ENERGY STAR Update

Real Estate Roundtable SPAC
January 24, 2024

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Topics

- ENERGY STAR NextGen Anticipated Final Criteria
- Whole Building Energy Data Campaign
- Portfolio Manager Data Explorer™
- Portfolio Manager Upgrade Project

ENERGY STAR® NextGen® Recognition Anticipated Final Criteria

Objectives of NextGen Certification for Buildings

- Recognize buildings on the path to zero carbon emissions
- Encourage the key actions building owners can take today
  - Achieve top energy performance.
  - Reduce onsite emissions.
  - Generate/procure renewable energy.
- Strive to keep it simple
- Leverage foundation of ENERGY STAR and Portfolio Manager

NextGen Timeline

2023

- Released proposal and gathered comments -- received hundreds of individual comments.
  - Thank you to SPAC for the very thoughtful and helpful comments!
- Reviewed comments and finalized criteria.
- Scoped Portfolio Manager enhancements needed to support certification.

Late January/early February 2024

- Release final criteria and response to comments.

February-August 2024

- Programming in Portfolio Manager.

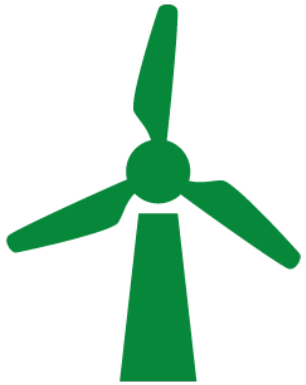
September 2024

- Application portal live in Portfolio Manager.

Anticipated Final Criteria

Efficiency

ENERGY STAR certification



Renewable Energy

Procure 30% of energy from renewable sources

Emissions

Meet target for onsite GHG emissions

Energy Efficiency Criterion

- Proposed and Anticipated Final Requirement: ENERGY STAR certification
- Why?
  - Ensures verified top energy efficiency.
  - Well-understood and accepted.
  - Includes review of building data and verification.
  - Leverages existing ENERGY STAR infrastructure.
  - Can easily increase stringency over time.
- Consideration
  - Restricts NextGen recognition to buildings eligible for ENERGY STAR certification. We recognize importance of moving lower performing buildings to greater efficiency and plan to develop separate new recognition focused on improvement.

Property types with 1-100 ENERGY STAR scores


Bank Branch


Barracks*


Convenience Stores

Courthouses


Data Centers


Distribution Centers


Financial Offices


Hospitals


Hotels

K-12 Schools

Medical Offices


Multifamily Housing


Office Buildings


Residence Hall/Dormitory*

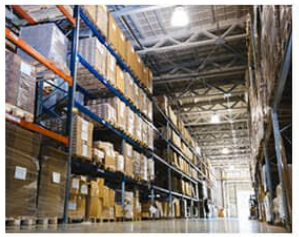

Retail Stores


Senior Living Communities


Single-Family Homes*

Supermarkets


Vehicle Dealerships

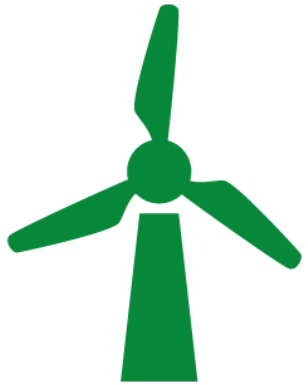

Warehouses


Wastewater Treatment Plants*


Wholesale club/ Supercenters


Worship Facilities

Renewable Energy Criterion



- Proposed Requirement: 30% of total energy use from renewable sources
- Anticipated Final Requirement: 30% of total energy use or 100% of electricity, whichever is lower, from renewable sources
  - Sources can include onsite renewable generation, renewable electricity certificates (RECs).
  - Does not credit renewables that contribute to **standard** grid electricity.
- Why?
  - Motivates buildings to procure renewable energy.
  - Single, national requirement keeps it simple.
- Consideration
  - Does not account for differences among regional grids.

