



Introduction to the Audit Template

Webinar

**Thursday, April 30, 2020
10:00 AM – 11:00 AM PDT**

Presented by

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PNNL is operated by Battelle for the U.S. Department of Energy



DOE Building Technologies Office Analysis Tools

Tools



Schema



Brick Schema

Terms and Definitions



BTO's Building Energy Data subprogram:

www.energy.gov/eere/buildings/building-energy-data



Join Upcoming DOE Data Tool Training Webinars!

Introduction to Asset Score

April 28, 1-2pm ET

Learn about Asset Score, which is a national standardized tool for assessing the physical and structural energy efficiency of commercial and multifamily residential buildings.

Introduction to SEED

April 29, 3-4pm ET

Learn about the Standard Energy Efficiency Exchange Database (SEED) Platform, a central hub for building energy datasets located across multiple sources. SEED makes data collection, analysis, and sharing simpler and easier.

Introduction to SEED: Advanced Features ([Register Here](#))

May 19, 3-4pm ET

Learn about SEED's advanced capabilities, including GIS data integration, uploading interval and meter data, and the ability to connect with other tools such as Portfolio Manager, BuildingSync, Audit Template, and the Open Efficiency Platform.

Learning Objectives and Course Outline

Learning Objectives

- Awareness of the Audit Template tool
- Understand basics of data collection, tool navigation, data entry, and audit reports
- Insight into tool best practices
- Know where to go for help and additional resources



Course Outline

- I. Introduction to the Audit Template
- II. Features: At-a-Glance
- III. Demonstration



What is the Audit Template?

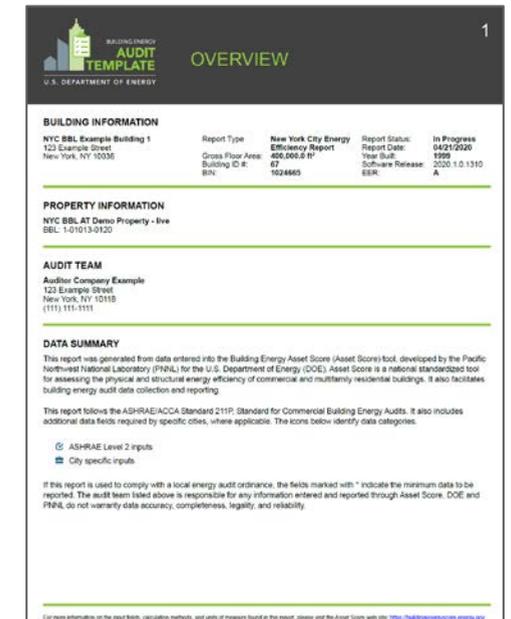
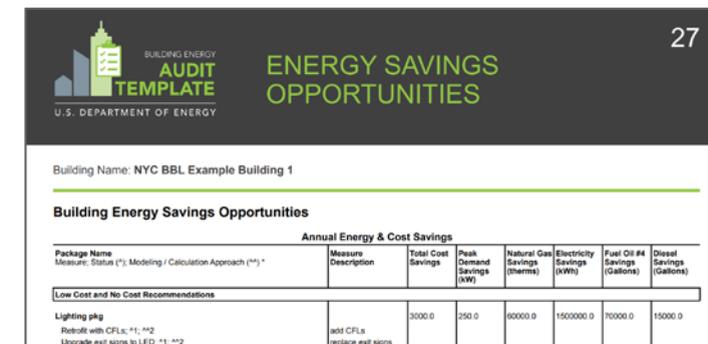
- Free web-based tool to **collect, store and report building energy audit data**
- Includes fields present in an **ASHRAE Level 2 audit**
- **Produces an audit data report** which includes calculated tables outlining building energy use and energy efficiency measures
- Audit data report may be submitted to cities to **demonstrate audit completion** for ordinance compliance

***New York:** Applicable commercial, mixed-use and residential buildings must submit an Energy Efficiency Report (EER) once every ten years.*

<https://www1.nyc.gov/site/buildings/business/energy-audits-and-retro-commissioning.page>

