

# **Greenhouse Gas Emissions Reduction Audit Resources**

Nora Hart, Lawrence Berkeley National Lab April 2024

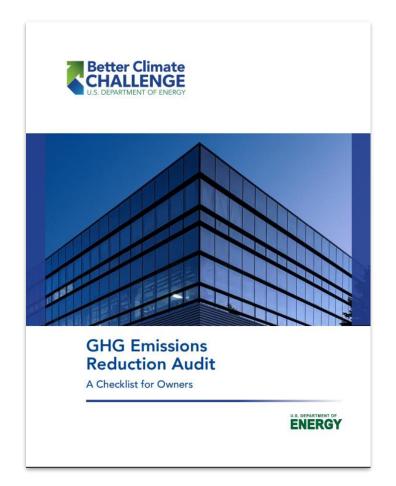




Voluntary commitment to reduction in portfolio-wide scope 1 and 2 GHG emissions of *at least* 50% in 10 years.

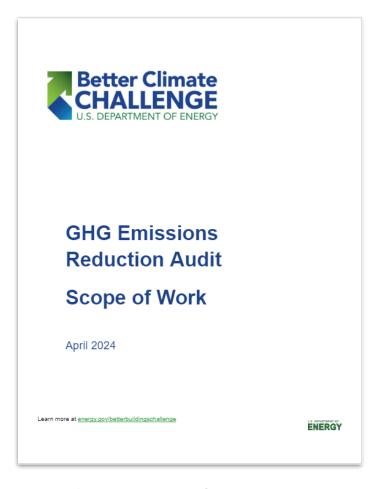
Over 100 commercial (includes public sector and multifamily) organizations have joined the program.

#### GHG Emissions Reduction Audit Resources





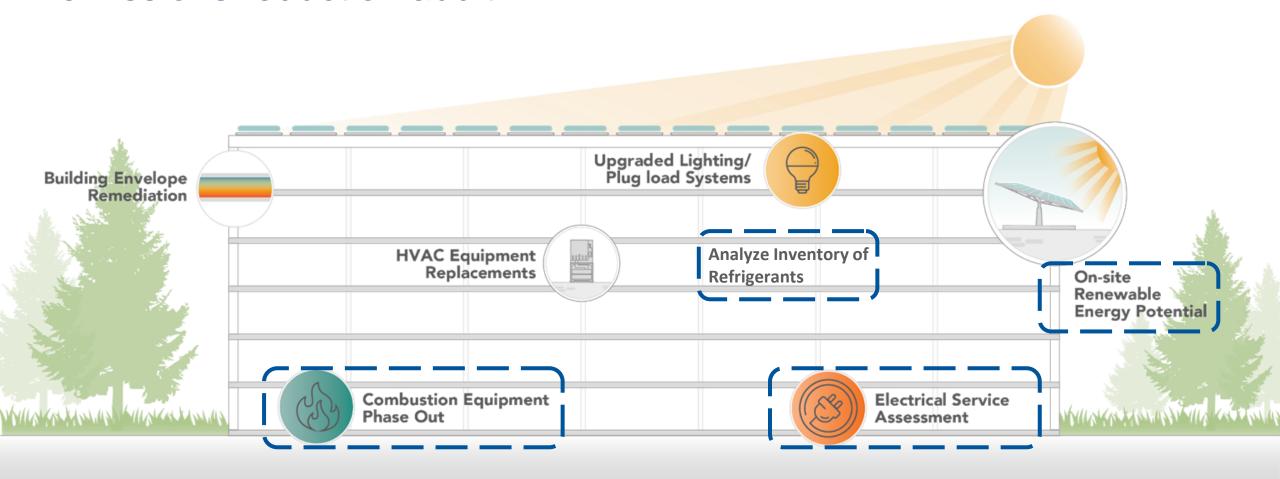
Defines the difference between an energy audit and GHG emissions reduction audit.



Template to define your audit scope and give to an auditor to execute.



# What is the difference between an energy audit and a GHG emissions reduction audit?





#### **Audit Checklist for Owners: How to Use This Resource**

## Data Collection and Goal Setting

- The owner compiles records of all metered energy data, as-built drawings, and equipment submittals for the auditor, as well as results from any previous energy audits. At a minimum, monthly energy use data over a multiple year span, including at least one year prior to 2020, should be provided.
- The owner or auditor calculates current Scope 1 and 2 emissions for the total building based on metered data and applicable GHG emissions factors (using GHG Inventory data if available).
  - The owner and auditor work together to develop goals for the Scope 1 and 2 operational emissions reductions for the audited building. This audit is intended to confirm this building's potential contribution to the portfolio-level target through improvements to the site. Targets should not include the use of RECs or green power purchases.

#### Owner Considerations:

- The building's emissions may already have been calculated as part of a portfolio-level analysis. In this case, the owner can share monthly energy and emissions data directly with the auditor.
- Consider how the emissions reductions targets for this building relate to your organization's portfoliolevel emissions goals. These may be driven by internal mandates, local building performance standards, or upcoming GHG emission legislation.
- The GHG emissions factors used in the analysis should be agreed upon prior to the audit and should follow industry standard emission factors as published by the EPA or IPCC. The owner may elect to also evaluate projections of future emissions factors to reflect changes on grid emissions.
- Communicate to the auditor any significant capital plans for the building in the next five years, known endof-life equipment replacement, or anticipated changes in occupancy or operations.



