

10

CALIFORNIA'S CLIMATE INVESTMENTS

CASE STUDIES
REDUCING POVERTY
& POLLUTION



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About the Program

The Greenlining Institute Environmental Equity Program works to develop policies to improve public health and environmental quality for low-income communities and communities of color while bringing “green” dollars to these communities.

About the Author

Alvaro S. Sanchez is an urban planner with extensive experience crafting, implementing, and evaluating strategies that leverage private and public investments to deliver community benefits to impacted communities. Alvaro leads our work on SB 535 (de León) which directs at least one quarter of California’s Greenhouse Gas Reduction Fund to disadvantaged communities. He also leads our neighborhood-scale sustainability initiative, a comprehensive and scalable approach to greenhouse gas reduction that leverages private and public investment while improving underserved communities throughout California.

FOR MORE INFORMATION

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EXECUTIVE SUMMARY

The Greenhouse Gas Reduction Fund

Under AB 32, the Global Warming Solutions Act of 2006, California created a cap-and-trade program to charge major polluters for their greenhouse gas emissions. Funds generated — currently close to \$3 billion — have gone into a Greenhouse Gas Reduction Fund (GGRF) to finance projects that further reduce greenhouse gas (GHG) emissions. This represents the largest climate justice investment in U.S. history.

Environmental justice advocates secured passage of a second law, SB 535, guaranteeing that at least 25% of GGRF allocations go to projects that benefit disadvantaged areas, with at least 10% of funds going to projects located within disadvantaged communities. The first GGRF funds began to be released in late 2014.

To evaluate initial success of this program in assisting underserved communities, The Greenlining Institute examined 10 projects: nine already funded and one that is eligible for funding. These case studies provide an early snapshot of the Fund's impact and suggest ways the program might be improved.

These 10 projects alone will provide over 2,000 solar power systems for low-income families generating nearly six megawatts of clean power, plant 2,250 trees in disadvantaged communities, provide 252 homes permanently-affordable to lower income households, create over 400 jobs and replace 600 old, highly polluting cars and trucks with clean electric or plug-in hybrid vehicles.

Case Studies Map



Case Studies List

1

San Joaquin Valley: Low-income residents with old, polluting cars are getting help fixing them to meet smog requirements or replacing them with electric or plug-in hybrid vehicles. 13,000 vehicles repaired; 600 clean vehicles replace old clunkers.

2

Salinas Valley, Central Valley and Imperial County: 15-passenger vanpools are allowing farm workers to get to work safely and reliably, eliminating millions of vehicle miles and increasing worker mobility.

3

Fresno: Multiple organizations are partnering to divert more than 110,000 tons of waste annually from California's landfills in order to produce renewable biomethane while providing much-needed food to residents in need.

4

Sacramento: 1,600 low-income residents are receiving home solar systems and assistance with energy savings, saving \$45.7 million on energy and generating 400 work opportunities.

5

Fresno: 1,212 low-income families are receiving solar power systems, reducing CO2 by over 113,000 metric tons over 25 years, training 30 workers and providing 30 jobs.

6

Montclair (San Bernardino County): The city and local residents turned a one third acre piece of underutilized public land into a park with fruit trees, providing shade, enhanced public space, and the air-cleaning action of trees, job training, and healthy food for local residents.

7

Los Angeles: Two low-income neighborhoods will receive 1,120 trees, removing 1,986 tons of greenhouse gases from the air, improving air quality, enhancing neighborhoods and reducing heat island effects.

8

Oakland: Low-income "flatlands" neighborhoods along a major transit corridor will receive 1,100 trees, improving air quality while reducing greenhouse gases and heat island effects.

9

National City (San Diego County): One of the state's most disadvantaged communities will receive 201 apartments affordable to lower income households accessible to transit and designed to promote walking and cycling, as well as a new park, reducing CO2 by over 16,000 tons.

10

Los Angeles: If funded, 31 apartments affordable to lower income households will be built in the low-income Boyle Heights neighborhood served by light rail, bus lines and new bike lanes to promote transit use and ease the neighborhood's critical lack of affordable housing. This high-scoring project narrowly missed first-round funding because caps for the distribution of funds had already been reached for the region.

INTRODUCTION

While national and international leaders argue about how – and even whether – to address climate change, California has begun an unprecedented statewide effort to reduce greenhouse gas (GHG) emissions. Thanks to a determined effort by community groups and advocates, that effort includes a specific commitment to funnel significant resources into projects that reduce both pollution and poverty in communities hard hit by environmental problems and economic challenges.

AB 32 (Global Warming Solutions Act of 2006) commits California to reducing greenhouse gas emissions to 1990 levels by 2020. AB 32 required the California Air Resources Board (CARB) to create a strategy, called a Scoping Plan, to meet this goal. The Scoping Plan laid out a proposed set of actions, including a cap-and-trade program that limits the greenhouse gas emissions from major sectors of our economy, including large, industrial polluters. Facilities subject to the cap must obtain permits (called allowances) to emit these gases. These allowances are auctioned by the state, and businesses can then sell or trade them. California’s cap-and-trade program was launched in November 2012 and has already generated close to \$3 billion in revenue for climate investments as of the 2014-15 fiscal year, a figure that is expected to increase in future years.

Revenues collected by AB 32 go into a Greenhouse Gas Reduction Fund (GGRF), to be directed toward programs that further help reduce GHG emissions. These dollars can also be leveraged to bring jobs and investment to communities hit hardest by pollution and to alleviate the impacts of climate change in those neighborhoods.

In 2012, The Greenlining Institute joined with the Asian Pacific Environmental Network, Coalition for Clean Air, the California Environmental Justice Alliance, Center on Race Poverty and the Environment, Ella Baker Center for Human Rights, the California NAACP, and the Natural Resources Defense Council to co-sponsor

SB 535, authored by Sen. Kevin de León (D-Los Angeles), to direct revenue from the GGRF into underserved communities to “green up” these areas and create access to good, career-path jobs. SB 535, signed into law in September 2012, requires that at least 25% of the GGRF go to projects that will benefit disadvantaged areas and that at least 10% must be allocated to projects actually located in disadvantaged communities.

The law defines “disadvantaged communities” as those that are disproportionately affected by pollution and subject to high concentrations of unemployment, poverty, and low levels of educational attainment. To identify these areas, California created the first-ever environmental justice mapping tool, known as CalEnviro-Screen 2.0. Information about this tool with links to the CalEnviroScreen map interface can be found at <http://oehha.ca.gov/ej/ces2.html>.

Now that SB 535 is law, Greenlining and the SB 535 Coalition are working to make sure these funds reach the communities most in need. This includes working with the governor’s administration and the legislature to direct funding to the programs prioritized by underserved communities and monitoring the entire implementation process to ensure transparency and accountability when the funding is allocated. For progress to continue, we believe it is important to document tangible outcomes achieved by AB 32 and SB 535. Understanding of real-world benefits will help to gain community and political support for these policies, both within California and nationally, as other states and the federal government evaluate approaches to addressing climate change.

The following case studies provide real life examples of communities, households, workers, and other individuals that are benefiting from California’s climate investments. They present concrete examples of the impact these programs are beginning to have in different types of communities around California, with an emphasis on benefits to low-income communities and communities of color, which are often those most impacted by pollution and economic stagnation.

As funding only began to be released in 2015, these studies necessarily focus on projects that were among the earliest funded and do not capture the full spectrum of programs being funded under AB 32 and SB 535. However, we believe they provide useful snapshot of the sorts of impacts California communities have begun to experience from GGRF-funded projects.

METHODOLOGY

In identifying projects to profile, The Greenlining institute sought to profile programs identified as priorities by the SB 535 Coalition, as well as others likely to bring significant benefits to communities of color and low-income neighborhoods. We worked with state agencies and the SB 535 Coalition to identify participating organizations that received early allocations of GGRF dollars and/or had already carried out similar projects. To the degree possible we sought to identify a variety of types of projects in different regions of the state.

Once projects that met these criteria had been identified, we reviewed their GGRF applications and Complete Project reports to collect data on project details as well as achieved and expected outcomes. To complete our understanding, we then interviewed agency staff, local project leaders, and solar installation and EV rebate recipients.

Limitations and Considerations for Evaluation

In order to present an early indication of GGRF impacts, we were limited to analyzing data from completed projects by organizations seeking GGRF resources. We then reviewed approved GGRF funding applications from those organizations to determine the anticipated benefits projects are likely to achieve. As 2015 is the first year of funding allocations, many worthwhile projects are only beginning to get underway and had not generated enough information to be included. For

that reason, these project profiles should be considered only a snapshot of early impacts and not a representative sample of GGRF-funded projects.

Our evaluations were also limited by the availability of data. Not all projects collected the same data and in some cases methods for calculating particular statistics varied, making apples-to-apples comparisons difficult. In some cases, available data were quite limited. The Recommendations section below contains specific suggestions for improving data collection and describes other ways GGRF programs could be improved. We expect this first year of funding to provide a learning experience for all concerned, and wish to ensure that lessons learned in this early phase are used by all participating agencies to maximize benefits and ensure transparency and accountability.

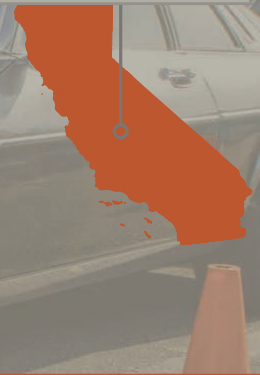
Upcoming Luskin Center reports

Readers may want to consider this report in conjunction with two upcoming reports from the Luskin Center for Innovation at UCLA, both of which will take a more quantitative approach to analyzing the impact of SB 535 and the GGRF. One will analyze the funding and application process for each program area, while the other report will seek to quantify the household costs and benefits achieved through GGRF investments. We hope that, taken together, these three reports will provide a picture of the first-year impact of GGRF investments that will be useful for policymakers and advocates alike.



1

CALIFORNIA
San Joaquin Valley



Benefits to Disadvantaged Communities:

- Replacement of 600 polluting vehicles with 600 electric vehicles for Valley residents
- Reductions in hydrocarbons (HC) and oxides of nitrogen (NOx) emission
- 13,000 repaired vehicles

Name of the Project:

Enhanced Fleet Modernization
Program Plus-up (EFMP Plus-up)

Project Type:

Low-Carbon Transit –
Light Duty Pilot

Location:

San Joaquin Valley, California

Funding Agency:

California Air Resources Board

Project Funding Level:

\$4.8 million FY 2013-2015

Agency Funding Level:

\$3.5 million FY 2014-2015
\$24 million FY 2015-2016
(Proposed)

Project Team:

Valley Clean Air Now

Completion Date:

Ongoing

Contact:

Tom Knox, Executive Director,
Valley CAN

Improving Air Quality While Helping Residents Save Money at the Pump

Valley Clean Air Now (Valley CAN) is a nonprofit advocacy group committed to improving air quality in communities throughout California's San Joaquin Valley. Valley CAN works to reduce emissions while helping hundreds of local residents save money by offering free vehicle emissions tests and diagnostic inspections to identify vehicles eligible to receive \$500 vouchers for emissions-based repairs. Valley CAN also facilitates clean vehicle (electric, plug-in hybrid or hybrid) replacement incentives for low-income Valley residents.