Renewable Energy Criterion - Details

- Onsite Renewable Electricity
  - Building owner must retain/retire Renewable Energy Certificates (RECs) or attest that no RECs were generated or sold.
- Offsite Renewable Electricity
  - Generally consistent with EPA's Green Power Partnership requirements.
  - Must be supplied from U.S.-based facilities.
  - Unbundled RECs and Power Purchase Agreements.
    - Green-e® certified or documentation that RECs retired by or on behalf of building owner.
    - Renewable energy facility put into service within prior 15 years.
  - Green power products (Community choice aggregation, green tariffs, community solar, utility products).
    - Product must be Green-e certified – includes many 100% green products such as CleanPowerSF Super Green.
- Vintage of RECs must match period of electricity use on annual basis

Emissions Criterion

- Proposed Requirement: Direct (i.e., onsite) emissions limit
- Anticipated Final Requirement:
  - Direct emissions limit.
  - Emissions from district energy systems (which are indirect) are not limited.
    - EPA will consider incorporating district energy into the criteria as renewable thermal certificates and/or other options become available in the buildings market.
- Why?
  - Encourages progress toward eliminating onsite emissions

    and
  - Recognizes fully electrified, efficient buildings.
- Considerations
  - Fuels such as natural gas are predominantly used for space and water heating, so more is needed in cold climates for occupant comfort and safety.
  - Multifamily and other residential buildings need to use fuel throughout the day/have greater hot water and cooking needs.

Normalizing Direct Emissions

- Heating Degree Days (HDD) measure the need for heating and are specific to a building's location.
- EPA analyzed data from ENERGY STAR certified buildings (excluding 100% electric buildings) to determine the median direct GHGi per HDD for each type of building.
- Tested with data from building owners – thank you to those who provided data!
- The medians are relatively consistent across regions.
- These medians – or "GHGi Factors" -- can be used to normalize the NextGen Direct GHGi Targets.

FINAL TARGETS TBD

Process of Applying for Certification

- EPA plans to mirror process to apply for ENERGY STAR certification.
  - Portfolio Manager will track buildings' progress toward the criteria and alert account holders when any qualify to apply for certification.
  - Data verified by a licensed professional (professional engineer or registered architect), with addition of renewable energy documentation.
  - Application completed and submitted in Portfolio Manager.
- A building can apply for either ENERGY STAR or NextGen certification in a particular year, but not both.
  - Must wait 11 months before applying for re-certification.
  - Exception – buildings can "upgrade" from ENERGY Star certification to NextGen certification on January 1 of the next calendar year, regardless of when they earned ENERGY STAR.
- EPA is enhancing Portfolio Manager to support the renewable energy and direct emissions criteria, and issue guidance for licensed professionals.
- EPA will highlight ENERGY STAR NextGen buildings on the Registry of Certified Buildings.


ENERGY STAR
NextGen
CERTIFIED BUILDING | 2024

Whole-Building Energy Data Campaign

EPA's Proposal

Building owner/manager-centric campaign where EPA assists owners/managers in making the case to decision makers on the need for whole-building energy data.

