



HELIX

Home Energy Labeling Information eXchange



SUSTAINABLE REAL
ESTATE
CONSULTING
SERVICES



HELIX 1.0

MARCH 2018

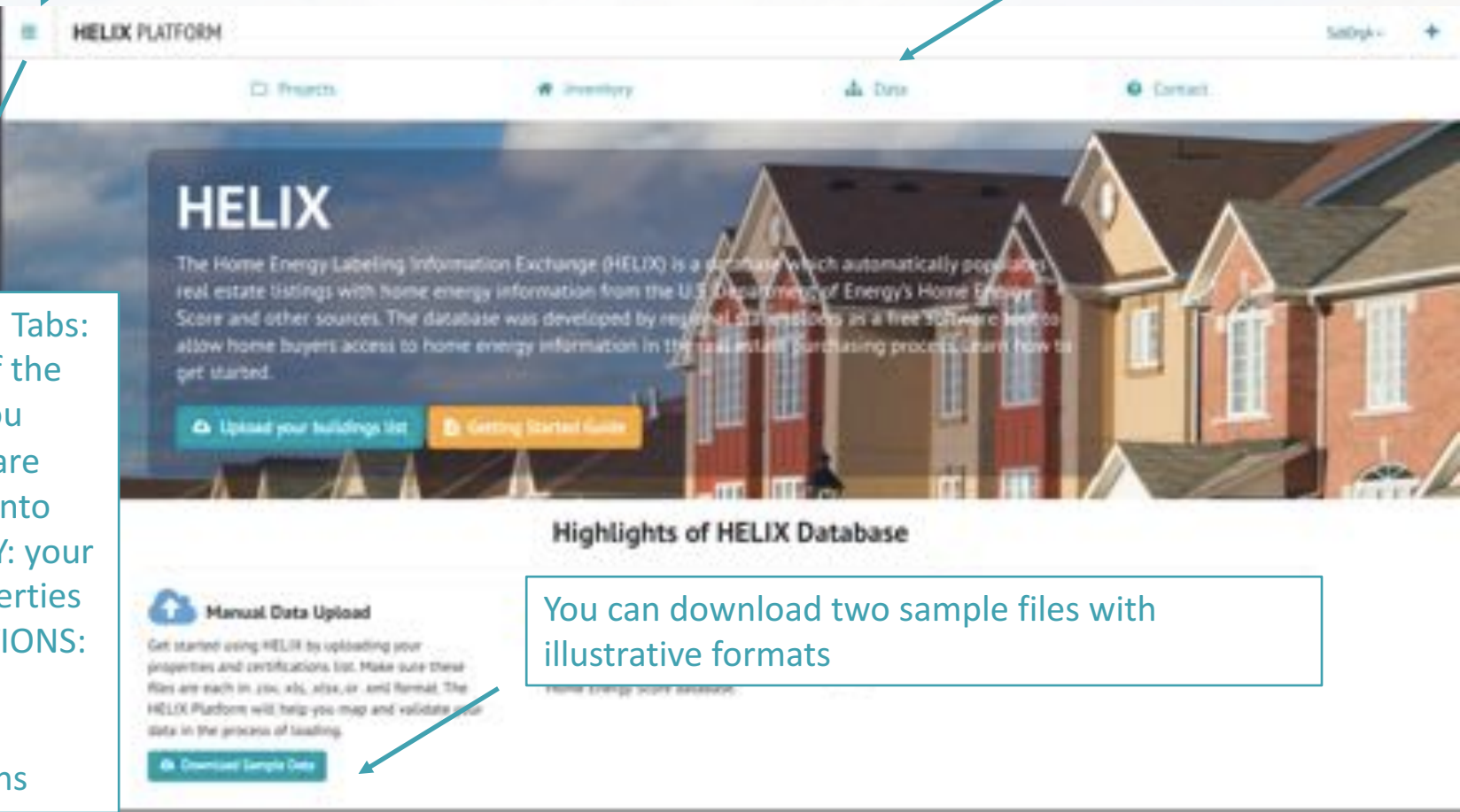
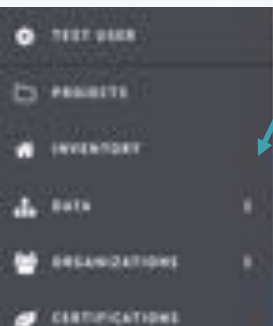
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HELIX Home Page

You can open the Navigation Drawer to see your homes and organizations count

You can also navigate through the tabs at the top



HELIX

The Home Energy Labeling Information Exchange (HELIX) is a database which automatically populates real estate listings with home energy information from the U.S. Department of Energy's Home Energy Score and other sources. The database was developed by regional stakeholders in a free software tool to allow home buyers access to home energy information in the real estate purchasing process. Learn how to get started.

[Upload your buildings list](#)

[Getting Started Guide](#)

Highlights of HELIX Database



Manual Data Upload

Get started using HELIX by uploading your properties and certifications list. Make sure these files are each in .csv, xls,xlsx, or .xml format. The HELIX Platform will help you map and validate your data in the process of loading.

[Download Sample Data](#)

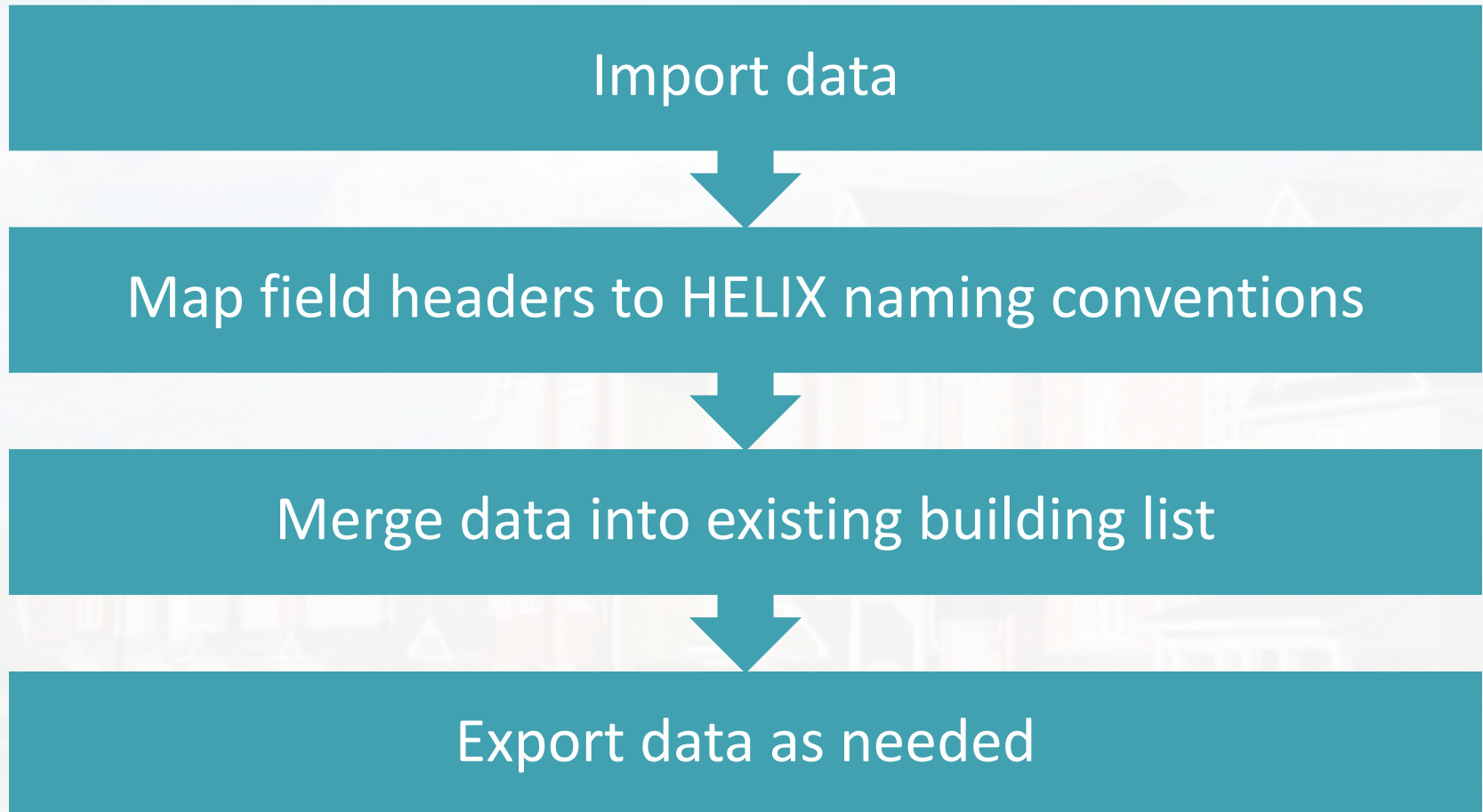
You can download two sample files with illustrative formats