COMMUNITY NEEDS TO BE ADDRESSED

The San Joaquin Valley is one of the most polluted regions in California and the country. The Valley does not currently meet health-based standards set by the United States Environmental Protection Agency for ozone and particulate matter, exceeding the federal standards for ground-level ozone an average 35-40 days per year, and exceeds the state ozone standard more than 100 days per year.²

The valley collects and retains emissions caused by the activities of the Valley's three million residents and their two million vehicles, as well as vehicles from other areas traveling on Highway 99 and Interstate 5. Farming and industrial activity also play a large role in the emission of particulates and ozone.³

Income inequality compounds the environmental challenges that residents of the Valley face. Unemployment and poverty are pervasive in the Valley, where cities like Fresno have unemployment rates above 20% and almost half the population lives below the poverty line.⁴ The combination of heavy pollution and economic disparity means the Valley is one of the most disadvantaged regions in California according to CalEnviroScreen 2.0.

PROJECT DESCRIPTION

Valley CAN, on behalf of the San Joaquin Valley Air Pollution Control District, is the regional contractor of the Enhanced Fleet Modernization Program Plus-up (EFMP Plus-up), the first of a suite of transportation equity programs to be implemented as a result of the Charge Ahead Initiative (SB 1275, De León), a law to put a million zero-emission cars, trucks and buses on California's roads and financed through the Greenhouse Gas Reduction Fund (GGRF). The launch of this program marks the beginning of an ambitious effort to increase the number of lower-emissions vehicles in low-income communities.

The \$4.8 million pilot program is designed to provide up to \$9,500 to low-income Valley residents living in disadvantaged communities so that they can replace their old vehicle with a new or used hybrid, plug-in hybrid or electric vehicles.⁵ The pilot program is expected to replace at least 600 cars during fiscal year 2015-16.⁶ Alternatively, individuals who choose to scrap their old car without replacing it would be eligible for public transit passes valued at between \$2,500 and \$4,500, depending on their income.

Valley residents access Valley CAN's services through the Tune In & Tune Up Program. Tune In & Tune Up is a series of events designed to quickly screen and identify high-emitting vehicles in need of emissions-reduction repairs. Valley CAN partners with community-based organizations and employs targeted multi-lingual marketing that uses media buys on English and Spanish radio stations to invite Valley residents to a total of 22 weekend events per year. Vehicle owners receive

free emission tests and, if they meet income qualifications, receive either incentives to repair or replace the vehicle, or are provided guidance on scrapping vehicles deemed beyond repair.

BENEFITS TO DISADVANTAGED COMMUNITIES

More than 13,000 cars have been repaired to state smog standards by Valley CAN's Tune In & Tune Up program since 2011.⁷ Of the approximately 30,000 customers the program has served, 97.8% of them are residents of disadvantaged communities as defined by CalEnviroScreen 2.0. To date, 98% of vehicles with lapsed registrations repaired through the program have been successfully re-registered with the DMV.⁸

To provide "proof of concept" data to inform the development of EFMP and EFMP Plus-Up, Valley CAN ran a pre-pilot from April to December 2014. The pre-pilot revealed that on average, families that participate in the program are able to achieve approximately \$500 in average annual fuel-cost savings.⁹ In addition to fuel savings, recipients report that increasing the reliability and safety of their vehicles created multiple co-benefits including promotions at work, savings toward the purchase of a home, and enough additional time and money to afford to be able to enroll in community college classes.

In approximately six months, the pre-pilot was able to help 108 families retire their polluting vehicle and purchase a cleaner, more reliable vehicle. This resulted in the elimination of significant amounts of emissions of harmful hydrocarbons (HC) and oxides of nitrogen (NOx) in disadvantaged communities. Since the EFMP Plus-Up program started in full this past spring, Valley CAN has been able to replace about 100 more polluting vehicles.

This past May the Mendoza family were the first to sign up for EFMP Plus Up when they received the keys to a 2013 Toyota Prius Plug-In Hybrid in exchange for retiring their beloved but high-polluting 1984 Ford Ranger. This family of eight from Stockton depended on an unreliable old truck — which had failed four years

running to pass a smog test — to make trips to San Francisco for Mr. Mendoza’s medical appointments.

Attracted by the possible \$500 voucher for emissions repairs, Mr. Mendoza decided to attend a Tune In & Tune Up event. There he connected with one of Valley CAN’s representatives, who informed him that he qualified for EFMP Plus-Up and he could purchase a newer clean vehicle if he decided to scrap his Ford Ranger. Mr. Mendoza happily agreed, as the family would get a more reliable and fuel efficient vehicle which would help save money and contribute to the fight against climate change. Mr. Mendoza now says he spends half of what he used to spend on gas, and he is using the savings to pay for the additional financing needed to purchase the Prius, making it feel like the family was able to get a newer car free of charge.¹⁰

Valley CAN consistently seeks opportunities to provide additional services to program participants at the weekend events through partnerships with other nonprofit groups. Additional services offered at weekend events have included opportunities for free flu vaccinations and health screenings through Dignity Health, and the California Department of Insurance has provided information and assistance with low-cost auto insurance programs. Valley CAN is currently developing a partnership with Fresno EOC to stack the EFMP Plus-Up benefits with the Low-Income Weatherization Program homeowner benefits being offered by the California Department of Community Benefits and Development. Combined, the programs could dramatically reduce transportation and utility costs for Valley residents.



LESSONS LEARNED

Tom Knox, Executive Director of Valley CAN, believes that EFMP Plus-Up provides the perfect incentive for Valley residents to take action on climate. Several studies and polls indicate that residents of the Valley care about the environment and are willing to take action, but contributing to clean air is far down the priority list for residents primarily concerned with their household budget, education, or healthcare costs. EFMP Plus-Up directly addresses Valley residents’ need for safer, newer, more reliable and fuel efficient vehicles, which also help improve the Valley’s air. Mr. Knox knows that addressing Valley residents’ primary needs is good for EFMP Plus Up and for the overall health of the Valley.

Mr. Knox also reported that the program guidelines could use some flexibility to respond to real-world program implementation issues. For example, the EFMP Plus-Up program provides funding for electric vehicle battery warranties when it may be more appropriate to provide funding for battery replacement.

To make an adjustment to the guidelines Valley CAN will have to wait until those guidelines are up for review. While Mr. Knox understands the difficulty in implementing the repertoire of programs funded by GGRF, he sees a gap between the intent of the program guidelines and their real world application.



2

CALIFORNIA

Salinas Valley
Central Valley and
Imperial County



Benefits to Disadvantaged Communities:

- Safe, affordable and reliable transit
- Increased access to work
- Transit cost savings
- Reduction in vehicle miles travelled
- Improved reliability of workforce

Name of the Project:

Agricultural Workers
Vanpool Expansion

Project Type:

Integrated Connectivity Project

Locations:

Central Valley, Salinas Valley and
Imperial Counties, California

Funding Agency:

Strategic Growth Council

Project Funding Level:

\$3 million FY 2014-2015

Agency Funding Level:

\$121,955,460 FY 2014-2015
\$400 million in FY 2015-2016
(Proposed)

Project Team:

California Vanpool Authority (CalVans)

Completion Date:

Ongoing

Contact:

Ron Hughes, Director, CalVans

Providing Agricultural Workers With Safe and Affordable Transit Options

CalVans was established with the goal of providing qualified agricultural workers with safe, affordable vans they could use to drive themselves and others to work. Since its launch, CalVans has grown the program to operate nearly 220 vans especially designed for farm workers. This expansion will increase the program's reach, providing transportation for an additional 225 workers, reducing air pollution and increasing worker mobility.

COMMUNITY NEEDS TO BE ADDRESSED

Farm workers are generally low-income and, if they own vehicles, tend to own vehicles that are older, unreliable and highly polluting. This limits their ability to get to work (or to take higher-paying jobs that may be a greater distance from home) and contributes to poor air quality.

A tragic accident that took the life of 13 farmworkers near the town of Five Points, California in 1999 was the catalyst that led to establishment of this program.¹¹ In those days, vans were modified to accommodate as many passengers as possible by removing seatbelts and seats. Today CalVans provides a safe and reliable transit option for agricultural workers with vans that are insured, provide seats and seatbelts, and are driven by responsible drivers. However, the service has not been able to reach all the workers who need it.

PROJECT DESCRIPTION

Unlike most conventional county transit programs, CalVans success is predicated on their drivers being agricultural workers, not county employees. Having agricultural workers provide their own transportation allows the program to meet the unique transit needs of agricultural workers. CalVans provides 220 15-passenger vans for transporting agricultural workers in Fresno, Kern, Kings, Madera, Merced, Monterey, Napa, San Benito, Santa Barbara, Santa Cruz, Tulare, Imperial and Ventura counties.

CalVans drivers must have a class C driver's license, a clean driving record and pass a Class B physical. The program structure provides numerous incentives for agricultural workers to volunteer to become CalVans drivers. They do not have to use their own vehicles, they do not have to pay for gas and they can make



incidental stops on their way home from work. Drivers set their own rules as far as pick-up locations, time and conduct. Drivers are responsible for making sure everyone arrives to work and home safely and on time. They must collect the weekly fee established by CalVans but are not allowed to charge any additional fees for their transportation services, due to federal laws stipulating that drivers may only charge for their expenses and may not profit in any way.

Most destinations are agricultural fields, with less than five percent of trips going to other value-added agricultural locations, i.e. packing, poultry facilities and food processing. All CalVans vans are equipped with GPS and radio communications equipment that monitor speed, location and mileage, and this allows the vans to remain on location at the driver's homes. Vans are each insured at \$10 million, a key safety component that distinguishes the program from informal carpools.

Each driver is responsible for recruiting the targeted amount of 14 passengers for their van to make the program as cost- and fuel-efficient as possible. Fees, which drivers must turn in to CalVans on a weekly basis, depend on mileage traveled. A fee schedule is posted in all vans to ensure against overcharging. Vans carrying fewer than 14 passengers are responsible for splitting fees among a smaller pool of participants.

