INVESTING IN CLIMATE EQUITY:

LESSONS AND OPPORTUNITIES FOR INCREASING GREEN BANK INVESTMENTS IN COMMUNITIES OF COLOR

Irene Farnsworth & Rawan Elhalaby | January 2021

THE GREENLINING INSTITUTE

TABLE OF CONTENTS

INTRODUCTION

Investments in green technology, clean energy and climate adaptation are growing rapidly in the United States. In a first, the country is expected to use more renewable energy than coal in 2020,[1] and many banks are starting to expand their loan products and philanthropic investments in “green” products and technologies. While these gains are cause for celebration, the economic benefits of these green investments are not distributed equitably, and the status quo does not serve the needs of communities of color and low- and moderate-income communities (LMI). LMI communities and communities of color bear the brunt of climate change and environmental degradation around the world. The racial wealth gap and larger social and racial inequality in the United States exacerbate environmental disparities and make it more difficult for communities of color and LMI communities to benefit from green technologies, climate adaptation and clean energy.

Private, green investments have the potential to achieve the dual goals of mitigating climate change and closing the racial wealth gap, but they must be intentional to do so.

The need for banks and financial institutions to increase their sustainable and climate-friendly investments is well known, particularly in communities of color and low-income communities. Currently, these types of investments are funded through a patchwork of grants and loans provided by cities and states, foundations, small and large banks, and community development financial institutions. The private sector lags behind in funding clean energy, and we need its robust participation to reach our climate goals.

This report seeks to learn from existing examples of green investing and offer recommendations for furthering green investments by financial institutions. To that end, this report focuses on the following questions:

- What are banks and financial institutions currently doing to support green investments in LMI communities and communities of color, and what opportunities exist to expand the amount and scope of investment by incorporating green investments into the Community Reinvestment Act which already obligates banks to meet the credit needs of low-income communities?
- How have local and state governments incentivized investments by financial institutions in LMI communities and communities of color to participate in green technologies, and what lessons can be learned from these examples?
- How can these investments translate into wealth and asset building opportunities for communities of color?

We also offer recommendations for how the financial sector, nonprofit organizations and advocates can work together to direct banks' community investments in a racially equitable and environmentally responsible way.

"Energy efficiency isn't just about the energy aspect – we need to focus more on the impact side. What is it doing for our people? Our communities?"

– Duanne Andrade, Solar Energy Fund

CLIMATE CHANGE & RACIAL DISPARITIES

Racial and Economic Inequity is the Root of the Problem

The Greenlining Institute's mission is to advance economic opportunity and empowerment for people of color. Redlining and other manifestations of racism have excluded people of color from homeownership, banking and other forms of wealth building. The disinvestment and disenfranchisement that resulted from redlining locked in poverty and pollution in communities of color.

New, more subtly racist policies persist today, and the effects of this historic and current discrimination are reflected in racial disparities across homeownership rates, income, wealth, access to banking and more. Indeed, people of color are experiencing the lowest levels of wealth in decades, while White communities achieve record wealth.[2] Our recommendations focus on how climate change adaptation and mitigation investments can be tools for wealth-building in communities of color and LMI communities, and how these investments can simultaneously help make communities more resilient to the present and future threat of climate change.

The Need for Green Investment in Communities of Color and LMI Communities

Communities of color suffer "first and worst" from the effects of climate change around the world and are the most affected by environmental issues like poor air quality or unstable access to water that are worsened by climate change.[3] Life expectancies are far lower for Black and Latino people in the U.S. compared to White people in part because of their exposure to toxic facilities and pollutants.[4] The wealth gap also means that communities of color are the least financially equipped to respond to climate change through adaptation (e.g. home weatherization, air conditioning, or moving homes or businesses). In addition, areas that receive fewer home loans, have the least number of deposit-taking banks, and have the least amount of bank investment driven by the Community Reinvestment Act, all have a greater percent of environmental hazards.[5]

Green technologies and investments offer wealth-building opportunities and quality of life improvements that should directly benefit communities of color. Investments like home weatherization and energy efficient home upgrades can decrease utility bills and increase the comfort of one's home. Installing solar power or providing access to clean energy can further reduce household utility expenses. Currently, "the bottom 20% of earners spend almost 10% of their income on electricity, more than seven times the portion of income that the top 20% pays."[6] Because communities of color and LMI communities have a greater need for utility-related savings and other wealth-building opportunities that green investments can provide, they should be prioritized for clean energy and weatherization initiatives.

