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Wells Fargo Housing and Climate Change Dialogues

Single-Family Workshop Summary Report

WELLS FARGO

RMI

Partners

About Wells Fargo

This report was sponsored by Wells Fargo's Institute for Sustainable Finance. The institute supports the deployment of $500 billion in sustainable finance by 2030, advocates for public policies that support clients' transitions, funds science-based research on carbon reduction, and advances climate justice.

About RMI

Through generous support from Wells Fargo, RMI facilitated the single-family and previous multifamily workshops and prepared this report for broader industry knowledge. RMI is an independent nonprofit founded in 1982 that transforms global energy systems through market-driven solutions to align with a 1.5°C future and secure a clean, prosperous, zero-carbon future for all. We work in the world's most critical geographies and engage businesses, policymakers, communities, and NGOs to identify and scale energy system interventions that will cut greenhouse gas emissions at least 50% by 2030.

Statements and opinions in this publication and related materials are suggestions offered by workshop participants and do not represent the opinions of Wells Fargo or RMI. This document is presented for informational purposes only and is not intended to recommend any particular investment or inform investment decisions.

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Overview

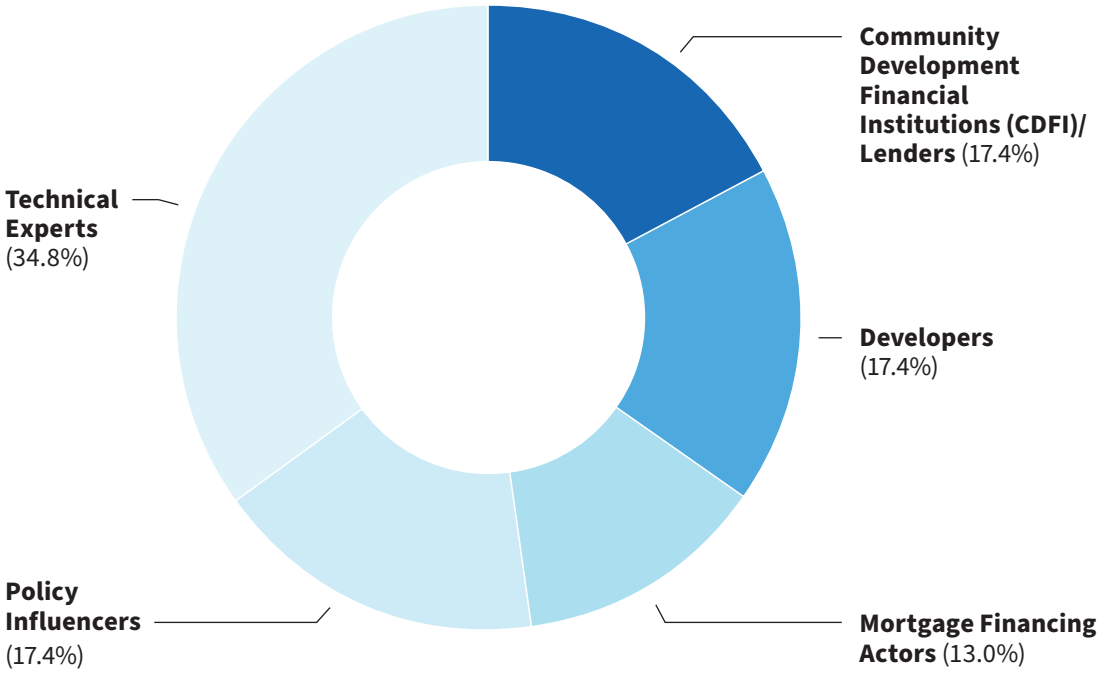
On March 8, 2022, Wells Fargo and RMI convened more than 20 leading experts and stakeholders for a virtual workshop unpacking opportunities for philanthropy and financial institutions to support efforts to decarbonize single-family housing across the United States. The objective of the workshop was to:

1. Identify key challenges to equitably decarbonize single-family housing at scale
2. Elevate potential solution areas and approaches that financial institutions and philanthropic organizations can take to equitably decarbonize the single-family housing stock

Exhibit 1 displays the diverse backgrounds and expertise of workshop participants.