***San Francisco:** Energy Audit - required every 5 years for nonresidential buildings.*

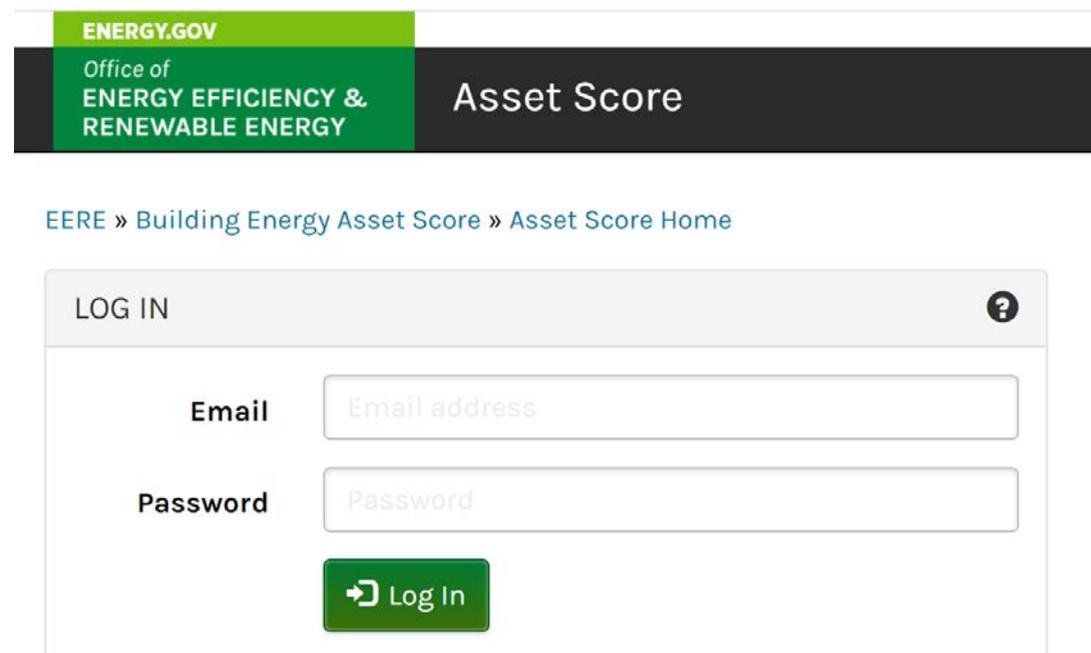
<https://sfenvironment.org/article/how-to-comply-and-report-to-sf-environment>

Annual Energy & Cost Savings							
Package Name	Measure Description	Total Cost Savings	Peak Demand Savings	Natural Gas Savings	Electricity Savings	Fuel Oil #4 Savings	Diesel Savings
Measure Status (*)	Modeling / Calculation Approach (**)		(kW)	(therms)	(kWh)	(Gallons)	(Gallons)
Low Cost and No Cost Recommendations							
Lighting pkg	add CFLs	3000.0	250.0	90000.0	150000.0	70000.0	15000.0
Replace with CFLs: **1, **2	replace exit signs						
Upgrade exit signs to LED: **1, **2							

Asset Score Toolkit

Free web-based suite of tools available at: buildingenergyscore.energy.gov



ENERGY.GOV
Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

Asset Score

EERE » Building Energy Asset Score » Asset Score Home

LOG IN ?

