

# MASSACHUSETTS CLEAN HEAT STANDARD

TECHNICAL SESSION:  
**NON-RESIDENTIAL CREDITING**

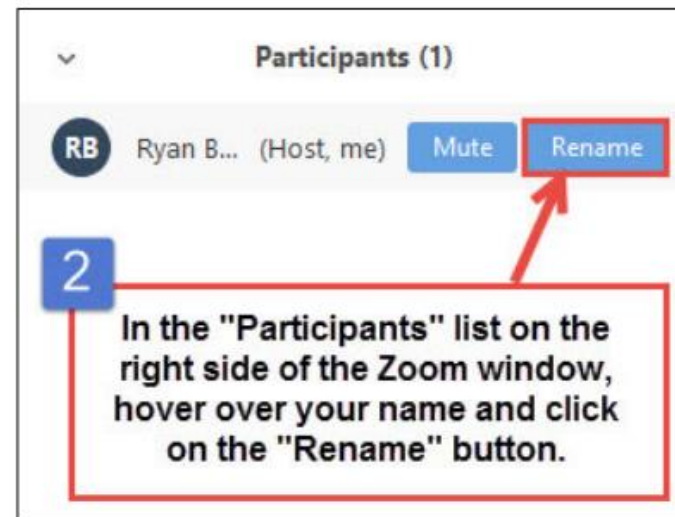
APRIL 1, 2024

MassDEP



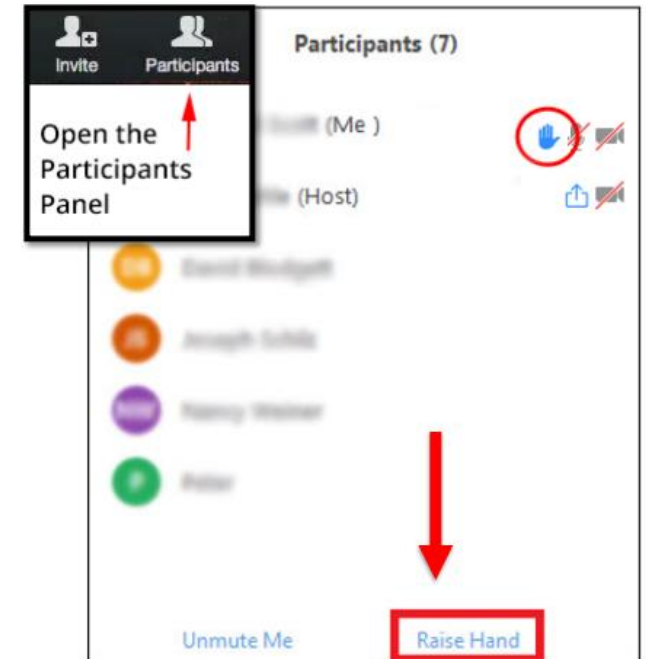
# ZOOM MEETING LOGISTICS

- This meeting is being recorded
- To minimize background noise, attendees are on mute
- Please enter your full name, and affiliation if relevant, in the Participants panel