California Vanpool Authority will expand the farmworker vanpool program with the Greenhouse Gas Reduction Funds (GGRF) secured through the Strategic Growth

Council's Affordable Housing and Sustainable Communities (SGC AHSC) program. They will be able to purchase 15 new vans that will provide transportation to 225 farmworkers.¹²

BENEFITS TO DISADVANTAGED COMMUNITIES



CalVans directly benefits agricultural workers by providing safe, reliable and affordable transportation. The program also contributes to improved air quality, reducing emissions by taking polluting vehicles off the roads. In a span of three years CalVans vanpools traveled 9.1 million miles, providing 1.9 million trips, resulting in a VMT (Vehicle Miles Traveled) reduction of 81 million miles.¹³ Put into Green House Gas (GHG) equivalents, that is an annual reduction of over 28 thousand tons of GHG.¹⁴

Co-benefits of this program include greater reliability for riders and their employers. 98% of CalVans riders report arriving to work on time.¹⁵ 72% report no increase in commute time compared to their previous method of getting to work.¹⁶ CalVans eliminates the need to rely of older, less reliable vehicles to get to work, and thus decreases the likelihood of arriving late to work due to mechanical breakdowns.

CalVans also saves workers money on transportation costs. On average, agricultural workers save \$8.33 per week on transportation costs, equal to 3.33% of an

agricultural worker's disposable income on average.¹⁷ CalVans also enables some to increase their incomes: The program allows some participants to safely and reliably travel longer distances to work on higher paying crops because the travel costs can be split among 14 passengers.

LESSONS LEARNED

Ron Hughes, executive director of the California Vanpool Authority, reports a positive experience applying for SGC AHSC funds. He says that SGC staff made a point of seeking input from potential applicants at the various public workshops held by the agency leading up to the application deadline.

Mr. Hughes believes SGC can improve the program by making it easier for smaller rural communities to participate. Mr. Hughes believes that leveling the playing field for smaller rural communities will distribute funding more equitably among rural communities, coastal communities, and large Councils of Governments.





3

CALIFORNIA

Fresno



Benefits to Disadvantaged Communities:

- 651,500 tons estimated GHG reduction
- Recovery of 65 tons of food annually
- Food security
- Increased access to healthy food
- Improved regional air quality

Name of the Project:

Food to Share

Project Type:

Climate Change
and Solid Waste Management

Location:

Fresno, California

Funding Agency:

CalRecycle

Project Funding Level:

\$2,925,920 Colony Energy
Partners, LLC
\$225,920 Food to Share

Agency Funding Level:

\$ 14,521,000 FY 2014-2015
\$60 million FY 2015-2016
(Proposed)

Project Team:

Fresno Metro Ministry
California State University, Fresno
Colony Energy Partners, LLC

Contact:

Song Vang, Project Manager,
Food to Share

Reducing Food Insecurity While Improving Regional Air Quality

A 2012 report by the Natural Resources Defense Council estimated that as much as 40% of the nation's food supply goes to waste. Food to Share, the community partner in Colony Energy's CalRecycle funded project, will work diligently to address this and contribute to a lasting solution to hunger in California's Central Valley while improving air quality. The project represents a unique opportunity to increase access to nutritious food for underserved communities in Fresno County and make significant contributions to regional air quality and greenhouse gas reductions through waste diversion.

COMMUNITY NEEDS TO BE ADDRESSED

Fresno faces high levels of food insecurity, food waste, and poor air quality. Despite being in the center of a valley that, according to the USDA, is the largest fruit and nut producing region in California, the Fresno metropolitan area currently ranks as the fifth most food insecure city in the U.S.¹⁸ 22% of residents cannot put food on their tables consistently, and over 11,000 Fresno children struggle with hunger on a regular basis.¹⁹

Fresno residents also face limited access to healthy food options, leading to high rates of obesity and diabetes: More than 63% of adults and 33% of children in Fresno County are categorized as obese.²⁰ Food insecure families tend to eat the cheapest food they can find, typically high in calories and low in nutrition, contributing to weight gain and negative health outcomes.

Central Valley residents also have high rates of asthma, due largely to air pollution. One of many factors contributing to this is rotting food in landfills, which produces methane gas — a potent greenhouse gas that worsens already poor air quality.

PROJECT DESCRIPTION

CalRecycle funded Colony Energy Partners, LLC to create a high-solids anaerobic codigestion facility that will divert more than 110,000 tons of waste annually from California’s landfills in order to produce renewable biomethane. The biomethane will be fed directly into the natural gas grid via a SoCalGas transmission line adjacent to the property. The biomethane will also be supplied as a diesel alternative to San Joaquin Valley’s on-road truck market through a public access Bio-CNG fueling station located on the property.

Colony is partnering with Fresno Metro Ministry to expand the existing Fresno State Food Recovery Network model through the creation of the Food to Share project, which will divert an additional 65 tons of waste annually from California landfills by providing food to those in need. The Food to Share project will encourage

the diversion of inedible food and agricultural waste to Colony’s anaerobic digester in Tulare in an effort to improve the environment. Diverting food waste from landfills to digesters prevents the formation of methane and instead transforms it into biomethane, a fuel that has the lowest greenhouse gas emissions of any heavy duty fuel, supporting Governor Brown’s new goals for a 50% reduction in transportation-related oil use and further improving air quality by reducing tailpipe emissions.



At full scale under the current budget and scope, Food to Share will displace 65 tons of organic material and 46.73 tons CO₂e annually from the region’s landfills. Additionally, Colony’s anaerobic food digester will be able to divert more than 110,000 tons of organic material and 65,150 tons of CO₂e annually.²¹ Food to Share is seeking to expand its budget, scope and positive impact in Fresno and adjacent counties.

BENEFITS TO DISADVANTAGED COMMUNITIES

To address the community needs described above, Fresno Metro Ministry was inspired to plan and launch a county-wide food diversion operation, utilizing the model and expertise of the successful food recovery program on the campus of California State University, Fresno. Food to Share will identify partners such as local food service facilities, restaurants, supermarkets, institutional cafeterias and farms with surplus, food that would otherwise go to waste. Food in edible condition will be collected and shared with food kitchens, pantries, and distribution centers in the Fresno area. Food to Share will divert wholesome, nutritious food that otherwise would end up in landfills and provide it to the Central Valley’s most vulnerable populations.

By helping to reduce food, green and agricultural waste in landfills, Food to Share will also reduce harmful methane gas emissions that in turn contribute to the San Joaquin Valley’s unhealthy air quality. Colony’s digester will convert waste diverted away from landfills into cleaned bio gas for distribution by utilities as natural fuel for trucks and buses. Colony’s de-packaging plant in Fresno will add another dimension by separating plastic, metal, and paper mixed with waste food — recycling these materials and sending food waste primarily to the digester and for other non-human use purposes. All these efforts will improve air and environmental quality in the San Joaquin Valley, and thus help reduce the high rates of asthma and increase the production of clean, renewable fuels.

While exact numbers are not yet available, new employees will be needed for several aspects of this work, including food collection/distribution as well as



construction and maintenance of the anaerobic digestion facility, creating much-needed job opportunities in a region with stubbornly high unemployment rates.

LESSONS LEARNED

According to Keith Bergthold, Executive Director of Fresno Metro Ministry, the Greenhouse Gas Reduction Fund (GGRF) application process was smooth, and that CalRecycle staff were responsive and easy to work with. The program under CalRecycle is responsible for creating partnerships among non-traditional partners such as Colony and Fresno Metro Ministry in order to submit applications that meet the requirements of reducing GHGs in AB 32 and extending benefits to disadvantaged communities under SB 535.

Mr. Bergthold identified two ways that the program can improve in the years to come. Firstly, the five percent administrative expense threshold laid out in the program guidelines severely limits the ability of food recovery programs to cover

program expenses. Unlike the capital projects funded by CalRecycle, which use most of the funds to purchase machinery and pay for hard costs, food recovery programs need more flexibility to cover program costs that are more administrative in nature. Allowing only five percent of the funds to pay for administrative expenses forces programs like Food to Share to identify other sources of funding to cover soft. This requirement should be made more flexible.

Second, Mr. Bergthold also urged CalRecycle to do more to encourage food recovery programs to meet and explore partnerships with energy producers like Colony Energy Partners. In the case of Food to Share, Fresno Metro Ministry sought out Colony when they heard of the opportunity to partner for CalRecycle funding. The meeting with Colony demonstrated the potential in partnering with them to submit a stronger GGRF application. Mr. Bergthold believes CalRecycle can play a more integral role in facilitating partnerships by hosting bidders' conferences in conjunction with the release of GGRF Requests For Proposals. This would allow energy producers and food recovery programs to hear the type of projects and partnerships that CalRecycle want to support, while providing an opportunity to network, build relationships, and find partners that can work together on a CalRecycle GGRF funded project.

Advocates in the San Joaquin Valley are concerned that siting a codigestion facility in a community that already faces heavy pollution may exacerbate adverse living conditions in Tulare, California. Mitigating adverse impacts and directing benefits to the communities within the project location are key areas of improvement for GGRF projects moving forward.





4

CALIFORNIA

Sacramento



Benefits to Disadvantaged Communities:

- GRID LIWP portfolio:
- 1,600 families served
- 5MW installed
- \$45.7 million in energy savings
- 150,000 work training hours
- 400 work opportunities

Name of the Project:

GRID - Rooftop Solar Electric
Solar Power For Sacramento Families

Project Type:

Low-income
Weatherization Program

Location:

Sacramento, California

Funding Agency:

Department of Community
Services and Development (CSD)

Project Funding Level:

\$14.7 million in FY 2014-2015

Agency Funding Level:

\$75 million FY 2014-2015

\$140 million FY 2015-2016

(Proposed)

Project Team:

GRID Alternatives

Contact:

Julian Foley,
Director of Communications,
GRID Alternatives

Lowering Household Energy Bills by Generating Renewable Energy

GRID Alternatives has been providing solar power and solar job training for low-income communities in California since 2004. As manager of the state's Single-Family Affordable Solar Homes program (SASH) GRID has developed a unique model — now being replicated nationwide — that integrates workforce development into all of its projects. Using proceeds from the state's Greenhouse Gas Reduction Fund (GGRF) under the California Department of Community Services and Development (CSD), GRID will provide rooftop solar to more than 1,600 families through 2016. Many low-income solar recipients also receive assistance in saving energy from CSD's Low-Income Weatherization Program (LIWP).

COMMUNITY NEEDS TO BE ADDRESSED

Energy bills represent a major expense for low-income households, particularly in regions with hot climates, but these households often cannot afford the cost of installing a solar power system. By helping these families convert to solar and to save energy overall, California can help low-income households make ends meet while reducing GHG emissions.

PROJECT DESCRIPTION

The CSD's Low-Income Weatherization Program (LIWP) will install rooftop solar systems, solar hot water heater systems and weatherization measures on low income households in disadvantaged communities to reduce greenhouse gas emissions and save energy.