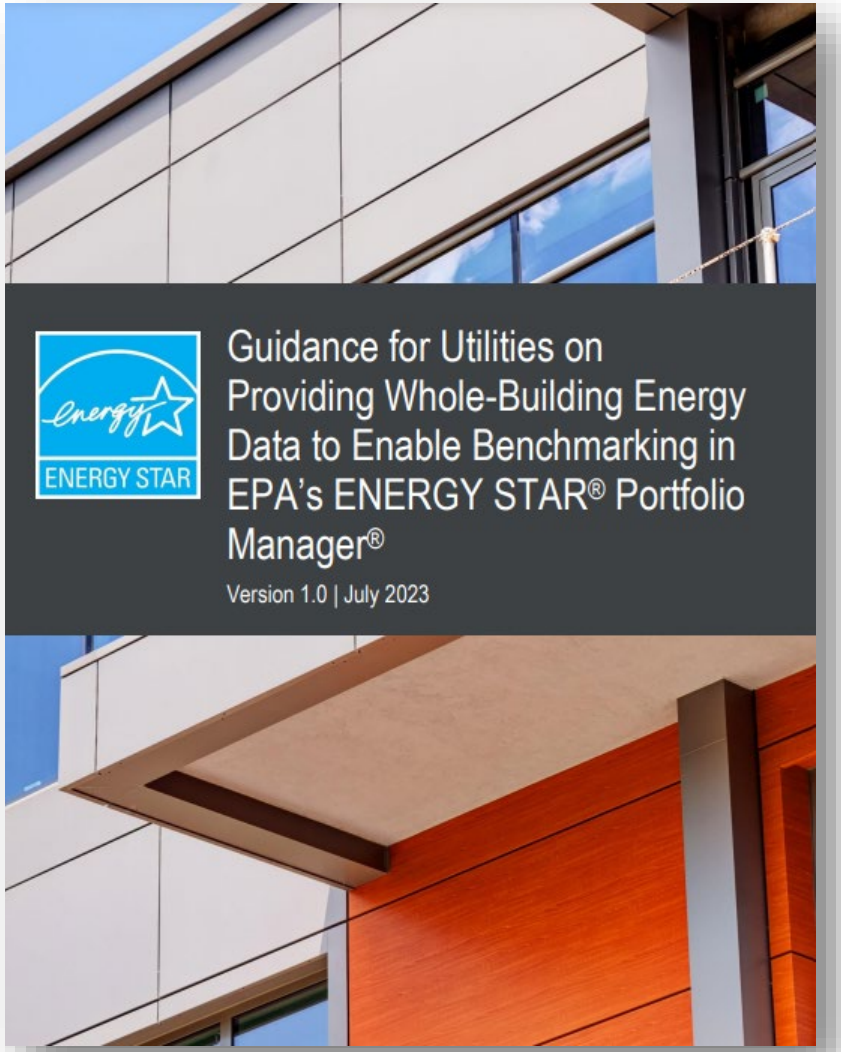
The Timing is Right

Customer demand is a powerful signal

New incentives are a rallying point (179D, HUD GRRP, DOE Home Efficiency Rebate Program)

EPA recently published new guidance for utilities

IMT and RAP recently published a model state law



Proposed Campaign Elements

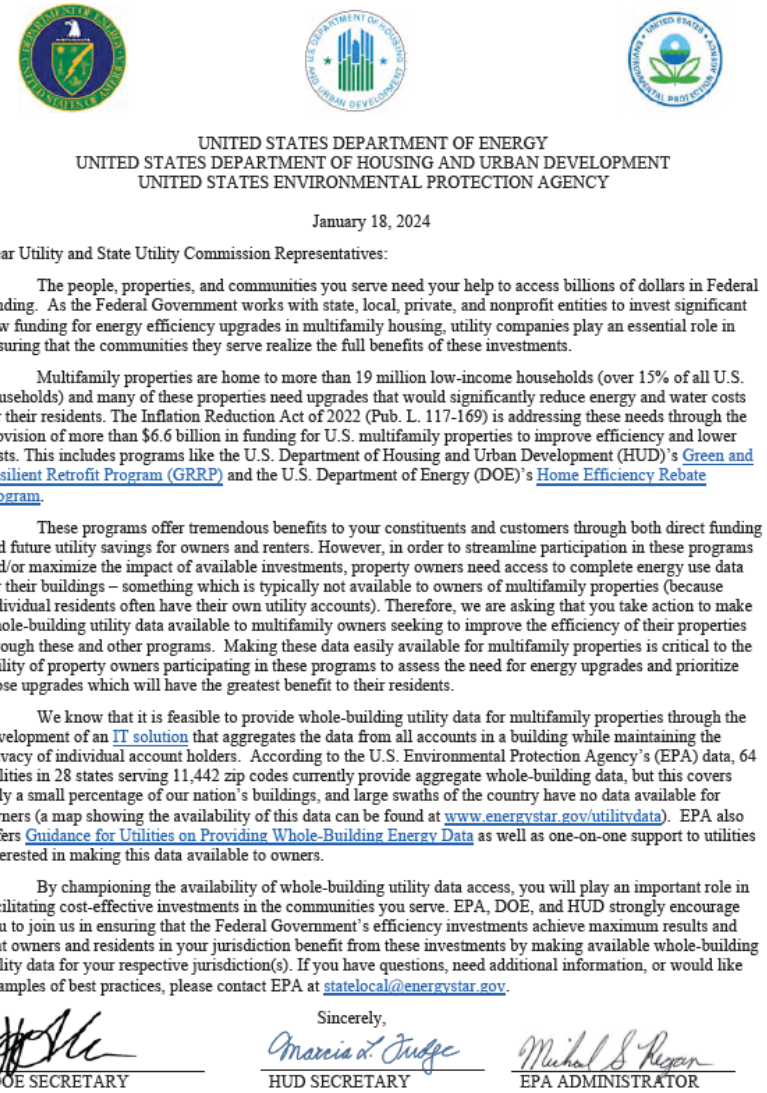
Testimonials

- Quotes from owners/managers highlighting why this data is needed.
- Quotes from owners/managers describing how data provided by their utility has helped them.
- Quotes from utilities highlighting benefits they have seen from providing data to owners/managers.
- EPA will compile testimonials in a database for use by owners/managers when contacting utilities or policymakers.
- Survey to be sent soliciting testimonials in early 2024.