# HOW TO PARTICIPATE VIRTUALLY

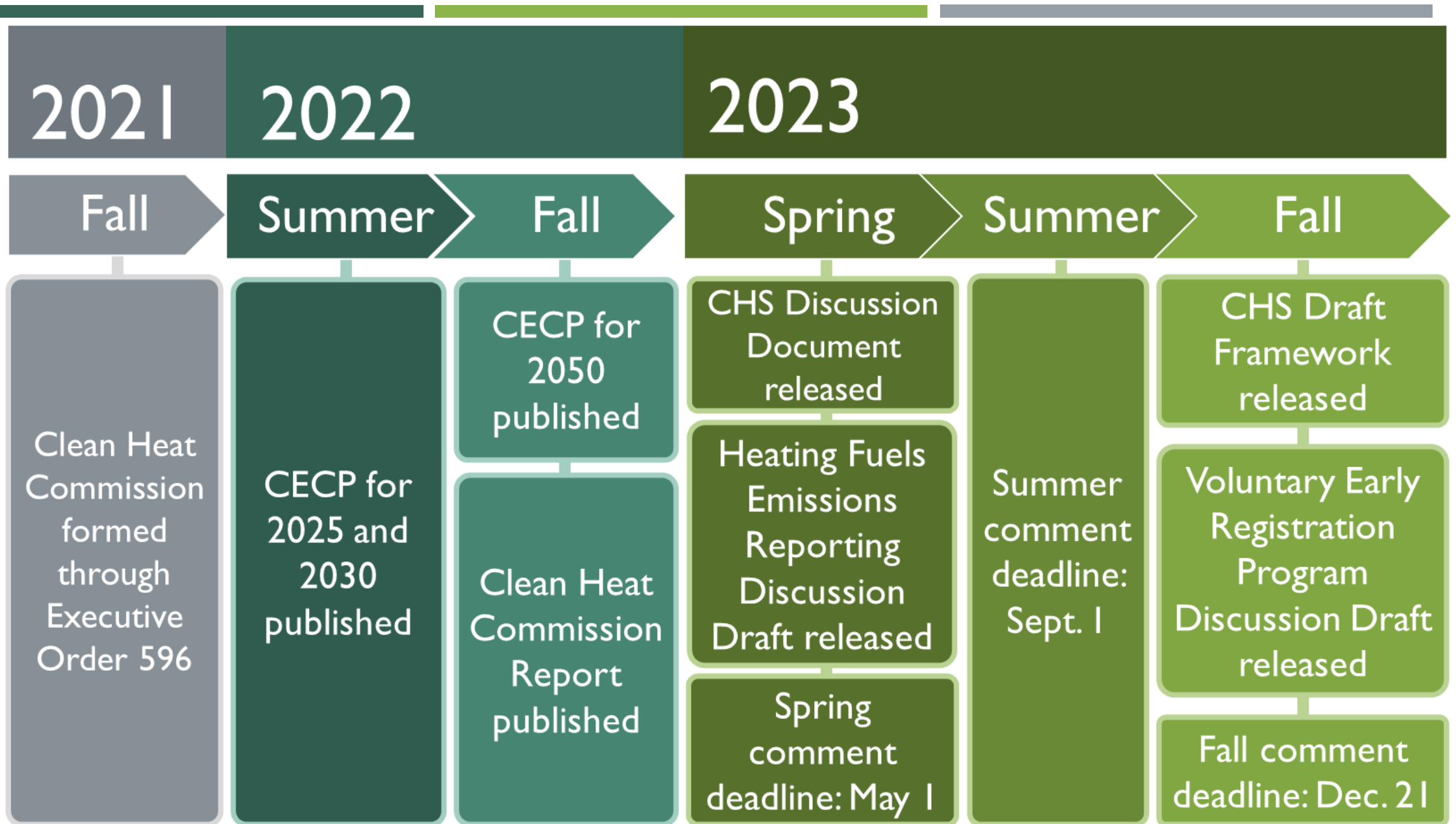
- The latter half of the presentation will be dedicated to answering both clarifying and substantive questions
- To ask a question or provide a comment, raise your hand
- When it is your turn, we will:
  - Notify you by chat
  - Announce your name
  - Unmute you and lower your raised hand



# AGENDA

- Meeting logistics and updates (10 min.)
- Overview of non-residential crediting in the Clean Heat Standard (20 min.)
- Questions and comments (30 min.)

# CHS TIMELINE



# WHAT IS A CLEAN HEAT STANDARD?

- A Clean Heat Standard is a regulatory program that would require heating energy suppliers to reduce their GHG emissions over time
- Regulated companies (suppliers) would include suppliers of heating oil, propane, natural gas, and electricity
- Suppliers would demonstrate emissions reductions by holding clean heat credits
- MassDEP released for stakeholder feedback:
  - Draft program framework addressing key policy design topics
  - Discussion document describing credit generation for non-residential buildings

## Clean Heat Standard Draft Framework

Setting the Standards

Regulated Heating  
Energy Suppliers

Credit Generation

Compliance Flexibility  
and Revenue

# STAKEHOLDER INPUT PROCESS

## ■ Regular Virtual Community Meetings

- Two sessions, every 4-6 weeks
- Content for a general audience
- Built-in time for questions and comments
- Next meeting: April 4 at 6 PM