[Home Energy Score database](#)

Key Navigation Tabs:

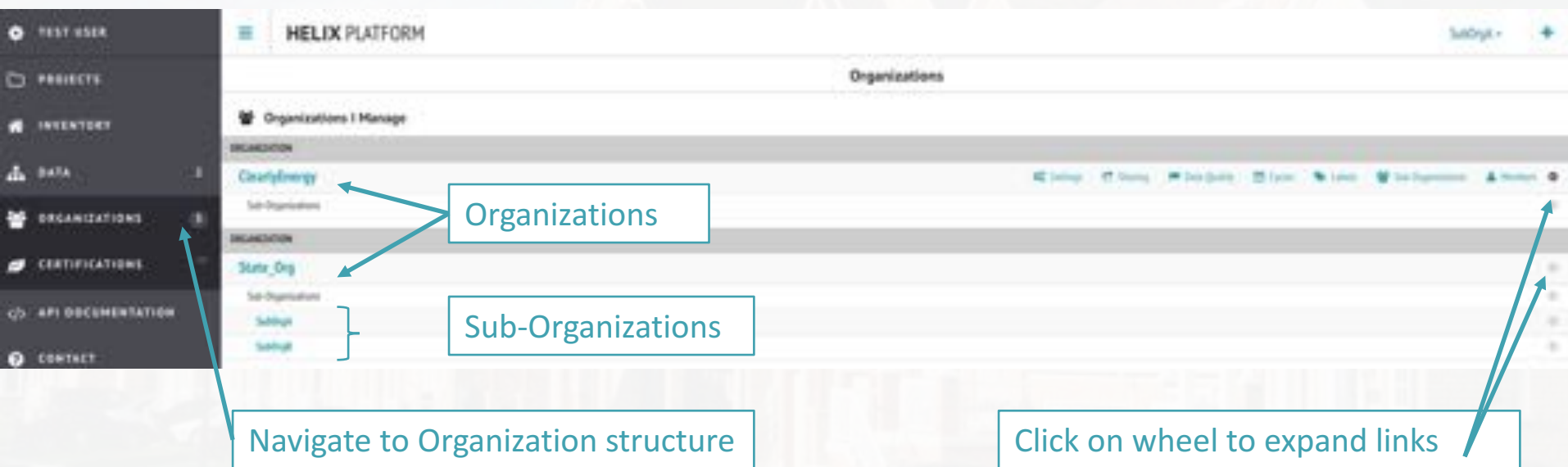
- **DATA:** all of the datasets you load, they are combined into
- **INVENTORY:** your list of properties
- **CERTIFICATIONS:** your list of reference certifications

HELIX Workflow



Organizations

- Every account holder belongs to one or more Organizations, though most users will only belong to one
- HELIX allows Organizations to have Sub-Organizations