Email

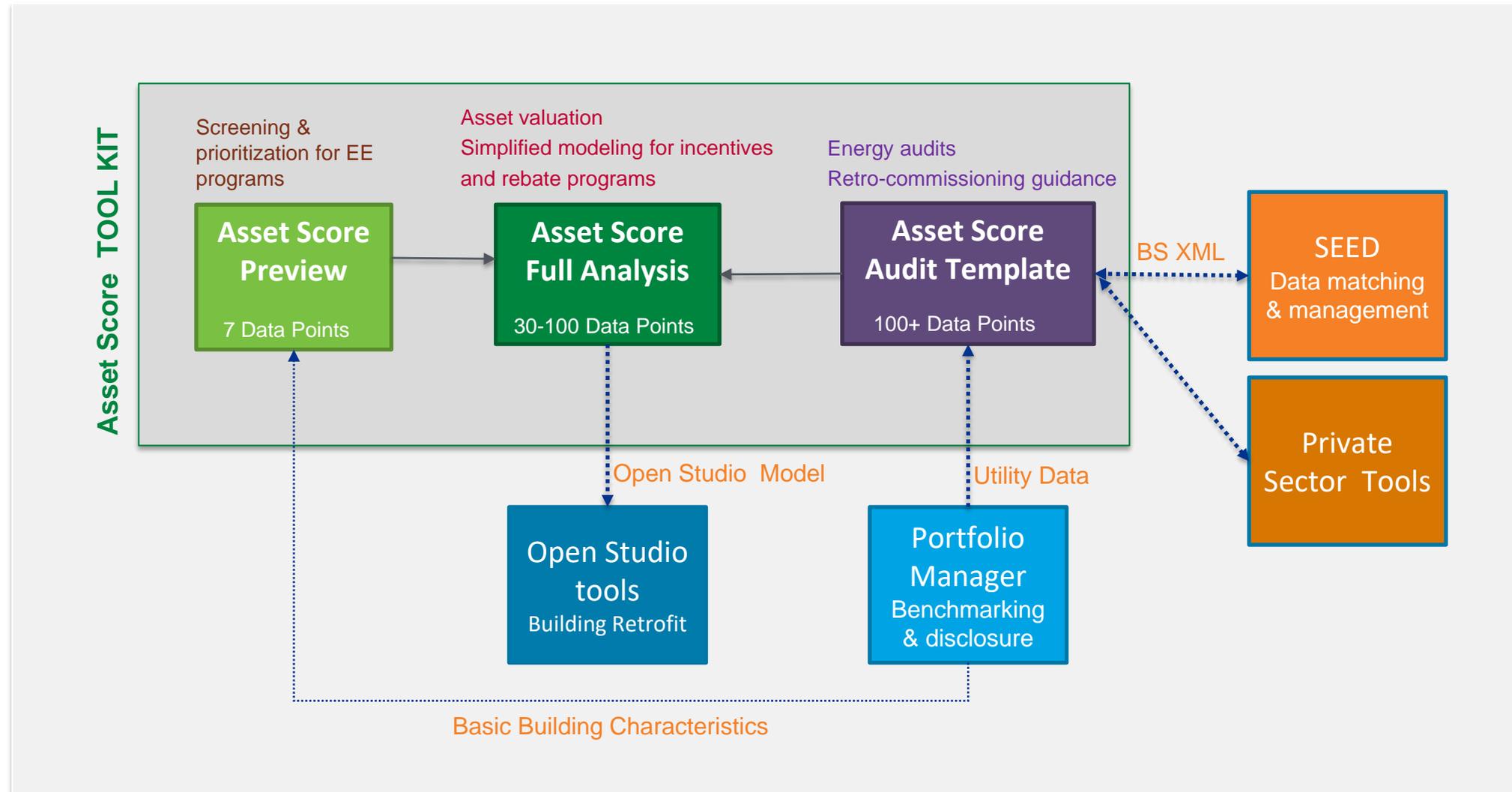
Password

 Log In

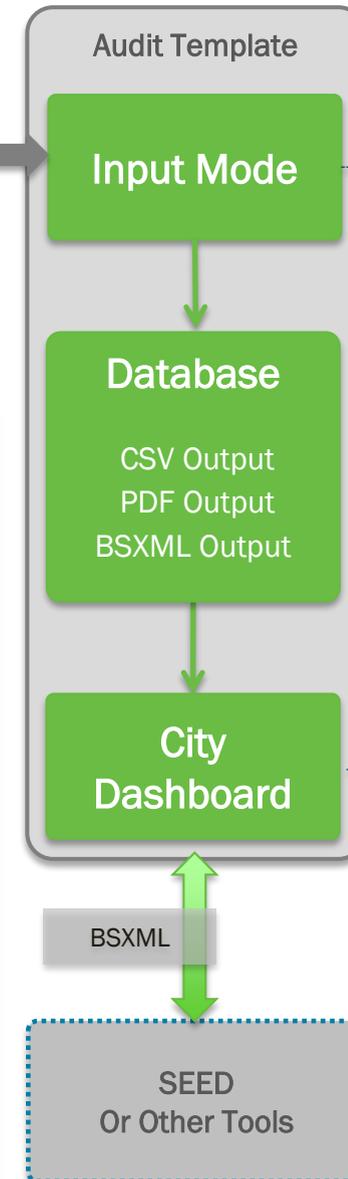
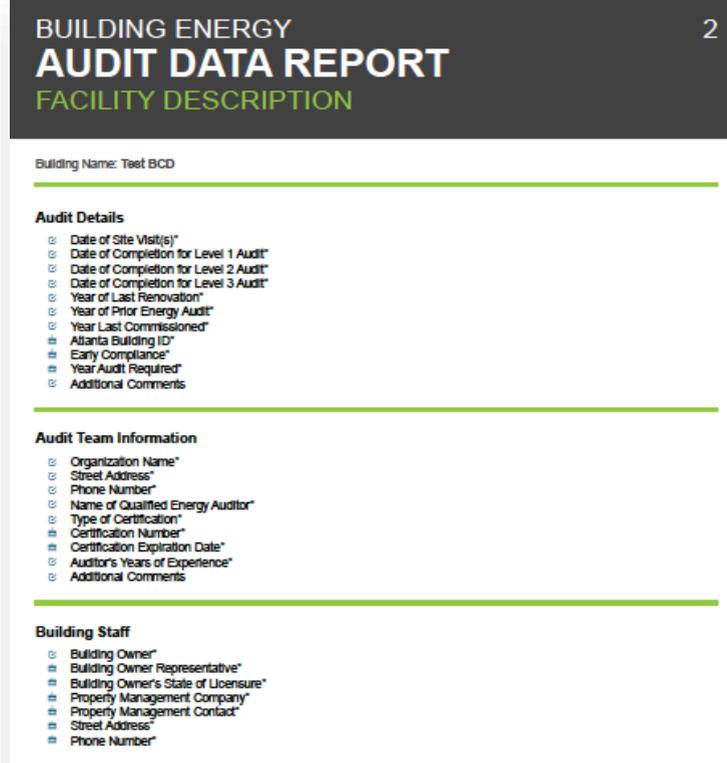
- All 3 tools gather similar building audit and analysis inputs
- Useful to same audience of users
- Working to connect the tools to each other and interact with other building analysis tools



