includes a Job Name, Job Type, Status, Updated date, Unit Type Name, and a Details icon.

Job Name	Job Type	Status	Updated	Unit Type Name	Details
MF0001022	Multifamily Whole Building	Assessment Started	41 days ago		
MFU0001023	Multifamily Unit Type	Assessment Started	63 days ago	First Floor Unit	
MFU0001025	Multifamily Unit Type	Assessment Started	39 days ago	Attic Unit	
MFU0001026	Multifamily Unit Type	Assessment Started	63 days ago	Stairwell	
MFU0001202	Multifamily Unit Type	Assessment Started	63 days ago	Second Floor Unit	

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.

The screenshot displays the 'Assessment' page interface. At the top, the title 'Assessment' is visible. Below it, a 'Basic Data' section contains the following information:

- Job Type: Multifamily Whole Building
- Modeling Type: OpenStudio
- Assessment Date: 4/18/2025
- Assessment Analyst: Tester One

Below the 'Basic Data' section, there are several expandable sections:

- Attic Floors
- Other Attic Surfaces
- Walls
- Foundations
- HVAC Design Details

The 'Calculated Fields' section is expanded and highlighted with a red border. It contains the following data:

- Perimeter: 150
- Total Above Grade Wall Area: 1784.875
- Total Foundation Wall Area: 1050
- Roof Angle: 27.2161115573075
- Attic Roof Deck Width: 0
- Total Attic Roof Deck Area: 1342.69625757821
- Roof Deck Width: 19.6786686541544
- Total Roof Deck Area: 1574.29349233235
- Total Gable Wall Area: 75.5416666666667
- Total Knee Wall Area: 320
- Total Attic Floor Area: 700
- Total Foundation Ceiling Area: 1400
- Total Foundation Floor Area: 1400

At the bottom of the page, there are three buttons: 'Calculate Defaults' (highlighted with a red box and a red arrow pointing to it), 'Edit Basic Data', and 'Submit'. The 'Project Status' is shown as 'Assessment Started'.

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.

The screenshot displays the 'Assessment Overview Page' interface. At the top, there is a 'Document Management' section with a 'File Type' dropdown (set to 'choose...'), a 'Private' checkbox, a 'Description' field, and an 'Upload' button. Below this is a table with columns for 'File Name', 'Type', 'Description', and 'Date Uploaded'. A 'Download File Archive' link is visible on the right.

The 'Proposed Improvements' section features an 'Add Improvement' button and a table with columns for 'Category', 'Improvement Name', 'Status', 'Cost', and 'Savings'. The table contains four rows of improvements:

Category	Improvement Name	Status	Cost	Savings
Hot Water	Install Low Flow Aerators	Selected	\$90	
Hot Water	Install Low Flow Showerheads	Selected	\$89	
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-	
Hot Water	Install Heat Pump Water Heater	Recommended	-	

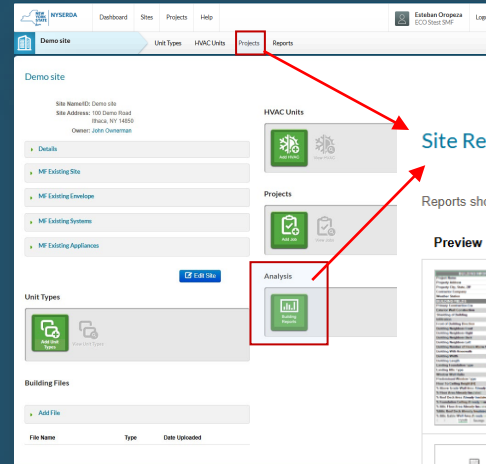
The 'Energy Calculations' section shows 'Current Status: Calculations Complete' and a 'Recalculate' button, which is highlighted with a red box and a red arrow pointing to it.

The 'Notes' section includes an 'Add Note' button. At the bottom, there is a 'Calculate Defaults' button and a 'Submit' button. The 'Project Status' is indicated as 'Assessment Started'.

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.



Site Reports

Reports shown below are for site Customer C Building, and cover the default analysis period.

Preview	Description	
	EAST Export Report Building report in Excel format that can be uploaded into TRC's EAST tool.	XLSX <input type="button" value="Generate"/>
	Multifamily QA Report This report consolidates key data related to Building, Unit Types, and Packages into a single, unified view. It provides a comprehensive snapshot that enables users to easily access and analyze information across Compass.	XLSX <input type="button" value="Generate"/>
	Site Annual Energy Cost Annual energy cost and savings across envelope packages.	PDF <input type="button" value="Generate"/>
	Site Annual Energy Cost wHP Annual energy cost and savings across envelope packages with HeatPump Installed.	PDF <input type="button" value="Generate"/>
	Site QA Usage and Loads Report Building usage and loads simulation results.	XLSX <input type="button" value="Generate"/>

Multifamily QA Report

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

Multifamily QA Report <small>v1.2</small>			
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 Knee walls?	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 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

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

Site QA Usage & Loads

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

Component	Base Building		Base Building with HP		Package 1 with HP		Package 2 with HP		Package 3 with HP	
	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	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	0.0	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.

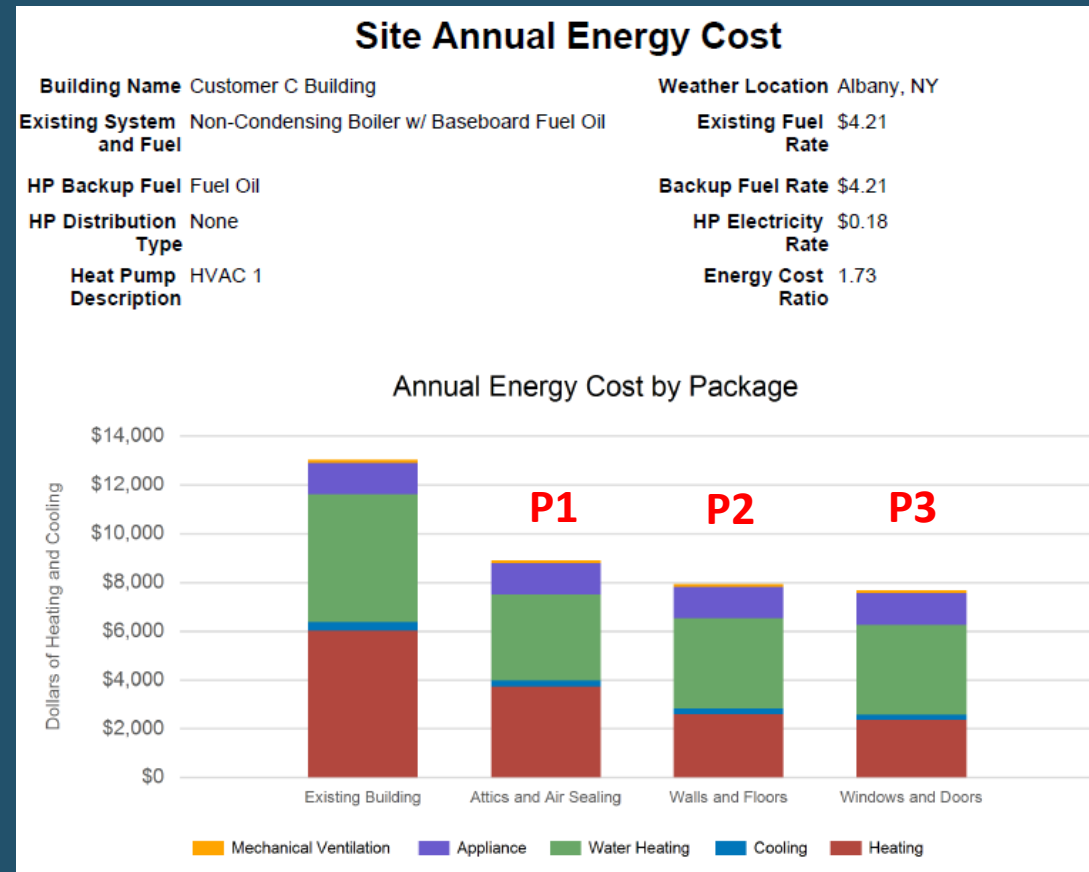
Report: ImpBuilding1: Loads	Unit Name	Area (ft^2)	Length (ft)	Wall Area Ratio	Heating (Btuh)	Cooling Sensible (Btuh)	Cooling Latent (Btuh)
Windows: building_window_east-preimproved	PDU-1	10.00	0.00		430.00	334.00	0.00
Windows: building_window_north-preimproved	PDU-1	20.00	0.00		859.00	97.00	0.00
Windows: 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