Proposed Campaign Elements

Engagement Tools

- Backgrounder on the need for data, solutions, and support available from EPA.
- Template letter for contacting utility representatives or policymakers.
- Joint HUD/EPA/DOE letter (signed by Secretaries and Administrator) highlighting the need for whole building data.



UNITED STATES DEPARTMENT OF ENERGY
UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

January 18, 2024

Dear Utility and State Utility Commission Representatives:

The people, properties, and communities you serve need your help to access billions of dollars in Federal funding. As the Federal Government works with state, local, private, and nonprofit entities to invest significant new funding for energy efficiency upgrades in multifamily housing, utility companies play an essential role in ensuring that the communities they serve realize the full benefits of these investments.

Multifamily properties are home to more than 19 million low-income households (over 15% of all U.S. households) and many of these properties need upgrades that would significantly reduce energy and water costs for their residents. The Inflation Reduction Act of 2022 (Pub. L. 117-169) is addressing these needs through the provision of more than $6.6 billion in funding for U.S. multifamily properties to improve efficiency and lower costs. This includes programs like the U.S. Department of Housing and Urban Development (HUD)'s Green and Resilient Retrofit Program (GRRP) and the U.S. Department of Energy (DOE)'s Home Efficiency Rebate Program.

These programs offer tremendous benefits to your constituents and customers through both direct funding and future utility savings for owners and renters. However, in order to streamline participation in these programs and/or maximize the impact of available investments, property owners need access to complete energy use data for their buildings – something which is typically not available to owners of multifamily properties (because individual residents often have their own utility accounts). Therefore, we are asking that you take action to make whole-building utility data available to multifamily owners seeking to improve the efficiency of their properties through these and other programs. Making these data easily available for multifamily properties is critical to the ability of property owners participating in these programs to assess the need for energy upgrades and prioritize those upgrades which will have the greatest benefit to their residents.

We know that it is feasible to provide whole-building utility data for multifamily properties through the development of an IT solution that aggregates the data from all accounts in a building while maintaining the privacy of individual account holders. According to the U.S. Environmental Protection Agency's (EPA) data, 64 utilities in 28 states serving 11,442 zip codes currently provide aggregate whole-building data, but this covers only a small percentage of our nation's buildings, and large swaths of the country have no data available for owners (a map showing the availability of this data can be found at www.energystar.gov/utilitydata). EPA also offers Guidance for Utilities on Providing Whole-Building Energy Data as well as one-on-one support to utilities interested in making this data available to owners.

By championing the availability of whole-building utility data access, you will play an important role in facilitating cost-effective investments in the communities you serve. EPA, DOE, and HUD strongly encourage you to join us in ensuring that the Federal Government's efficiency investments achieve maximum results and that owners and residents in your jurisdiction benefit from these investments by making available whole-building utility data for your respective jurisdiction(s). If you have questions, need additional information, or would like examples of best practices, please contact EPA at statelocal@energystar.gov.