Asset Score and Audit Template Linked Capabilities



How the Audit Template Works



Auditors

1. Choose City Template
2. Perform Audit
3. Submit

City Officials

- Mark Compliance
- Download Reports
- Track Progress

Audit Template: At-a-Glance

- Select 'Audit Template tab'
- Select 'Audit Report' button and
- Select a City to start a report

New Audit Report ?

Start by naming this building, providing the building's location and a couple additional details.

Building Name*

Report Type* San Francisco Report

Year Completed*
Year in which construction was completed.

Gross Floor Area* ft²

Location*

Street

City Please select Zip Code

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Asset Score

HOME BUILDINGS CITIES MANAGE HELP

ASSET SCORE TSPR AUDIT TEMPLATE ?

This page provides a full listing of audit reports accessible from your account, allowing you to add/delete/modify reports in bulk or individually. Use the filter options to the right to refine your search, or [View NYC Properties](#).

Show 50 entries

Search:

ID	Name	Report Type	Status	Last Modified	Owner	Options
23	PNNL SF Demo Building	San Francisco Report	Editing	2020-04-14 15:59 PDT	Richard Fowler	⚙️ 🗑️
26	Example RP Building	Demo City Report	Editing	2020-04-14 16:33 PDT	Asset Score PNNL	⚙️ 🗑️
27	Example Audit Report Building	Demo City Report	Editing	2020-04-21 14:02 PDT	Asset Score PNNL	⚙️ 🗑️

Audit Report:

NYC Energy Efficiency Report

Other City Report

Ownership:

- All -

Report Type:

- All -

Status:

Audit Template: At-a-Glance

BUILDING ENERGY
Asset Score

Release 2020.1.0.1310 U.S. DEPARTMENT OF ENERGY Energy Efficiency & Renewable Energy

Home BUILDINGS CITIES MANAGE HELP Help Desk

Example A... [Info] [Document] [Warning] [Ruler] [Sun] [Award] [Refresh]

Validation Errors

Please review each section of the forms. Items marked with a  correspond to ASHRAE Level II inputs, and items marked with a  correspond to city inputs. A  indicates a field that is required for city reporting.