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

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

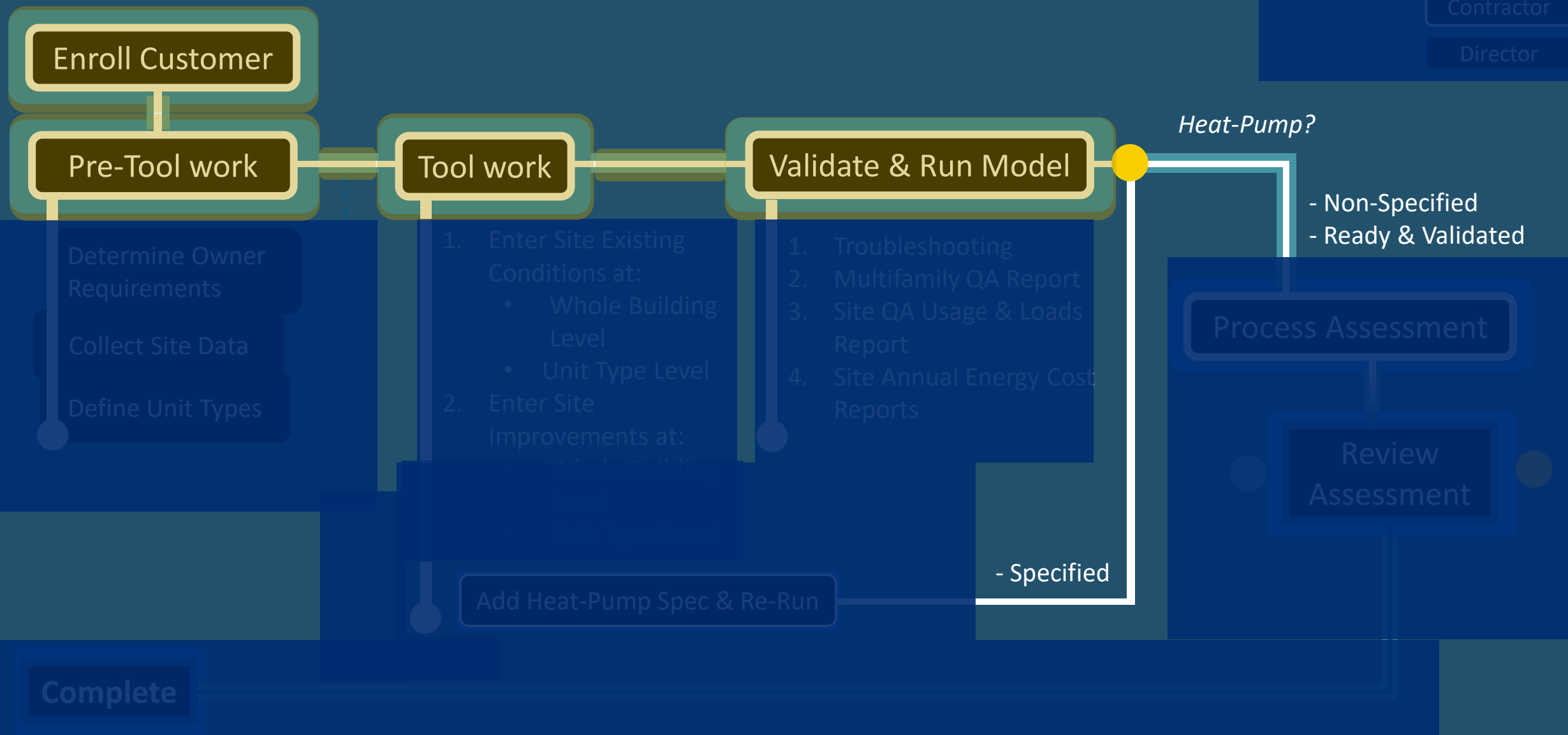
*End-use concepts may differ from those in Building Usages tab within the **Site QA Usage & Loads Report**, as the latest provides a more granular (subcomponent level) view of the energy use. i.e, the concepts shown here are overarching

Attic Unit Annual Cost				
Unit 1 Living	Second Floor Unit Annual Cost			
Unit 2 Living	Stairwell Annual Cost			
Unit 3 Living	First Floor Unit Annual Cost			
Unit 4 Living	Unit Type: Above Grade Living Space	P1	P2	P3
Unit 5 Living	Number of Units: 1	Existing Building	Attics and Air Sealing	Walls and Floors
Heating (\$)	\$1,500	\$1,309	\$804	\$732
Existing Water Heating (\$)	\$1,731			
Cooling (\$)	\$0	\$0	\$0	\$0
Heat Pump Water Heater (\$)		\$985	\$1,144	\$1,143
Appliances (\$)	\$433	\$432	\$435	\$435
Mechanical Ventilation (\$)	\$49	\$39	\$39	\$39
Total (\$)	\$3,713	\$2,765	\$2,422	\$2,349
Savings (\$)		\$948	\$1,291	\$1,364
Savings (kBtu)		35609	49094	51514
Savings (%)		25.5%	34.8%	36.7%
CO2e Savings (Metric Tons)		2.4	3.3	3.5
Design Load Savings (Btus/hour)		4,935	16,273	18,890
Summer Peak Impact w/ Avg. HP (kW)				
Winter Peak Impact w/ Avg. HP (kW)				
HP Equipment Size at Design (tons)	3.4	3.0	2.1	1.9

