

Revolving Loan Fund Energy Audit Guide

December 6, 2024 | BIL Section 40502



Revolving loan funds (RLFs) are tools for completing building energy upgrades and retrofits. RLFs are pools of capital from which loans can be made for energy projects—as loans are repaid, the capital is then reloaned for other projects. This guide is a resource for states receiving capitalization grants from the [Energy Efficiency Revolving Loan Fund Capitalization Grant Program](#) (RLF Program) under the Bipartisan Infrastructure Law (Box 1) to support successful and compliant program implementation and may also inform energy audits funded by other programs.

Building energy audits help building owners understand the whole picture of a building's energy use, comfort, and safety. An energy audit, also known as energy assessment, should be the first step a building owner takes before making upgrades or retrofits to help determine how much energy a building uses, where it is inefficient, and which problem areas and fixes should be prioritized to save energy and improve the comfort of a building.

Auditors: Finding and Partnering with Auditors & Workforce Development

Energy auditors, also known as energy assessors, conduct energy audits to identify where building energy is being wasted and opportunities to improve building efficiency. These resources can help states identify energy auditors and train both existing and new energy auditors to build program capacity. Note: when training energy auditors, include information on program-specific audit requirements so auditors can produce audits in compliance with these requirements (Box 2).

FINDING AUDITORS

- Commercial auditors: Credentialing bodies are helpful resources for identifying energy auditors¹
- Residential auditors: [Finding and Selecting Home Energy Assessors](#)²

AUDITOR PARTNERSHIPS

The [RLF: Building Successful Partnerships with Energy Auditors and Project Contractors](#) webinar provides information and best practices on how to effectively partner with energy auditors and project contractors for RLF programs for state clean energy revolving loan funds.

MORE INFORMATION

Find more information about the energy workforce and resources in the U.S. Department of Energy's (DOE) Office of State and Community Energy Program (SCEP) at [Workforce Development and Business Owner Training Programs](#).

RLF Program & Energy Audits

Box 1

The RLF Program capitalizes state RLFs to provide loans and grants for energy audits, upgrades, and retrofits. Energy upgrades and retrofits funded with RLF Program dollars must be preceded by energy audits that meet certain requirements (see boxes 3 and 4). This guide provides resources for meeting these requirements.

The guide to [Operationalizing Energy Audits for the RLF Program](#) outlines the sequence of actions for states to set up a compliant and effective energy auditing approach for the RLF Program and offers tips for coordinating energy audits with upgrade and retrofit requirements.

RLF Program:

Box 2

Training Auditors and Contractors

The Revolving Loan Fund Program has trainings for State Energy Offices to utilize for auditors and contractors performing audits, retrofits, and upgrades funded by the RLF Program. These trainings include RLF specific audit, retrofit, and upgrade requirements, as well as general program information and federal requirements.

- [Energy Auditor and Contractor Training Slides](#)
- [Auditor Training for the RLF Program](#)
- [Contractor Training for the RLF Program](#)

¹ The [American Society of Heating, Refrigerating and Air-Conditioning Engineers](#) (ASHRAE) and the [Association of Energy Engineers](#) (AEE) are two such credentialing bodies.

² Homeowners looking to claim the Energy Efficient Home Improvement Credit (Section 25C) for energy audits can reference these [qualifying](#) energy auditor credentials.

Audit Tools & Resources

RESIDENTIAL AUDITS

[Home Energy Score](#) is a standard scoring methodology of energy-related home assets used for residential energy audits. DOE recommends using energy scoring tools, such as the Home Energy Score, to estimate home energy use, associated costs, and provide energy solutions to cost-effectively improve the home’s efficiency.

Home Energy Score Resources
<ul style="list-style-type: none"> ▪ Start here: About the Home Energy Score <ul style="list-style-type: none"> – State and Local Governments Fact Sheet – Scoring Methodology ▪ Published trainings: Home Energy Score Demonstration for RLF Program: (Recording / Slides) ▪ Example: Home Energy Score Report Example
<p>TIP: Request support for the Home Energy Score.</p>

RLF Program: Residential Audits

Box 3

For residential audits funded with RLF Program dollars, DOE requires audits provide either a Home Energy Score or equivalent score. The [RESNET Home Energy Rating System](#) (HERS) is one such alternative scoring tool.