Communities of color also need greater private capital investments at the community level. Such investments could include clean mobility options, electric vehicle charging infrastructure, building electrification, housing near transit, urban greening and community solar. It is important to note that even community level investments benefit specific businesses. It is critical that the businesses that benefit from community investment dollars are also owned by people of color. When funding community-level green investments, private investors and financial institutions should consider the standards laid out in the Greenlined Economy Guidebook to ensure that these investments build power, advance equity and close the racial wealth gap, as well as address climate change.

The Need for Green Investment Nationwide — and Why the Financial Sector Should Care

The U.S. needs to triple the amount it spends annually on combatting climate change. The Intergovernmental Panel on Climate Change estimates that between $1.6 and $3.8 trillion are needed annually between now and 2050 to keep warming on a pathway to stay below 2°C.[7] The Hewlett Foundation estimates that as of 2017, the U.S. was investing a maximum of $530 billion.[8] While the U.S. may not reach these goals quickly, this is clearly an area of rapidly growing investment. Understanding and prioritizing the needs of communities of color and LMI communities now will help ensure that as investment increases, projects and investments focus on the people who need them the most.

The financial sector can be key to reaching this target, but currently most investment comes from the public sector. In addition to the incentive to "do the right thing," the financial sector faces trillions of dollars in economic losses due to climate change. The Center for American Progress has researched the risks that climate change poses to our economic system, stating, "One estimate suggests that if temperatures rise to four degrees Celsius above pre-industrial levels over the next 80 years, global economic losses could mount to $23 trillion per year—permanent damage that would far eclipse the scale of the 2007-2008 financial crisis." The U.S. banking sector lags far behind the rest of the world in addressing this issue: In particular, the financial systems in China and the European Union are already taking action to incentivize green investment and regulate risk levels and composition of green index and mutual funds.

Financing Challenges for Expanding Equitable Green Investments

These challenges prevent banks from directing more of their dollars toward climate-friendly investments. The Hewlett Foundation found that the following barriers prevent banks from expanding their investments in green products and initiatives, all of which are emphasized when investments are planned for low-income communities of color:

- There aren't enough sources of high-risk capital for early stage projects and investments;
- Investor opinion, rather than data, determines the perceived strength and risk of an investment;
- Banks prefer large, centralized projects over smaller, distributed projects (which are often the types of projects that exist in low- and moderate-income communities);
- Data on the performance of existing green investments remains insufficient; this exacerbates the risk pricing issue, because investors hesitate to invest in "unproven" concepts;
- Shifting government policies on climate change contribute to the uncertainty around green investments;
- Climate change is not currently viewed as a short-term risk; investors therefore fail to consider it as an immediate threat that needs to be addressed;
- There is no consensus on the definitions of green investments, which makes it difficult to track either where investment occurs or its impact; and
- Investors' expectations for returns on investment prioritize short-term, high-return investments, while climate-friendly investments often have longer-term, less certain returns.

Barriers to Racial Equity in Green Bank Investments

Key barriers that prevent communities of color from benefiting financially from loans, funding, construction and other opportunities associated with green investments include:

- The banking sector lacks racial diversity and representation of people of color, which translates into a lack of consideration of communities of color in decision-making;
- The green business community, like many sectors, is over represented by White men. Few of the contracts for green investments, like community solar installation or energy utilities, are awarded to businesses owned or operated by people of color;
- Renewable energy companies owned and operated by people of color lack access to small business financing from financial institutions;
- Banks with the largest market shares in California rarely contract with businesses owned or operated by people of color — a particular concern when considering how to increase banks' investments not only in green technologies, but green technologies that benefit people of color; and
- Homeowners are the biggest current beneficiaries of clean energy solutions — but in California, low-income communities and communities of color are more likely to be renters, who have largely been left out of clean energy benefits. The economic value of California's clean energy programs still primarily accrue to White households.