HELIX PLATFORM

Organizations

Organizations | Manage

ORGANIZATION

ClearEnergy

Sub-Organizations

ORGANIZATION

State_Org

Sub-Organizations

SubOrgs

SubOrgs

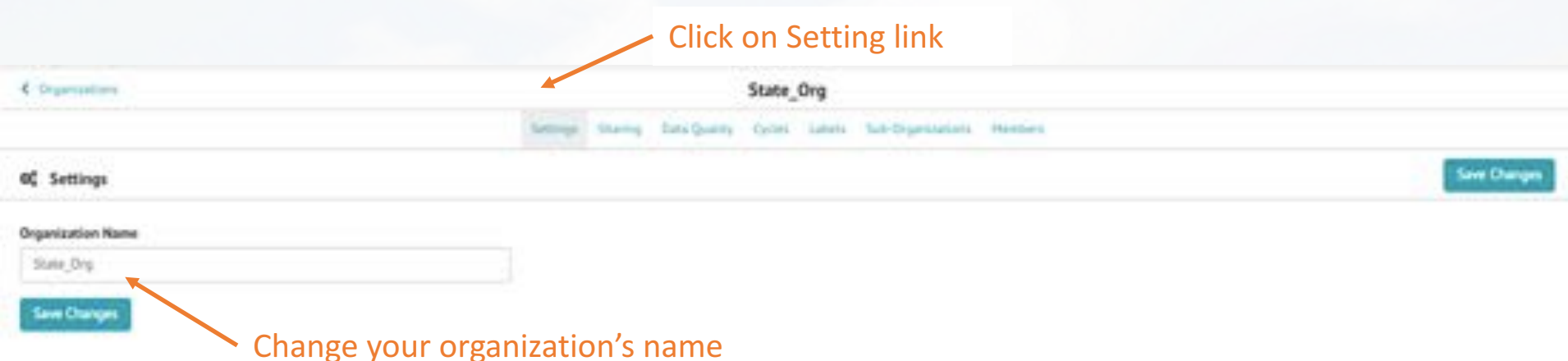
Organizations

Sub-Organizations

Navigate to Organization structure

Click on wheel to expand links

Organizations - Settings



Click on Setting link

← Organizations

State_Org

Settings Sharing Data Quality Cycles Labels Sub-Organizations Members

Settings

Save Changes

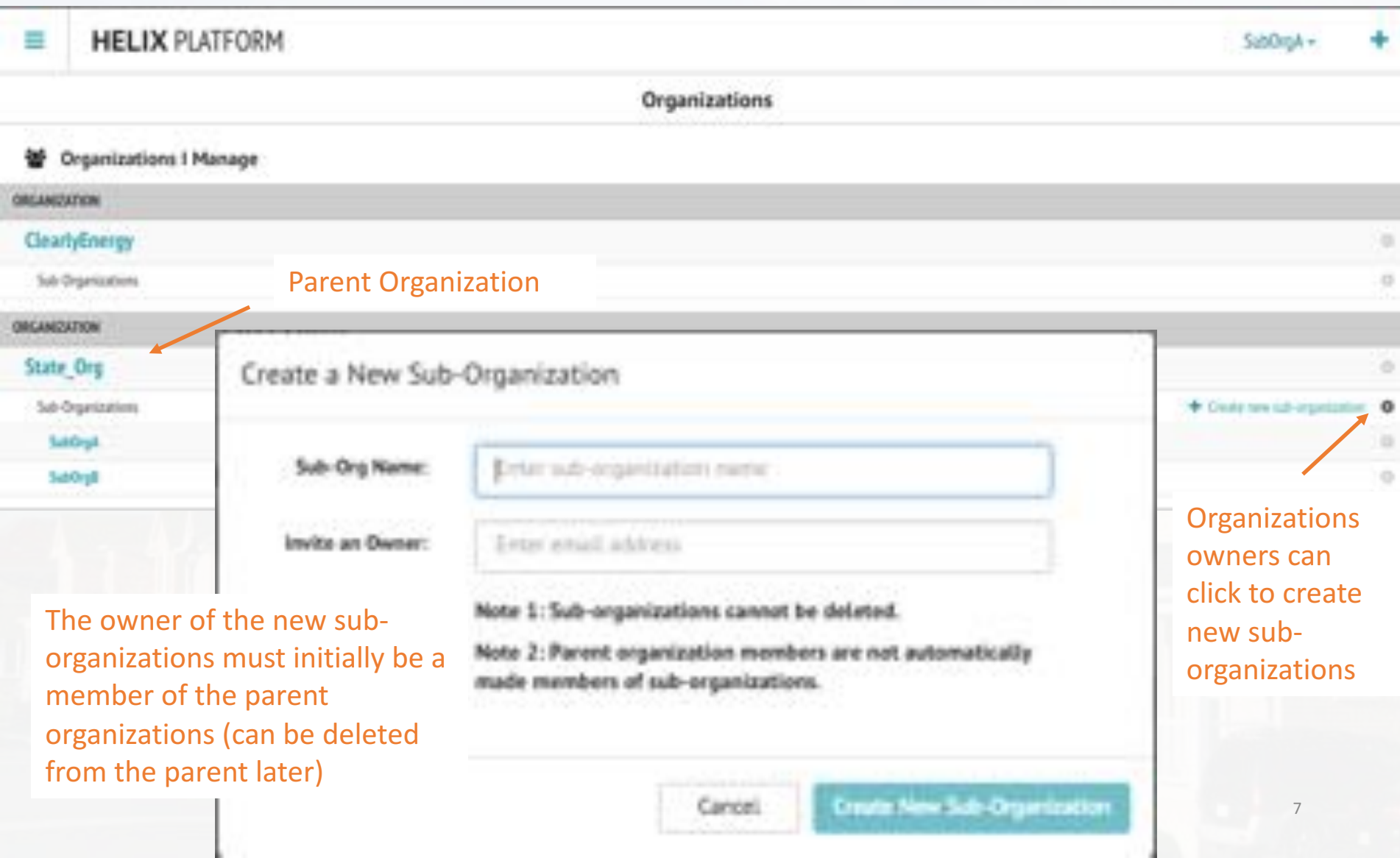
Organization Name

State_Org

Save Changes

Change your organization's name

Organizations – Sub-Organizations



The screenshot shows the HELIX PLATFORM interface. The top navigation bar includes a menu icon, the text "HELIX PLATFORM", and a "SubOrgA +" button. The main heading is "Organizations". Below this, there's a section "Organizations I Manage" with a list of organizations. The first organization is "ClearlyEnergy", which has a "Sub-Organizations" link. The second organization is "State_Org", which also has a "Sub-Organizations" link. A modal titled "Create a New Sub-Organization" is open, showing fields for "Sub-Org Name:" and "Invite an Owner:". The modal also includes two notes: "Note 1: Sub-organizations cannot be deleted." and "Note 2: Parent organization members are not automatically made members of sub-organizations." At the bottom of the modal are "Cancel" and "Create New Sub-Organization" buttons. An orange arrow points from the "Parent Organization" text to the "State_Org" organization in the list. Another orange arrow points from the "Create new sub-organization" button in the right sidebar to the modal.

HELIX PLATFORM

SubOrgA +

Organizations

Organizations I Manage

ORGANIZATION

ClearlyEnergy

Sub-Organizations

ORGANIZATION

State_Org

Sub-Organizations

SubOrgA

SubOrgB

Create a New Sub-Organization

Sub-Org Name:

Invite an Owner:

Note 1: Sub-organizations cannot be deleted.

Note 2: Parent organization members are not automatically made members of sub-organizations.

Cancel Create New Sub-Organization

SubOrgA +

Create new sub-organization

Parent Organization

The owner of the new sub-organizations must initially be a member of the parent organizations (can be deleted from the parent later)

Organizations owners can click to create new sub-organizations

Organizations - Sharing

HELIX PLATFORM

SubOrgA +

[Organizations](#)

[Settings](#)
[Sharing](#)
[Data Quality](#)
[Cycles](#)
[Labels](#)
[Sub-Organizations](#)
[Members](#)

Sharing Your Data Save Changes

Selecting Fields to Share

As the admin of your SEED instance you can control what data is shared throughout your organization and between your sub-organizations as well as what data is shared externally with the public-at-large. The subset of data you choose to share with the public can be different than the subset shared between your sub-organizations.

From the list below, select the fields that you want to: 1) share internally within your organization, and 2) share publicly with users outside your organization.

SHARE DATA WITH		FIELD NAME
INTERNAL	PUBLIC	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="Search field name"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Address Line 1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Address Line 2
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Building Certification
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Building Count

The owner of a parent organization can select fields to view between Sub-Organizations

Set a Query Threshold

Enter the minimum threshold count of buildings that can be returned in a shared query. The building count threshold is important for analysis on your data without revealing information about individual buildings.