Sincerely,

DOE SECRETARY | HUD SECRETARY | EPA ADMINISTRATOR

Proposed Campaign Elements

Utility/State Meetings

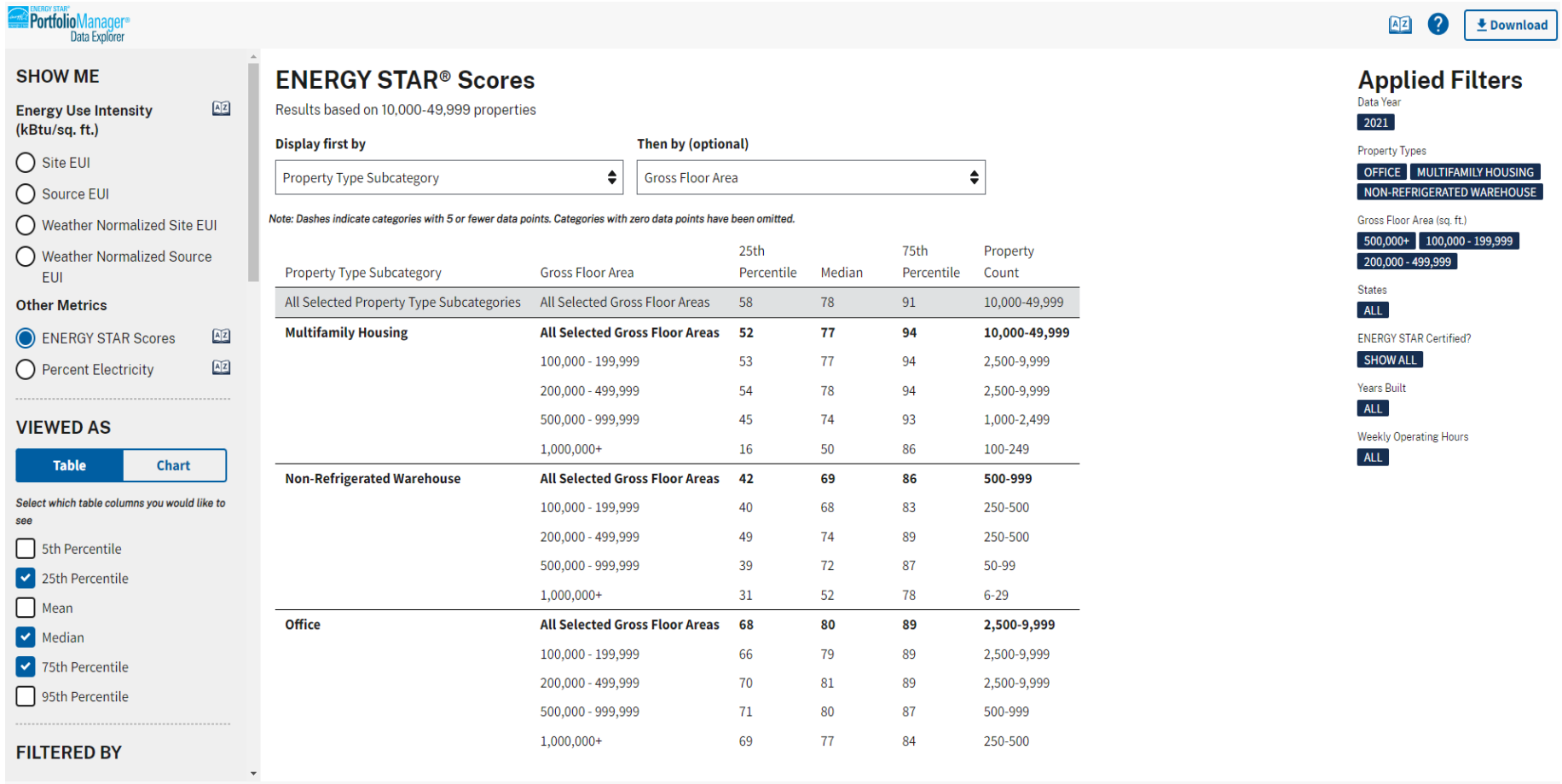
- EPA will prepare an overlay of maps to identify where data is most needed (based on benchmarking activity, presence of HUD properties, and your input).
- EPA will assist in convening meetings with utility representatives or state policymakers to discuss the need for whole-building data.
- Building owner-driven based on interest and commitment to participate.

Thoughts?