In FY 2014-2015 LIWP is allotting \$75 million to benefit disadvantaged communities as identified by CalEnviroScreen 2.0. In addition to being located within a disadvantaged community, households must meet income qualifications of 60% of the state median income for weatherization projects or 80% of Area Median income for solar installations.²² LIWP also targets households with vulnerable populations, including the elderly, disabled and young children.

Working through its seven California regional offices, GRID advertises its solar installation services to potential customers who live in disadvantaged communities via phone calls, tabling events, flyers, and mailers, among other conventional strategies. GRID also partners with local community organizations to spread the

word about the program and its benefits to community members. Some regional offices report that word-of-mouth is the most effective way to receive referrals because community members are skeptical of the program, believing the benefits are too good to be true or unfamiliar with the technology.

Homes are comprehensively assessed and evaluated both visually and through the use of diagnostic tools to determine an appropriate suite of GHG-reducing energy efficiency measures to be installed. The exact type and level of solar installation assistance each household receives depends on the household income. Through SASH and LIWP, GRID is able to provide solar energy at much reduced rates, and sometimes completely free of charge. Under the program GRID shares information regarding income-qualified households with CSD to ensure that weatherization service providers connect with the households to further increase energy savings by performing weatherization upgrades.

BENEFITS TO DISADVANTAGED COMMUNITIES

Reducing GHG emissions is LIWP's primary goal. To achieve this goal and generate co-benefits, CSD modeled its weatherization and solar programs to maximize energy efficiency, deliver renewable energy, health and safety services, as well as workforce development to eligible low-income residents.

GRID Alternatives programs are aligned with the goals set forth by the LIWP. In ten years, GRID has installed enough rooftop solar to deliver 19 megawatts (MW) of power, with plans to help install over 100 MW over the next 10 years.²³ GRID's rooftop solar installations have reduced electricity costs by 75 to 90% for over 5,500 families, saving them an estimated \$150 million in lifetime electricity costs.²⁴ GRID's GGRF funded work is expected to create 400 work opportunities and save residents \$45.7 million in energy costs over 30 years.²⁵

For example, on May 18, 2015 Grid Alternatives in partnership with the Sacramento Regional Conservation Corps installed a rooftop solar electric system at the home





of Roy Rivera. The installation was completed by a team of job trainees from the Sacramento Regional Conservation Corps, providing students with hands-on experience that will help them access the growing solar job market. The 2.5 KW solar system will provide an estimated \$818 electricity cost savings in the first year for Mr. Rivera, a disabled man battling cancer who lives on a fixed income. Over its 30-year lifetime, the system will save him approximately \$22,800.²⁶ The energy savings associated with the new solar energy system Mr. Rivera received will help to defray some of his medical costs.

While GHG reduction is the GGRF's primary goal and is therefore a primary goal of CSD's LIWP, the program also emphasizes co-benefits. LIWP specifically seeks to provide jobs and job training for residents of disadvantaged communities. Jobs in the solar industry grew by 20% last year, and half of those new jobs were in installation, which can't be outsourced. Each GRID Alternatives installation

provides an average of 160 hours of hands-on installation experience for volunteers and job trainees seeking work in the industry. GRID has trained 19,000 people since 2004, and provided the hands-on solar installation experience people need to get hired.²⁷ GRID is also leading a major diversity initiative to increase gender and racial/ethnic diversity in the solar industry. Mr. Rivera's installation allowed ten job trainees from the Sacramento Regional Conservation Corps to get hands-on experience installing solar.

By reducing energy use through weatherization and generating energy through solar, this program allows low-income families to help reduce GHGs and simultaneously contribute to economic development by putting money from energy savings back into the local economy. When a household has lower energy bills, family members have more money to spend on items like food, transportation, housing, clothing and medicine. This stimulates the local economy and creates a multiplier effect that can lead to healthier communities overall.

LESSONS LEARNED

GRID Alternatives employs a strong central administrator model for their work. Using this model GRID has been able to maximize benefits across regions by leveraging additional funding from major industry partnerships, as well as partnering with workforce development providers to offer hands-on training for students. As the central administrator of the program, GRID can in this way make sure to have good project coverage and available workforce to deliver installations within the time frame approved by CSD.



5

CALIFORNIA

Fresno, Los Angeles,
Merced, Madera,
Sacramento and
Tulare Counties



Benefits to Disadvantaged Communities:

- 1,212 solar systems
- 900,000 watts of solar power
- 28,031 metric tons of carbon dioxide (CO₂) reduced over a 25-year period
- 30 trained workers
- 30 jobs

Name of the Project:

Fresno EOC - Rooftop Solar Electric
Solar Power For Central Valley Residents

Project Type:

Low-Income Weatherization
Program (LIWP)

Locations:

Fresno, Los Angeles, Merced, Madera,
Sacramento and Tulare Counties, CA

Funding Agency:

Department of Community Services
and Development (CSD)

Project Funding Level:

\$4.05 Million FY 2014-2015

Agency Funding Level:

\$75 Million FY 2014-2015
\$140 million FY 2015-2016 (Proposed)

Project Team:

Fresno Economic
Opportunities Commission

Completion Date: December 31, 2015

Contact:

Nathan Magsig, Weatherization
Director, Fresno EOC

Increasing Home Comfort, Saving Money, and Creating Jobs

Founded in 1965, Fresno Economic Opportunities Commission (EOC) has spent over four decades investing in people and helping them to become self-sufficient. The California Department of Community Services and Development (CSD) has contracted with Fresno EOC to install rooftop solar systems in disadvantaged communities in Fresno, Los Angeles, Merced, Madera, Sacramento and Tulare counties. Fresno EOC is partnering with SunPower, a California-based company, to supply solar systems for Fresno EOC's initiative.

COMMUNITY NEEDS TO BE ADDRESSED

Fresno County residents experience triple-digit heat in the summer, freezing temperatures in the winter and must use their air conditioning and heating systems to maintain a comfortable and safe temperature in their homes. This can lead to costly and sometimes unaffordable heating and cooling bills.

The impacts of climate change mean that communities of color and the poor will pay more for basic necessities. Low-income and minority families already spend as much as 25% of their entire income on food, electricity and water alone.²⁸ In unincorporated Fresno County, approximately 68% of the housing stock was built prior to 1980 and may require energy efficiency upgrades.²⁹ Weatherization and solar power help to increase the comfort of Fresno County resident's homes while saving money on energy costs.

Outside the home, residents of the San Joaquin Valley face similarly grave conditions. The Valley is one of the most polluted areas of California, with Fresno often identified as one of the smoggiest cities in the State. These communities are projected to experience the largest increase in smog associated with climate change. The bowl-shaped Valley collects and holds emissions caused by the activities of the Valley's three million residents and their two million vehicles, as well as vehicles from other areas traveling on Highway 99 and Interstate 5. Farming and industrial activity also plays a large role in the emission of particulates and ozone in the Valley.

While farming contributes heavily to pollution in the Valley it is also a big job producer. Climate change, however, has the potential to severely impact the agriculture industry, where dramatic reductions in job opportunities are already being felt. According to the California Employment Development Department (EDD), in 2014 the unemployment rate in Fresno County was 11.4% — considerably higher than the statewide average of 7.5%.

PROJECT DESCRIPTION

Fresno EOC submitted a proposal to install 1,212 solar systems at the homes of low-income residents living in disadvantaged communities. CSD provided funding to Fresno EOC on a pilot basis and has approved five other agencies to work with Fresno EOC (CRP in Sacramento, CAA Merced, CAA Madera, CSET in Tulare County, and PACE in LA County). The goal of the pilot is to install units capable of producing 900,000 watts of solar energy by December 31, 2015. The first phase of the pilot ran from February through July, installing 375,000 watts of solar in a total of over 90 homes in the six-county region.³⁰

Fresno EOC will administer this solar power and weatherization upgrade program on behalf of Community Action Agencies (CAA) representing the six targeted counties in California. Fresno EOC will install units capable of producing 900,000

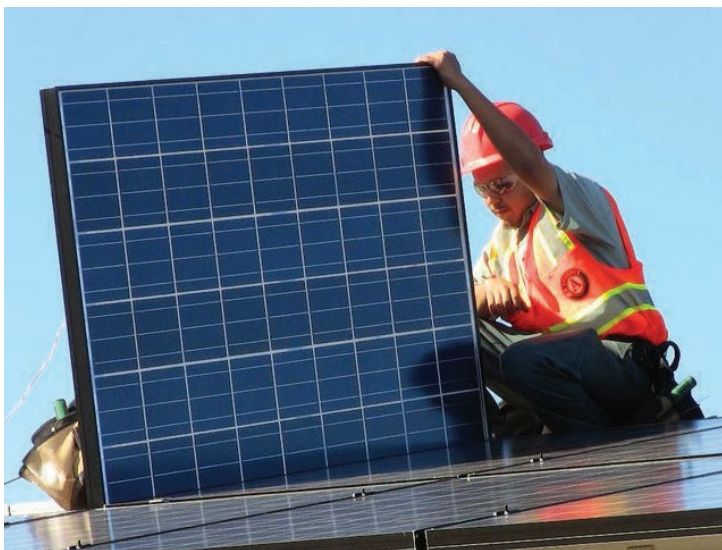
watts in the homes of low-income residents living in disadvantaged communities as defined by CalEnviroScreen 2.0. In addition, Fresno EOC will provide weatherization upgrades to qualifying homeowners while creating job opportunities for people who face barriers to employment.

All of CSD's \$75 million in Greenhouse Gas Reduction Funds in FY 2014-2015 must be spent in disadvantaged communities. As a result, Fresno EOC will target its services to residents with earnings below 80% of Area Median Income that live in qualified disadvantaged communities. After clients are approved for assistance, trained solar and weatherization assessors are dispatched to examine the home's structural integrity, design a solar system of appropriate size, and develop a comprehensive energy efficiency work order. Unless a home does not require weatherization services, all eligible homes will be weatherized and their structures secured before a solar system is designed and installed. Weatherization measures are installed first, followed by solar panels after permits are acquired.

Fresno EOC negotiated an exclusive Low Income Household Residential Distributor Agreement with SunPower, a solar company headquartered in San Jose, California. In addition to supplying solar systems, SunPower allowed Fresno EOC to initially interface with its certified installers in every territory across the state. These installers will be used while the existing network of community action agencies is trained and forms their own crews for solar system design and installation.

BENEFITS TO DISADVANTAGED COMMUNITIES

Over the past three years Fresno EOC's energy programs have become the fastest-growing of its 40 programs. Fresno EOC has given 12,183 households Low-Income Home Energy Assistance Program (LIHEAP), Department of Energy Weatherization Assistance (DOE WAP) and Energy Service Assistance Program (ESAP) assistance.³¹ All of these programs are structured to lower energy use by from five to 20%.