Count #

The owner of a parent organization can set the query threshold for viewing records between Sub-Organizations

Save Changes

Organizations - Members

HELIX PLATFORM

Organizations

State_Org

Settings Sharing Data Quality Cycles Labels Sub-Organizations **Members**

Members

Invite a new member

MEMBER NAME	MEMBER EMAIL	LAST LOGIN	MEMBER ROLE	CERTIFICATIONS ADDED	CERTIFICATIONS EXPORTED	
Test User	member email	member last login	member role	member certificate	member certification exports	Remove
Test User	member email	2023-01-15 10:11 PM	member	0	0	Remove
Test User						Remove
Test User						Remove
Test User						Remove
Test User						Remove

Invite a New Member

First Name:

Last Name:

Email Address:

Role:

Click on the Members link

Invite new members by clicking on this link

Invitations to HELIX and to set a password are sent via email

You can set the role of a new member

Organizations – Roles and Privileges

	Parent	Sub-Organization		
		Owner	Member	Viewer
Set fields to display between Sub-Org	✓			
Create Sub Orgs	✓			
Add/remove members	✓ to parent, or at setup of sub	✓		
Add/remove certifications	✓	✓		
View members	✓ in parent, owner(s) of subs	✓		
Change settings: <ul style="list-style-type: none"> • Rename Sub-org • Change member role 	✓ in parent	✓		
Add Data	✓	✓	✓	
Edit Data	✓ all subs	✓	✓	
View Data	✓ all subs	✓	✓	✓

User Settings

Certifications

Click name to edit

Certifications

☛ Certifications Display

NAME	AWARD BODY	RECOGNITION TYPE	NUMERIC	DESCRIPTION	VALID FOR	DELETE
LEED for Homes	U.S. Green Building Council	Certification		LEED, or Leadership in Energy and Environmental De...		X
ENERGY STAR Certified Homes	U.S. Environmental Protection Agency	Certification		EPA ENERGY STAR Certified Homes is a set of option...		X
HERS Index Score	RESNET (Residential Energy Services Network)	Score	✓	The Home Energy Rating System (HERS) Index is the ...		X
Efficiency Vermont Certified	Efficiency Vermont	Certification		Efficiency Vermont Certified homes feature advance...		X
Passive House	PHI (Passive House Institute)	Certification		Home Innovation Research Labs certifies homes to L...		X
NGBS New Construction	Home Innovation Research Labs	Certification		Home Innovation Research Labs certifies homes to L...		X
Home Energy Score	U.S. Department of Energy	Score	✓	Developed by DOE and its national laboratories, th...		X

☛ Create Certification

Name:

Award Body:

Recognition Type:

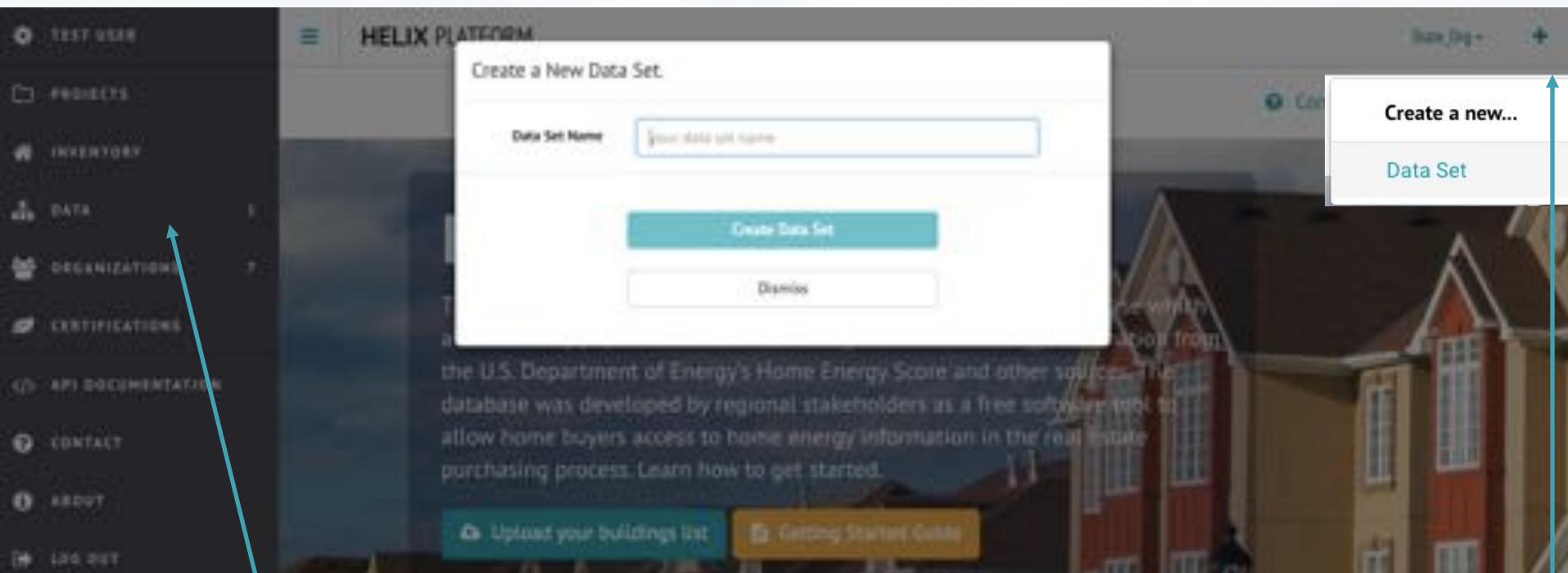
Numeric: ☐

Description:

Valid For:

- Certifications which are scores or ratings are assumed to be numeric
- Award, labels and other certifications can be True/False or a word descriptor
- If a score is only valid for a finite period of time, please enter this period in days