[Hide un-required fields](#)

Download:
 CSV (In-Progress)
 PDF (In-Progress)
 XML (In-Progress)

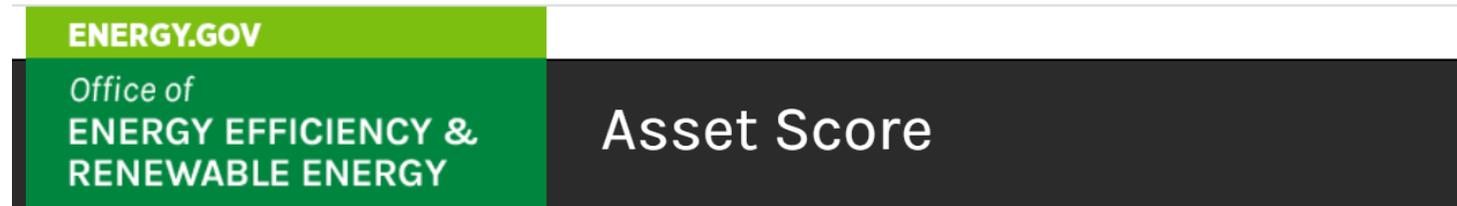
Reports available for download

 System Type 	Direct Fired- Storage	 Required Input
 Location of Equipment 	Mechanical Room <input type="checkbox"/> N/A	 ASHRAE L2 Input
 Venting Type 	Condensing <input type="checkbox"/> N/A	 Required Input
 Approximate Year Installed 	1999 <input type="checkbox"/> N/A	 City Specific Input
 Fuel Source 	Natural Gas <input type="checkbox"/> N/A	
 Efficiency Units 	AFUE <input type="checkbox"/> N/A	

Connect and log in to Asset Score

Register for an account and log in:

<https://buildingenergyscore.energy.gov>



[EERE](#) » [Building Energy Asset Score](#) » [Asset Score Home](#)

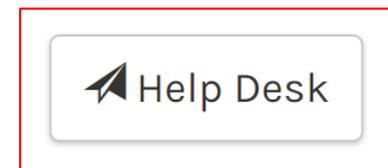
LOG IN ?

Email

Password

[Log In](#)

[Forgot your password?](#) | [Register](#)



Getting Started: Register for an account, log in, select the Audit Template tab from the home page, add a report, input data and submit the report. View the [Quick Start Guide](#) for details.



Audit Template Data Input

Quick Start Guide: https://buildingenergyscore.energy.gov/documents/asset_score_quick_start_guide_audit_template.pdf

Enter data into the Audit Template by navigating among the tabs available on the data entry screens below, and submit when complete.

-  **1. Building Information**

Select "NYC Energy Efficiency Report" for New York City audit reports from the green Audit Reporting Tool button drop down menu, and complete BBL and BIN entries. Select "Other City Report" for all other audit reports. Enter building name, report type, year of construction, gross floor area, and location. Click the "Create Building" button to continue.

Note: Report type selections identify the name of the city or jurisdiction that will be receiving the audit report.

-  **2. Contact Information and Audit Details**

Complete sections that include audit details including and audit completion dates, and audit team and building staff contacts.
-

-  **3. Facility Description**

Complete sections related to information of the audited building, including building use types, building envelope characteristics and major installed equipment components such as HVAC, lighting, and service hot water systems. The information may be based on on-site observations, review of architectural drawings and specifications, measurements or engineering calculations.
-

-  **4. Utility Data and Benchmarking**

Specify energy supply sources and enter energy use data. An annual summary displaying average annual energy use and cost by energy supply source will be generated. Metering and energy systems configuration entries may be required for selected city reports. Benchmarking data, including the building's Energy Use Intensity (EUI) and target energy savings may also be provided in this section.
-

Audit Template Data Input, continued

5. Energy Use Breakdown and QA/QC

Enter estimated building energy use by end use for all energy supply sources. Totals will be calculated and displayed in an 'End Use Summary' table. These will be used to verify that the estimated energy use by end use estimates align with historical energy use.

6. Energy Savings Opportunity

Enter packages of recommended low cost, no cost, and potential capital energy efficiency measures and energy and cost savings that have been manually calculated or generated by a third party energy modelling software. Calculated net measure costs, ROI and payback years will be displayed.