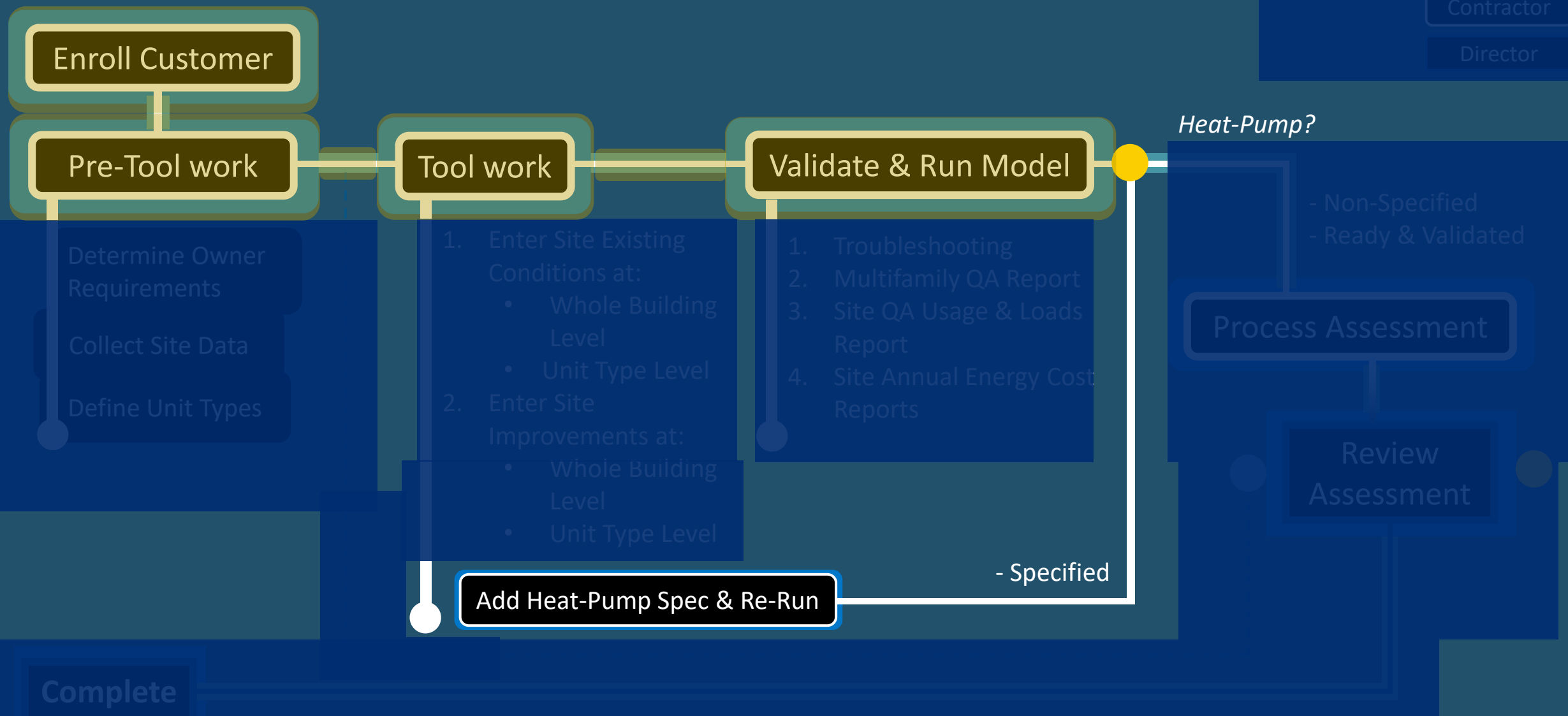
Unit Type Level Tables



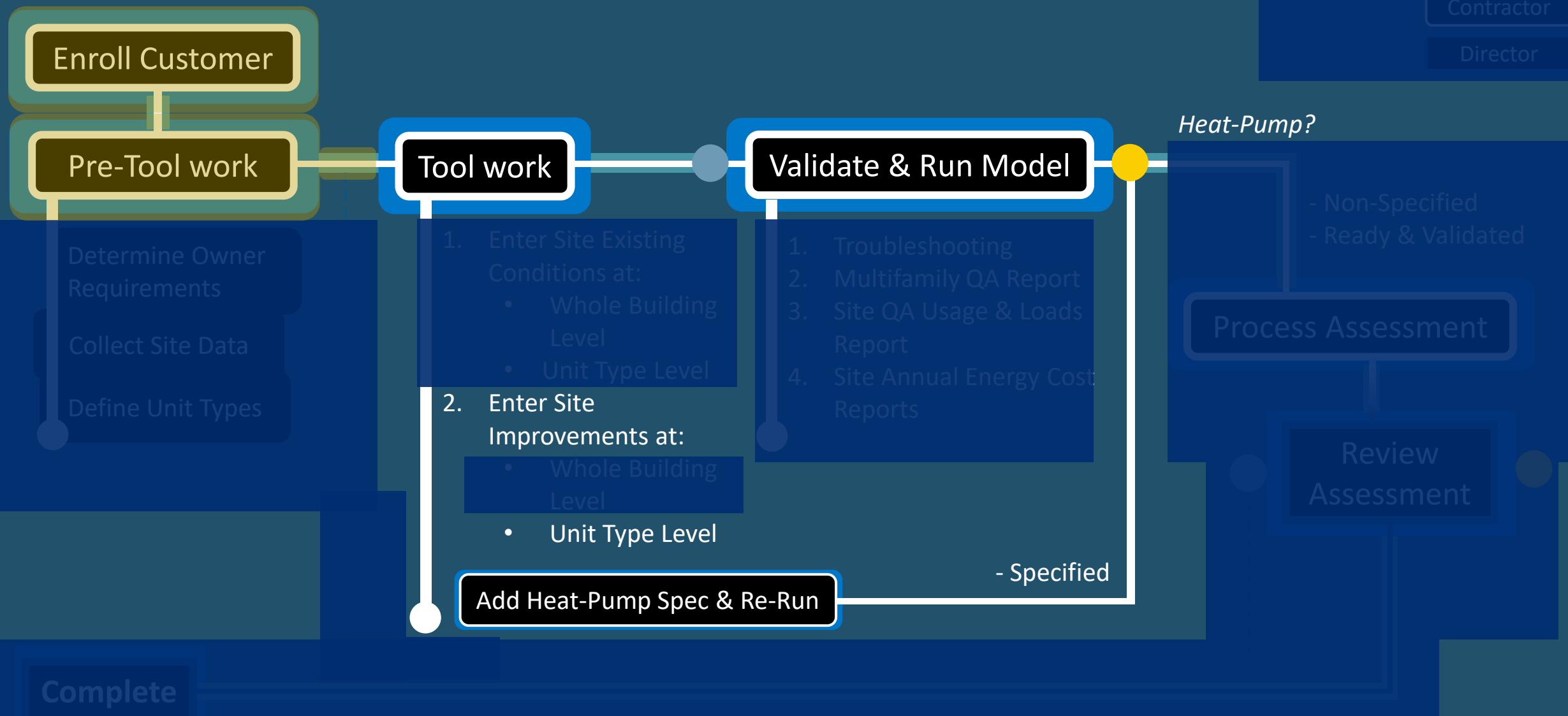
Assessment-Install Cycle



Assessment-Install Cycle



Assessment-Install Cycle



Contractor

Director

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.

The screenshot shows the 'Customer C Building' interface with the 'HVAC Units' menu open. The menu options are 'Ductless Heat Pump', 'Create HVAC Unit' (highlighted with a red arrow), and 'HVAC Unit List'. The main form is titled 'Add Assessment Improvement for MFU00'. It contains the following fields:

- Category: HVAC
- Improvement Name: HVAC
- Quantity: Power Strips
- Total Cost \$: 0.00
- Describe Proposed Improvement: (empty text area)
- Improvement Status: Recommended
- HVAC Unit*: None

Buttons at the bottom right: Cancel, Save, Save and New. A red asterisk indicates a required field.