Exhibit 1

Industry Participant Representation



RMI facilitated this workshop and past workshops that explored interventions for financial institutions and philanthropic organizations to decarbonize housing across the United States. This report summarizes key findings and takeaways from the single-family workshop discussions, as well as the pre- and post-event survey responses from participants, for use by Wells Fargo and other key industry stakeholders in advancing equitable decarbonization efforts across the industry. The findings and recommendations presented here represent suggestions offered by workshop participants, not the opinions of Wells Fargo or RMI.

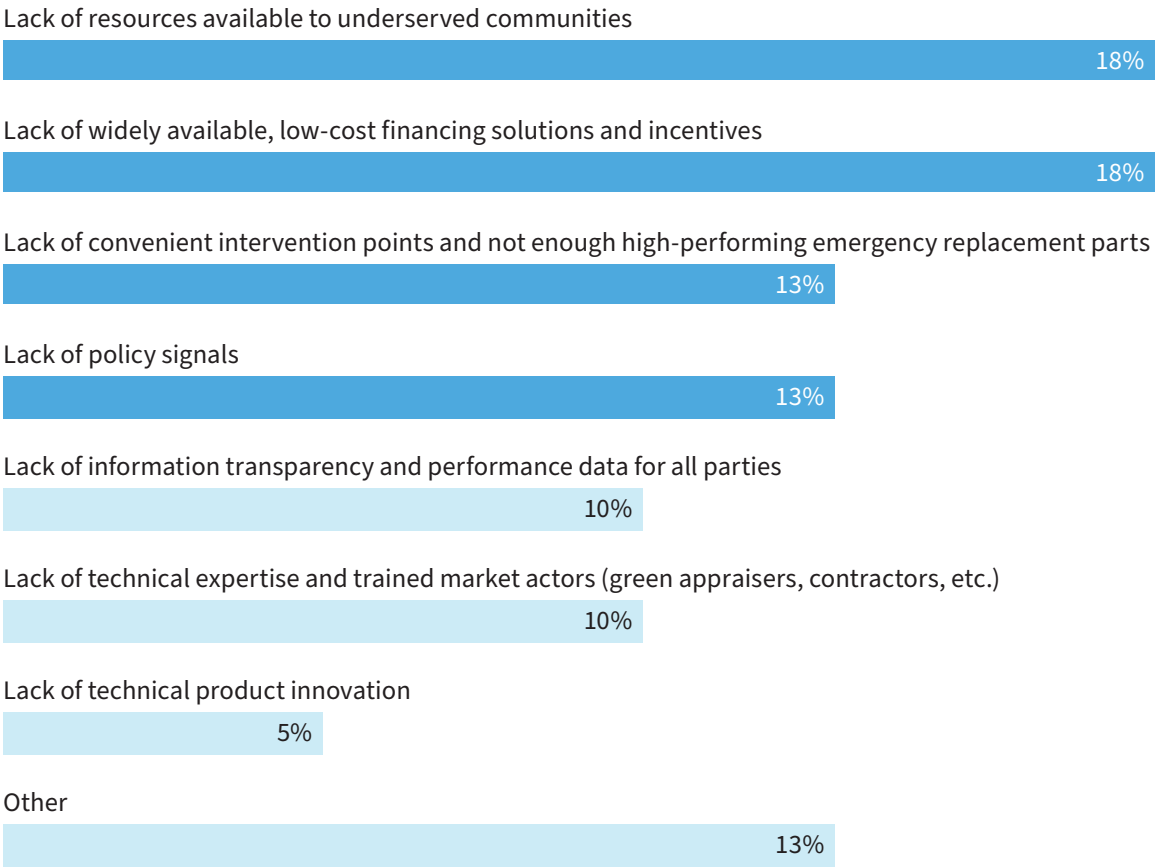
Pre-Event Survey Findings

Before the workshop, 13 attendees completed the pre-event survey, which was distributed to gauge perceived challenges, investment opportunities, and solutions areas for financial institutions and philanthropic foundations to consider as they continue to engage in this meaningful work. As shown in Exhibit 2, workshop participants identified the following as top market challenges:

1. Lack of resources available to underserved communities
2. Lack of widely available, low-cost financing solutions and incentives
3. Lack of convenient intervention points and not enough high-performing emergency replacement parts such as HVAC equipment, envelope upgrades, or highly efficient heat pumps
4. Lack of policy signals
5. Lack of information transparency and performance data for all parties
6. Lack of technical expertise and trained market actors (green appraisers, contractors, etc.)
7. Lack of technical product innovation
8. Other (need for infrastructure to electrify homes, more robust performance standards and engagement from manufacturers, battery storage capacity, etc.)

Exhibit 2

Survey Findings: Problem Definition



After identifying top challenge areas in the pre-event survey, workshop participants chose a focus group most relevant to their work and explored the top challenges in more detail, particularly their relevance to market sectors, resources, and standards. The focus groups were:

- Moving the Needle on New Construction
- Demand for Retrofit Financing
- Supply of Retrofit Financing
- Data, Performance Measures, and Performance Standards

Key Themes

The workshop discussions were intended to provide insights into opportunities for Wells Fargo and other major financial institutions to play a proactive role in advancing decarbonization strategies across existing and new single-family construction. Through in-depth discussions, the workshop aimed to explore opportunities for financial institutions and philanthropic organizations to deploy innovative financing mechanisms, incentives, grants, technical resources, and strategic advice to advance the adoption of decarbonization tools and alleviate existing energy burdens and inequities across the market. Key themes that emerged from the workshop included:

- **Data:** Procurement and dissemination of building-level data and standardized performance data are necessary to track and benchmark the performance of new and existing homes.

- **Electrification:** Replacing fossil fuel–based technologies with those that use electricity as a source of energy is critical for reducing household greenhouse gas emissions. Therefore, all key market players across the single-family market must support holistic approaches to electrification upgrades in existing and new homes that will address health and safety, in addition to weatherization and efficiency, in an equitable manner.

- **Equity:** Investments to decarbonize the single-family housing stock must support social, racial, and economic equity and be inclusive of low-income communities, communities of color, and areas of historic disinvestment to ensure that traditionally underserved households are not priced out of the market.

- **Financing:** Increased deployment of low-cost, long-term financing structures and incentives will be essential in scaling decarbonization measures across the single-family market (e.g., mortgage products that reward electrification, increased government and utility incentives, subsidies, and grants).

- **Government action:** Government guidance, incentives, and streamlined processes are all needed to ensure that the US building stock, and specifically the US single-family housing stock, positively contributes to meeting necessary decarbonization goals in the future.

- **Workforce:** To properly scale widespread adoption of low-carbon technologies across the US housing market, contractors, installers, lenders, and appraisers must have a robust workforce with access to technical guidance. Expanded workforce development and wide availability of market education tools will be essential for sweeping change.

Challenges and Solutions

In breakout group discussions, workshop participants explored innovative solutions for financial institutions and philanthropic groups to consider in addressing market challenges to decarbonize the US building stock. Solutions that came out of those discussions are illustrated in the following sections.

Moving the Needle on New Construction

Participants called attention to rapid growth in the development of modular manufacturing and high-performance homes. Although the homebuilding and development industry continues to drive investment in these areas, net-zero carbon standards often vary by geographic location, and such high-performance building standards may require higher up-front capital costs than business-as-usual practices. However, over the long term, building to net-zero carbon standards can lower the cost of the construction life cycle because the likelihood of increased costs associated with change orders or equipment issues is reduced. Innovative financing mechanisms and business strategies for developers and builders can drive broader adoption of high-performance home technologies in new single-family construction to bring the industry up the learning curve.