For the projects funded by LIWP, Fresno EOC estimates that installing 900,000 watts of SunPower systems will eliminate 28,031 metric tons of carbon dioxide (CO₂) over a 25-year period.³² In addition, Fresno EOC's goal is to have each installed system reduce future energy costs for residents by at least two thirds.

Together, the 19 CAA's have considerable solar installation experience. Combined, they have installed 1,482 solar systems producing approximately 1.9 megawatts of renewable energy for low-income residents.³³ The group has successfully delivered energy savings to low-income residents as well as training and good-paying jobs for people who face barriers to employment in the solar and related industries.

Fresno EOC's Conservation Corps is particularly well suited to train young adults in solar and weatherization careers, providing paid crew-based opportunities to nearly 250 young adults each year. The Corps also offers a federal YouthBuild program, teaching construction through classroom and applied building opportunities. The instruction includes solar installation and the application of weatherization measures.

In the past three years Fresno EOC has entered into formal partnerships with various agencies to serve approximately 15,754 high-risk, unemployed individuals and placed 9,774 of them in continuing education and training, a registered apprenticeship, or job.³⁴

LESSONS LEARNED

Nathan Magsig, Weatherization Director with Fresno EOC reported that one of the biggest ongoing challenges for low-income homeowners seeking to access the benefits of solar power is the fact that homes with older roofs or older electrical panels may not qualify for solar system installation, depending on their state of disrepair. He urges development of a financing mechanism to accompany the solar system initiative in order to provide low-interest loans to homeowners who want to upgrade their roof or electrical panel and thereby enjoy the benefits of solar power.



6

CALIFORNIA

Montclair



Benefits to Disadvantaged Communities:

- Enhanced public space
- 30 accessible fruit trees
- Healthy food options
- Community engagement
- Job training

Name of the Project:

Montclair Community Fruit Park

Project Type:

Urban and Community Forestry

Location:

Montclair, California

Funding Agency:

CalFire via California Releaf

City of Montclair

Ontario Foundation

Integrated Infrastructure, Inc.

First 5 of San Bernardino

Supervisor Gary Ovitt

Project Funding Level:

\$11,000 for Montclair Community Fruit Park, \$700,000 from CalFire in FY14-15

Agency Funding Level:

\$ 18 million FY 2014-2015

\$ 38 million FY 2015-2016 (Proposed)

Project Team:

Incredible Edible Community Garden

Por La Vida, Integrated Infrastructure

Bracero Landscaping

Contact:

Eleanor Torres, Co-Executive Director, IECG

Empowering Residents and Providing Free, Healthy Food Options

The Montclair Community Fruit Park is the first community fruit park in San Bernardino County and only the second park of its kind in the State. The park, conceptually designed by a high school student, has thirty fruit trees of different varieties and provides citrus, plums, peaches, apples, figs, guava, cherries, and pomegranates to the community.

COMMUNITY NEEDS TO BE ADDRESSED

Montclair is a predominantly Latino community in San Bernardino county, whose median household income is nearly 20% below the statewide average. Like many low-income neighborhoods, it lacks fresh, healthy food options. Michelle Castillo, Senior Human Services supervisor for the City of Montclair said in a 2013 interview that the city's biggest challenge was to provide sources of fresh food options for its residents.³⁵ In addition, air pollution and lack of green space remain significant problems.

PROJECT DESCRIPTION

The organizations Incredible Edible Community Garden (IECG) joined forces with Por La Vida – a City of Montclair program whose mission is to strengthen and promote health and wellbeing within the Latino community – to organize community members in support of the establishment of a fruit park.

This partnership not only gathered community and political support for the project, but also organized the financial and technical resources necessary to redevelop one third of an acre of underutilized public land into a community resource. Led by strong community participation, the partnership developed a vision for redeveloping the park that required working with a host of public and private sector entities.

These included the City of Montclair, which provided the site for the fruit park as well as resources for hosting community planning meetings; Por La Vida, which was instrumental in generating community participation for the project given their standing in the community and their approach to education and outreach; Integrated Infrastructure, Inc. Planning and Architecture, which led community members and students through a design process that brought a sense of pride and ownership over the fruit park; and Bracero Landscaping, which was hired to prepare the site for planting the fruit trees, but also provided services that



went far beyond the work they were contracted to perform. As a resident of the community, and a native Spanish speaker, the owner of Bracero Landscaping was able to facilitate community participation. The project leads made considerable efforts to engage community members, including seeking the assistance of Chaffey Junior College and the Latino Health Collaborative to provide translation services to better engage monolingual Spanish speakers.

This multi-stakeholder partnership played a crucial role. This community/public/private coalition helped to overcome opposition to the fruit park from residents who feared the project would attract undesirable activity and become a nuisance as a result of poor maintenance. The partnership also helped overcome regulatory and permitting obstacles associated with building the fruit park on public land, resulting in a project that has been wholeheartedly embraced by the City of Montclair and community residents.

BENEFITS TO DISADVANTAGED COMMUNITIES

On the day that the Montclair Community Fruit Park was inaugurated, guests were asked to write their wishes and hopes for the fruit park on slips of paper that were put in small jars serving as time capsules. In many ways this act represents the journey and biggest benefit of this project: genuine community engagement. According to Eleanor Torres, Co-Executive Director of Incredible Edible Community Garden, this project survived and thrived with the support and participation of community stakeholders. During the two month planning period leading up to the park inauguration stakeholders participated in community meetings, planning charrettes, and neighborhood canvassing to seek input into the park design and gain support for the project idea. Notably, youth participation played a key role, as young members of Montclair's community took a leadership role in the design of the fruit park and ultimately in its' creation.

High levels of community support helped to overcome challenges raised by area residents and city staff. Despite the short planning period, community members



were able to participate in multiple activities, including park design and naming. They also received training for tree planting and maintenance, performed preparation work and planted fruit trees. IECG surveyed community participants at the beginning and end of the process, and found that participants showed marked increases in understanding of tree care and how to support a healthy community as a result of their participation.

In addition to community empowerment, the fruit park provides healthy, free food options to this food-scarce community in San Bernardino County. The park addresses the lack of fresh food options directly and provides additional community benefits associated with the planting, care and maintenance of the park.

IECG relied on volunteer participation for much of the work associated with establishing the park. Community members cut sod, removed dead tree roots,

prepared the soil, and planted fruit trees. IECG also trained local youth leaders to plant and maintain trees. Ten youth leaders participated in the effort from the beginning until the day of planting, including eight students who continued to participate after the planting event and received additional training for tree maintenance. These training and education activities promoted awareness on the importance and benefit of trees to the community at large, a fact that carried over to the participating local agencies and helped to usher in increased support for tree planting projects in San Bernardino County.

The Montclair Fruit Park was the first of a string of community-led projects that are increasing access to green space, healthy food, and cleaner air in San Bernardino County. The fruit park was a catalyst for IECG and increased interest from surrounding communities in establishing similar projects. According to Eleanor Torres, the project opened the door for others in the county to consider the benefits of investing in tree projects as a way to improve the quality of life and the environment. As a result of the Montclair Fruit Park and IECG's continued success in San Bernardino County, the organization received a GGRF award from CalFire of \$700,000 for a project titled "Neighborhood Grows – A Communities Grant Program for San Bernardino County."

LESSONS LEARNED

Eleanor Torres indicates that community engagement and collaboration are being recognized by public funding processes across a variety of sectors, and appreciates that CAL FIRE's GGRF program understands and recognizes the value of working in partnership with community in project implementation. IECG has made significant progress building relationships with the public sector in San Bernardino County, a fact that was recognized by CAL FIRE's GGRF award.

Moving forward Mrs. Torres believes that all funds from GGRF must be 100% targeted toward disadvantaged communities, as it is those communities that are most impacted by pollution and most at risk from the effects of climate change.



7

CALIFORNIA

Los Angeles



Benefits to Disadvantaged Communities:

- 1,986 tons GHG Reduction
- 1,120 Trees planted
- Community engagement
- Reduction of heat island effect
- Improved air quality
- Neighborhood beautification

Name of the Project:

Green Street Through
Community Engagement

Project Type:

Urban and Community Forestry

Location:

Los Angeles, California

Funding Agency:

CalFire

Project Funding Level:

\$329,725 FY 2014-2015

Agency Funding Level:

\$18 million FY 2014-2015
\$38 million FY 2015-2016
(Proposed)

Project Team:

Koreatown Youth and
Community Center (KYCC)

Completion Date:

Approximately 2019

Contact:

Ryan Allen, Environmental
Services Manager, KYCC

Engaging Residents to Increase Tree Canopy in Disadvantaged Communities

Koreatown Youth and Community Center (KYCC) is embarking on a multi-year effort to engage residents in the Pico-Union and South Los Angeles neighborhoods of Los Angeles to create and implement a plan to increase tree canopy cover in disadvantaged communities. Over the next few years KYCC and its community allies will plant 1,120 trees and reduce greenhouse gases (GHG) by an estimated 1,986 tons leading to improved air and quality of life in those communities.

COMMUNITY NEEDS TO BE ADDRESSED

Pico-Union and South Los Angeles are two of the most persistently low-income neighborhoods in Los Angeles. Bisected by the University of Southern California, these neighborhoods have struggled to provide economic opportunity and environmental equality for generations. These neighborhoods' difficulties with lack of investment and pollution is evident from their CalEnviroScreen 2.0 scores, where 69 out of 72 census tracts in the project area have scores higher than 75%, meaning they are disproportionately burdened by pollution as well as socioeconomic factors like poverty, unemployment and linguistic isolation.

A 2007 report by Dr. Greg McPherson and Jim Simpson, “Los Angeles One Million Tree Canopy Cover Assessment Final Report,” found that while the city averages of 20.8% tree canopy cover and has a market potential of 27.5%, the three Los Angeles district councils (CD 1, CD 8, CD 9) in KYCC’s project area have 15.9%, 10.7%, and 7.5%, respectively.³⁶ This lack of tree density in the project area means that few streets have a decent canopy. According to a July 2014 report by the Center for Integrated Solutions to Climate Challenges at Arizona State University, “increasing tree canopy cover to 25% leads to an additional temperature reduction of 4.3°F, which is a total cooling benefit of 7.9°F as compared to a bare neighborhood.”

PROJECT DESCRIPTION

At the center of KYCC’s tree planting strategy is an emphasis on community engagement. KYCC will engage community residents and listen to their concerns about planting trees on their property to gain broad community support and ensure that the project creates good tree canopy. KYCC hopes to dispel the negative perceptions of trees (watering costs, sidewalks buckled by roots, deferred pruning and care by the city, tree litter) by providing solutions that will result in community support for increased street tree density in Pico-Union and South Los Angeles.

To better engage community residents, KYCC will partner with organizations who have built deep relationships with residents, neighborhood associations and councils, churches and other organizations in Pico-Union and South Los Angeles. Over the last couple of years, KYCC has worked with multiple organizations in those neighborhoods, including Accion in Westlake and Environmental Committee of the Empowerment Congress in South Los Angeles to plant trees. By investing time and becoming more involved with neighborhood



groups, KYCC has been able to find opportunities to share its vision to create streets with dense tree canopies in local communities.

KYCC will implement a community organizing strategy as a key component of its Green Street through Community Engagement project. First, KYCC will identify an individual who is interested in increasing the tree canopy on their street, and will then work with that person on implementing a neighbor outreach strategy. The lead community resident will reach out to their neighbors to discuss the tree canopy project and to organize a meeting with neighbors. KYCC will meet with community residents, and provide education and training on the multiple benefits of trees and listen to the reasons why others on their street might be resistant to the planting program. Following this training, neighbors will go door to door to discuss the tree canopy project with the rest of the street. Although trees will be the impetus for neighborhood discussions, the organizers will listen to all opportunities to green and beautify their streets.

In addition, KYCC will address any resistance to trees directly and try to find innovative solutions that will result in a dense canopy. The neighborhood canvassers will collect data and feedback from which a street strategy will be developed to maximize tree canopy density and minimize as much resistance as possible. The grant from CAL FIRE will help to provide incentives for participation that are integral to this project. For example, if a block of residents identifies broken sidewalks as their main concern, KYCC will help get access to resources to fix sidewalks on those streets. However, not all of the incentives will be funded by CalFire and the specific package of incentives will be determined by the outcomes of the neighborhood canvassing effort.

KYCC’s goal is to have at least half of the possible tree sites on a street planted. Of the 880 15-gallon street trees KYCC expects to plant, at least 220 will be part of dense canopy streets. On these streets KYCC will plant, water and maintain new trees until they are established. Depending on the barriers and requested incentives, KYCC might end up removing stumps, removing invasive trees, repairing



sidewalks, installing low-water landscaping, checking sewer lines, planting and caring for yard trees and other activities that may emerge during the process. In addition, each street will be allowed to design a plaque or sign commemorating the work.

BENEFITS TO DISADVANTAGED COMMUNITIES

Since 2007, KYCC has planted over 10,000 free trees in Los Angeles with a high concentration of trees directed toward the project area.³⁷ KYCC works extensively with community volunteers for their tree planting operation with an annual average of 700 volunteer participants in their Environmental Programs. For the Green Street through Community Engagement project KYCC anticipates working with approximately 1,000 volunteers for tree planting, maintenance, and community outreach.³⁸

In addition to volunteers, KYCC's work also provides employment. KYCC employs 10 full-time staff to work on its Environmental Programs, with an additional eight to 10 youth workers hired to work during the summer through a partnership with

the City of Los Angeles. KYCC's Environmental Programs team, along with volunteers, plant trees and provide maintenance to 225 city street trees.

In addition to planting 1,120 trees and providing 1,986 tons of GHG reduction, KYCC's project will increase soil permeability and water capture by adding mulch to hard-packed soil and by increasing the number of trees; conserve potable water by removing turf on medians and coordinating turf removal in yards; conserve electricity by planting hundreds of shade trees near residences, thereby reducing the need for air-conditioning; reduce the heat island effect by creating a dense canopy that can absorb the radiant heat from the sun; reduce particulate matter in residential neighborhoods; and add beauty and increased property values to disadvantaged communities.

LESSONS LEARNED

Ryan Allen, KYCC's Environmental Services Manager, reported that although for his organization calculating GHGs is not a new practice, it remains a time-consuming endeavor. The time spent calculating GHGs was balanced by a rather streamlined funding application process. Mr. Allen was pleased with the ease of the process, considering the fact that the minimum funding level under this program is high compared to other urban forestry programs. In general, he reports that the funding available for urban forestry through the GGRF is the most he has ever seen.

The decision to allocate 100% of the urban forestry funds in FY 2014-2015 to projects benefiting disadvantaged communities presented some challenges. While directing funding to the neediest communities must be a priority, this requirement eliminated the opportunity to fund worthy projects outside disadvantaged communities in areas that also need urban forestry investments. It appears that this requirement may change for FY 2015-2016, as budget proposals include funds that will be available for statewide competition. The majority of funds in FY 2015-2016 will still be directed to fund projects benefiting disadvantaged communities.



8

CALIFORNIA

Oakland



Benefits to Disadvantaged Communities:

- 31,359,216 tons GHG Benefit
- 1,100 Trees planted
- Community engagement
- Reduction of heat island effect
- Improved air quality
- Neighborhood beautification

Name of the Project:

Green Innovations: Trees for the Oakland Flatlands

Project Type:

Urban and Community Forestry

Location:

Oakland, California

Funding Agency:

CAL FIRE

Project Funding Level:

\$874,000 FY 2014-2015

Agency Funding Level:

\$18 million FY 2014-2015

\$38 million FY 2015-2016 (Proposed)

Project Team:

Urban Releaf

Hope Collaborative

Communities for a Better Living Environment, City of Oakland

Block by Block Organizing Committee

Completion Date:

Approximately 2019

Contact:

Kevin Jefferson III, Director of Research, Urban Releaf

Enhancing the Quality of Life in Underserved Communities

Urban Releaf will plant 1,100 trees along the major transportation corridor formed by I-880 and International Boulevard in Oakland, California. This corridor travels through communities in severe need of investment that face severe burdens from pollution and socioeconomic factors such as unemployment and poverty. The tree planting project, funded by the Greenhouse Gas Reduction Fund, will improve air quality and enhance quality of life in some of Oakland's most underserved communities.

COMMUNITY NEEDS TO BE ADDRESSED

The Oakland flatlands are home to many of the city's immigrants and communities of color. According to a 2010 study by Communities For a Better Environment, Oakland flatlands residents are "disproportionately burdened by diesel pollution and have some of the highest cancer risks in the Bay Area." CalEnviroScreen 2.0 supports this finding by identifying 25 census tracts in Oakland along transportation corridors (I-880 and Route 85) that scored in the 75th to 99th percentile for diesel, toxic releases, traffic, cleanups, groundwater, hazardous waste, impaired water, solid waste, asthma, low birth weight, linguistic isolation, poverty and unemployment.

Oakland's flatlands areas also lack sufficient tree canopy and tend to have significantly less tree cover than the Oakland Hills. Flatland areas have canopy as low as one percent, while Oakland's overall tree canopy of 12-15% is far below the national average tree canopy of 35.1%.³⁹ Lack of tree canopy contributes not only to high asthma and respiratory hazards rates, but also to the urban heat island effect and heat-risk related land cover (HRRLC). Recent studies have linked the urban heat island effect to increased energy use, while according to a 2013 report

by Environmental Health Perspectives, one in five natural hazard deaths in the United States are caused by HRRLC, which disproportionately impacts non-whites.⁴⁰ Additionally, the study notes, as urban population centers grow denser, "because of climate change, many cities are expected to become warmer."⁴¹ Oakland's Energy and Climate Plan projects that climate change will impose significant ecological, health, economic, and quality of life risks on Oakland.⁴² A 2012 Pacific Institute study found that nearly 60% of Oakland's population resides in areas that are considered at high social vulnerability to climate change. These impacts include rising San Francisco Bay, increased vulnerability to flooding, increased fire danger, more extreme heat events and public health impacts, added stress on infrastructure, higher prices for food and fuels, and other ecological and quality of life impacts. These risks are magnified for economically distressed communities.

PROJECT DESCRIPTION

Urban Releaf (UR) will plant and maintain 1,100 drought-tolerant trees along I-880 and International Boulevard. In addition, UR and its community partners will install 100 gardens utilizing native plants and shrubs to reduce consumption of finite resources and help manage the local ecosystem. This project will proactively address climate change, mitigate greenhouse gas emissions, reduce the heat island effect, and enhance Oakland's tree canopy. UR and volunteers will care for and maintain all trees for a minimum of 3 years after project completion.

In addition to cultivating Oakland's urban forest, this project will support workforce development efforts in underserved communities. UR's Urban Forestry Education and Stewardship Training (UFEST) Program will provide pathways to education and employment through community stewardship, apprenticeship training, and job creation. This project will help to advance a partnership with UC Davis, US Forest Service, Cal-FIRE, California Department of Labor (DOL) and Merritt College that will create a DOL-certified Arborist training program.



The project will also foster ongoing outreach to maximize community awareness, education and involvement. UR will collaborate with local groups and businesses to help develop public awareness of the need for managed urban forestry with public implementation. This partnership will develop a demonstration project utilizing aquaponics, a system of aquaculture in which the waste produced by farmed fish or other aquatic animals supplies nutrients for plants grown hydroponically, which in turn purify the water, to study native plant and tree growth utilizing a recycled water source.

BENEFITS TO DISADVANTAGED COMMUNITIES

Urban Releaf has planted over 15,600 trees and connected with more than 4,000 youth since the program began in 1998, revitalizing core urban areas and residential neighborhoods in Oakland and Richmond.⁴³ The tree planting operation improves air quality by removing particulate matter, ozone, and carbon dioxide from the air and provides shade, which helps to reduce residential cooling costs by 30%.

In addition to health benefits, trees also improve quality of life and social well-being. Urban forests are associated with communities feeling safer, more connected, and with reduced crime and fewer social incivilities. Urban residents living in greener areas build strong feelings of belonging and attachment to their neighborhood and the trees that comprise their neighborhood. For example research by Mike Townsend, Sain Atkinson and Nikki Williams shows that active participation in urban forestry provides residents with a sense of pride in their community, improved health (mental and physical) due to increased time in natural environments, and feelings of trust and connectedness towards the community as a result of social interaction with residents.⁴⁴

As mentioned above, UFEST will play an integral part of UR's GGRF project. UFEST is designed to cultivate leadership, skills and talents of students and staff

as general specialists in urban forestry and arboriculture. Youth are involved in planning and coordinating forest stewardship projects in public spaces. UFEST works closely with schools to incorporate 12 modules consisting of lectures and hands-on activities related to urban forestry. UFEST also provides seminars and workshops to primary and secondary schools, community based organizations, and other civic groups to increase awareness and knowledge about the benefits of trees. Urban Releaf is cultivating a new generation of local environmental leaders by creating and distributing new information about urban forestry.

Trees planted by UR also contribute to healthier soil and water in the San Francisco Bay. Preliminary results from a watershed project in collaboration with researchers from UC Davis, UC Berkeley, and the USDA Forest Service Center for Urban Forestry Research, show that planting 1,800 trees in the watershed prevents nine million gallons of contaminated water from entering the bay.

LESSONS LEARNED

Urban Releaf Director of Research John Kevin Jefferson III, noted that the CAL FIRE application strongly encouraged partnerships. UR then tailored its project application to reflect its strong community partnerships, greatly improving the organization's chances of receiving funding. UR now hopes to leverage its extensive list of partners for this project to maximize benefits to the residents of Oakland's flatlands.

Mr. Jefferson III also praised the technical assistance offered by CAL FIRE, which helped UR submit an application that truly reflected the vision and depth of UR urban forestry strategy.



9

CALIFORNIA

National City

Benefits to Disadvantaged Communities:

- 201 affordable housing units
- 16588.95 metric tons GHG reductions
- 6,502 square foot community building
- 4-acre community park
- 2 miles of bicycle lanes
- New sidewalks
- New pedestrian safety improvement

Name of the Project:

Paradise Creek Homes (Westside
Infill Transit Oriented Development)

Project Type:

Transit Oriented
Affordable Housing Development

Location:

National City, California

Funding Agency:

Strategic Growth Council

Project Funding Level:

\$9.2 million

Agency Funding Level:

\$121,955,460 FY 2014-2015
\$400 million FY 2015-2016 (Proposed)

Project Team:

City of National City
Community Housing Works
Environmental Health Coalition

Completion Date:

November 2017

Contact:

Carlos Aguirre, Community Development
Program Manager, National City

Responding to Community Needs and Contributing to Equitable Development

Paradise Creek Homes is the direct result of 10 years of community organizing by residents of the Westside neighborhood in National City, California. Environmental Health Coalition (a local environmental justice nonprofit organization) led a grassroots effort to reclaim the Westside neighborhood for residential use in response to the incompatible mix of auto paint and repair industries and residential neighborhoods that threatened the health and wellbeing of the community. Their effort resulted in new homes affordable to residents, restoration of the Paradise Creek, and a badly needed city park.

COMMUNITY NEEDS TO BE ADDRESSED

National City rates among the 25% most disadvantaged communities in California according to CalEnviroScreen 2.0, and is the lowest income city in San Diego County. In the Westside area, 80% of residents need affordable housing at low or very low affordability levels.⁴⁵ Rental households in the project area, which make up 78 % of all households, have a rate of overcrowding of 12.4%, a third more than the countywide rate of 9.6 %.⁴⁶ In addition, an estimated 64% of rental households spend one third or more of their monthly income on rent – a rate considered unaffordable by household budgeting standards.⁴⁷

In addition to economic hardship, National City is also plagued by health issues associated with pollution and a lack of infrastructure. The mixing of industrial and residential land use policies in the project area have resulted in increased respiratory disease and greater risk of accidental releases of toxic chemicals near schools, churches, daycare centers and homes, including multi-family housing. National City also has disproportionately high asthma rates, a direct result of industrial facilities in the area that release approximately 32,000 pounds of toxic air contaminants per year according to emissions data obtained from the San Diego Air Pollution Control District.⁴⁸ Asthma emergency room visit rates in 2012 for children under 17 were 116 per 10,000 children, double the countywide rate of 59 per 10,000 children.⁴⁹

Inadequate recreation options also contribute to health risks. National City is park poor, with two acres of park per 1,000 residents, as compared to the national standard of 10 acres, and this contributes to high childhood obesity rates.⁵⁰ A 2010 study by the UCLA Center for Health Policy Research and California Center for Public Health Advocacy found that 50% of the children in National City are obese.⁵¹

PROJECT DESCRIPTION

Paradise Creek Homes will bring 201 homes affordable to lower income households to National City. The project will also develop an approximately four acre community park on the west side of Paradise Creek and improve multimodal connectivity to public transit options in South San Diego County.

The Paradise Creek project is being developed in two phases. Phase 1 is currently under construction and includes the construction of 108 apartments affordable to families earning below 50% Area Median Income. It also includes a stand-alone 6,502 square foot community building, where social services, adult educational classes, and an after school program will be offered. These services will be provided to residents on a regular and ongoing basis free of charge. An additional 101,895 square feet of community open space will also be provided by the tot lot,

picnic/bbq areas, and landscaped open areas. Phase 1 is expected to be complete by the end of 2016.

Phase 2, funded in part through Strategic Growth Council's Affordable Housing Sustainable Communities (AHSC) program, consists of 91 affordable rental apartments and transportation-related infrastructure improvements. Planned infrastructure improvements include the construction of more than two miles of bicycle lanes and, pedestrian enhancements such as high visibility cross walks, curb extensions, ADA accessible ramps, pedestrian crosswalk signage and sidewalk replacement at intersections between the project site and the 24th Street Trolley Station.

BENEFITS TO DISADVANTAGED COMMUNITIES

The project will convert roughly 13 acres of industrial site to residential development and open space, reducing the risk of toxic release into the community. The project also limits the potential for future groundwater contamination, which is especially important due to the site's proximity to Paradise Creek. Phase two of the project is estimated to reduce GHG's by approximately 16,588.95 metric tons.

In addition to providing high quality, safe, and affordable housing to the residents of National City, this project will achieve many additional co-benefits that contribute to overall community development.

The project is designed to promote transit use, walking and cycling, thus reducing air pollution from motor vehicles. Transit-related infrastructure improvements will improve walkability and provide ADA enhancements. Funds will repair sidewalks surrounding the project and intersections adjacent to the regional 24th Street Transit Station. Significant nearby destinations such as ITT Technical Institute, National City Adult School, and Kimball Elementary School will be much more accessible by foot. The installation of bicycle facilities will also add to the area's multimodal accessibility and will calm traffic by narrowing travel lanes



and increasing driver awareness. By making easier and safer to walk and ride bicycles, the project promotes healthier travel options contributing to the fight against obesity.

Climate resiliency is also increasing as a result of this project. The housing component will integrate air sealing, ventilation, and insulation systems that will increase thermal comfort and make it easier for residents to deal with extreme heat waves. In addition, the ventilation systems will reduce illnesses related to poor indoor air due to mold and carbon monoxide. Outside the homes, the park will reduce the impacts of heat island effects in the area, and provide shaded areas for people to rest. This benefit will extend to 400 students at Kimball Elementary, a school located next to the park which currently does not have area green open space for play, and the broad National City community by providing a park and a community garden open for public use.

LESSONS LEARNED

According to Carlos Aguirre, National City Community Development Program Manager, AB 32 and SB 535 created a much needed source of funding for

affordable housing in California. In fact, the SGC AHSC program created one of the most evolved and holistic models for funding affordable housing in the nation. Unfortunately, the need for dedicated funds to develop affordable housing outpaced the amount of funds available in round one of the program. This meant that deserving and high scoring projects were unable to receive funding. This highlights both the need for funds and the number of high quality projects that remain on hold due to a lack of available funds.

Mr. Aguirre expressed concerns about being able to get the word out to communities in time to apply for funding. Informing and educating community stakeholders about the new funding opportunities available via the GGRF is a challenge, especially when the timeline for submitting conceptual applications into SGC expired soon after the release of the Notice of Funding Availability.



10

CALIFORNIA

Boyle Heights



Benefits to Disadvantaged Communities:

- 31 units of affordable housing
- 38 bike parking spaces



Name of the Project:

1st and Soto Transit Oriented
Development (TOD) Apartments
(Phase II)

Project Type:

Transit Oriented Affordable
Housing Development

Location:

Los Angeles, California

Funding Agency:

Strategic Growth Council

Project Funding Level:

\$4.072 million requested

Agency Funding Level:

\$121,955,460 FY 2014-2015
\$400 million FY 2015-2016 (Proposed)

Project Team:

East LA Community
Corporation (ELACC)

Completion Date:

Estimated Summer 2018

Contact:

Rey Fukuda, Assistant
Project Manager, ELACC

Filling the Need For Quality Homes That Are Affordable

Unlike the other projects profiled, this one has not yet received GGRF funding, but represents the potential for this funding stream to address interconnected urban problems. The East LA Community Corporation (ELACC) is filling the need for quality homes in Boyle Heights and Unincorporated East Los Angeles affordable to low and extremely low income families. This housing improves the quality of life for residents and leads to comprehensive community development connected to public transit.

COMMUNITY NEEDS TO BE ADDRESSED

Los Angeles, like many urban areas, is chronically short of quality homes, affordable to low-income residents and is plagued by traffic and smog. Creating affordable, bicycle-friendly homes near transit can help L.A. address multiple problems at once.

Starting in 2005, residents of Boyle Heights, a low-income, predominantly Latino neighborhood, began to question how ongoing development would impact the neighborhood's future. The pressures created by new construction — notably loss of existing affordable homes and local businesses — were causing long-time residents to move away.

In response, ELACC facilitated resident participation in the Boyle Heights Community Plan update process. Through meetings, forums, town halls, workshops, focus groups, marches and other actions, community members developed a list of community priorities that work to preserve and increase housing options for residents, create jobs and economic development opportunities, and create a healthy environment with open green spaces.

PROJECT(S) DESCRIPTION

The Boyle Hotel, also known as the Cummings Block, is a mixed-use residential and commercial project adjacent to the nearby Mariachi Plaza Metro Gold Line Station. It includes 51 apartments affordable low and extremely low income residents and 6,150 square feet of ground floor commercial retail space. Built in 1889, the Victorian-style building is one of the most prominent and historic structures in the area. For years, many of the musicians who work at nearby Mariachi Plaza called the Boyle Hotel their home, giving the building its nickname, "Mariachi Hotel."

After the structure fell into disrepair, needing millions of dollars in improvements, ELACC purchased the building in 2006, along with two adjacent apartment buildings, planning to rehabilitate the residential hotel and build new homes residents could afford. Redeveloping the hotel aligned with ELACC's mission to advocate for economic and social justice in Boyle Heights and East Los Angeles. It builds grassroots leadership, develops affordable housing and neighborhood assets, and provides access to economic development opportunities for low and moderate income families.

In another part of the neighborhood, ELACC identified one of its most recent development sites as an ideal candidate for the new state funding opportunity

under the Strategic Growth Council's Affordable Housing and Sustainable Communities (SGC AHSC) Program. The 1st and Soto Apartments (Phase II) is planned to be a mixed-use Transit Oriented Development (TOD) with 31 apartments affordable to households making between 30-50% of Area Median Income (AMI). The project is served by a light rail station, five major bus lines, and new bike lanes on 1st Street in Boyle Heights. Phase I of this project is currently in predevelopment, having received an allocation of Low Income Housing Tax Credits and is expected to be complete by Summer of 2017.

The 1st and Soto TOD Apartments (Phase II) made it to the final round for Greenhouse Gas Reduction Fund (GGRF) allocations from SGC AHSC program in 2015. Despite receiving a final score of 85.96%, the project was not recommended for funding due to a jurisdictional cap in the SGC AHSC program meant to equitably distribute funding across the state. ELACC plans to reapply for GGRF funding next year for Phase II.



BENEFITS TO DISADVANTAGED COMMUNITIES

ELACC builds community resiliency through the development of affordable housing and community assets. ELACC also builds community empowerment through community-based campaigns that seek to inform and shape the future of the neighborhood and ensure that longstanding residents remain a core part of Boyle Heights' future.

The Boyle Hotel and 1st and Soto TOD Apartments (Phase II) form a core part of ELACC's strategy to fill the need for quality, affordable housing in the neighborhood. As of the writing of this report, 87 single family homes and 473 rental units have been developed, including 208 units currently in construction and another 131 units in predevelopment. Over the next few years ELACC will have developed nearly 900 units of quality, affordable housing, many of which are adjacent to the three Metro Gold Line stations in the neighborhood.

ELACC's strategy to redevelop vacant and underutilized land in Boyle Heights with anchor community investments provides both affordable housing and local economic development. As required by the use Community Redevelopment Funds in the City of Los Angeles, construction of the Boyle Hotel provided at least 30% of all hours worked on the project to individuals residing within three miles of the site. In addition, the retail and community spaces in the buildings generate foot traffic for the commercial spaces as well as below-market rents for some local businesses.

To facilitate multimodal transportation options, ELACC provides bike storage and parking spaces in many of their TOD buildings. The 1st and Soto TOD Apartments (Phase II) will provide 38 bike parking spaces to serve riders that use the adjacent

dedicated bike lane on 1st Street that connects the building to the Soto Metro Gold Line Station and the five major bus lines in that intersection. With the 1st and Soto TOD Apartments, ELACC also plans to expand a bike sharing program or "Bike Library" that is currently operating in two other properties.

LESSONS LEARNED

As was the case with many GGRF applicants in the first year of funding, ELACC struggled to calculate the GHG benefits associated with aspects of the project. ELACC found it difficult to select which type of transit-related infrastructure was most advantageous to include in its application without knowing how much each option reduces GHGs. To help calculate GHG reductions ELACC partnered with TransForm, a transportation advocacy organization.

ELACC also found it difficult to describe the impact of the benefits in their application. The lack of clear metrics in SGC's and CARB's guidelines to describe the impact of benefits required ELACC to seek out research and data that could back up their claims, which complicated the application process.

Finally, requirements to partner with local transit agencies have proven challenging due to the amount of time it takes to go through various approvals, whether for specific projects or development of robust transit Infrastructure. L.A. Metro is still learning how to participate and fully take advantage of the SGCAHSC applications. For example, the agency lacks a program that provides bulk discounted transit passes for residents of affordable housing, which would significantly help a development reduce GHGs. Moving forward, L.A. Metro is improving and emphasizing work on sustainability and partnerships as it prepares for round two of funding.

SUMMARY AND RECOMMENDATIONS

The projects profiled in this report clearly show that investments meant to clean our environment result in tangible, measurable benefits in disadvantaged communities. Climate investments are generating jobs and economic development as well as providing education and training. They are improving the air we breathe and the communities in which we live. Climate investments are also directly addressing the immediate needs of low-income households by helping to reduce utility and transportation costs, providing access to healthy and affordable food, and providing quality, affordable, and reliable housing and transportation. There is no doubt that these local actions taken to combat climate change benefit our communities in multiple ways.

The GGRF greatly increases the available resources for climate investments and targets benefits to the neediest communities in California. While the organizations profiled have achieved great success delivering their services and projects, more needs to be done to ensure that the GGRF programs maximize benefits and address the most pressing needs of communities. The following four recommendations will further the goals of AB 32 and SB 535:

1. Increase Resources Targeted for Disadvantaged Communities

Thanks to AB 32 and SB 535, California is leading the way by targeting investments to chronically under-resourced disadvantaged communities. The climate investments in FY 2014-2015 represent the single largest climate justice investments in U.S. history. The level of investment achieved so far, however, is not nearly enough to address the existing needs of impacted communities. All GGRF programs received considerably more applications than they could fund in FY 2014-2015. The Affordable Housing Sustainable Communities Program, for example, received more than \$760 million in applications for the \$121.955 million it had to distribute.

The state must identify additional sources of revenue and equitably distribute existing revenue.

The legislature and governor should amend SB 535 to reflect the need for resources in disadvantaged communities by making it clear that the percentage of revenues targeted for projects within disadvantaged communities is distinct from the percentage committed for projects that benefit disadvantaged communities. Under this interpretation, SB 535 would commit, at minimum, 35% of GGRF to disadvantaged communities, with 10% spent within these communities in addition to the 25% spent to benefit them. Currently, the 10% that must be spent within disadvantaged communities can be considered a subset of the 25% designated for community benefit. This could result in only 25% of GGRF allocations targeted to disadvantaged communities, which is clearly insufficient.

Additionally, revenue directed to disadvantaged communities by the GGRF should match the percentage of the population that lives in disadvantaged communities as identified by CalEnviroScreen 2.0. Currently, SB 535 directs only 10% of GGRF for projects located within disadvantaged communities. Disadvantaged communities, however, make up 25% of the state's population, according to CalEnviroScreen 2.0. This does not reflect equity, and indeed leaves these neighborhoods short-changed. To address this imbalance, SB 535 should reserve at minimum 25% of the GGRF for projects located within disadvantaged communities. In addition a separate 25% should continue to fund projects that benefit low-income households. This amendment would make a bold statement about California's commitment to combating climate change in the communities that experience its impact the most and have suffered a legacy of disinvestment that made them more vulnerable in the first place. Moving forward, we must lead with equity as the state creates new programs and revenue sources to fight climate change.

2. Improve GGRF Program Guidelines and Regulations

The state agencies responsible for administering the GGRF programs have done a tremendous amount of work establishing guidelines and protocols to carry out their tasks and fund projects. Still, a lot more needs to improve to make sure the programs deliver the maximum benefits to disadvantaged communities — and indeed to the state as a whole. Three specific changes to the overall guidelines can help improve the living conditions of residents from disadvantaged communities. First, SB 535 investments should address high priority needs in disadvantaged communities. The proposed final SB 535 Guidelines drafted by the California Air Resources Board includes a guiding principle that all SB 535 investments meet priority needs in disadvantaged communities, but stop short of including specific goals that would address those needs.

Specifically, the draft Guidelines require all administering agencies to “describe efforts to address common needs in disadvantaged communities or specific needs identified by community residents or representatives” in their guidelines and solicitation materials. Yet, the guidelines do not have an overarching requirement that each SB 535 investment actually meets those specific needs. For example, while the Food To Share program provides direct and meaningful benefits to Fresno residents it does not provide those benefits to the communities in close proximity to the codigestion facility created by Colony Energy. Requiring that investments directly address community needs will prevent projects from delivering benefits that are not aligned with the needs of the community.

Second, guidelines should require agencies to prioritize the investments that provide the most significant benefits to disadvantaged communities. The projects profiled in this report are striving to provide maximum benefits to the communities

in which the project is taking place, but GGRF guidelines only require projects to provide one additional benefit beyond reducing GHGs. By requiring that projects maximize benefits, we are creating a race to the top rather than establishing a bare minimum standard of one benefit in addition to reducing GHGs.

Finally, guidelines should clearly prohibit direct displacement and incentivize strategies for avoiding economic displacement. In addition to the direct impacts of construction or rehabilitation, advocates express increasing concern that as communities receiving climate investments improve, the increased desirability of the neighborhoods can lead to gentrification and displacement. Displacement not only hurts at-risk residents, it actually contributes to increases in GHGs.⁵² For example the loss of low-cost housing near transit forces lower income households away from transit hubs and greatly increases the likelihood they will rely on higher-polluting private vehicles as a primary transportation mode. Therefore all GGRF investments, including, but not limited to, those made to satisfy SB 535’s allocation, should include strong protections against both physical and economic displacement.

3. Prioritize Data Collection, Tracking and Reporting

GGRF and the projects it funds will be under a microscope for years to come. Lobbying groups seeking to roll back California’s strong climate and environmental policies will continue to pressure legislators and policymakers to abandon these policies. To push back against these attempts and continue to build support for even more aggressive climate change policies, we need to clearly demonstrate the benefits that GGRF projects deliver in disadvantaged communities and throughout California.

As this report demonstrates, different agencies require varying levels of data reporting, and implementing organizations collect disparate sets of data. This makes it very difficult to measure the overall benefit of climate investment projects, compare the impact of different types of projects and identify adjustments needed to ensure projects maximize benefits. Agencies should require — at minimum — that projects collect data on jobs, contracts with Minority Business Enterprises, job training hours, job quality data, hours of community education, and health outcomes in addition to data on GHG reductions. Agencies should report project outcomes in a transparent way so as to inform the public of our progress towards a cleaner and healthier environment.

4. Encourage Integrated Projects to Help Transform Communities

This study presents ten examples of projects that will greatly benefit disadvantaged communities. The two affordable housing near transit projects profiled integrate various project types to increase benefits to the community. To truly transform communities and efficiently use resources required to apply for funding, we must attempt to integrate projects and stack benefits where possible.

For example, projects that combine weatherization and solar power, urban forestry, affordable housing near transit and low carbon transit in a coordinated way at the neighborhood scale should have a dedicated source of revenue to implement that type of holistic integrated community development vision. Instead of requiring applicants to apply to multiple agencies, it would be best to let them apply to one agency responsible for providing funding for neighborhood-scale sustainability projects that combine and coordinate different GHG reducing strategies. Senate Pro-Tem Kevin De Leon, the author of SB 535, proposed a \$500 million local action plan program in FY 2015-2016 that would provide resources to disadvantaged communities to implement locally decided GHG reducing strategies and may be a vehicle to fund neighborhood scale sustainability projects.

Similarly, we should move to stack household incentives and rebates to make sure residents can gain the most benefit from various GGRF programs. For example, Valley CAN developed a partnership with Fresno EOC to provide solar power installation information to car owners who qualify for the EFMP Plus-Up program. Since the income requirements are similar enough and customers have to live in disadvantaged communities to qualify, it only makes sense that customers eligible for EFMP Plus-Up should at the same time qualify and get information about solar power provided by Fresno EOC — thus, over time, creating a fleet of potentially thousands of electric vehicles powered by the sun. Additionally, the same customers can get information and qualify for weatherization upgrades, and, if funding is approved in FY 2015-2016, also get rebates for water-efficient appliances. California should encourage and facilitate such synergies.

CONCLUSION

Thanks to SB 535, GGRF projects are meeting the real needs of disadvantaged communities in the fight against climate change. These projects help reduce GHGs while addressing pressing community needs in places most impacted by climate change, pollution and poverty. This is a game-changing strategy. Not only are we creating a healthier, less polluted California, we are also helping the neediest residents of our state to increase their resiliency and sustainability. The ten case studies in this report provide a glimpse into what we have already achieved and what is soon to come. Let us celebrate California's leadership on climate equity and continue to work hard to ensure that our transition to a clean energy world is fair and equitable, especially for those who are most impacted by climate change.

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