#### **Audit Scope of Work: How to Use This Resource**



**GHG Emissions Reduction Audit** 

Scope of Work

April 2024

Learn more at energy.gov/betterbuildingschallenge

ENERGY

Word document is intended to be edited/adapted as needed for your unique circumstances:

- Content that can be directly transferred into your tailored document is shown in plain text.
- [Instructions are in gray highlighted italic text and enclosed in brackets and may be deleted.]
- [Specific areas for owners to fill in are highlighted in yellow and enclosed in brackets. Edit or delete per your organizational needs.]
- Any content that is not relevant to your organization or project may be deleted, and additional content may be added.



### **GHG Emissions Reduction Audit Scope of Work Template**

Base Energy Audit

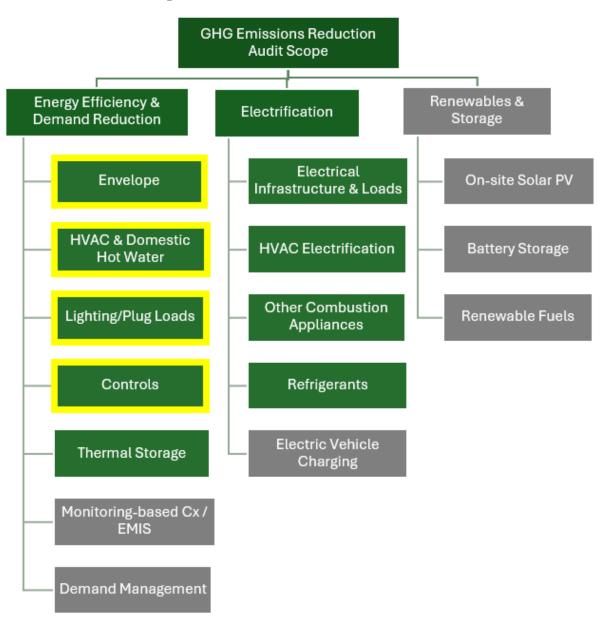
Base Emissions Reduction Audit

In addition to the base energy audit

Optional Emissions
Reduction Audit

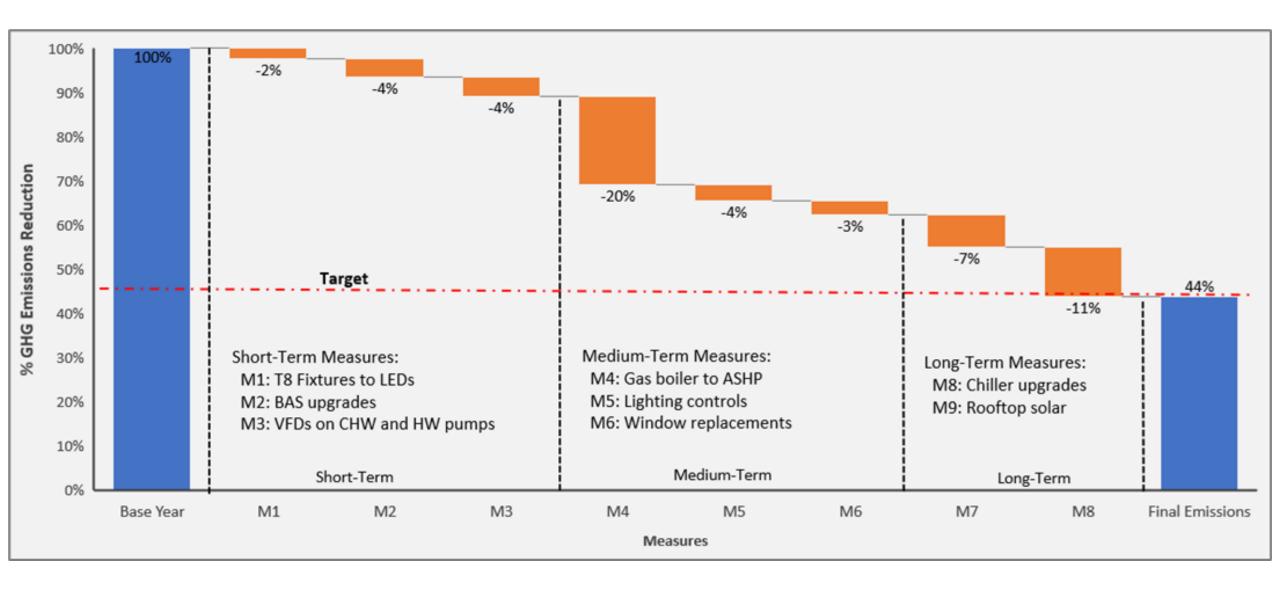
Include as best practice, if applicable

GHG Emissions Reduction Audit Scope of Work Template allows you to choose your 'best fit' audit scope





#### **GHG Emissions Reduction Measure Phasing**





# Thank you!





Emissions Reduction Planning Resources

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