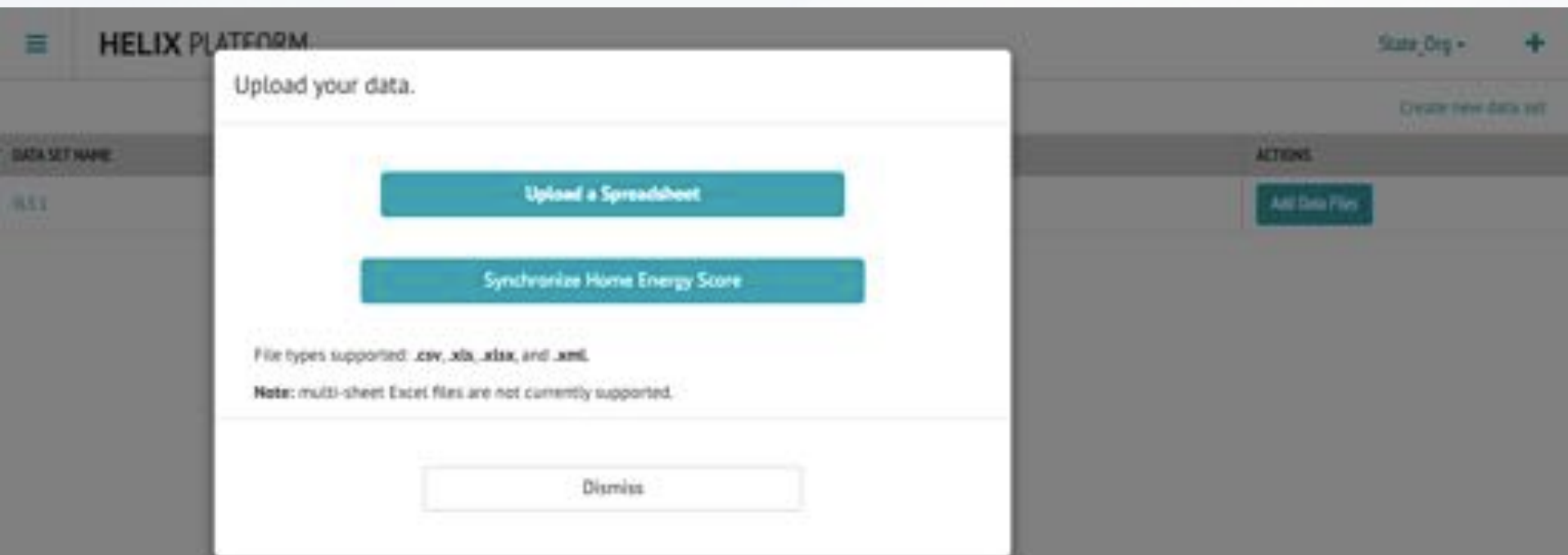
Data Upload – Create Dataset



To start loading data, you first need to create a dataset. This will be used to organize various sources of data in the repository. You have three options to start:

- 1 Click the “Upload your buildings list” blue button on the home page
2. Click on the “+” in the upper right corner and select to Create a new Data Set
3. Click on Data in the left menu and select “Create new data set”

Data Upload – File Formats



HELIX supports two types of upload and various file formats:

- Spreadsheet (csv,xls,xlsx) or xml file upload. Sample file formats are provided on the home page by clicking on “Download Sample Data”
- Synchronizing with the Home Energy Score repository. This method requires HELIX to be a third-party recipient of the HES data and the HES credentials to be saved in your organization’s settings.

Data Upload - Process



The file upload records the data in the HELIX database and archives of a copy of the original data files.

Upon successful upload, you are prompted to continue to data mapping.

Data Mapping

STEP 1: Map Your Data | **STEP 2: Review Your Data Mappings** | BIDES | Collapse Table

MAPPING YOUR DATA TO HELIX

It is necessary to map your field names to HELIX field names. You can select from the list that appears as you start to type, which is based on the Building Energy Data Exchange Specification (BIDES), or you can type in your own name, as well as typing in the field name from the original datafile.

In addition, you need to specify where the field should be associated with Tax Lot data or Property data. This will affect how the data is matched and merged, as well as how it is displayed in the Inventory view.

Field names for matching: The following fields are used by HELIX to match records: **Jurisdiction Tax Lot ID, Custom ID 1, Normalized Address** (which combines Address Lines 1 and 2). If there are fields in a datafile mapped to these names, the program will attempt to match on those same names in existing records.

When you click the **Map Your Data** button, the program will show a grid with the new field names as the column headings and your data in the rows. In that view, you can still come back to the initial mapping screen and change the field mapping.

Map HELIX fields to imported file fields.

Duplicate — if fields are marked as duplicates they need to be resolved to have different names

At least one of the following fields must be mapped: Jurisdiction Tax Lot ID (with Inventory type Tax Lot) or PM Property ID (with Inventory type Property).

HELIX ID: 6.CRX1517590078

Set all fields to: **Property**

Mapped Fields

HELIX HEADER	DATA FILE HEADER	INVENTORY TYPE	BOM 1	BOM 2	BOM 3	ADM 4	BOM 5
Internal ID	Internal ID	Property	TS	TS			
Ad	address_line_1	Property	1 Test Street	5 Test Street			
Normalized Address	address_line_2	Property					
Owner Address	development name	Property	My Development	My Development			
Address Line 2	city	Property	Cambridge	Cambridge			
Address Line 3	state	Property	MA	MA			

Click when finished mapping

Map names from import file to standardized HELIX data field names

Start typing to see a list of fields containing that word

Data Mapping - Review

Return to previous screen

The mapping review allows you to check that your data is properly mapped before saving the mappings

Click to continue

< Back to Mapping

4 Data Quality Results

Save Mappings

View by Property

2 Properties

Address Line 1 (Property)	Address Line 2 (Property)	City (Property)	State (Property)	Postal Code (Property)	Associated Tax Lot ID	Year Built	Conditioned Floor Area	Internal ID	Device
1 Test Street		Cambridge	MA	2144		2005	2000	T1	My I
3 Test Street		Cambridge	MA	2144		2005	2000	T1	My I

Inspect data quality warnings

Data Quality Results

File Name: helix_upload_sample_one_lead.csv1517330028

Date Uploaded: January 30th 2018, 11:53:48 AM -05:00

TABLE	ADDRESS LINE 1	JURISDICTION TAX LOT ID	PM PROPERTY ID	CUSTOM ID	FIELD	ERROR MESSAGE
Table	Address Line 1	Jurisdiction Tax Lot ID	PM Property ID	Custom ID	Field	Error Message
PropertyState	1 Test Street	--	--	--	Custom ID 1 (Property)	Custom ID 1 (Property) is null
PropertyState	1 Test Street	--	--	--	PM Property ID	PM Property ID is null
PropertyState	3 Test Street	--	--	--	Custom ID 1 (Property)	Custom ID 1 (Property) is null
PropertyState	1 Test Street	--	--	--	PM Property ID	PM Property ID is null

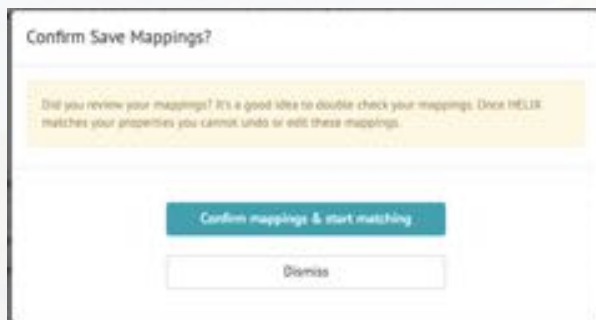
Data quality results can be exported

Export

Close

Data Matching

- HELIX looks for existing records to merge new information into:
 - duplicates are ignored
 - last data into HELIX becomes the current information



Matching Results for file: home_energy_score.csv

- Total rows in the import file: 28
- New properties: 3
- New tax lots: 1
- Merged properties: 10
- Ignored property duplicates within the import file: 1
- Ignored tax lot duplicates within the import file: 27