RECOMMENDATIONS TO INCREASE GREEN BANK INVESTMENTS

We interviewed stakeholders representing banks, community development financial institutions, researchers, financial regulators, and nonprofit organizations, as well as a review of the existing literature in this area. Based on our research, we found the four challenges and opportunities in developing a racially equitable green investment landscape and developed policy recommendations around each finding.

1 The landscape of green investing largely ignores racial and economic equity:

Banks and CDFIs that are actively investing in sustainability generally do not assess whether those dollars will directly benefit communities of color or LMI communities. Throughout the landscape of investors, advocates and organizations working on increasing investments in sustainable and green technologies,we see an inadequate focus on race. Many of these players lack racially diverse staffs, do not report racial demographic data regarding the people and communities they serve, and do not mention how their programs work to achieve racial equity.

Recommendation: Incorporating a Racial and Economic Equity Lens Throughout Green Investments

- **Banks, CDFIs, green technology companies, nonprofit organizations and green advocates all need to incorporate a racial equity lens into their work.** Throughout the data collection process for this report, the need for more emphasis on incorporating racial and economic justice goals into green investments was clear. We lack adequate data on the racial demographics of clients served by green investments, too few people of color work in environmental-related organizations, banks and CDFIs, and very little attention gets paid to how these investments can widen or close the racial wealth gap. Each of these sectors needs to do more to incorporate these considerations into their policies and practices to ensure that communities of color and LMI communities receive priority for green investment opportunities.

- **Banks should expand the criteria for sustainable investments to include broader community investments and bridge the gaps in their corporate social responsibility efforts.** Banks who work in this area currently have an either/or approach — their investments target sustainability or environmental goals, or they focus on increasing resources for communities of color and LMI communities. Banks should deliberately bridge these areas as part of their philanthropic or mission-driven activities, as banks already invest in sustainability issues as part of their businesses and are beginning to include sustainability as a criteria in their grantmaking activities. If investments continue to occur in silos, with organizations and banks focusing on just one area, it will be extremely difficult to create wealth-building and climate-friendly opportunities needed in communities of color.

- **Banks and CDFIs need to do more to ensure their investments are direct, meaningful and have assured benefits for low-income communities and communities of color.** All of these institutions need an agreed-upon definition of green investments in order to improve the tracking of green investments and develop a greater understanding of which investments benefit low-income communities and communities of color. While having a better understanding of what dollars are being spent where through improved tracking will help, it is just the first step. Financial institutions must devote increased attention to ensuring that the green investments they make also build wealth and other economic opportunities.

2 CDFIs help make green investments, but need to be bolder on racial equity:

CDFIs are helping advance green investments, some in LMI areas, in partnership with larger banks; however, through a combination of poor data tracking and a lack of emphasis on racial and economic equity, these investments do not always benefit LMI communities and rarely benefit communities of color. As an industry, CDFIs have the potential to be major influences on the way that capital creates positive social and environmental impact and often serve as the link between banks and community development deals. However, CDFIs are often risk-averse in order to appease capital investors, jeopardizing their ability to make the impact they seek.[9]

Recommendation: Building on CDFI Successes

- **CDFIs working on sustainability and climate-friendly investments need a racial equity lens.** Because these investments can build wealth, provide housing stability and improve quality of life for those who receive investments, communities of color must be prioritized. CDFIs should 1) consider how their investments do or don't support communities of color and adjust their practices accordingly; 2) track and report on the racial demographics of their clients; and 3) work together with CDFIs who do have a racial equity lens to ensure that CDFIs who serve people of color have the necessary access to resources.

- **CDFIs should consider how they can work at the intersection of sustainability and racial equity.** Few CDFIs actively focus on environmental and sustainable investing in addition to community benefits. This partly stems from a lack of knowledge or awareness about what these kinds of investments look like: Sharing practices and knowledge about what's currently working in this field and how CDFIs can start investing could encourage more of these engagements.

- **Banks should prioritize investing in CDFIs led by people of color and that have proven records of lending to people of color.** Access to capital is a critical motivator for CDFIs' work, and CDFIs led by people of color are often funded at lower levels than CDFIs led by white people.[10] To ensure that investments make racially equitable impacts, banks should take these considerations into account when distributing capital.