Table 1: Recommended audit software and processes to meet RLF residential audit requirements

	Single-Family Residential	Multi-Family (residential, 4+ floors)
Audit requirements	<ol style="list-style-type: none"> 1. Use the same evaluation criteria as the Home Performance Assessment used in the Energy Star program. 2. Identify and recommend lifecycle cost-effective opportunities to reduce the energy consumption of the facility of the eligible recipient. 3. Recommend controls and management systems to reduce or redistribute peak energy consumption. 4. Compare the energy consumption of the residential building of the eligible recipient to comparable residential buildings in the same geographic area. 5. Provide a Home Energy Score, or equivalent score (as determined by the Secretary), for the residential building of the eligible recipient by using DOE’s Home Energy Score Tool or an equivalent scoring tool. 	
Required audit software	None	
Recommended audit software	Home Energy Score	Audit Template Note: Use the “EE-RLF Template” and select ‘Multifamily’ for project type
<i>Augments needed for recommended audit software to meet requirements</i>	The Home Energy Score (HES) tool does not fully satisfy requirements #1-3. To meet these requirements DOE recommends states have auditors use HES and supplement the HES report with: <ol style="list-style-type: none"> 1. A statement certifying that the audit is informed by 1) resolving health and safety issues; 2) satisfying customer needs and desires; 3) overall cost-benefit to the customer; and 4) programmatic goals. 2. Calculations of the life-cycle cost effectiveness of the measures recommended in the HES report. 3. Recommendation of controls and management systems to reduce or redistribute peak energy consumption. This may include, but is not limited to, recommending smart thermostats, appliances with timers, and wifi water heaters. 	The Audit Template tool doesn't fully satisfy requirement #4. To meet this, DOE recommends states have auditors supplement the Audit Template report with the comparison output of the Energy Star Portfolio Manager platform which compares multifamily buildings to comparable multifamily buildings nationally. <i>Note regarding requirement #5: DOE considers the “Annual Energy & Costs Savings” and “Payback with Incentives” outputs summary in Audit Template an equivalent score to the Home Energy Score.</i>

COMMERCIAL AUDITS

[BuildingSync](#) is a standard format for conveying data, which DOE recommends using for commercial energy audits. DOE’s free [Audit Template](#) software, which utilizes BuildingSync, is a simple way to collect and manage audit data.

BuildingSync Resources	Audit Template Resources
<ul style="list-style-type: none"> Start here: BuildingSync Onboarding Guide Published trainings: BuildingSync Webinar Example documentation: BuildingSync in RFPs 	<ul style="list-style-type: none"> Start here: Audit Template Quick Start Guide (EE-RLF) Published trainings: Audit Template Demonstration for RLF Program Example: Audit Template PDF Report Example
<p>TIP: Request support for BuildingSync and Audit Template: Building Data Tools Help Desk.</p>	

RLF Program: **Commercial Audits**

Box 4

For commercial audits funded with RLF Program dollars, DOE requires the use of software that uses BuildingSync, and recommends the use of Audit Template. See the [RLF Implementation FAQ](#) and Table 2 for more information on recommended audit software and processes to meet RLF commercial audit requirements.

Table 2: Recommended audit software and processes to meet RLF commercial audit requirements

	Commercial (includes commercial mixed-use with multifamily across any number of stories)
Audit requirements	<ol style="list-style-type: none"> Determine the overall consumption of energy of the facility of the eligible recipient. Identify and recommend lifecycle cost-effective opportunities to reduce the energy consumption of the facility of the eligible recipient. Identify the period and level of peak energy demand for each building within the facility of the eligible recipient and the sources of energy consumption that are contributing the most to that period of peak energy demand. Recommend controls and management systems to reduce or redistribute peak energy consumption. Estimate the total energy and cost savings potential for the facility of the eligible recipient if all recommended upgrades and retrofits are implemented, using software approved by DOE.
Required audit software	BuildingSync (data schema)
Recommended audit software	Audit Template Note: Use the “EE-RLF Template” and select ‘Commercial’ for project type

Audit Braiding

DOE encourages braiding RLFs with other federal programs to maximize the effectiveness and reach of funds.³ Examples of programs states are considering braiding with RLFs include, but are not limited to: the [Weatherization Assistance Program](#) (WAP), [Home Energy Rebates](#), [Solar for All](#), [Energy Efficiency and Conservation Block Grant Program](#) (EECBG), [Elective Pay and Transferability](#) (Direct Pay), and the [Home Energy Score](#). As States consider braiding opportunities between RLFs and other programs, energy audit requirements, which may differ across programs, must still be met (Box 5).

RLF Program: **Braiding**

Box 5

Energy audits, upgrades, and/or retrofits funded with RLF Program dollars must meet RLF Program energy audit requirements. See Tables [1](#) and [2](#) for RLF Program energy audit requirements. The [RLF Program Implementation FAQ](#) includes additional information on RLF audits. More braiding and stacking resources are also available on the [State Energy Program Braiding and Stacking Resources](#) webpage.

Additional Resources

The [RLF Resource Library](#) provides resources to learn about, design, and manage RLFs. Find more information about the [RLF Program](#) online and reach out to EERevolvingLoanFund@hq.doe.gov with program questions.

³ IJIA Section 40502(f) states that, in terms of coordinating EERLF programs with existing programs, “a State receiving a capitalization grant under the program is encouraged to utilize and build on existing programs and infrastructure within the State that may aid the State in carrying out a revolving loan fund program.”