Solutions for financial institutions

- **Set building performance standards that developers and builders who borrow funds are required to achieve** to qualify for favorable lending terms, which in return helps reduce the overall risk a financial institution is assuming. For example, financial institutions can incentivize borrowers to build or manufacture single-family housing to industry-accepted, high-performance building standards, such as Passive House, ENERGY STAR®, or Department of Energy (DOE) Zero Energy Ready Homes.

- **Leverage institutional leadership to support regional networks of local contractors, developers, and builders.** Organizations such as the ABC Collaborative, Modular Mobilization Coalition, and RetrofitNY can aid in supporting the development of networks of qualified high-performance homebuilders.

- **Support the appraisal industry in creating and implementing standards for appraising homes that incorporate high energy performance in a home's appraised value** in both traditional and affordable housing developments. For example:

  1. Financial institutions could adopt a policy to only engage appraisal firms with employees who hold environmental, social, and governance (ESG) designations and require that each appraisal report includes a standardized ESG analysis.
  2. Builders will have a greater incentive to meet more aggressive building performance standards if the cost benefits of high-performing energy upgrades are reflected in the appraised value of a home. However, it is important that the industry understand and monitor any transitional risk associated with this shift.

- **Provide a letter of credit or a credit enhancement** to home manufacturing companies engaging in tracking and reducing their carbon footprint. Incentives provided to these companies during the early or midstage life cycle could encourage more widespread product adoption of low-carbon manufacturing.

Solutions for philanthropy

- **Deploy grants to assist nonprofit and mission-driven affordable housing developers with getting to scale on high-performance, off-site manufactured and modular new builds.** Grants could provide funding to:

  1. Coalitions of affordable housing developers that aggregate demand for modular units constructed off-site. Bulk purchase orders can build capacity and drive down costs.
  2. Mission-driven, high-performance manufacturers of modular, affordable housing to secure bank financing of new or expanded manufacturing facilities. The funding can be used as loan-loss reserves to leverage larger bank loans.

- **Provide grant funding to technical assistance partners** (e.g., the Association for Energy Affordability) to provide technical assistance to supply-side actors as well as supporting builders in obtaining state and utility incentives.

- **Provide incentives or grants to nonprofit and mission-driven developers to support adoption of power purchase agreements for clean energy** across new construction projects.

- **Educate builders and developers about the benefits of using existing energy efficiency and renewable tax credits.** For example, the 45L tax credit and residential renewable energy tax credits can be leveraged to mitigate the up-front costs of low-carbon upgrades.

- **Provide low-cost equity or subsidies on construction loans for affordable housing developers.** Subsidies on construction loans should be made available to affordable single-family housing developers working with modular manufacturers or traditional homebuilders adhering to industry-accepted high-performance standards, such as Passive House.

Demand for Retrofit Financing

In identifying barriers for homeowners accessing financing for decarbonizing retrofits, participants called attention to the overall lack of industry awareness of existing energy-efficient mortgages and loan products. To date, borrowers remain vastly unaware of scalable low-cost financing tools that can be leveraged to offset up-front cost burdens associated with energy efficiency and electrification upgrades. Workshop participants also called attention to the challenges lenders face regarding the lack of accessible residential energy information. Without that information, lenders are unable to account for energy costs across mortgage underwriting and appraisal standards, hindering them from identifying homes and borrowers that could benefit from such products.

Solutions for financial institutions

- **Leverage home energy cost data** to include energy savings in the cost of homeownership when underwriting a borrower's creditworthiness. A study by the Institute for Market Transformation has shown that, on average, the risk of default in energy-efficient homes is lower. Therefore, lenders can use home energy cost data from DOE or other standardized and reliable sources to capture a baseline home energy cost estimate, as well as track third-party ratings such as the Home Energy Rating System (HERS) or Home Energy Score (HES).

- **Train lenders to initiate conversations with borrowers about existing green mortgage products** (e.g., Fannie Mae's HomeStyle Energy® mortgage and Freddie Mac's GreenCHOICE® mortgage product) to target low-performing homes more effectively across the market and advertise to the general homeowner public that these loan products exist.