- **Banks should work with CDFIs to invest in riskier projects.** One of the most promising practices that CDFIs working on sustainable investments described was the way in which they partner with banks to make slightly-too-risky deals happen, by taking on the riskier portion of the loan. This can help banks engage more deeply and consistently in sustainability work in low-income communities and communities of color. This practice could be employed by banks and CDFIs at the CRA activity level, impact investment level, or with corporate responsibility grants and lending.

3 Modernize the Community Reinvestment Act to better support sustainable communities:

The Community Reinvestment Act incentivizes banks to offer fair access to credit for underserved communities; however, these communities still need much more investment, and a rising number of communities of color and LMI communities are not able to get the credit and banking services that they need. Officially recognizing green investments in low-income communities as a way to gain CRA credit offers opportunities for incentivizing green investment that benefits LMI communities. Because investments in affordable housing represent one of the primary mechanisms for banks to meet their CRA requirements, sustainable, energy-efficient, affordable housing construction presents abundant opportunities for overlap between green financing and investment in LMI communities. While it is unclear what official changes to the CRA might help incentivize even greater investment, ripe opportunities for expansion exist even under current conditions.

Recommendation: Expanding and Improving upon Green CRA Activity

- **Assess how well green buildings are benefiting residents and create guidelines for banks around these investments.** Financing green and sustainable LMI housing is the primary way banks make green and economic equity-focused investments. Banks should direct more CRA funds to green housing investments that provide the greatest economic benefits to low-income residents and people of color and assess how well these investments meet the community's needs.

- **Reinforce the CRA's power to promote home mortgage lending to LMI communities and communities of color.** Homeownership remains a critical way for LMI communities and communities of color to build wealth, benefit socially and economically from stable housing, and to enjoy many of the green technologies that in turn build wealth and stability.

- **Greater transparency and data collection on green, bank investments that qualify for CRA credit.** Explicitly including green investments as allowable activities under the Community Reinvestment Act will provide banks, advocates and financial regulators with better data on how many investments are being made and in what areas. Greater data collection and scrutiny of these investments will also likely increase these types of investments.

4 Existing household and community-level programs offer lessons on investing equitably:

Government and nonprofit-led programs to create more equitable access to green technologies have led to mixed results. Programs offering funding or financing to individual low- and moderate-income households for household, green investments can face unexpected pitfalls, which can unintentionally harm these individuals economically. For example, the information asymmetry between the company, bank or financial institution offering financial products and the household recipient create the potential for unadvisable – or even predatory – loan terms. The greatest opportunities for expanding the amount of overall financial investment in climate-friendly activities are at the community level. Investments like community solar, public electric vehicle charging stations and energy-efficient affordable housing offer economic benefits to people who don't meet income or credit requirements for loans.

Recommendation: Building on Lessons Learned to Expand Green Investments Equitably

- **Focus on scaling up programs that are already working well.** Many of the larger investments occurring now or that banks may be interested in making operate at the community or regional level at their smallest scale and need funding to scale up. In order to mobilize larger-scale financing and to make a bigger impact in climate adaptation readiness and mitigation efforts, banks should focus on larger-scale projects, such as regional bus electrification, sustainable building practices in affordable housing built using the Low-Income Housing Tax Credit, and neighborhood microgrids in order to have a larger impact for both individuals and regions.
- **When investing in low- and extremely low-income areas, any lending activities should be well monitored, prioritize communities, and be based on ability to repay.** Abusive lending practices in financing programs like Residential Property Assessed Clean Energy programs offer a cautionary tale in how loans outside of traditional banks can harm consumers. While grant programs can avoid these pitfalls all together, loan programs are still important tools to offer the most benefit to the most people. Loan programs should include careful analysis of a consumer's ability to repay, flexibility in the event of a payment disruption, and abundant consumer education and support both prior to and during the loan period. Ideally, loan programs should also build in consumer protections with third party contractors: for example, a CDFI can negotiate contracts with solar installation contractors on behalf of consumers.
- **Involve Community Development Financial Institutions and/or nonprofit organizations in designing and implementing investments.** The most successful programs serving both the needs of LMI communities and communities of color and advancing sustainability goals in our analysis involved CDFIs and/or nonprofits. Because these parties exist in service of community goals, they will help ensure that programs truly meet the needs of the consumers of green programs.