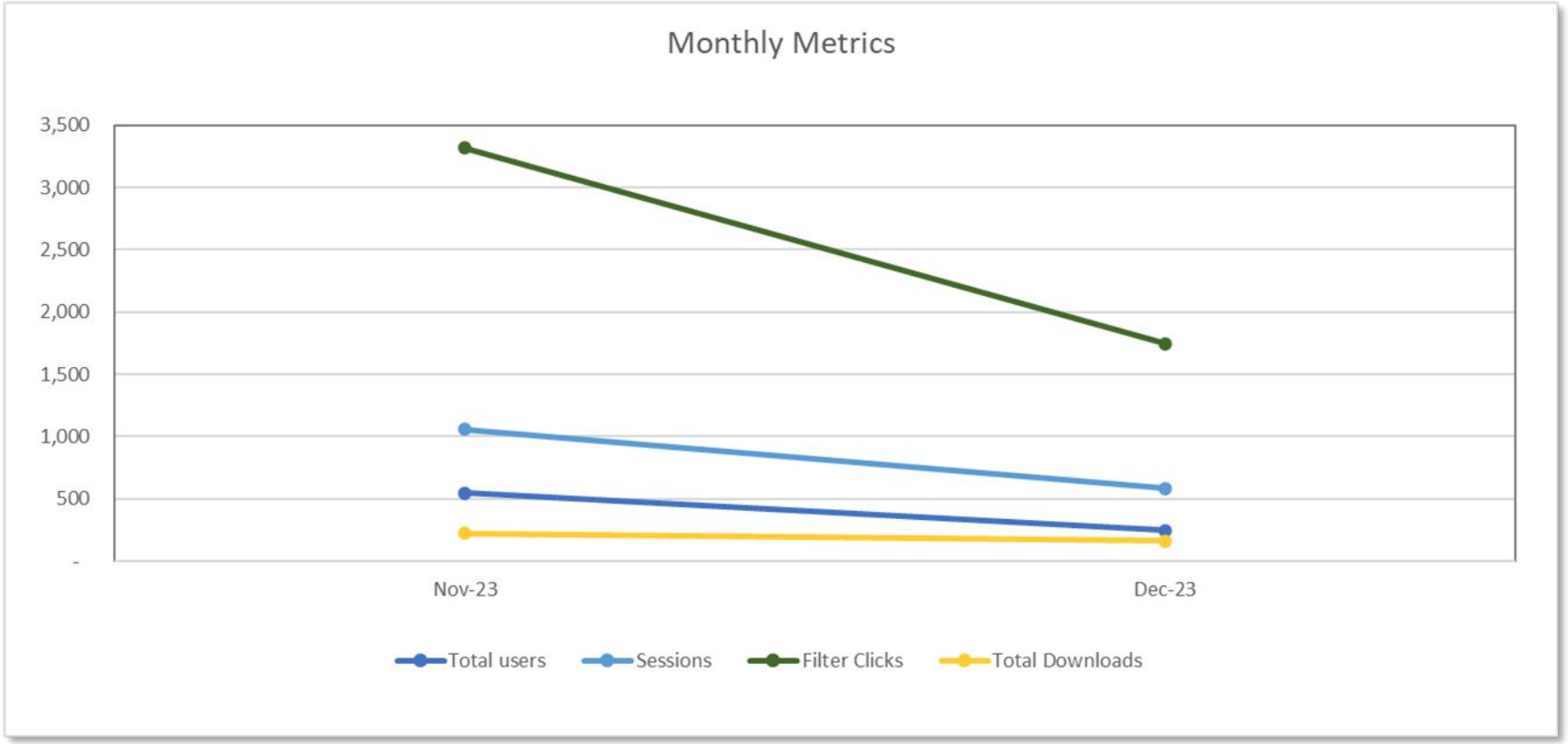
Portfolio Manager Data Explorer™

Portfolio Manager® Data Explorer™

- Query by location, building type, characteristics, and more to provide comparisons of key efficiency metrics.
- View median, mean and percentile values for:
  - Site EUI and Weather-Normalized Site EUI
  - Source EUI and Weather-Normalized Source EUI
  - ENERGY STAR score
  - % Electricity
- Download results in Excel for further analysis.



Portfolio Manager® Data Explorer™



Have you used the Data Explorer?

Any feedback?

Portfolio Manager Upgrade Project

Overview of Proposed/Envisioned Enhancements

Enhancement Category	Enhancement Item
Emissions Tracking	Use of custom emissions factors/forecasting emissions
	Refrigerant tracking
	Green Power tracking
Benchmarking and Building Performance Standards (BPS): Enhancements for Building Owners	Building system/equipment tracking
	Tracking progress against Building Performance Standards
	Tracking compliance with benchmarking/BPS Laws
	New BPS-specific calculations
Portfolio Manager User Interface Refresh	Storing additional information on energy and water meters
	Expanding goal-setting/tracking functionality
	Updates to reporting
Additional Items	Additional functionality for program/policy administrators, Portfolio Manager “Lite” interface, Spanish interface and user support, updates to property sharing process
	Other enhancements yet to be identified through stakeholder engagement