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.

Customer D Unit Types HVAC Units Projects Reports

Add HVAC Unit

Name

Type

Installed ASHP AHRI Certificate Number

Select the AHRI certificate number for the installed equipment

NEEP Selection

Click Search button below to open NEEP list in a new dialog.

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

Customer D

Add HVAC Unit

Name 2

Type →

Installed ASHP AHRI Certificate Number

NEEP Selection

Click Search button below 1

Search

NEEP Search

Manufacturer

AHRI Certificate Number

Indoor Unit Type

Ducting Configuration

Search 2

Enter a search criteria in fields above or Click Search to browse the entire NEEP data set.

9998 results found

	AHRI Certificate Number	Manufacturer	Ducting Configuration	Model Number	Indoor Unit Type	SEER2	HSPF2	Maximum Capacity 17°F	Maximum Capacity 5°F
SELECT	207436208	LENNOX	Singlezone Ducted, Centrally Ducted	SL25XPV-024-230A**				23600	20000
SELECT	207436211	LENNOX	Singlezone Ducted, Centrally Ducted	SL25XPV-024-230A**				23800	20200
SELECT	207436209	LENNOX	Singlezone Ducted, Centrally Ducted	SL25XPV-024-230A**				23800	20200
SELECT	207436210	LENNOX	Singlezone Ducted, Centrally Ducted	SL25XPV-024-230A**				23800	20200
SELECT	207436207	LENNOX	Singlezone Ducted, Centrally Ducted	SL25XPV-024-230A**				23800	20200
SELECT	207436204	LENNOX	Singlezone Ducted, Centrally Ducted	SL25XPV-024-230A**				23800	20200

3

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.

Customer D Unit Types HVAC Units Projects Reports

Add HVAC Unit

Name

Type

Installed ASHP AHRI Certificate Number

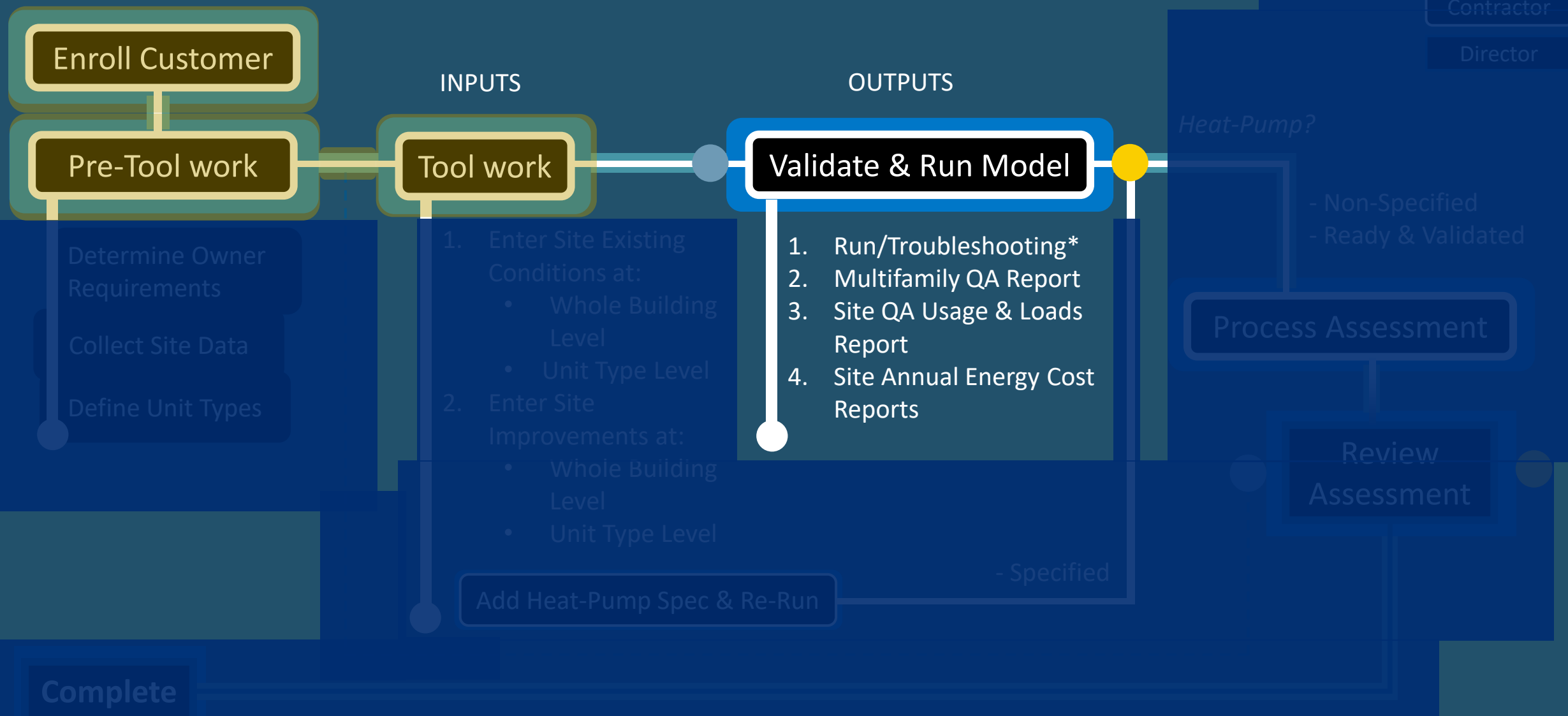
NEEP Selection

Click Search button below to open NEEP list in a new dialog.

↑ Finish Here

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.

Assessment for MFU0001025

Basic Data

Job Type: Multifamily Unit Type
Unit: Attic Unit
Modeling Type: OpenStudio
Assessment Date: 5/19/2025
Assessment Analyst: Mini James

Windows and Doors

Proposed Improvements

Download File Archive

Add Improvement

Category	Improvement Name	Status	Cost	Savings
----------	------------------	--------	------	---------

Energy Calculations

Current Status: Calculations Complete

Recalculate

Notes

Add Note

Calculate Defaults

Project Status: [Assessment Started](#)

Submit

Scroll down

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

The screenshot displays the 'Assessment Overview Page' interface. At the top, there is a 'Document Management' section with a 'File Type' dropdown (set to 'choose...'), a 'Private' checkbox, a 'Description' field, and an 'Upload' button. Below this is a table with columns for 'File Name', 'Type', 'Description', and 'Date Uploaded'. A 'Download File Archive' link is visible on the right.

The 'Proposed Improvements' section features a table with columns for 'Category', 'Improvement Name', 'Status', 'Cost', and 'Savings'. A green 'Add Improvement' button is located at the top right of this section.

Category	Improvement Name	Status	Cost	Savings
Hot Water	Install Low Flow Aerators	Selected	\$90	
Hot Water	Install Low Flow Showerheads	Selected	\$89	
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-	
Hot Water	Install Heat Pump Water Heater	Recommended	-	

Below the table, there is an 'Energy Calculations' section with the text 'Current Status: Calculations Complete'. A red arrow points to a green 'Recalculate' button.

