

The GHG Emissions Reduction Planning Working Group was an interactive forum for partners to discuss actionable plans for emissions reductions across their building portfolios. Over the course of seven sessions, more than 75 Better Climate Challenge partners and allies from 40 organizations shared important insights about assessing a portfolio, creating a plan, and taking action. Lawrence Berkeley National Lab's technical experts presented on components of emissions reduction planning, then led interactive sector-specific breakout sessions. The efforts of this working group resulted in two DOE publications that are foundational to the Better Climate Challenge, [Framework for GHG Emissions Reduction Planning: Building Portfolios](#) and [GHG Emissions Reduction Audit: A Checklist for Owners](#). Both resources are being used on an ongoing basis to support BCC partners' decarbonization efforts.

KEY TAKEAWAYS

- ▶ The working group's collaboration and discussions informed DOE's [Framework for GHG Emissions Reduction Planning: Building Portfolios](#), published in February 2023. The framework summarizes the emerging practice of emissions reduction planning based on real world experience and will continue to be applied by the BCC technical support staff to support partners in their decarbonization journey.
- ▶ The working group shared information on how they have moved from energy audits towards decarbonization audits, which contributed to the development of DOE's [GHG Emissions Reduction Audit: A Checklist for Owners](#), published February 2023.
- ▶ The commitment of leadership to an emission reduction plan at the portfolio-level helps drive actions at the building-level. Emissions reduction planning requires portfolio prioritization, building-level and portfolio-level emissions reduction measures, analysis of emissions reduction scenarios, and development of project phasing plans.
- ▶ A range of existing tools empower organizations to develop and track their emissions reduction strategies through data collection, analysis, and benchmarking capabilities. DOE tools such as [ENERGY STAR Portfolio Manager](#) and [50001 Ready Navigator](#) offer analysis and organizational change support. Additionally, third-party software tools are evolving to include decarbonization planning support.

Discussion Topics and Outcomes

The working group brought together partners to discuss strategies and lessons learned as they begin their emissions reduction planning processes. Valuable insights emerged, covering areas such as stakeholder engagement, building prioritization, supporting tools, and budgeting. These discussions have contributed to a better understanding of the challenges and opportunities associated with GHG emissions reduction planning, providing a foundation for informed decision-making and action within partner and other organizations. The working group meeting outcomes are summarized below:

▶ Emissions Reduction Planning Process Articulation

Working group participants shared their process for planning to meet GHG emissions reduction targets, and ways to make these plans actionable. Partners recommended the use of equipment inventories, strong stakeholder engagement, and portfolio benchmarking, as well as a focus on energy efficiency first before renewables.

▶ **Portfolio Prioritization**

Partners discussed portfolio categorization and prioritization for GHG emissions reduction investments, including challenges in obtaining data. The key characteristics most utilized by working group members included upcoming building renovations, equipment end-of-life, energy use intensity, total emissions, building type, electric grid carbon intensity, and available utility incentives.

▶ **Framework for GHG Emissions Reduction Planning**

Diving deeper into DOE's proposed emissions reduction planning process, partners provided insight on stakeholder needs, capital plan integration, and portfolio-wide standards for emissions reduction (e.g., EMIS, equipment efficiency, O&M standards). Partners also discussed the elements of a successful GHG emissions reduction audit, which informed DOE's resource, [*GHG Emissions Reduction Audits: A Checklist for Owners*](#).

▶ **Emissions Reduction Plans and Higher-level Plans**

DOE shared how emissions reduction plans may differ from Climate Action Plans or other higher-level plans, and summarized partner examples of emissions reduction milestones. Through breakout discussions, partners shared their organization's progress on climate action planning and emissions reduction planning. Most partners had been implementing energy audits focused on short-payback measures. Partners shared challenges with incorporating decarbonization into their capital planning. Four partners gave presentations on their emissions reduction planning process, providing practical insights into effective planning approaches.

▶ **Decarbonization Software Tools and Integration**

DOE shared an initial market landscape for decarbonization software tools in the emissions reduction planning process, covering both publicly available DOE tools and types of third-party solutions for managing emissions portfolios and forecasting emissions reductions. Partners shared that they most often used ENERGY STAR® Portfolio Manager to benchmark and energy information systems (or spreadsheets) to track energy data, and some partners used ESG software for reporting. Few partners used tools that support measure analysis, scenario planning, or carbon operational management. Partners discussed the need for tools that support BPS ordinances, as well as integrated tools that meet multiple needs.

▶ **Better Climate Challenge Workshop Outcomes:**

The Better Buildings, Better Plants Summit hosted a Better Climate Challenge workshop, where partners discussed Portfolio-level Greenhouse Gas Emissions Reduction Planning. The outcomes of this workshop were shared with the working group and included key challenges identified by participants, such as 1) need for support in developing scenarios and phasing decarbonization projects, 2) cost-effectiveness challenges, especially with electrification, and 3) need for equipment solutions for challenging retrofits, such as heating in cold climates and for diesel generator replacement.

The working group discussions offered valuable insights for organizations engaging in emissions reduction planning. DOE and working group members collaborated on ways to navigate challenges and make informed decisions in the pursuit of low-carbon portfolios.

Partner Highlights

The active participation and support from partner organizations was instrumental in advancing the goals of the GHG Emissions Reduction Planning Working Group. All working group members contributed to informal breakout discussions, and the following organizations formally presented their emissions reduction planning approaches:

- ▶ **Seattle Housing Authority:** Collaborated with University of Washington's Integrated Design Lab to plan for scaling their electrification plans.
- ▶ **Fairfax County:** Focused on energy efficiency, renewables, waste management and fleet emissions initiatives.
- ▶ **LaSalle Investment Management:** Conducted technical assessments and developed property-level decarbonization plans.
- ▶ **City of San Diego:** Driven by a goal for net zero emissions by 2035, the city is completing electrification studies to prioritize removal of natural gas equipment.
- ▶ **University of Virginia:** Categorized their portfolio into a tiered implementation strategy for campus-level decarbonization efforts.

These partner highlights reflect the active engagement and contributions from organizations across a range of sectors.

Follow-up Activities

The conclusion of the *Portfolio-level Greenhouse Gas Emissions Reduction Planning* working group provided valuable feedback that led to the launch of a new working group on [GHG Emission Reduction Audits and Assessments](#). The new working group will focus on sharing best practices in conducting emissions reduction audits. Through small group discussions, participants will explore emission reduction audit procurement, implementation strategies, and sample reports.

Summary

The *Portfolio-level Greenhouse Gas Emissions Reduction Planning* working group was successful in influencing and guiding two new resources published by Better Buildings. These resources serve as a foundation for effective emissions reduction planning and pave the way for future collaboration and advancements in GHG reduction initiatives. The support and involvement of partners is essential in advancing the collective understanding and implementation of effective emissions reduction strategies.