Summary of mapping results

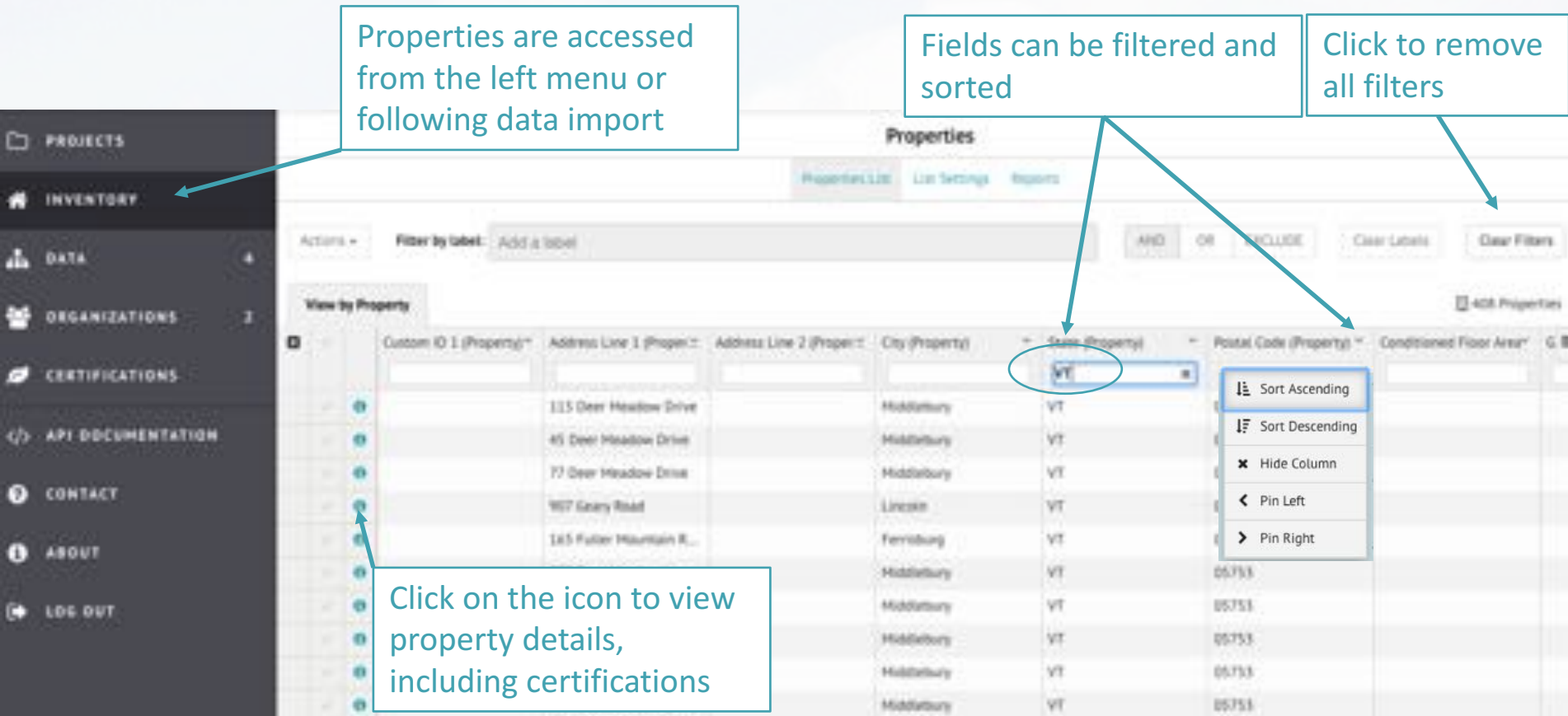
Add another file → Restarts process

View my properties → View building list

Review matches

Dismiss

Properties – List View



Properties are accessed from the left menu or following data import

Fields can be filtered and sorted

Click to remove all filters

Click on the icon to view property details, including certifications

Custom ID 1 (Property)**	Address Line 1 (Property)	Address Line 2 (Property)	City (Property)	State (Property)	Postal Code (Property)	Conditioned Floor Area*	G...
	115 Deer Meadow Drive		Middlebury	VT			
	45 Deer Meadow Drive		Middlebury	VT			
	77 Deer Meadow Drive		Middlebury	VT			
	907 Green Road		Lincoln	VT			
	145 Fuller Mountain R...		Ferrisburg	VT			
			Middlebury	VT	05753		
			Middlebury	VT	05753		
			Middlebury	VT	05753		
			Middlebury	VT	05753		
			Middlebury	VT	05753		

Filtering rules:

Numeric fields can be filtered by the following operators: =, ==, !=, !, <>, <, <=, >, >=

For example: >1200 returns values greater than 1200

Properties – List View – List Settings

List Settings control the order of columns displayed

Property List Settings

Properties List **List Settings** Reports

Column Order/Visibility

Add Shared Properties.

☐ Include in your properties list all properties

Select or de-select all fields

There are 89 columns of data available

Select columns from the list below to show/hide

Check/Un-check fields to show/hide

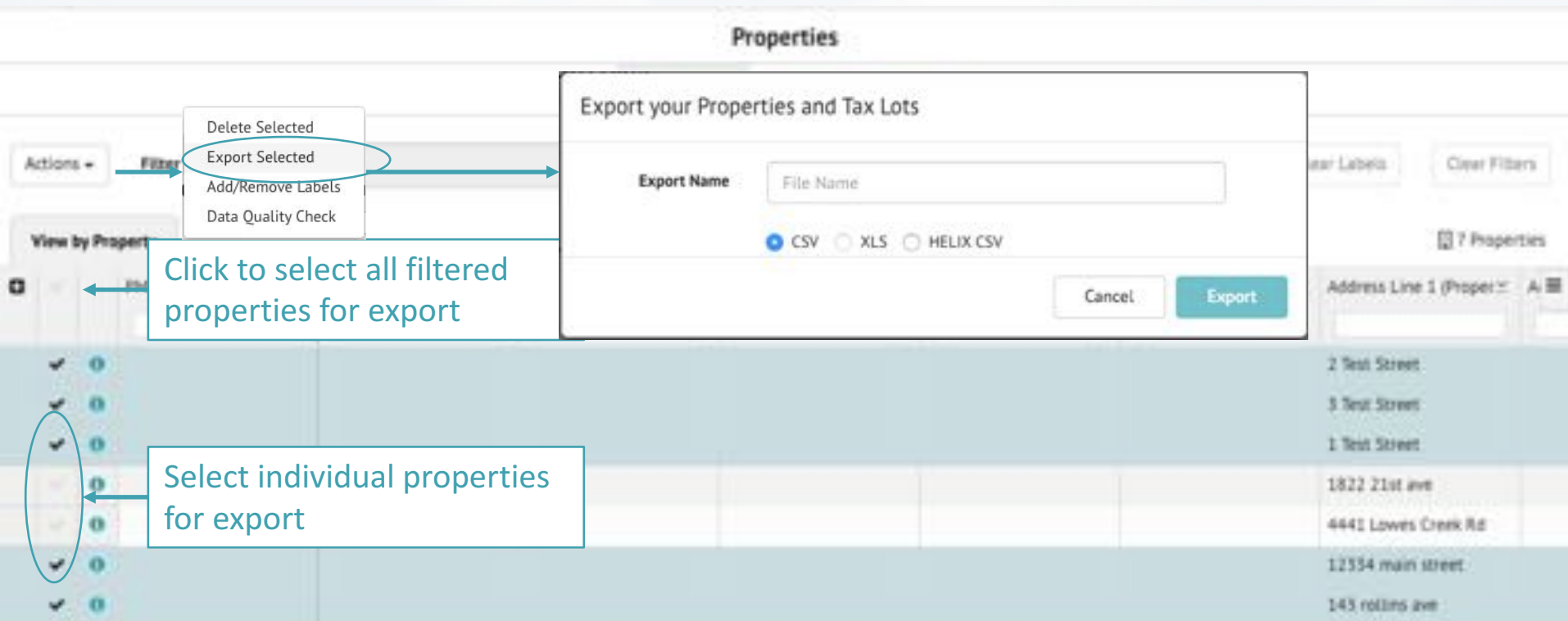
in the order in which they appear. Pin the rows for them to be left-pinned in the list view.