> ***"The greatest opportunity to expand climate investments is at the community level, but funding is needed to help scale up pilot programs throughout regions, rather than small-scale efforts."***
>
> – Elizabeth Mattiuzzi, San Francisco Federal Reserve

CONCLUSION

This is a pivotal time for green investment in communities of color and LMI communities. The world urgently needs to transition away from fossil fuels, and banks, CDFIs and other financial regulators are paying attention. Unfortunately, private capital investments still lag far behind the scope and continuing growth of the need, and regulators around the world are implementing policies to break down barriers to such investments. As banks scale up their investments in green technologies in the coming years, the needs of communities of color and LMI communities should be understood and prioritized.

> ***"A fair share of our impact investments portfolio going forward will be community development and going forward sustainability will likely be a larger focus."***
>
> – JPMorgan Chase Bank

ACKNOWLEDGEMENTS

The Greenlining Institute

Founded in 1993, The Greenlining Institute envisions a nation where communities of color thrive and race is never a barrier to economic opportunity. Because people of color will be the majority of our population by 2044, America will prosper only if communities of color prosper. Greenlining advances economic opportunity and empowerment for people of color through advocacy, community and coalition building, research and leadership development. We work on a variety of major policy issues because economic opportunity doesn't operate in a vacuum. Rather than seeing these issues as being in separate silos, Greenlining views them as interconnected threads in a web of opportunity.

Economic Equity

The Greenlining Institute's Economic Equity program works to overcome the lingering effects of redlining, close the racial wealth gap, and ensure that our financial system works for all.

Authors

Irene Farnsworth, Policy Research Consultant for The Greenlining Institute.

Irene's work focused primarily on the financial sector's investments in climate adaptation and mitigation impacts in low-income communities and communities of color — and opportunities to improve and expand this impact— as well as research on taxation options to fund affordable housing construction in California. In fall 2020, she joined the California Department of Social Services Housing and Homelessness Branch as a Housing Policy Specialist, where she manages Project Roomkey and other special projects. Previously, Irene worked with public agencies, nonprofits and philanthropic organizations throughout the Bay Area with Learning for Action, a program evaluation and strategic planning consulting group. Irene holds a Master of Public Policy degree from UC Berkeley's Goldman School of Public Policy.

Rawan Elhalaby, Senior Economic Equity Program Manager at The Greenlining Institute.

Rawan leads the organization's research efforts around bank accountability and financial inclusion. She is passionate about advancing equity for underserved communities through policy research, data analysis and advocacy.

As the daughter of Palestinian, working class refugees, Rawan is all too familiar with the obstacles that low-income and immigrant families face in achieving self-sufficiency in the United States. She has spent her career fighting barriers to economic opportunity: at the systems level at Greenlining, and at the individual level with refugees from Iraq, Somalia, Syria and Afghanistan at the International Rescue Committee in San Diego. She has also worked as a policy consultant to the Consumer Financial Protection Bureau, the County of

San Diego, the Western Regional Advocacy Project and the Dellums Institute for Social Justice. Rawan holds a Master of Public Policy from UC Berkeley's Goldman School of Public Policy and a B.A. in Political Science from San Diego State University.

Rawan authored Greenlining's recent report Home Lending to Communities of Color, testified before the House Financial Services Committee's Subcommittee on Diversity and Inclusion on the lack of diversity in banks, and has been quoted in a variety of publications ranging from American Banker to Politico.

Editorial

Bruce Mirken, Media Relations Director at The Greenlining Institute

Design

Ashley Johnson, Digital Strategy Manager at The Greenlining Institute

Nadia Kim, Communication Coordinator at The Greenlining Institute

Special Acknowledgements

We would like to thank all of the individuals who made this report possible through sharing their time and perspectives with Irene, listed below. Irene Farnsworth extends special thanks to her advisor, **Dan Lindheim, and her Goldman School APA class** for their feedback, support and encouragement.