The 'Notes' section includes an 'Add Note' button. At the bottom, there is a 'Calculate Defaults' button and a 'Submit' button. The 'Project Status' is indicated as 'Assessment Started'.

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

Component	Base Building		Base Building with HP		Package 1 with HP		Package 2 with HP		Package 3 with HP	
	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	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	0.0	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.

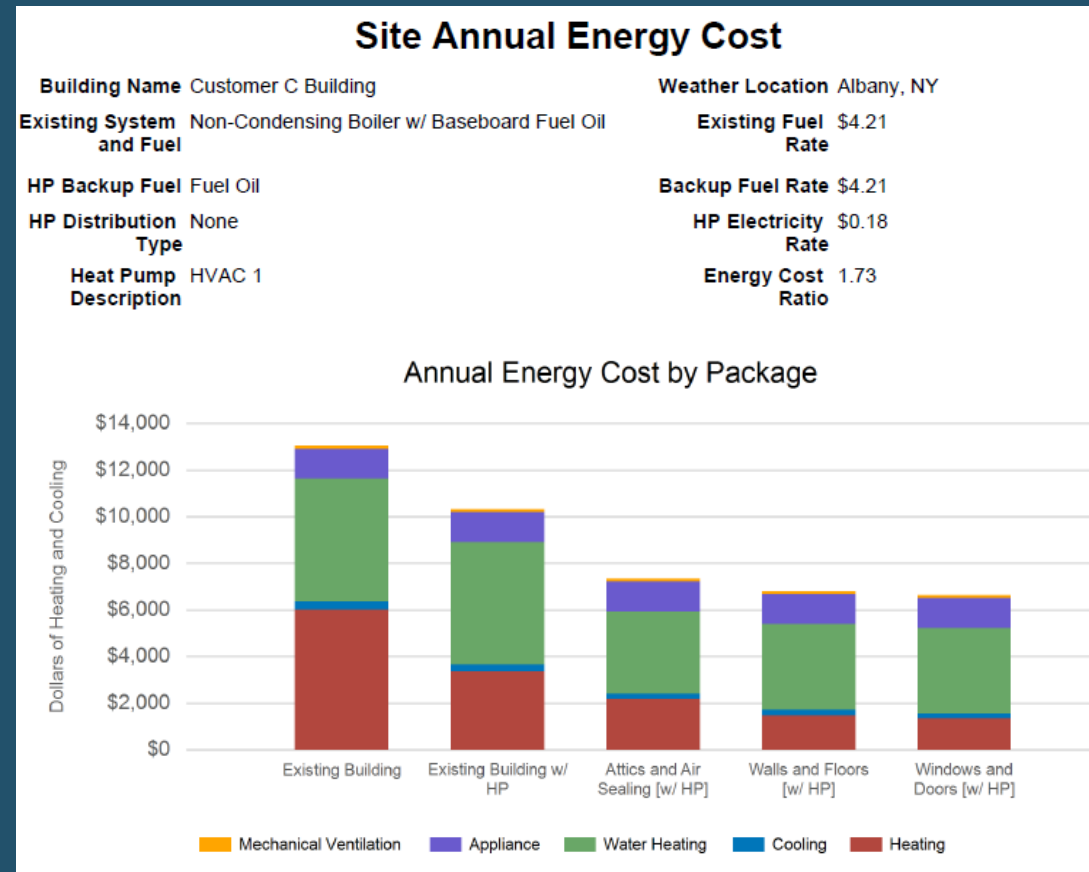
Report: ImpBuilding1: Loads	Unit Name	Area (ft^2)	Length (ft)	Wall Area Ratio	Heating (Btuh)	Cooling Sensible (Btuh)	Cooling Latent (Btuh)
Windows: building_window_east-preimproved	PDU-1	10.00	0.00		430.00	334.00	0.00
Windows: building_window_north-preimproved	PDU-1	20.00	0.00		859.00	97.00	0.00
Windows: 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

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

	Existing Building	Existing Building w/ HP	P1 Attics and Air Sealing [w/ HP]	P2 Walls and Floors [w/ HP]	P3 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

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

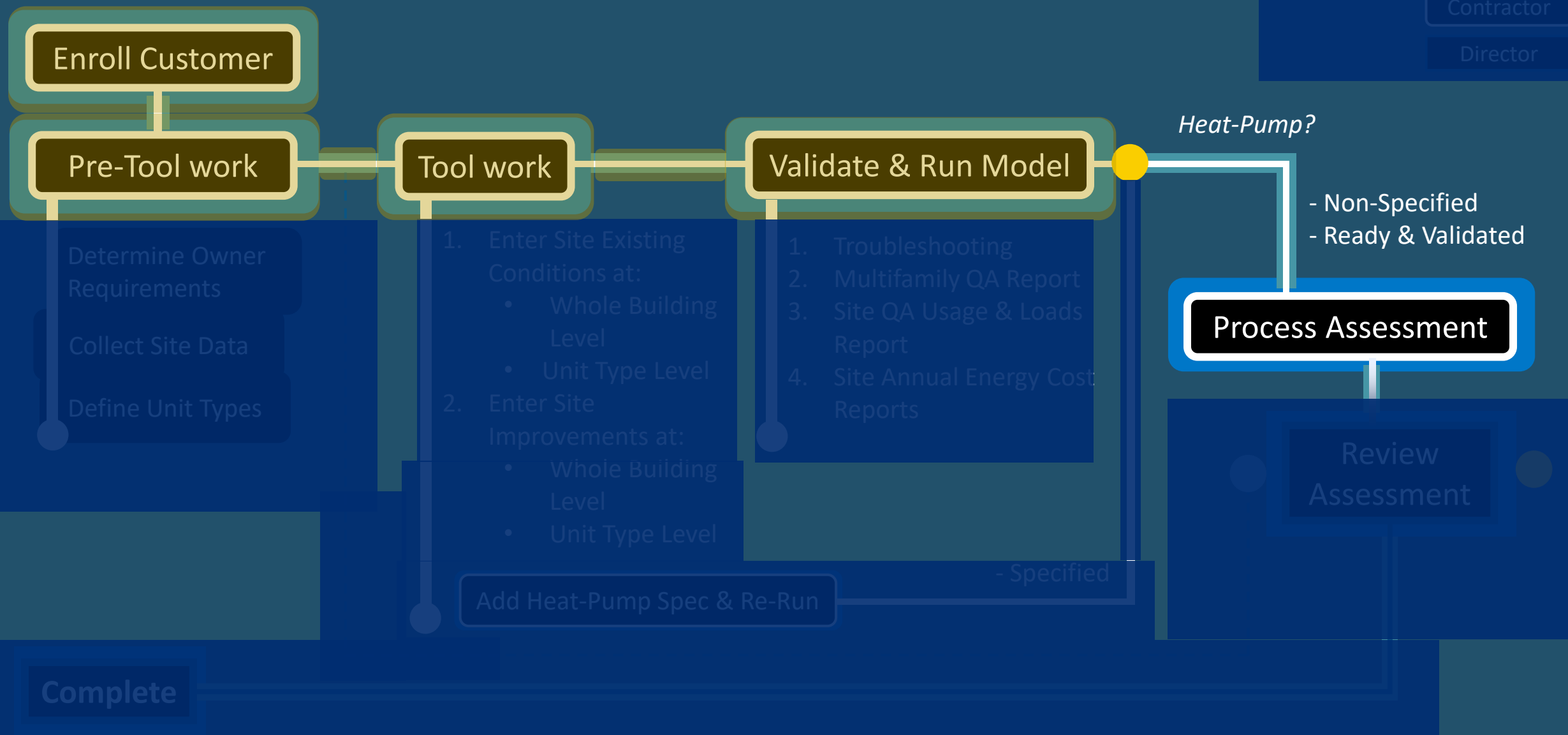
*End-use concepts may differ from those in Building Usages tab within the **Site QA Usage & Loads Report**, as the latest provides a more granular (subcomponent level) view of the energy use. i.e, the concepts shown here are overarching