- **Assist borrowers in identifying local grants, subsidies, and tax incentives** that can be used to offset upgrade costs and provide gap funding to cover the lag in receiving those funds. Lenders can also call attention to existing financing programs that support reducing up-front costs of decarbonization measures for low- or moderate-income borrowers, including:

    1. Down payment assistance programs
    2. Community seconds
    3. Closing cost credits
    4. Special purpose credit programs

- **Educate and emphasize, through advertising and communications with existing and potential borrowers,** the cost savings and health benefits of electrifying homes.

Solutions for philanthropy

- **Invest in community-based programs that educate and train stakeholders about the benefits of energy-efficient home improvements** and advocate for reducing energy burdens and advancing environmental justice in underserved communities. Organizations such as BlocPower, Emerald Cities Collaborative, and the Greenlining Institute offer technical expertise and guidance to advance the equitable deployment of clean energy solutions.

- **Provide grants to organizations working to educate contractors about new and existing zero-carbon technologies** and encourage contractors to adopt decarbonization solutions in their projects. Such education materials could be incorporated into contractor license training courses and materials, as wide-scale adoption of low-carbon technologies and construction materials by contractors will be a key step toward decarbonizing the sector.

- **Support mandates requiring that single-family housing landlords maintain their properties to meet set home performance standards,** ensuring that tenants do not face unexpected energy burdens and have access to safe, resilient, and affordable living environments.

- **Support a cross-government approach to address climate and equity issues across the single-family housing market,** calling on the Federal Housing Finance Agency (FHFA),[i] the US Department of Housing and Urban Development,[ii] and the government-sponsored enterprises (GSEs)[iii] to more thoroughly consider the risks that climate change poses to the US housing finance system.

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i The Federal Housing Finance Agency (FHFA) is an independent regulatory agency that ensures the safety and soundness of the US housing market and is responsible for supervising and regulating secondary mortgage market actors, including Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.

ii The US Department of Housing and Urban Development is a US government agency that supports community development and homeownership initiatives and administers federal housing and urban development laws.

iii Government-sponsored enterprises (GSEs) include Fannie Mae, Freddie Mac, and Federal Home Loan Banks. Fannie Mae and Freddie Mac are secondary mortgage market actors that back over half of all mortgages across the United States.

Supply of Retrofit Financing

Attendees identified the need for better products from financial institutions for financing decarbonization retrofits. More robust workforce trainings, supply chains, and access to technical expertise were also called upon to support financial institutions and philanthropic groups in streamlining and deploying new tools for decarbonization retrofit financing.

Solutions for financial institutions

- **Support a more diverse workforce by expanding lines of credit available to single-family builders and contractors actively diversifying their teams** and expanding access to technical expertise, particularly for company owners and workers who identify as Black, Indigenous, and people of color.

- **Leverage state- or regional-specific "eligible measures lists" of energy-efficiency improvements** to streamline project evaluations and provide lenders with a set list of upgrades that will reliably deliver long-term savings from efficiency upgrades.

- **Determine the feasibility of integrating an electrification plan into the single-family mortgage loan application process,** requiring that potential borrowers borrowing over a set loan-to-value threshold meet baseline home performance standards.

- **Engage third-party professionals to inspect completed project upgrades** to ensure that the upgrades are verified and are consistent with projected outcomes. The newly verified energy cost estimate of the home by a third-party professional can be used to facilitate an automated valuation model adjustment of the property, potentially increasing the home value.

Solutions for philanthropy

- **Use philanthropic capital to create a funding pool to buy down conventional loan rates.** This type of funding pool could specifically be leveraged by lower-income borrowers to reduce their debt service payments on loans to finance electrification upgrades and would improve borrowers' debt-to-income ratios, resulting in higher loan approval rates.