7. Submit to City

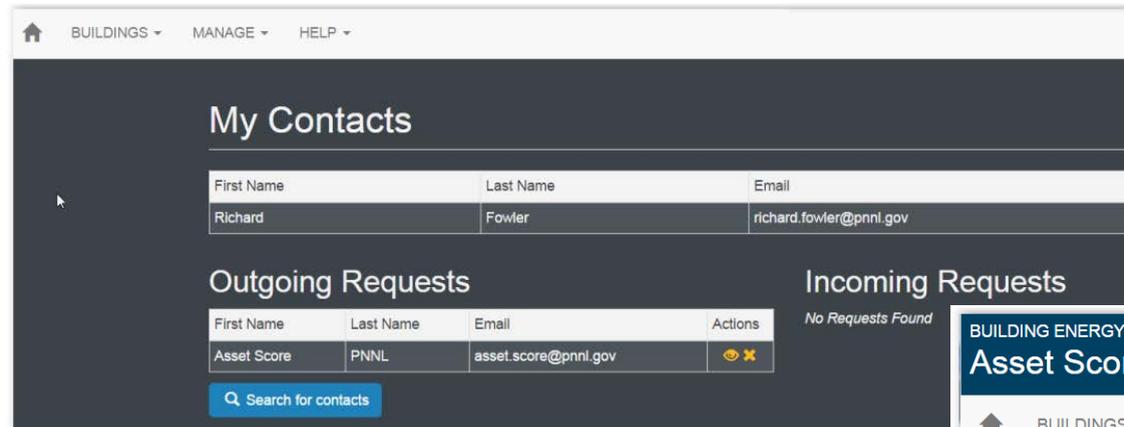
Select the "Submit to City" button to submit a completed audit report to city officials associated with the selected Report Type. Once the building has been submitted, the City would be notified that audit report files are available to download. Users will also receive a confirmation email and may download the same files for their own records.

Note: Some Cities may have a specific certificate that would need to be signed and submitted along with the audit report. The 'Submit to City' screen allows auditors to upload a completed and signed version of such documents. Some City reports may also include a prompt for a confirmation of audit completion affidavit that must be entered before submission.

Creating Contacts and Sharing Buildings

Share buildings with contacts:

- Add Contacts
- Share Buildings



My Contacts

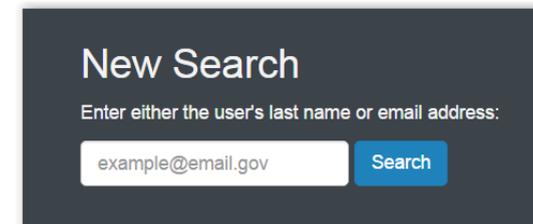
First Name	Last Name	Email
Richard	Fowler	richard.fowler@pnnl.gov

Outgoing Requests

First Name	Last Name	Email	Actions
Asset Score	PNNL	asset.score@pnnl.gov	

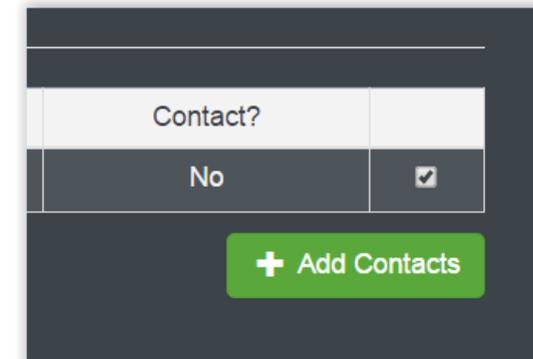
Incoming Requests
No Requests Found

[Search for contacts](#)



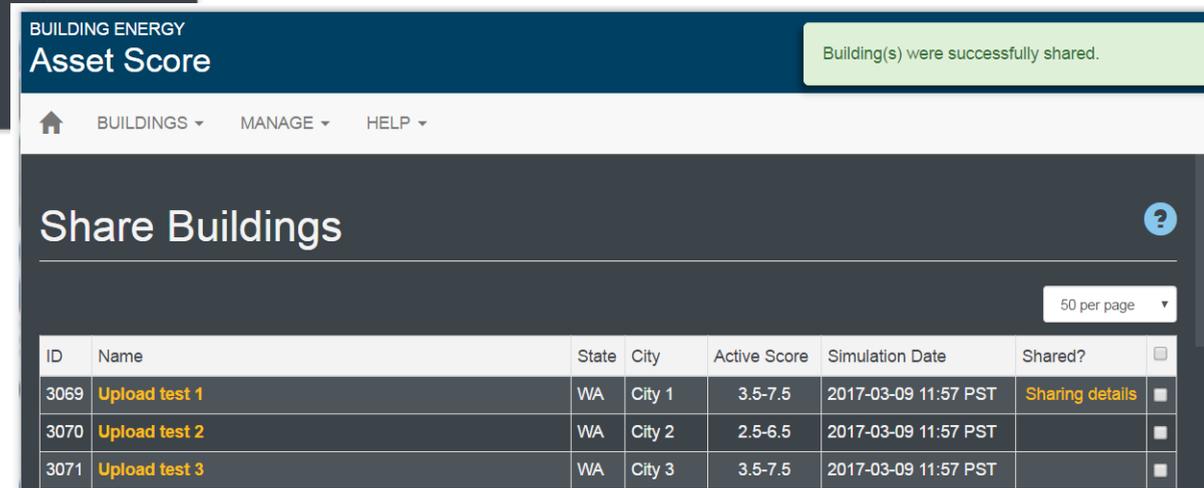
New Search

Enter either the user's last name or email address:



Contact?