## ■ Technical sessions on program design

- Previous agendas included background on policy mechanisms, review of comments received, and the CHS draft framework
- Next meeting: April 1 at 1 PM



Send us an email with questions, suggestions, or comments any time at [climate.strategies@mass.gov](mailto:climate.strategies@mass.gov)

# RESOURCES FOR STAKEHOLDERS

MassDEP has updated the [Clean Heat Standard website](#):



\*Recently uploaded documents include:

- Updated FAQ
- Discussion document on commercial and industrial crediting
- Comments received Fall 2023/Winter 2024 and a summary of themes from those comments

**Massachusetts Clean Heat Standard**  
Learn about and participate in the MassDEP initiative to develop a regulatory standard for reducing greenhouse gas emissions from fossil heating fuels.

In November 2023, MassDEP released a draft Clean Heat Standard program framework addressing key policy design topics.

### DRAFT FRAMEWORK OVERVIEW

<b>Setting the Standards</b>	<ul style="list-style-type: none"><li>Includes separate standards for "full electrification" projects (including a low-income "carve-out"), and annual emission reductions for clean heat.</li><li>The full electrification standard phases in gradually over time, starting at a level consistent with the current pace of heat pump deployment in Massachusetts.</li></ul>
<b>Regulated Heating Energy Suppliers</b>	<ul style="list-style-type: none"><li>Includes annual requirements for electricity, natural gas, heating oil, and propane suppliers.</li><li>The electricity supplier obligation starts small but increases over time as more customers electrify.</li></ul>
<b>Credit Generation</b>	<ul style="list-style-type: none"><li>Limits crediting to electrification and liquid biofuels at program startup, with a scheduled 2028 program review to evaluate revising eligibility based on specific criteria.</li><li>Full electrifications are limited to residences that install electric heat pumps capable of meeting 100% of space heating needs.</li></ul>
<b>Compliance Flexibility and Revenue</b>	<ul style="list-style-type: none"><li>Includes credit banking, an alternative compliance payment (ACP) option with revenue dedicated to supporting future clean heat projects, and a "just transition fee" on the initial sale of certain credits to support equitable outcomes.</li></ul>

### Framework Resources

<a href="#">Clean Heat Standard (CHS) Draft Framework +</a>	<a href="#">Presentation: Framework Technical Session Slides +</a>	<a href="#">MassDEP YouTube: Video of 12/7/2023 Technical Session +</a>
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### Program Information

<a href="#">Clean Heat Standard Program Development +</a>	<a href="#">Background on the Clean Heat Standard +</a>	<a href="#">Stakeholder Meetings and Input +</a>
<a href="#">Sign-up for Updates on the Clean Heat Standard +</a>	<a href="#">Slides &amp; Videos from Past Stakeholder Meetings +</a>	<a href="#">Heating Fuel Emissions Reporting +</a>

[Clean Heat Standard Questions or Comments +](#)



# CHSTIMELINE

2024

Winter

Spring

Fall

Draft Heating Fuels Emissions Reporting Regulation proposed: Jan. 5

Voluntary Early Registration Program comment deadline: Feb. 16

Draft Reporting Regulation comment deadline: Feb. 23

Released Discussion Document on Non-Residential Building Crediting: Mar. 7

Final written comment deadline for informal CHS stakeholder process: Apr. 5

Finalize fuel supplier emissions reporting regulation

Propose comprehensive CHS regulation

# NEXT STEPS

- MassDEP is currently accepting comments on any aspect of the Clean Heat Standard, with a particular focus on non-residential crediting
- Upcoming meetings
  - ❖ Technical session on non-residential crediting **April 1 at 1 PM**
  - ❖ Virtual community meeting to accept oral comment **April 4 at 6 PM**
- Final comment deadline for informal stakeholder process: **April 5**