Attic Unit Annual Cost						
Unit 1 Living	Second Floor Unit Annual Cost					
Unit Type	Stairwell Annual Cost					
Heating	First Floor Unit Annual Cost					
Existing Number	Unit Type	Unit Type: Above Grade Living Space				
Cooling	Corridor/S	P1 P2 P3				
Heat I	Existing Number	Number of Units: 1				
Appli:	Heating (\$)	Existing Building	Existing Building w/ HP	Attics and Air Sealing [w/ HP]	Walls and Floors [w/ HP]	Windows and Doors [w/ HP]
Mech	Heat Pump Existing					
Total	Appliance Cooling (\$)					
Savin	Mechanical Heating (\$)	\$1,500				
Savin	Heat Pump Existing Water Heating (\$)	\$1,731				
Savin	Total (\$)	\$0	\$66	\$58	\$59	\$51
CO2e Savings	Appliance Cooling (\$)		\$918	\$803	\$486	\$437
Desig	Mechanical Heat Pump (\$)		\$1,734	\$988	\$1,144	\$1,144
Sumn	Total (\$)		\$433	\$431	\$433	\$433
Winte	Savings (Appliances (\$))	\$49	\$49	\$39	\$39	\$39
HP Ec	CO2e Savings (Mechanical Ventilation (\$))	\$3,713	\$3,199	\$2,319	\$2,162	\$2,104
Summer	Savings (Total (\$))		\$233	\$1,110	\$1,264	\$1,323
Winter P	CO2e Savings (\$)		24929	56557	59543	60664
HP Equip	Design L Savings (kBTu)		6.3%	29.9%	34.1%	35.6%
	Summer Savings (%)		1.0	3.2	3.5	3.6
	CO2e Savings (Metric Tons)		0	4,935	16,273	18,890
	Winter P Design Load Savings (Btus/hour)					
	HP Equip Summer Peak Impact w/ Avg. HP (kW)					
	Winter Peak Impact w/ Avg. HP (kW)					
	HP Equipment Size at Design (tons)	3.4	3.4	3.0	2.1	1.9