No



BUILDING ENERGY Asset Score

Building(s) were successfully shared.

Share Buildings

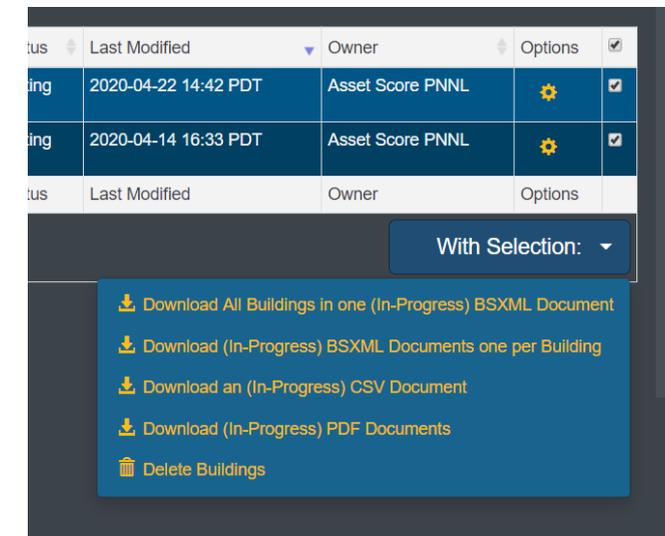
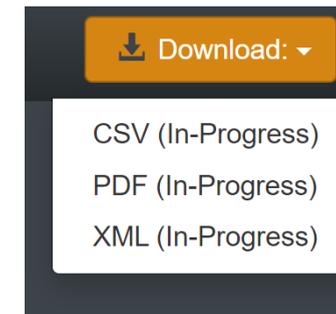
50 per page

ID	Name	State	City	Active Score	Simulation Date	Shared?	
3069	Upload test 1	WA	City 1	3.5-7.5	2017-03-09 11:57 PST	Sharing details	<input type="checkbox"/>
3070	Upload test 2	WA	City 2	2.5-6.5	2017-03-09 11:57 PST		<input type="checkbox"/>
3071	Upload test 3	WA	City 3	3.5-7.5	2017-03-09 11:57 PST		<input type="checkbox"/>

Importing and Exporting Audit Report Buildings

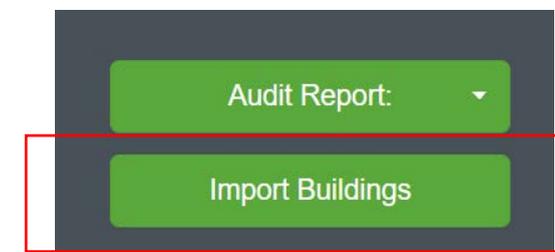
Exporting Audit Report Buildings

- Select the yellow Download button 'XML'
- Or*
- Download in bulk from the home page



Importing Audit Report Buildings

- Select the green Import Buildings button
- Select 'Choose File' and click on an XML file
- Select the blue Import BuildingSync XML button