We would also like to thank **Adam Briones**, Economic Equity Director, **Carmelita Miller**, Energy Equity Director, and **Alvaro Sanchez**, Environmental Equity Director, at The Greenlining Institute for their support.

Photography

Cover:
G Points Studio

Page 2, 4, 7:
AdobeStock

Page 11:
nd3000

REFERENCES

Axel-Lute, Miriam. (August 29, 2019). "Is Success Making CDFIs too Risk-Averse." Shelterforce. Accessed from: https://shelterforce.org/2019/08/29/is-success-making-cdfis-too-risk-averse/

Cushing, Lara et al. November 2015. Racial/Ethnic Disparities in Cumulative Environmental Health Impacts in California: Evidence from a Statewide Environmental Justice Screening Tool (CalEnviroScreen 1.1).

District of Columbia. Clean Energy DC Omnibus Amendment Act of 2018.

Hewlett Foundation, Climate Finance Strategy 2018-2023.

Intergovernmental Panel on Climate Change (2018), "Special Report: Global Warming of 1.5 C," 154. Accessed from: https://www.ipcc.ch/sr15/.

Long, Lenwood. (August 23, 2017). CDFIs Led by People of Color Face Financial Disparities Too. Shelterforce. Accessed from: https://shelterforce.org/2017/08/23/15028/

Northcross, Mark (October 17, 2019). Rebuild to Fail or Rebuild to Adapt: How CRA Lending Can Guide Climate Change Disaster Response. Federal Reserve Bank of San Francisco Community Development.

"PACE Energy Efficiency Loans: Good Intentions, Big Risks." National Consumer Law Center. Accessed from: https://www.nclc.org/issues/pace-energy-efficiency-loans.html

Plumer, Brad. (May 13, 2020). In a First, Renewable Energy Is Poised to Eclipse Coal in U.S. The New York Times. Accessed from: https://www.nytimes.com/2020/05/13/climate/coronavirus-coal-electricity-renewables.html

"Property Assessed Clean Energy Programs." Department of Energy, Energy Efficiency and Renewable Energy. Accessed from: https://www.energy.gov/eere/slsc/property-assessed-clean-energy-programs

"Solar for All." DC Department of Energy and the Environment. Accessed from: https://doee.dc.gov/solarforall

Silver, Josh. (August 15, 2019). Don't Diminish the Importance of Homeownership in CRA Reform. Shelterforce. Accessed from: https://shelterforce.org/2019/08/15/dont-diminish-the-importance-of-homeownership-in-cra-reform/.

Sunter, Deborah, Castellanos, Sergio and Kammen, Daniel. (January 2019). Disparities in rooftop photovoltaics deployment in the United States by race and ethnicity. Nature Sustainability, Vol. 2.

Taylor, Dorceta. (July 2014). "The State of Diversity in Environmental Organizations." Prepared for Green 2.0. The University of Michigan School of Natural Resources and Management.

The Urban Institute. November 2017. "Nine Charts about Wealth Inequality in America." Accessed from: https://apps.urban.org/features/wealth-inequality-charts/

The Greenlining Institute (2019). 2019 Bank Board Diversity.

The Greenlining Institute (2019). Equitable Building Electrification: A Framework for Powering Resilient Communities.

The Greenlining Institute. (November 9, 2018). Re: Reforming the Community Reinvestment Act Regulatory Framework.

The Greenlining Institute. (May 2019). Social Equity in California Climate Change Grants: Making the Promise Real.

The Greenlining Institute (2016). Supplier Diversity Report Card: Banks Still Struggle to Contract with Diverse Businesses.

The Greenlining Institute (2019). Supplier Diversity Report Card: Incremental Progress in a Swiftly Changing Landscape.