Unit Type Level Tables



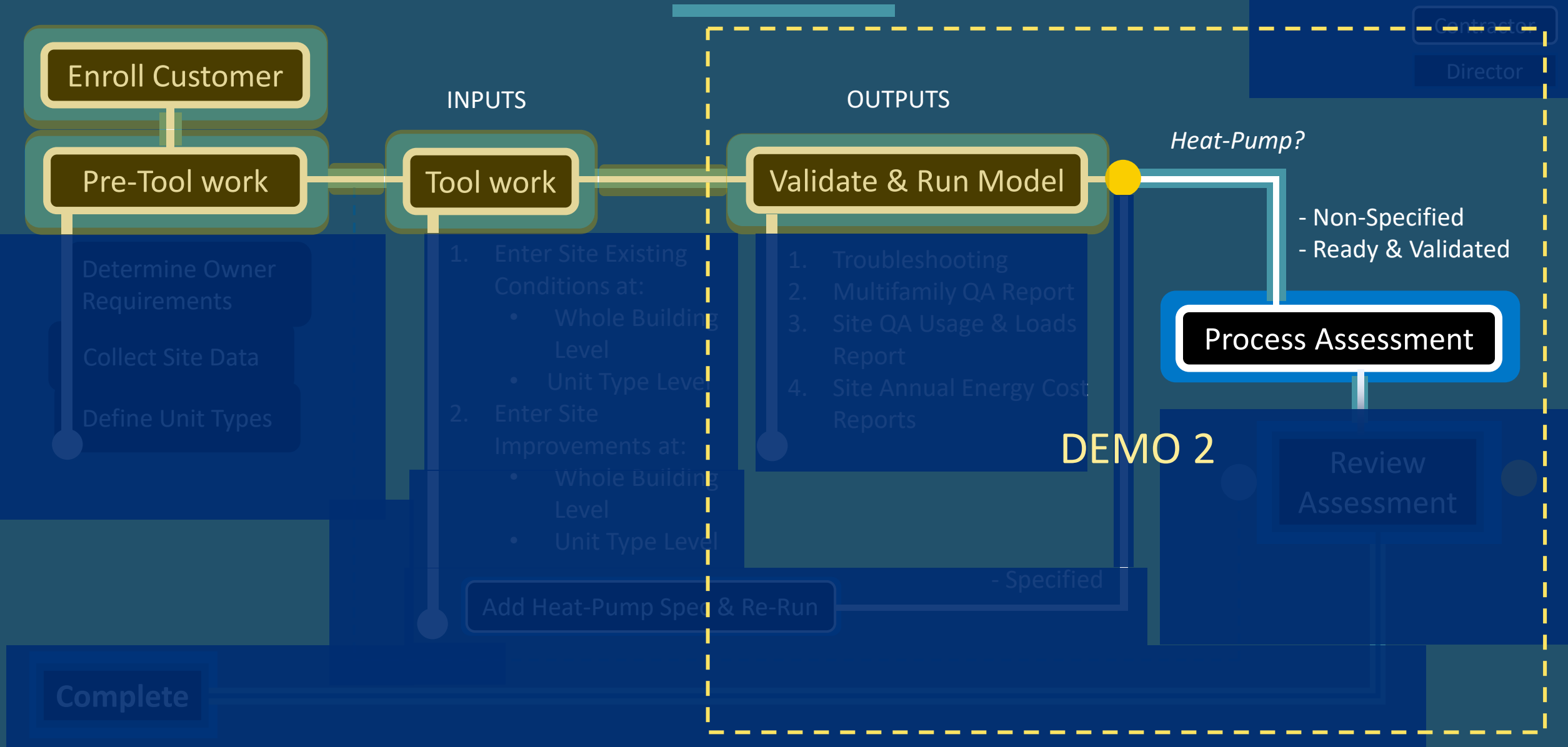
Assessment-Install Cycle



Contractor

Director

Assessment-Install Cycle



5 min break

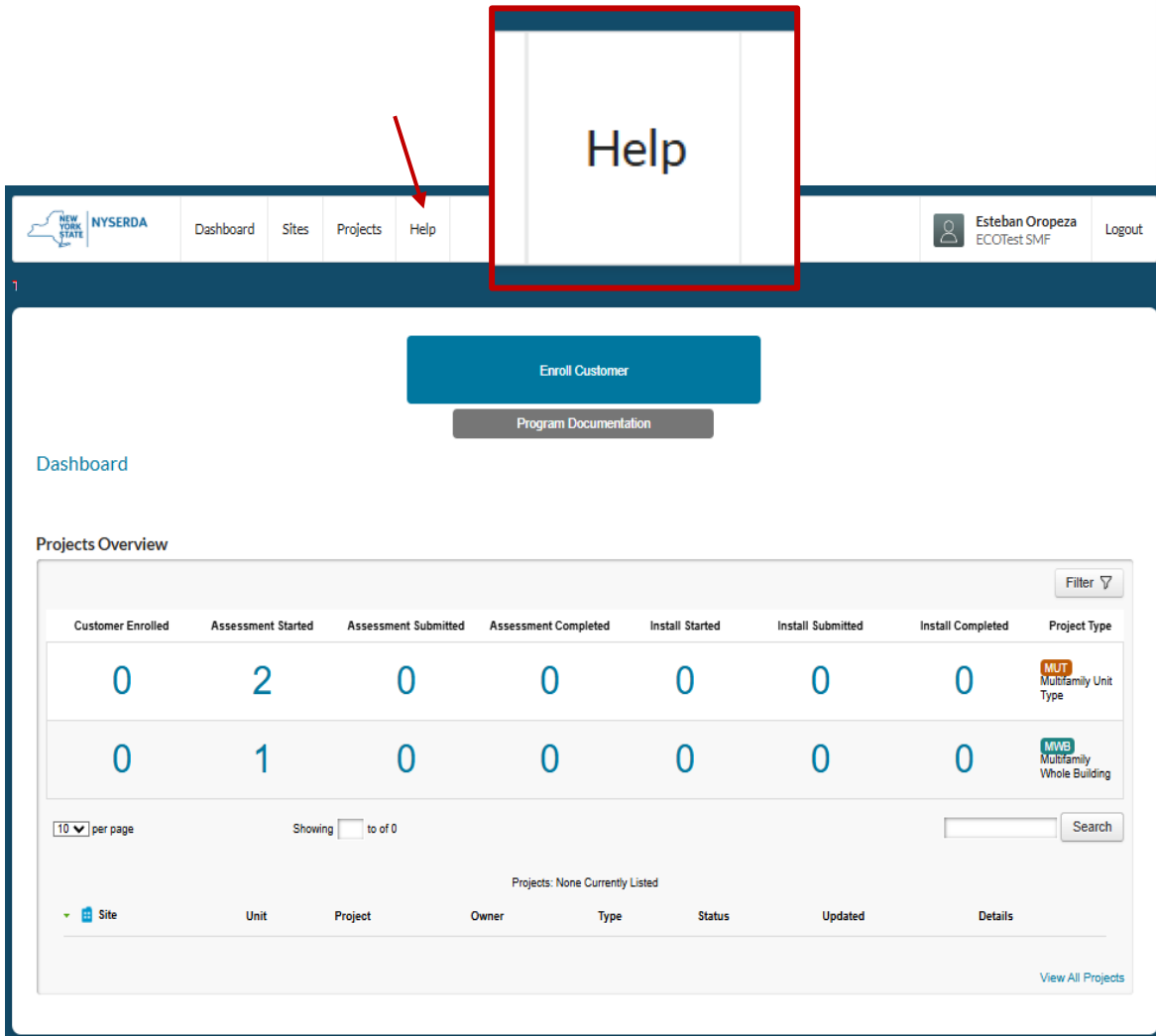
DEMO time



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?

- NYSEERDA 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.

Document Management

File Type: Description: (max size: 10MB)
Private: Upload: No file chosen

File Name	Type	Description	Date Uploaded
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Proposed Improvements

Category	Improvement Name	Status	Cost	Savings
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-	
Hot Water	Install Low Flow Showerheads	Selected	\$100	
Hot Water	Install Heat Pump Water Heater	Recommended	-	
Hot Water	Install Low Flow Aerators	Recommended	-	
Kitchen	Replace Refrigerator	Recommended	-	

Energy Calculations

Current Status: Error
Error: Rule ID: 3 Unit type attic kneewall percentages do not add up to 100%

Notes

Project Status: [Assessment Started](#)

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 Types

[+ Add Unit](#)

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 Knee walls	884 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	Attic Unit
Conditioned Floor Area: 234	Conditioned Floor Area: 964
Number of Units: 1	Number of Units: 1
Unit Type Number of Stories Above Grade: 2	Unit Type Number of Stories Above Grade: 1
Foundation Type/Connection: Same as Building	Foundation Type/Connection: Another PDU
Ceiling Area Connected To Attic (Sq. Ft.): 119.25	Ceiling Area Connected To Attic (Sq. Ft.): 0
Ceiling Area Connected To Conditioned Space (Sq. Ft.):	Ceiling Area Connected To Conditioned Space (Sq. Ft.):
Ceiling Area Connected To Outside (Sq. Ft.): 0	Ceiling Area Connected To Outside (Sq. Ft.): 1205
Floor Area Connected To Foundation (Sq. Ft.): 129.6	Floor Area Connected To Foundation (Sq. Ft.): 0
Floor Area Connected To Conditioned Space (Sq. Ft.):	Floor Area Connected To Conditioned Space (Sq. Ft.):
Floor Area Connected To Outside (Sq. Ft.): 0	Floor Area Connected To Outside (Sq. Ft.): 0
Number of Exterior Doors: 1	Number of Exterior Doors: 0
% of Attic Knee Wall Area: 0	Attic Knee Wall Height: 3
Max. Exposed Perimeter Length Front (Ft): 4	% of Attic Knee Wall Area: 80
Max. Exposed Perimeter Length Right (Ft): 0	Number of Exterior Doors: 0
Max. Exposed Perimeter Length Back (Ft): 0	Max. Exposed Perimeter Length Front (Ft): 16
Max. Exposed Perimeter Length Left (Ft): 32.5	Max. Exposed Perimeter Length Right (Ft): 0
Floor To Ceiling Height (Ft): 9	Max. Exposed Perimeter Length Back (Ft): 16
Attic Knee Wall Height:	Max. Exposed Perimeter Length Left (Ft): 0
Unit is Heated/Cooled: Heated only	Floor To Ceiling Height (Ft): 9
Heating System Type:	Unit is Heated/Cooled: Heated and Cooled
Cooling System Type: None	
Heating System Fuel:	
Heating System Age:	
Cooling System Age:	
	$0+80 < 100$

Troubleshooting
Error Rule ID3

Validation: Windows

Ensure that the # of improved windows is \leq to the # of total windows in each façade, across all Unit Types.

Document Management

File Type: Description: (max size: 10MB)
Private: Upload: No file chosen

File Name	Type	Description	Date Uploaded
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Proposed Improvements

Category	Improvement Name	Status	Cost	Savings
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-	
Hot Water	Install Low Flow Showerheads	Selected	\$100	
Hot Water	Install Heat Pump Water Heater	Recommended	-	
Hot Water	Install Low Flow Aerators	Recommended	-	
Kitchen	Replace Refrigerator	Recommended	-	

Energy Calculations

Current Status: Error
Error: Rule ID: 7 Number of improved windows is greater than the total number of windows on the front side of the site.