Select fields to “pin” to the left of the list view; fields can also be pinned through the filter function of the list display

Drag individual fields up or down to re-organize the list display

Column Name	
<input checked="" type="checkbox"/> State (Property)	
<input checked="" type="checkbox"/> Postal Code (Property)	
<input checked="" type="checkbox"/> Custom ID 1 (Property)	
<input checked="" type="checkbox"/> Address Line 1 (Property)	
<input checked="" type="checkbox"/> Address Line 2 (Property)	
<input checked="" type="checkbox"/> City (Property)	
<input checked="" type="checkbox"/> Conditioned Floor Area	
<input checked="" type="checkbox"/> Gross Floor Area	

Properties - Export



The screenshot shows the 'Properties' export interface. On the left, an 'Actions' menu is open, with 'Export Selected' circled in red. A red arrow points from this menu to the 'Export your Properties and Tax Lots' dialog box. In the dialog box, the 'Export Name' field is labeled 'File Name'. Below it, three radio buttons are visible: 'CSV' (selected), 'XLS', and 'HELIX CSV'. To the right of the dialog box, there are buttons for 'Cancel' and 'Export'. Below the dialog box, a table of properties is visible. The first column of the table has checkboxes, with the first three rows having their checkboxes checked. A red circle highlights these checked checkboxes, with a red arrow pointing to a text box that says 'Select individual properties for export'. Another red arrow points from the 'Export Selected' menu item to the same text box, which also says 'Click to select all filtered properties for export'.

Properties

Export your Properties and Tax Lots

Export Name: File Name

☒ CSV ☐ XLS ☐ HELIX CSV

Cancel Export

Click to select all filtered properties for export

Select individual properties for export

Address Line 1 (Property)
2 Test Street
3 Test Street
1 Test Street
1822 21st ave
4441 Lowes Creek Rd
12334 main street
143 rolling ave

- Make sure to select HELIX CSV export to export certification details

Properties – Detail View

The property detail view has two parts:

1. View certification details, including any measurements or links attached to certification
2. View property history

[← Properties](#)

Property Detail

Settings

Property : 12334 main street

Edit

ENDORSE	ASSESSMENT TYPE	SCORE/RATING	DATE CREATED	EXPIRATION DATE	STATUS	OPT-OUT?
<div>U.S. Department of Energy</div>	Home Energy Score	9	2017-11-09		Non-Official Score	Score
MEASUREMENT TYPE	SUB-TYPE	FUEL	QUANTITY	UNIT	STATUS	YEAR
PROD		ELEC	2737	KWH	ESTIMATE	
CONS		ELEC	11831	KWH	ESTIMATE	
REPORT LINKS						
http://hescore.gov/score-label.html?amazonaws.com/hes_label_X3P6F.pdf						

Add/Remove Labels

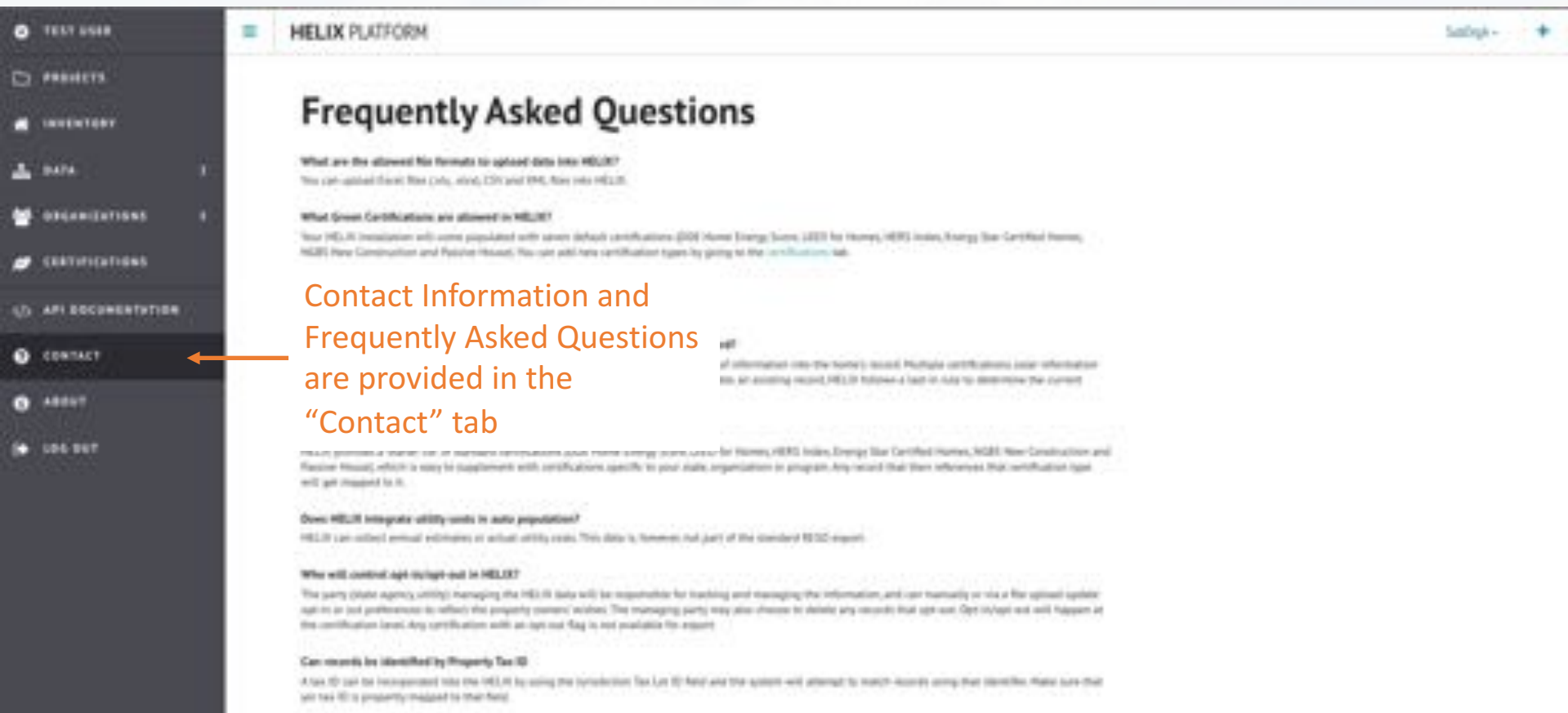
Labels: (no labels applied)

Building change history

FIELD	MASTER	HOME ENERGY SCORE: 12334 main street
PH Property ID		
PH Parent Property ID		
Jurisdiction Property ID		
Custom ID 1 (Property)		
Address Line 1 (Property)	12334 main street	12334 main street

Application Programming Interface (API)

Contact & FAQ



HELIX PLATFORM

Frequently Asked Questions

What are the allowed file formats to upload data into HELIX?
 You can upload Excel files (.xls, .xlsx), CSV and XML files into HELIX.