- **Support advocacy efforts to enable city- or neighborhood-level infrastructure upgrades** necessary to make homes electric-ready. For example, philanthropic organizations could call on local, state, or federal governments to provide funding or financing for:

  1. Necessary city- or neighborhood-level infrastructure upgrades that support electric-ready homes and on-site renewable generation
  2. Electrical panel upgrades necessary to make homes fully electric-ready

- **Connect builders, contractors, and lenders with technical experts or energy service companies (ESCOs)** that can evaluate multiple efficiency measures in a home. The DOE hosts a list of qualified ESCOs across various locations in the United States.

Data, Performance Measures, Performance Standards

Participants called attention to the lack of available data, performance measures, and performance standards, all of which pose a significant hurdle for streamlining information and transparency. Building-level, climate-related data remains insufficient across the market, impeding the ability to benchmark improvements, better assess risks, and simplify lenders' evaluations of green improvements. Participants noted accessible data is often not standardized, trustworthy, or accurate.

Solutions for financial institutions

- **Automate green home data into underwriting and appraisal systems** to reduce existing complexity, time, costs, and inefficiency associated with processing green equipment mortgages. Such data should include access to energy cost estimates, green efficiency ratings or certifications, the disclosure of on-site renewables, and other fields. Existing tools such as the National Renewable Energy Laboratory's Home Energy Cost Estimator ResStock™ tool can be integrated into automated valuation software to streamline the inclusion of green data fields in mortgage underwriting and appraisal standards.

- **Support investments to procure more granular, standardized, and accessible national home energy data.** This could be completed by investing in a new consumption and efficiency database or by leveraging existing data collection tools, such as the US Energy Information Administration's Residential Energy Consumption Survey.

- **Support the creation of an assessment index standard** to help borrowers better understand what steps they need to take to improve the performance of their home over time.

- **Provide reduced interest rate financing options to borrowers completing a home energy performance audit by a certified assessor.** Examples of trusted assessors and home performance raters include:

    1. Home Energy Score Certified Assessor™
    2. HERS Rater

Solutions for philanthropy

- **Leverage partnerships with the real estate brokerage industry to encourage Multiple Listing Services to adopt green search fields,** providing potential buyers with further transparency about a home's green features, performance, and potential risks.

- **Support the creation of strong market signals by encouraging the lending industry to require energy audits** for all mortgage loans and loans for efficiency upgrades to show trends over time. Philanthropy can further play a role by capitalizing a subsidy pool to offset the cost of energy audits (via HES or HERS) for low-income borrowers.

- **Provide grants to organizations working to develop national, publicly available data** regarding access to homeownership, the energy performance of homes of lower-income owners, foreclosure rates, and other data benchmarks that can be leveraged to better understand current market barriers, particularly across low-income and historically underserved communities.

Conclusion/Post-Workshop Survey Findings

Participants indicated in the post-event survey that the workshop was productive in convening industry actors, but that further collaboration and time were necessary to advance actionable solutions. As financial institutions and philanthropic leaders continue to engage in work to decarbonize the single-family housing stock, workshop participants offered the following takeaways:

- Centering equity and inclusion in future decision-making for all market actors will be vital to ensure existing systemic injustices are reduced, not perpetuated.
- Targeted engagement and collaboration with federal actors, including FHFA and the GSEs, will be critical for driving change in mortgage lending.
- More robust marketing tools and techniques will aid in garnering greater awareness and wide-scale adoption of existing green home financing products.
- Greater access to reliable, streamlined data is necessary to track and benchmark industry progress.
- Climate leadership across the industry, including lenders, appraisers, contractors, advocates for workforce development, homeowner advocates, and federal actors, will be essential in driving market change.
- Deploying capital in the form of grants, incentives, and reduced rate-for-performance financing tools will aid in lowering existing financial barriers that have inhibited progress to streamline decarbonization measures across the market.

Through adopting the recommendations addressed in this report, financial institutions and philanthropic organizations have an important opportunity to advance decarbonization solutions across the single-family housing sector. As Wells Fargo and other financial institutions and philanthropic groups continue to engage in this necessary work, RMI looks forward to providing ongoing strategic guidance and technical expertise to support the industry in making actionable progress toward a climate-aligned future.

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