Notes

Project Status: [Assessment Started](#)

Troubleshooting

Error Rule IDs 7-10

Validation: Windows

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

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

Bulk Project Actions

Job Status: Assessment Started Project Action: Calculate Defaults Perform Selected Action

Projects for Customer C Building

Only show active 25 per page Showing 1 to 5 of 5 Search

Projects: Sorted by Job Name, in ascending order

Job Name	Job Type	Status	Updated	Unit Type Name	Details
MFU0001022	Multifamily Whole Building	Assessment Started	41 days ago		
MFU0001023	Multifamily Unit Type	Assessment Started	63 days ago	First Floor Unit	
MFU0001025	Multifamily Unit Type	Assessment Started	39 days ago	Attic Unit	
MFU0001026	Multifamily Unit Type	Assessment Started	63 days ago	Stairwell	
MFU0001202	Multifamily Unit Type	Assessment Started	63 days ago	Second Floor Unit	

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.

Assessment

Basic Data

Job Type: Multifamily Unit Type
Unit: Second Floor Unit
Modeling Type: OpenStudio
Assessment Date: 4/18/2025
Assessment Analyst: Tester One

Windows and Doors

Average Window Area (Sq. Ft.): 7

Number of Improved Windows Front: 2	Total Number of Windows Front: 1
Number of Improved Windows Right: 4	Total Number of Windows Right: 2
Number of Improved Windows Back: 2	Total Number of Windows Back: 2
Number of Improved Windows Left: 0	Total Number of Windows Left: 0

Improved Window SHGC: 0.31
Improved Window U-factor: 0.28
Number of Improved Exterior Doors: 1
Type of Replacement Door: Metal or Wood Door With Storm

HVAC

Calculated Fields

Edit Basic Data

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%.

Document Management

File Type: Description: (max size: 10MB)
 Private: Upload: No file chosen

File Name	Type	Description	Date Uploaded
Download File Archive			

Proposed Improvements

Category	Improvement Name	Status	Cost	Savings
Hot Water	Install Low Flow Showerheads	Recommended	-	
Hot Water	Install Low Flow Aerators	Recommended	-	
Laundry	Replace Clothes Dryer	Recommended	-	
Laundry	Replace Clothes Washer	Recommended	-	
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-	
Hot Water	Install Heat Pump Water Heater	Recommended	\$200	
Kitchen	Replace Refrigerator	Recommended	-	

Energy Calculations

Current Status: Error
 Error: Rule ID: 12 Sum of to be improved attic floor area and already improved attic floor area exceeds total attic floor area.; Error: Rule ID: 13 Sum of to be improved above grade wall area and already improved above grade wall area exceeds total above grade wall area.; Error: Rule ID: 15 Sum of to be improved foundation wall area and already improved foundation wall area exceeds total foundation wall area.; Error: Rule ID: 16 Sum of to be improved attic roof deck area and already improved attic roof deck area exceeds total attic roof deck area.

Notes

Project Status: Assessment Started

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”.

B6921
Site Address: 123 testing street
Binghamton, NY 14850
Owner: no name

Details

MF Existing Site

MF Existing Envelope

Existing Attic Type: Vented Attic
Existing Foundation Type: Cold Unconditioned Basement
Exterior Wall Construction: Masonry
Predominant Window Type: Double Pane
Window Wall Ratio: Low
Predominant Door Type: Wood Door, No Storm
Floor To Ceiling Height (Ft): 9

% Attic Floor Area Already Insulated:	20
% Above Grade Wall Area Already Insulated:	10
Rim Joist Already Insulated:	x
% Floor Area Already Insulated:	0
% Foundation Wall Area Already Insulated:	20
% Attic Roof Deck Already Insulated:	15
% Roof Deck Area Already Insulated:	0
% Attic Gable Wall Area Already Insulated:	0
% Attic Knee Wall Area Already Insulated:	0

MF Existing Systems

MF Existing Appliances

Calibration Factors

[Edit Site](#)

HVAC Units

Add HVAC View HVAC

Projects

Add Job View Jobs

Analysis

Building Reports

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.): 4880
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.

Document Management

File Type: Description: (max size: 10MB)
Private: Upload: No file chosen

File Name	Type	Description	Date Uploaded
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[Download File Archive](#)

Proposed Improvements

Category	Improvement Name	Status	Cost	Savings
Ventilation	Install/Replace Mechanical Ventilation	Recommended	-	
Hot Water	Install Low Flow Showerheads	Selected	\$100	
Hot Water	Install Low Flow Aerators	Recommended	-	
Kitchen	Replace Refrigerator	Recommended	-	
Hot Water	Install Heat Pump Water Heater	Recommended	-	

Energy Calculations

Current Status: Error
Error: Rule ID: 200 Primary Heating Fuel 'fuel_oil' is not a supported fuel type for 'elec_baseboard'

Notes

Project Status: [Assessment Started](#)

Troubleshooting
Error Rule ID 200

Validations: Systems

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

1. Look into “MF Existing Systems”.

Customer C test City, NY 13452
Owner: Test Owner

Details

MF Existing Site

MF Existing Envelope

MF Existing Systems

Primary Heating System Type: Electric Baseboard
Primary Heating Fuel: Fuel Oil

Primary Heating System Installation Year: 1980 - 1990

Primary Heating System Location: Foundation

Primary Heating System Central or In-Unit: Central

Secondary Heating Fuel: None

Primary Cooling System Type: Room A/C

Primary Cooling System Installation Year: 1990 - 2000

Primary Cooling System Central or In-Unit: In-Unit

Thermostat Schedule: No Htg Setbacks

Duct System - Estimated leakage: Partially sealed

Insulation State of Duct Systems: Partial Duct Insulation

Hot Water System Type: Storage or Indirect Boiler
Hot Water Fuel: Fuel Oil
Hot Water System Installation Year: Older than 2010
Hot Water System Location: Unconditioned Space

Hot Water Usage Factor: Medium
Hot Water System Central or In Unit: Central

Hot Water Distribution - Supply Temperature: 120

Hot Water Distribution - SHW Pipe Insulation - Present: X

Is There Mechanical Ventilation?: Yes

MF Existing Appliances

Add HVAC View HVAC

Projects

Add Job View Jobs

Analysis

Building Reports

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.

MF Existing Systems

	Electricity	Nat Gas	Propane	Fuel Oil
Primary Heating System Type*				
Primary Heating Fuel*				
Primary Heating System Installation Year*	X			
Primary Heating System Location*	X			
Primary Heating System Central or In-Unit*		X	X	
Secondary Heating Fuel*	X			
Primary Cooling System Type*	X			
Primary Cooling System Installation Year*	X			
Primary Cooling System Central or In-Unit*	X	X	X	X
Thermostat Schedule*	X	X	X	X
Duct System - Estimated leakage				
Insulation State of Duct Systems	X	X	X	X
Hot Water System Type*				
Hot Water Fuel*				
Hot Water System Installation Year*				
Hot Water System Location*				
Hot Water Usage Factor*				
Hot Water System Central or In Unit*				
Hot Water Distribution - Supply Temperature*				
Hot Water Distribution - SHW Pipe Insulation Present				
Is There Mechanical Ventilation?*				

Troubleshooting

Error Rule ID 200



Thank You

Questions?