

# Task Force Overview

**Challenge:** Improve market intelligence to identify buildings with the highest potential for heat pump integration – especially looking at Class B/C office, as well as buildings in disadvantaged communities

**12-month Proposed Solution:** create a weighted database merging existing sources (CBL, NYCA, ConEd load map, DAC health map) to enable analytics re: heat pump readiness



# Task Force Timeline

Q2 2023: AEG Net Zero Building Summit held, Task Force convenes

Q3 2023: Idea generation, existing data research

Q4 2023: Tool design, meeting/feedback from industry stakeholders

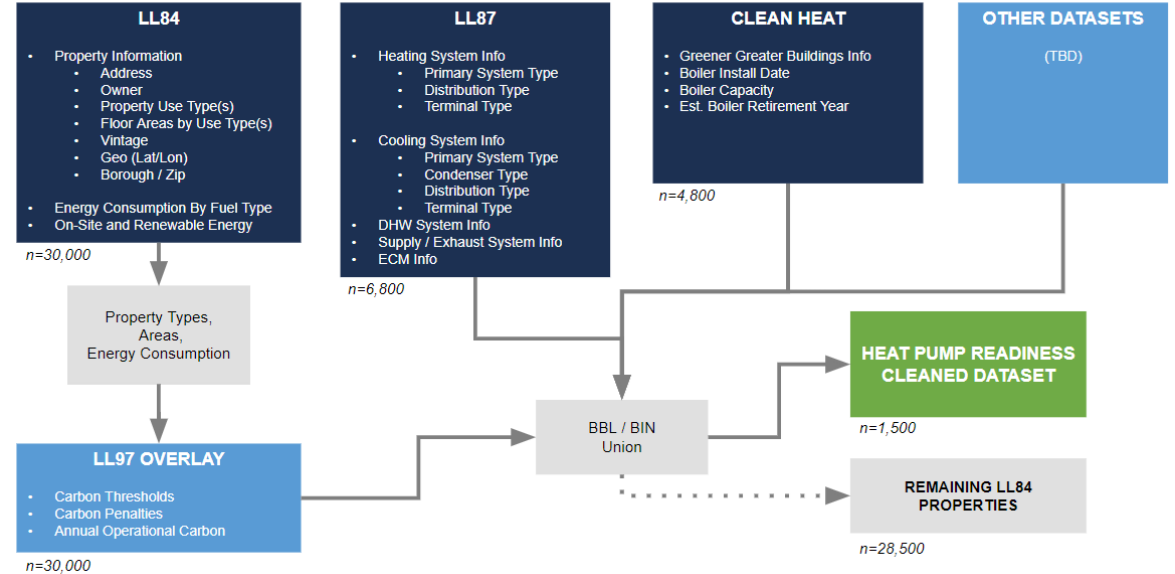
Q1 2024: Formalization of tool scope of work proposal

# Tool Proposal

An open-access, easy-to-use interactive online platform that provides basic heat pump readiness information to stakeholders such as:

- City officials
- AEC firms and HVAC contractors
- Building owners and Condo/Co-Op boards
- NYSERDA, NYC Accelerator, Utilities, etc.
- General public

## Dataset Flow and Integration



Address search

Building information: HPR

Address: XXXX **9.5/10**

Borough Block Lot: XXXXXXXXXX

Energy Data: XXXXXX

Heating System (LL87): XXXXXX

Advanced Input:  
Water loop  $\Delta t$

Neighborhood Selection w/ Map

Top Buildings: HPR

Building A	10/10
Building B	9.7/10
Building C	9.3/10
Building D	8.7/10
Building E	8.6/10

HPR = Heat Pump Readiness

# Task Force Roundtable

In November 2023, the Task Force held a roundtable discussion at WSP New York to present the tool proposal and hear feedback from a wide range of industry stakeholders.

## **Key Takeaways:**

- Incorporate emphasis on incremental electrification and promote energy efficiency first
- Incorporate additional data sources from NYSERDA
- Incorporate Con Edison grid-ready electrification map
- Promote domestic hot water heating projects and space heating electrification separately

# NYSERDA RFP Development



NYSERDA

## “Heat Pump Readiness Tool – Leveraging Real-Time Data to Support Capital Investment Decisions”

- SOW: Develop a publicly available tool based on the Task Force’s objectives
- Will also include an additional dataset for RTEM enabled buildings
- RFP is targeted for an end of Q2 2024 release

### Heat Pump Readiness Tool – Leveraging Real-Time Data to Support Capital Investment Decisions

Effective Date: 4/1/2024  
Contractor:  
Project Manager: Cody Glavey-Weiss  
Budget: \$250,000 (max); Expected ~\$150,000

#### Background

Since 2017, NYSERDA has run the Real-Time Energy Management Programs, with deployments of comprehensive energy management platforms at over 1,200 sites across New York State. While many stakeholders are already realizing significant benefits, key market actors have repeatedly expressed to NYSERDA that there is a need for additional, specific tools for streamlined methods of identification and reporting on energy conservation measures and strategies proposed, or implemented, at a site. While stakeholders now have greater access to granular, real-time data through the wider proliferation of RTEM systems, the challenge has now become how to quickly extract insights on sources of system inefficiency and build the capital case for large scale investments in building decarbonization.

In support of this effort, the NYSERDA team ran the RTEM Data Hackathon in Summer 2022, and awarded prizes to (9) finalist teams for the development of various RTEM Data use cases which supported the identification of Operational & Maintenance and Capital Expenditure measures using real-time data. The top prize, and overall winning submission from the public Hackathon, identified a method of leveraging a set of simplified data points common across Commercial and Multifamily sites with Hot Water heating systems in order to generate an initial estimate on the feasibility of retrofit to a Heat Pump based system, and the submitting team demonstrated a prototype of a “Heat Pump Readiness” Tool using representative building data.

#### Purpose

NYSERDA is seeking to expand on the prototype “Heat Pump Readiness” Tool initially developed under the RTEM Data Hackathon and the concept Advanced Energy Group (AEG) Net Zero Buildings Task Force developed with emphasis on publicly available dataset to create a public facing platform which may be used by Commercial and Multifamily building owners/operators with Hot Water Heating Systems across New York State.

This document outlines the requirements of the proposed application, and anticipated scope of work which is aimed at helping users evaluate the complexity of introducing heating system electrification into specific buildings and understanding their heat pump readiness within a given geographic area. The purpose of this tool is to provide building-level insights individually, dependant on the level of information available on a building within existing datasets, and also enable comparative analysis across buildings within a neighborhood with highlighted buildings with the best potential for heat pump integration. The tool will provide data-driven recommendations based on each building’s profile in order to drive operational efficiencies and mid-to-long term electrification incremental planning.

Through this scope, the Contractor shall support NYSERDA in the design, development, hosting, and administration of a public facing, free calculator which is capable of consuming a given set of real-time data points, publicly available datasets, and then generating a simplified output which can be easily understood by a range of building stakeholders.

#### Project Goals

The goals of this project are as follows: