



# ComStock and ResStock (BuildStock) Listening Session

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September 24, 2025

# Agenda

- 1** Introduction (15 min)
- 2** User Successes and Challenges (30 min)
- 3** Small Group Discussion Part 1 (20 min)
- 4** Break (10 min)
- 5** Small Group Discussion Part 2 (20 min)
- 6** Near-term BuildStock Updates (15 min)
- 7** Discussion and Conclusion (10 min)

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# Introduce Yourself

In the chat...

- Name
- Organization
- Favorite thing about Fall

# BuildStock Listening Session Goals

In this BuildStock Listening Session, we hope to:

- Exchange ideas with our users,
- Collect particulars of BuildStock development requests,
- Learn more about how our datasets and modeling tools are used, and
- Create opportunity for user connection

# What do you hope to get out of today's Listening Session?

- Want to get started using BuildStock
- Want to expand how I use BuildStock (e.g., learn use cases, data availability, new workflows)
- Want to discuss upcoming BuildStock features or data

# Recent BuildStock Activities

## ComStock Model

- ComStock sampling update
- PV measure in ComStock (PVwatts methodology)
- Commercial gap model

## ResStock Model

- VSHP modeling improvements (early 2024)
- Update with RECS 2020 data (early 2024)

## Datasets

Tool	Dataset Name	Released
ComStock	2025 Release 2	Aug 2025
ComStock	2025 Release 1	Jun 2025
ComStock	2024 Release 1	Dec 2024
ResStock	2024 Release 2	Mar 2024
ComStock	2024 Release 2	Mar 2024
ResStock	2024 Release 1	Feb 2024

ComStock: [Repo](#) · [Datasets](#) · [User Resources](#)

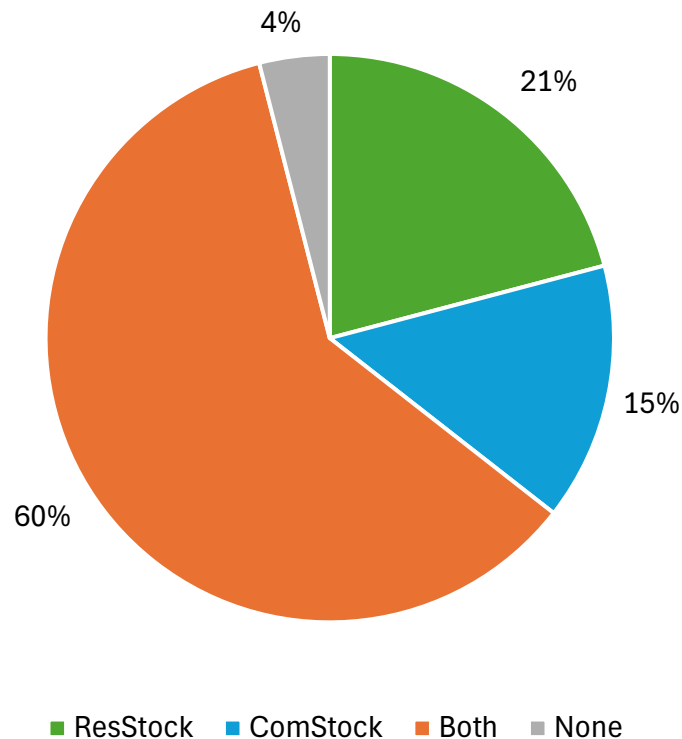
ResStock: [Repo](#) · [Datasets](#) · [User Resources](#)

# User Survey – Key Findings

Collected responses from users in a survey Spring 2025

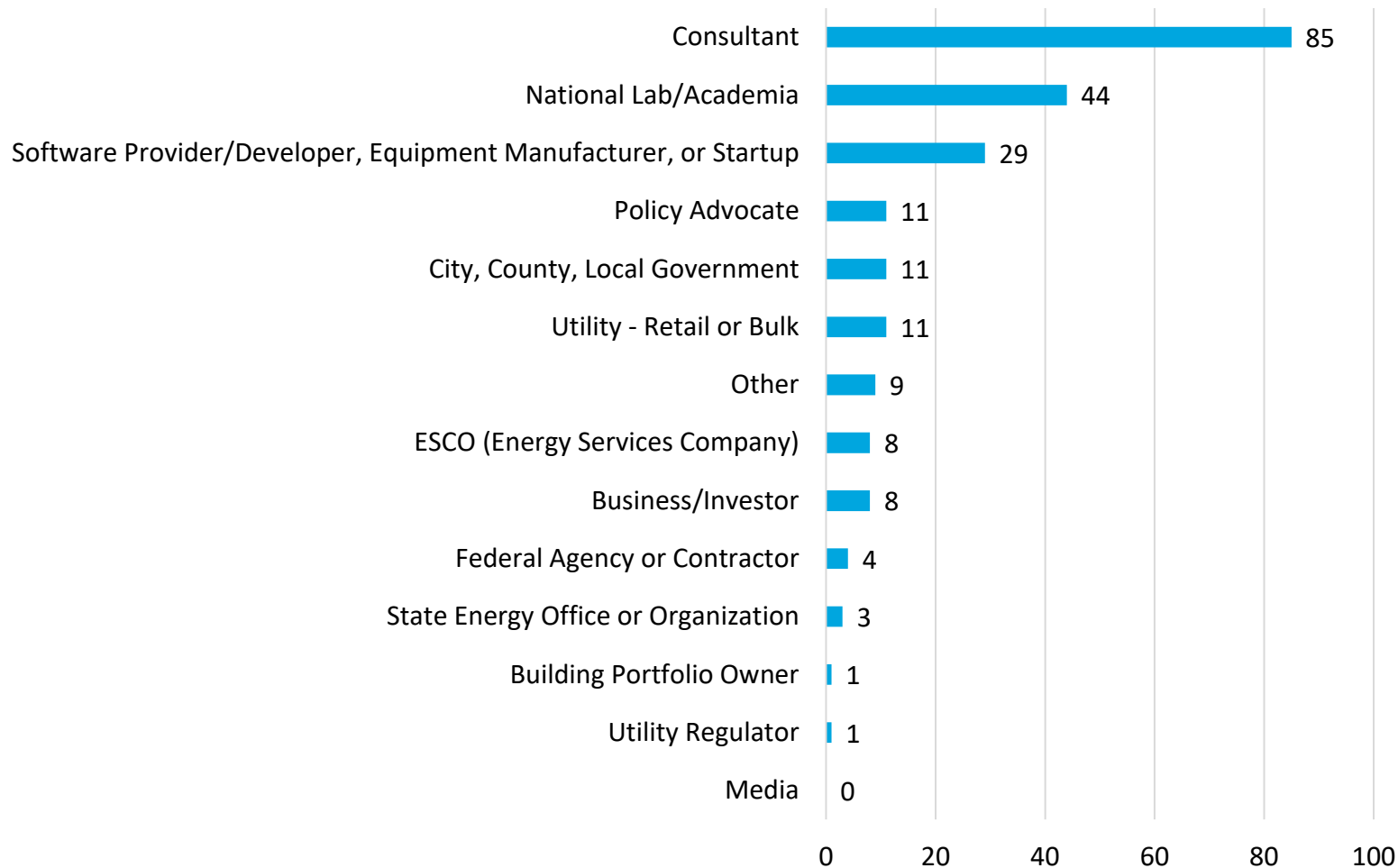
225 respondents

Thank you to everyone who participated!

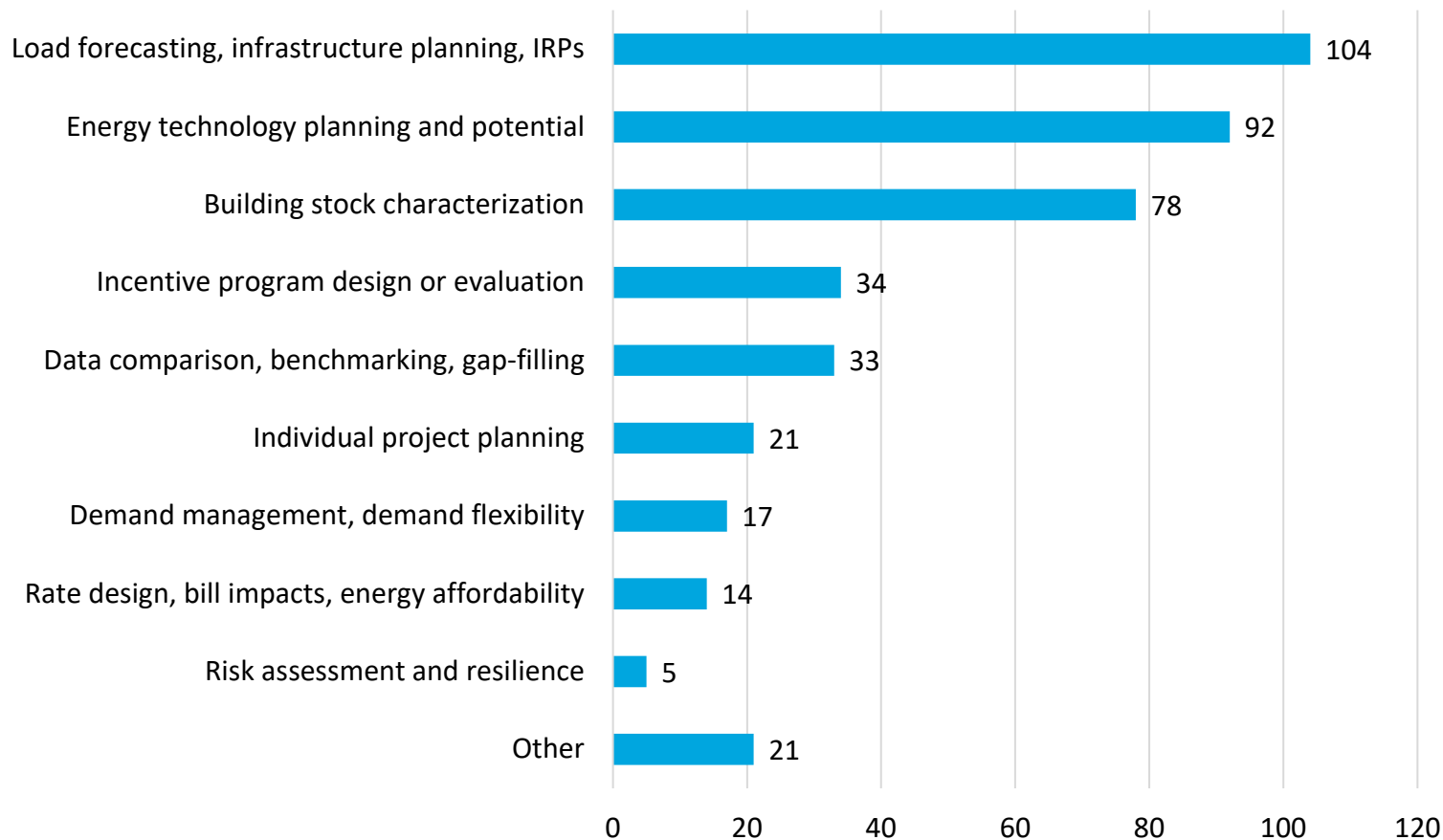




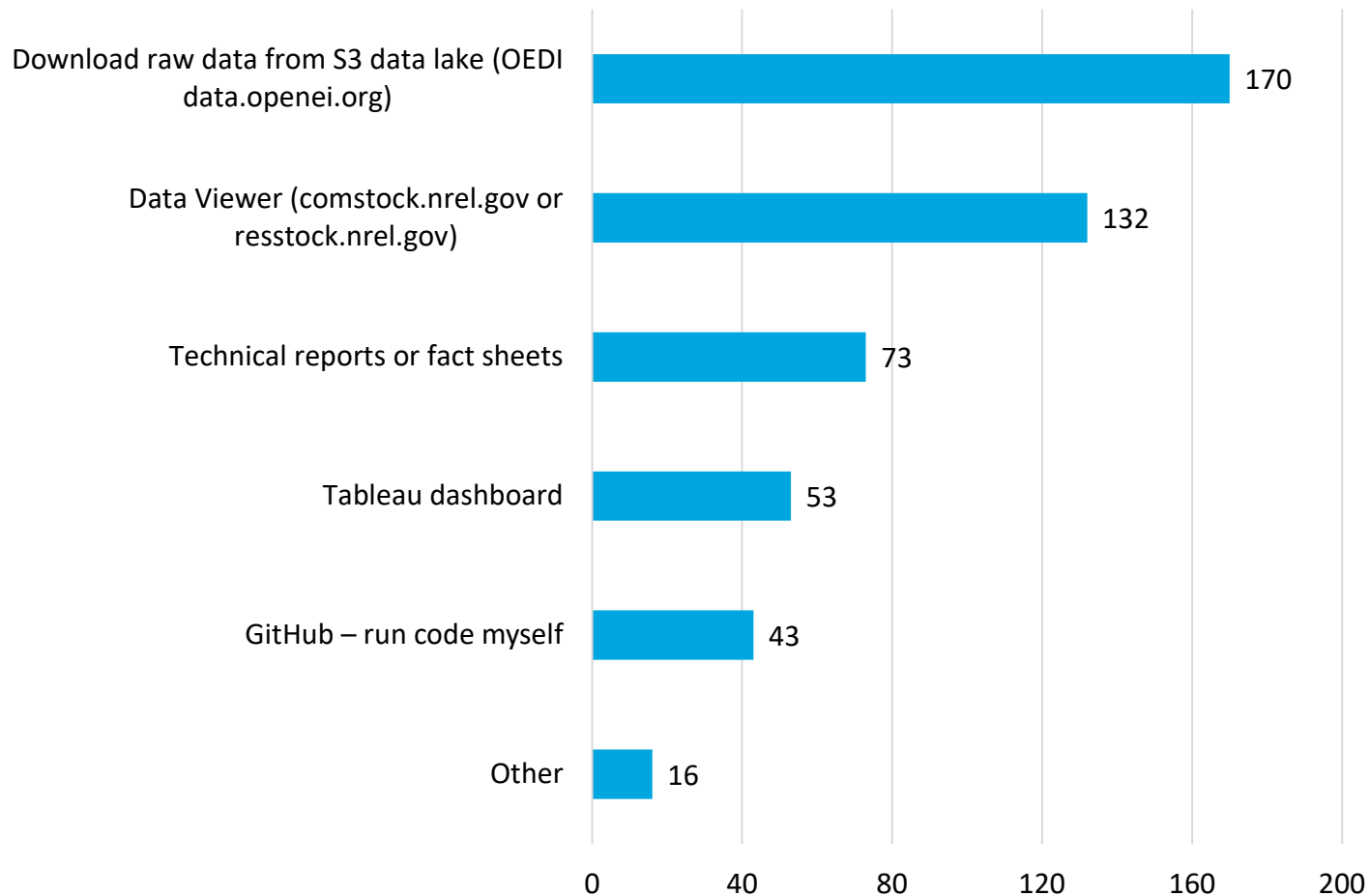
# Participant Types



## Analysis Types (approx.)



## Data Access Paths



The question:

*What new features or enhancements would you like to see in ResStock/ComStock?*

Top topics in responses:

- Data access & usability
- Building types
- Documentation & training

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# Do you use BuildStock, and how are you using it?

What are your most common use cases? Can you share examples?

Any especially interesting or novel use cases?

# Where you are **not** using BuildStock, why not?

- Tell us more about why

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# Small Group Discussions

Attendees + BuildStock facilitator will be randomly assigned to 3 breakout rooms

2x 20-minute discussions with 10-minute break between

## *Small Group Discussion 1*

- Dataset access
- Analysis tools
- User resources

## *Small Group Discussion 2*

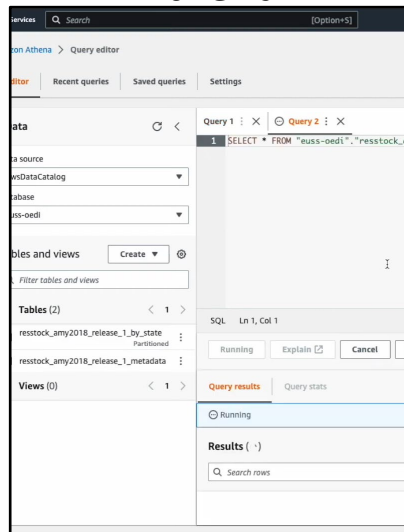
- First cost analyses
- Running the models yourselves
- Data adjustment
- Anything else you'd like us to know!

# What dataset access pathways do you use?

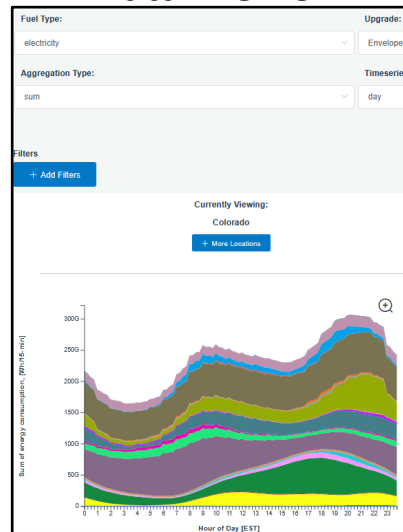
## OEDI

<a href="#">building_energy_models/</a>
<a href="#">comparison_plots/</a>
<a href="#">data_dictionary.tsv</a>
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<a href="#">measure_name_crosswalk.csv</a>
<a href="#">metadata_and_annual_results/</a>
<a href="#">metadata_and_annual_results_aggregates/</a>
<a href="#">timeseries_aggregates/</a>
<a href="#">timeseries_individual_buildings/</a>

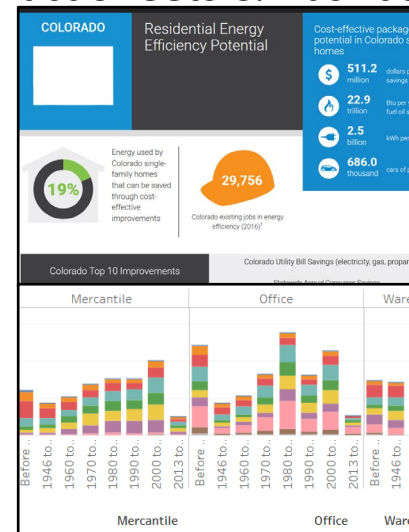
## Athena



## Data Viewer



## Fact Sheets & Dashboards



## Key Relevant User Resources

- [YouTube video: Data Viewer Access](#)
- [YouTube video: Loading End-Use Saving Shapes Data into AWS Athena](#)
- [Example Athena queries](#)

## Example Dashboards

- [ResStock Utility Bill Impact Dashboard](#)
- [ComStock Building Characteristics Dashboard](#)

# What analysis tools do you use?

- Microsoft Excel
- Python
- R
- Others?

## Key Relevant User Resources

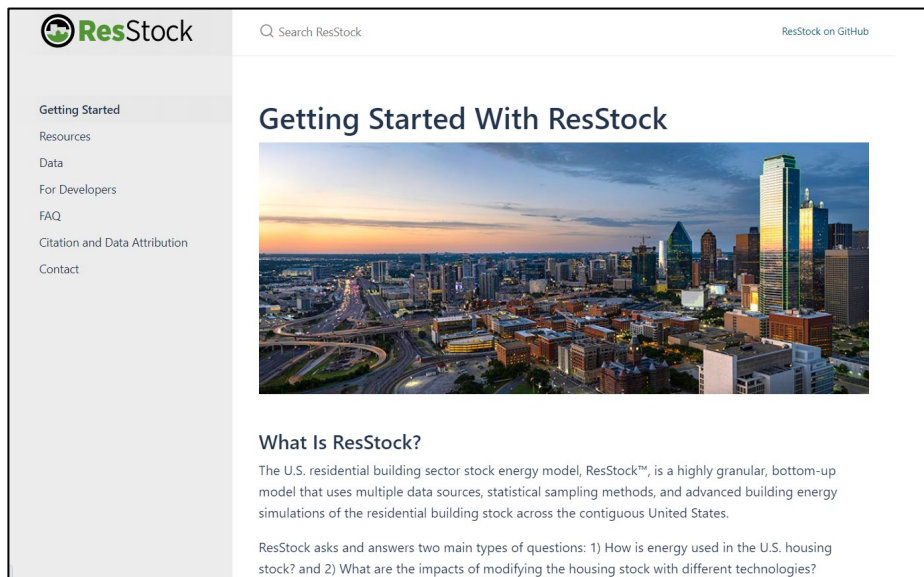
- [How-to: Perform a commercial building stock characterization and upgrades impact analysis in Excel.](#)
- [Example Jupyter Notebooks \(Python\)](#)

# BuildStock User Resources

Are you aware of, and do you use, our [ResStock](#) and [ComStock](#) user resource websites?

What resources have been most helpful?

What resources are we missing?



10 MINUTE BREAK

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# Are you using BuildStock to analyze first costs?

## If so

- What cost resources do you rely on?  
e.g. RSMeans, remdb
- What BuildStock output variables do you use?
- Are there gaps? What are the biggest challenges?

## If not

- Do you use approaches independent of BuildStock to calculate first costs?  
Can you share what they are?
- Are there gaps? What are the biggest challenges?

## Regardless

- How can BuildStock better support your first cost workflow?
- If BuildStock were to do costing of upgrade measures, are there a few that would be of most interest?

# Less-common BuildStock Use Cases

## Running ResStock and ComStock

- Are you running the models yourselves?
- Is this something you are interested in?
- Are there ways we can structure the code base that would make running it easier?

## Data Adjustment

- Do you do it?
- What resources do you use?
  - Commercial gap model
  - Tax assessor
  - AMI
  - Weather
  - Load research data (LRD)



What else would you like the BuildStock team to know?

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# Upcoming ResStock Measures (ResStock 2025.1)

- 3 Electric vehicle
- 2 Electric vehicle + Demand flexibility
- 5 HVAC Demand flexibility
- 7 Envelope and air/duct sealing
- 4 Geothermal heat pump
- 5 HVAC
- 2 Water heating
- 28 Total**



Several measures were published in previous dataset releases, but have seen performance or logic changes, or modeling improvements

*Dataset release expected October 2025*

# Upcoming ComStock Measures (ComStock 2025.3)

High-efficiency RTU Replacement

Variable Speed Pumps

Thermostat Unoccupied Setback

VAV Fan Static Pressure Reset



All 61 measures published to date will be included in the upcoming dataset release.

*Dataset release expected November 2025*

# Upcoming BuildStock Features and Capabilities

## **ResStock (2025.1)**

- Panel size and capacity
- EVs
- Alaska and Hawaii

## **ComStock (2025.3)**

- Grocery stores
- Criteria pollutants
- Component loads data

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# Discussion and Conclusion

## **BuildStock next steps**

- User stories to inform future work
- Hope to host another user call in the future

## **User next steps**

- Reach out if interested in collaboration
- Let us know about success stories

## **Next steps for both**

- Further user connection

# Thank you!

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[www.nrel.gov](http://www.nrel.gov)