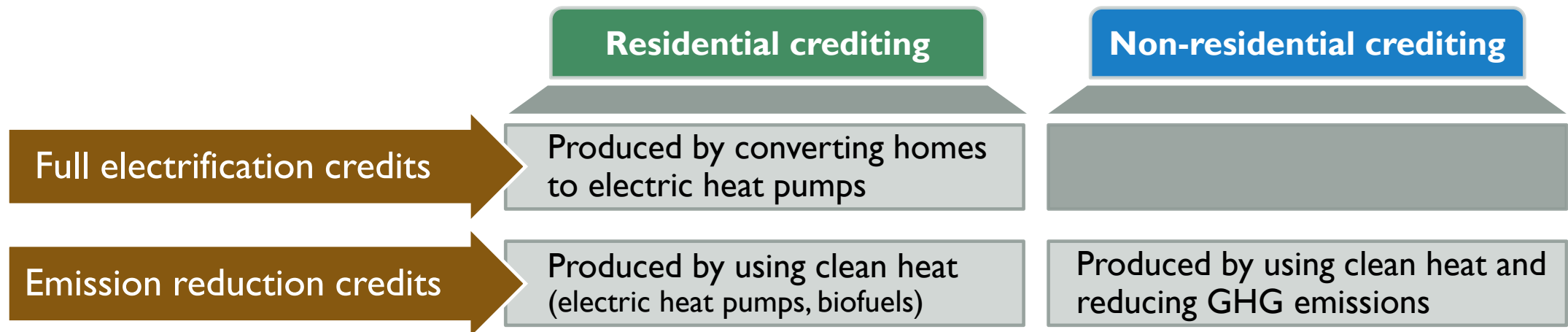
Send all new questions, suggestions, or comments to [climate.strategies@mass.gov](mailto:climate.strategies@mass.gov)  
**Stakeholders do not need to resubmit prior comments unless perspectives have changed**



REVIEW OF  
CLEAN HEAT STANDARD  
NON-RESIDENTIAL  
BUILDING CREDITING

# CREDITING IN THE CHS FRAMEWORK

- Non-residential buildings could receive **emission reduction credits** based on demonstrated implementation of clean heat and emission reductions
- Crediting would be consistent with methods used by the Massachusetts Department of Energy Resources (DOER) or MassDEP's greenhouse gas emissions reporting regulation for facilities



# OVERVIEW

- MassDEP is considering two potential mechanisms for emission reduction credit generation in non-residential buildings:



Electrification



Certain non-pipeline clean fuels



# Electrification

- Emission reduction credits could be generated by:
  - Installing an electric heat pump for space heating **and**
  - Demonstrating reductions in on-site emissions using data from DOER's forthcoming building energy reporting program
- DOER's building energy reporting program
  - ❖ The 2022 Climate and Clean Energy Bill requires DOER to establish a building energy reporting program that requires annual reporting to DOER of energy usage by buildings greater than 20,000 square feet
- Smaller buildings could voluntarily report to receive emission reduction credits



# Electrification

- Key topics for establishing emission reduction credits from electrification:

## Setting a baseline

- To quantify emission reductions, reported emissions must be compared to a baseline
- A baseline can be set based on historic data of past emissions or modeled estimates of emissions

## Weather normalization

- Emissions from heating vary each year depending on the weather
- Crediting based on actual reported emissions compared to a historic baseline could include weather normalization to account for differences in heating requirements year-over-year

## Measure verification

- MassDEP will need to determine appropriate measure verification procedures for the installation of new electric heating equipment in non-residential buildings

*Note: while use of clean heat would be required, crediting would be based on all emission reductions realized on site, including those resulting from weatherization measures and electrification of water heating*



## Certain non-pipeline clean fuels

- MassDEP is considering whether to allow crediting for emission reductions resulting from use of **renewable natural gas** and **hydrogen produced using renewable electricity** if they are not blended with fossil fuels
  - ❖ Crediting could use data reported to the DOER building energy reporting program and credits would be earned by the building owner not the supplier of the fuel

*Note: Fuel suppliers could earn emission reduction credits by delivering eligible liquid biofuels to non-residential buildings as well as residential*



# QUESTIONS FOR STAKEHOLDER CONSIDERATION

## Existing programs

- How should MassDEP leverage existing policies, programs, and measurement methodologies for non-residential emission reductions?
  - *Such as: EnergyStar Portfolio Manager, Mass Save Energy Efficiency Programs for commercial and industrial customers, local building performance standards (i.e., BERDO, BEUDO), or the 10- community fossil free pilot*

## Program baseline

- Should crediting rely on a modeled emissions baseline rather than a measured emissions baseline?
- Should the baseline year for crediting be the year immediately before the clean heat project is completed or an earlier year, such as 2024 or 2025?

## Special accommodations or administrative support

- Are there certain types of buildings and/or thermal loads that would need special accommodations or administrative support?
  - *Such as: small buildings, schools, mixed-use buildings*

## Emission reductions

- Are there additional commercial and industrial emission reductions measures that should be considered for crediting?
- Should some minimum level of emission reduction be required, such as a 75% reduction from baseline or 5 MT?

# GENERAL QUESTIONS AND COMMENTS



MassDEP [CHS web page](#)



Submit comments and questions to  
[climate.strategies@mass.gov](mailto:climate.strategies@mass.gov)



[Sign up](#) for the CHS email list

Comment deadline:  
**April 5**

# GLOSSARY OF TERMS

## NON-RESIDENTIAL BUILDING CREDITING

- **Air Source Heat Pump (ASHP):** An electric heating system that transfers heat from the ambient outdoor environment to a thermal load.
- **Authorized agent:** An individual that serves under an agreement entered into by each owner of a clean heat system for all dealings with MassDEP related to the program.
- **Baseline:** a set quantity of emissions either based on historic measurements or modeled estimates that serves as a reference point for future emission reductions.
- **Clean heat system:** Equipment serving a residence's annual space heating load that meets the eligibility criteria of the program.
- **CHC:** Clean Heat Credits or "checks" would count the implementation of clean heat in a uniform manner.
- **CHETS:** An online platform designed to track CHS generation and ownership for a CHS.
- **CHS:** The Clean Heat Standard is a potential future program from MassDEP to reduce building sector GHG emissions and increase the implementation of clean heat throughout MA. This strategy was described in the [MA CECP for 2025/2030](#) and [MA CECP for 2050](#).
- **CHS Draft Framework:** a document outlining key elements of the CHS to support further stakeholder discussion and program refinement.
- **Complementary Programs:** The DOER's Alternative Portfolio Standard, the Mass Save Energy Efficiency Programs, and DOER's Building Energy Reporting Program.
- **Department of Energy Resources (DOER) Building Energy Reporting Program:** The [2022 Climate and Clean Energy Bill](#) tasks DOER with establishing a program that requires annual reporting of energy usage by buildings greater than 20,000 square feet.
- **Electric Distribution Company (EDC):** A company that distributes electricity or owns, operates or controls distribution facilities as defined in [M.G.L. c. 164, § 1](#).
- **End-use customer:** A person or entity in MA that purchases electricity from an EDC.
- **Equity full electrification CHCs:** Full electrification CHCs generated by a clean heat system serving an end-use customer eligible for an income-eligible discounted rate of an EDC.
- **Full electrification:** full displacement of home fossil heating with electric heat pumps.
- **Full electrification CHCs:** Electronic records produced and tracked by CHETS that identify the installation of a qualified clean heat system.
- **Ground Source Heat Pump (GSHP):** An electric heating system transfers heat from the ambient underground or water environment to a thermal load.
- **Hybrid systems:** heating systems where an electric heat pump is supplemented by a secondary fossil system.
- **Measure verification:** confirmation of the proper installation and use of clean heat systems that generate credits within the CHS.
- **Non-pipeline clean fuels:** delivered fuels such as renewable natural gas or hydrogen produced using renewable electricity that are not blended with fossil fuels.
- **Non-residential building:** a building used for an industrial or commercial purpose.
- **Obligated entities:** the parties that must comply with a regulatory program. In the CHS, obligated entities would be electricity, natural gas, propane, and fuel oil suppliers.
- **Owner:** Any individual or entity that, alone or with others, has legal ownership over the real property where a clean heat system is located, including an authorized agent.
- **Residence:** a permanent dwelling unit, including, but not limited to, single-family homes, apartments, condos, duplexes, and triple-deckers.
- **Weather normalization:** a method to adjust credit values to account for differences in heating requirements year-over-year.