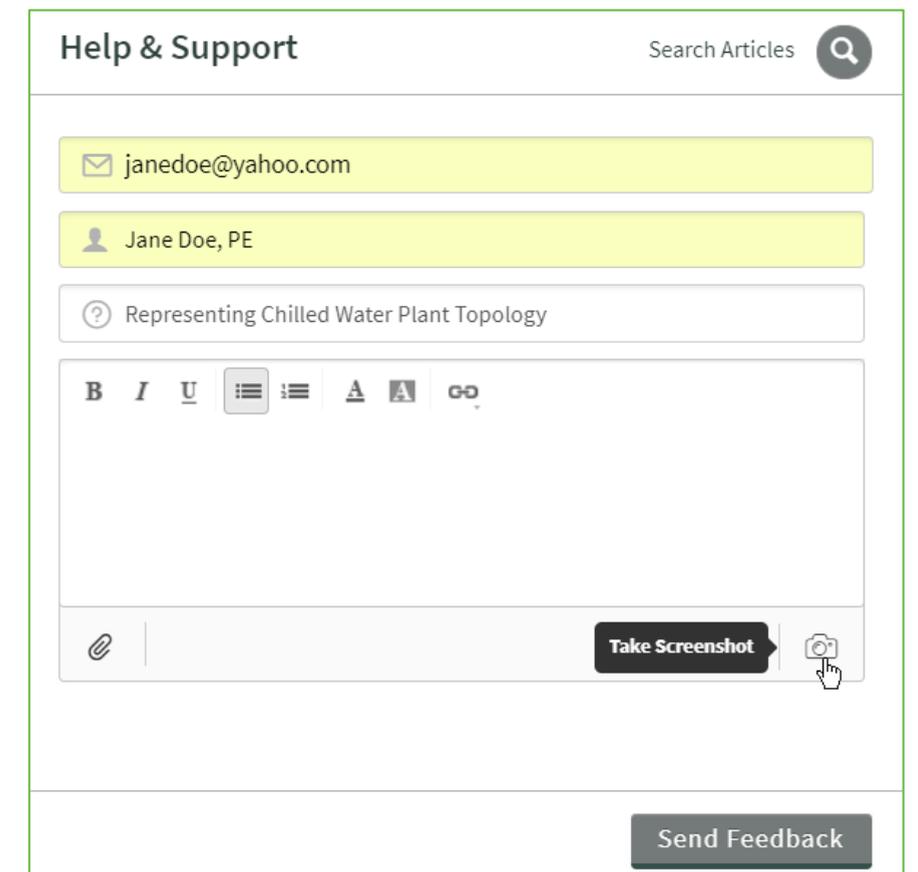
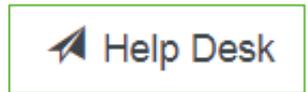
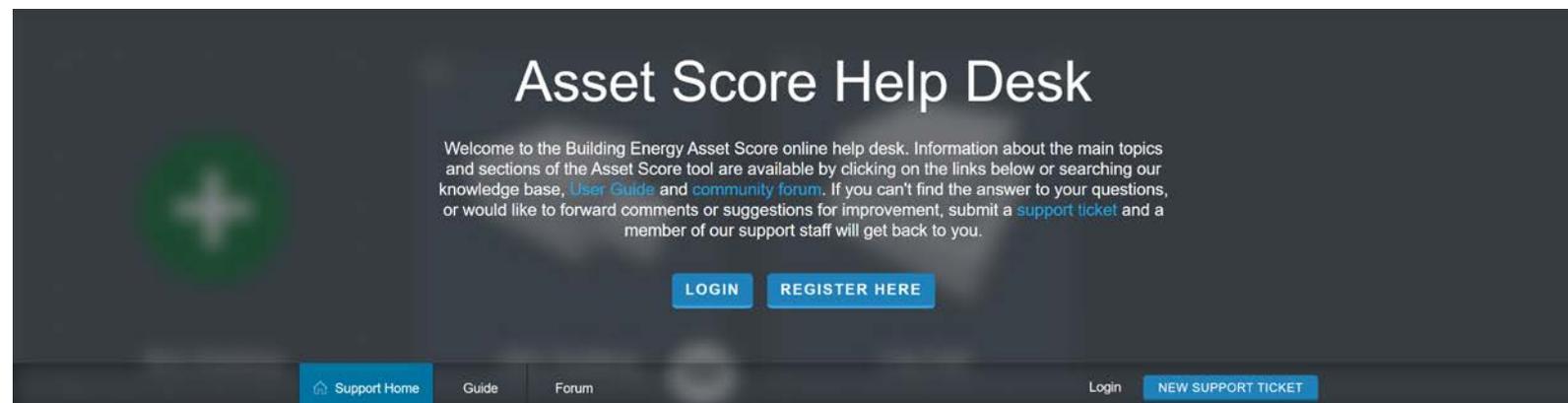
Audit Template – User Support

Asset Score Help Desk

- Users Guide
- Community Forum
- Support Ticket process
- Rapid Response

Resource page

- <https://buildingenergyscore.energy.gov/resources>
- Quick Start guide
- Videos, example reports, etc.





Thank you!

Audit Template

buildingenergyscore.energy.gov

Asset Score Help Desk

help.buildingenergyscore.com