Stakeholders Interviewed

Banks and Community Development Financial Institutions

- **Acuña, Alex**. Program Fellow, Disaster Resilience & Recovery Northern California Market, Enterprise Community Partners
- **Andrade, Duanne**. Chief Financial Officer, Solar Energy Fund
- **Barron, Michelle**. Program Associate, Beneficial State Foundation
- **Bliss, Norman**. Senior Vice President and Community Reinvestment Group Manager, Bank of the West
- **Brown, Rich**. Senior Vice President and Environmental Program Director, Bank of America
- **Egan, John**. Vice President, CEI
- **Frishberg, Ivan**. First Vice President, Amalgamated Bank
- **Hill, Tate**. Director of Administration, Access Plus Capital
- **Huntley, Ramsay**. Sustainable Finance Strategist, Wells Fargo
- **Johnson, Christopher**. Vice President, Head of Corporate Social Responsibility, Bank of the West
- **Leybovich, Jen**. Executive Vice President, Main Street Launch
- **Looney, Virgil**. Deputy Director, Beneficial State Foundation
- **Schwartzman, Liya**. Central Valley Program Coordinator, California FarmLink
- **Taylor, Parris**. Associate, Impact Finance, JP Morgan Chase
- **Wright, Taylor**. Sustainable Finance Senior Associate, JP Morgan Chase
- **Valentine, Jhana**. Program Director, Beneficial State Foundation

Regulatory Institutions

- **Barnett, Leilani**. Regional Manager, Community Development, Federal Reserve Bank of San Francisco
- **Mattiuzzi, Elizabeth**. Senior Researcher, Community Development, Federal Reserve Bank of San Francisco

Nonprofit Organizations and Green Innovation Companies

- **Bateson, Blair**. Company Network Manager, Ceres
- **Gelzinis, Gregg**. Senior Policy Analyst, Center for American Progress
- **Kennedy, Danny**. Chief Energy Officer, New Energy Nexus
- **Knight, Zach**. Co-Founder and Managing Partner, Blue Forest Conservation
- **Lambert, Daryl**. Program Manager, Clean Economy Initiatives, Rising Sun Center for Opportunity
- **Rivera, Yesenia**. Director of Energy Equity and Inclusion, Solar United Neighbors

Endnotes

1 Plumer, Brad. (May 13, 2020). In a First, Renewable Energy Is Poised to Eclipse Coal in U.S. The New York Times. Accessed from: https://www.nytimes.com/2020/05/13/climate/coronavirus-coal-electricity-renewables.html

2 The Urban Institute. (November 2017). “Nine Charts about Wealth Inequality in America.” Accessed from: https://apps.urban.org/features/wealth-inequality-charts/

3 Lara Cushing, et al. (November 2015). Racial/Ethnic Disparities in Cumulative Environmental Health Impacts in California: Evidence from a Statewide Environmental Justice Screening Tool (CalEnviroScreen 1.1). Available at https://dx.doi.org/10.1186%2Fs12940-017-0344-z.

4 Covert, B. (2017, November 10). Race Best Predicts Whether You Live Near Pollution. Retrieved from https://www.thenation.com/article/archive/race-best-predicts-whether-you-live-near-pollution/

5 Michela, Z., & Willingham, Z. (2020, December 17). A CRA To Meet the Challenge of Climate Change. Retrieved 2020, from https://www.americanprogress.org/issues/economy/reports/2020/12/17/493886/cra-meet-challenge-climate-change/

6 The Greenlining Institute. (May 2019). “Social Equity in California Climate Change Grants: Making the Promise Real.”

7 “Special Report: Global Warming of 1.5 C,” Intergovernmental Panel on Climate Change (2018), 154. https://www.ipcc.ch/sr15/; Note that IPCC cites 2010 adjusted USD in its estimates and calls for energy system supply-side investments (ex: resource extraction, power generation, fuel conversion, pipelines/transmission, and energy storage). The IPCC notes that the amount required for investment could shift up or down depending on the level of investment in energy efficiency solutions and/or policies targeting limiting energy demand.

8 Hewlett Foundation, Climate Finance Strategy 2018-2023. https://hewlett.org/wp-content/uploads/2019/09/Hewlett-Climate-Finance-Strategy-2018-2023.pdf

9 Axel-Lute, Miriam. (August 29, 2019). “Is Success Making CDFIs too Risk-Averse.” Shelterforce. Accessed from: https://shelterforce.org/2019/08/29/is-success-making-cdfis-too-risk-averse/

10 Long, Lenwood. (August 23, 2017). CDFIs Led by People of Color Face Financial Disparities Too. Shelterforce. Accessed from: https://shelterforce.org/2017/08/23/15028/