What Green Certifications are allowed in HELIX?
 Your HELIX installation will come populated with several default certifications (DOE Home Energy Score, LEED for Homes, NGBI Index, Energy Star Certified Homes, NGBI New Construction and Passive House). You can add new certification types by going to the [certifications](#) tab.

How do I add multiple certifications to a home?
 If you have multiple certifications for a home, you can add them to an existing record. HELIX follows a last-in rule to determine the current certification type.

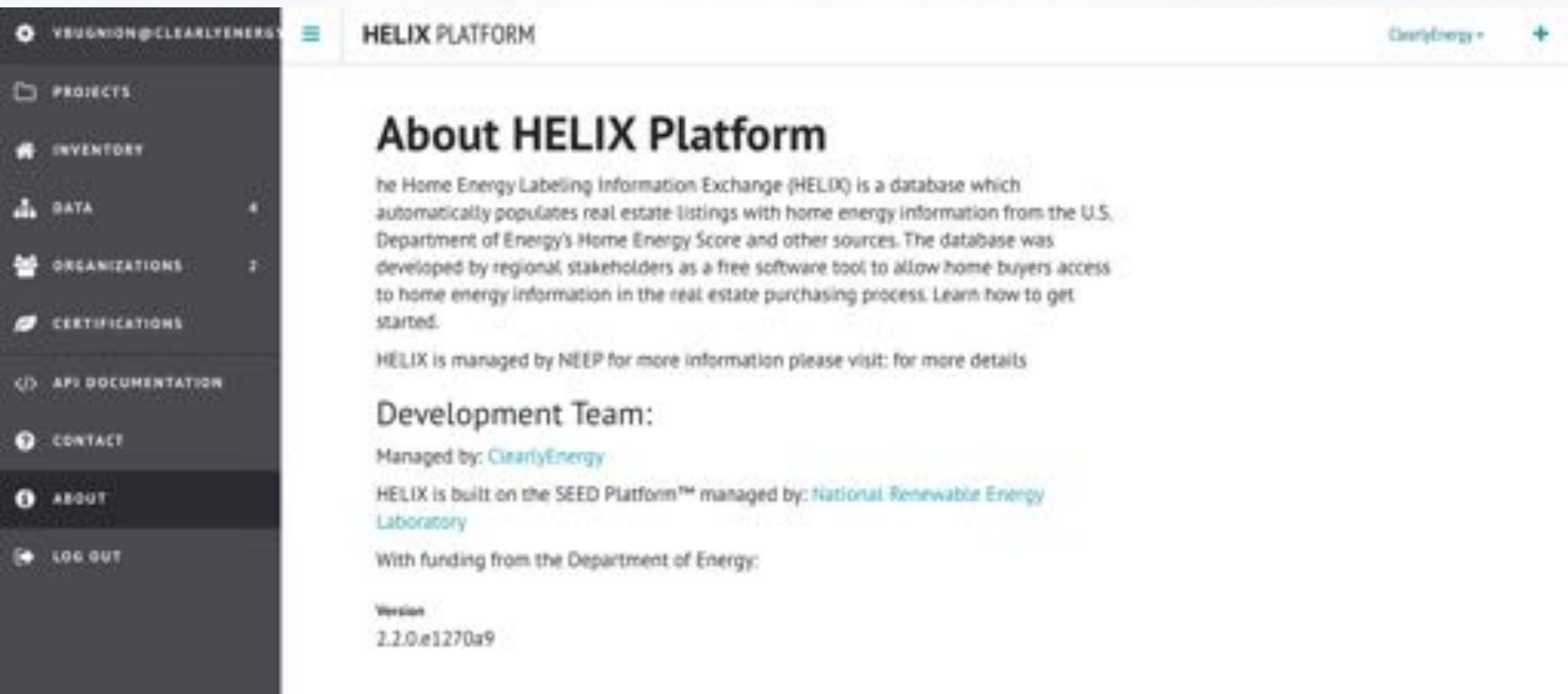
Does HELIX integrate utility costs in auto population?
 HELIX can collect annual estimates or actual utility costs. This data is, however, not part of the standard RESCC report.

Who will control age-in-place in HELIX?
 The party (state agency, utility) managing the HELIX data will be responsible for tracking and managing the information, and can manually or via a file upload update age-in or out preferences to reflect the property owners' wishes. The managing party may also choose to delete any records that age-out. Age-in/age-out will happen at the certification level. Any certification with an age-out flag is not available for export.

Can records be identified by Property Tax ID?
 A tax ID can be incorporated into the HELIX by using the Jurisdiction Tax ID field and the system will attempt to match records using that identifier. Make sure that your tax ID is properly indexed to that field.

Contact Information and
Frequently Asked Questions
are provided in the
“Contact” tab

About



The screenshot shows the HELIX Platform web application. On the left is a dark sidebar with navigation links: PROJECTS, INVENTORY, DATA (with a count of 4), ORGANIZATIONS (with a count of 2), CERTIFICATIONS, API DOCUMENTATION, CONTACT, ABOUT, and LOG OUT. The main header area includes the user email 'YBU@NION@CLEARLYENERGY', a hamburger menu icon, the text 'HELIX PLATFORM', and a 'ClearlyEnergy' logo with a plus icon. The main content area features the title 'About HELIX Platform' followed by a paragraph explaining that HELIX is a database of home energy information from the U.S. Department of Energy's Home Energy Score and other sources, developed by regional stakeholders as a free software tool for home buyers. Below this is a link to 'ClearlyEnergy' for more information. A 'Development Team:' section follows, stating the platform is managed by 'ClearlyEnergy', built on the 'SEED Platform™' managed by 'National Renewable Energy Laboratory', and funded by the 'Department of Energy'. At the bottom, the version '2.2.0.e1270a9' is displayed.

YBU@NION@CLEARLYENERGY HELIX PLATFORM ClearlyEnergy +

About HELIX Platform

The Home Energy Labeling Information Exchange (HELIX) is a database which automatically populates real estate listings with home energy information from the U.S. Department of Energy's Home Energy Score and other sources. The database was developed by regional stakeholders as a free software tool to allow home buyers access to home energy information in the real estate purchasing process. Learn how to get started.

HELIX is managed by NEEP for more information please visit: [for more details](#)

Development Team:

Managed by: [ClearlyEnergy](#)

HELIX is built on the SEED Platform™ managed by: [National Renewable Energy Laboratory](#)

With funding from the Department of Energy:

Version
2.2.0.e1270a9