

The Oakland EcoBlock, Phase II

CPUC Equity Workstream Meeting
October 6, 2020



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<https://ecoblock.berkeley.edu/>

EcoBlock: A Zero Net Energy, Low Water-Use Retrofit Neighborhood



<https://ecoblock.berkeley.edu/>

California Energy Commission EPIC project

Phase I (2015-2018) \$1.5M

Phase II (2019-2023) \$5M



Unique features:

Retrofits of older housing stock on an existing block, combining deep efficiency with 100% solar PV microgrid

Innovative legal and financial structures:

Community financing, ownership and management via nonprofit Trust or Homeowners Association with fees, or Community Facilities District (CFD)

Beneficiaries:

Project aims to prove affordability for low-to-middle income neighborhoods; Scale-up potential is key



California Institute for Energy and Environment



SIEGEL & STRAIN Architects



Morgan Lewis

PERKINS COIE

DTA DAVID TAUSSIG & ASSOCIATES



Berkeley UNIVERSITY OF CALIFORNIA

Timeline of Block Selection



Phase II Approved
June 2019

Phase II Project Start
October 2019

Phase II Block selected
April 2020

Re-assess Phase I block

Recruit new block

Assess and select new block

- Town Hall meeting
- Block residents vote

- Opportunity Notice
- Outreach

- Initial screening of self-nominated candidates
- Phone interviews with block leads
- In-person meetings with block residents
- Economic analysis for post-project viability
- Meetings with PG&E, City of Oakland
- Letter of Intent

Timeline of Block Selection



And Lessons Learned

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There is more to neighborhood and social dynamics than meets the eye.

Transparency and trust are essential for a project like this.

Participant fatigue can occur when there is plenty of talk but no action for a while.

- Opportunity Notice
- Outreach

Local knowledge and credibility are vital.

Community engagement starts before selection.

- Initial screening of self-nominated candidates
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There are multiple stages of participant commitment, with increasing specificity.

Block Eligibility Criteria

- Show enthusiasm for co-creating the first EcoBlock and collaborating in this project;
- Show capability of co-creating a Trust with neighbors for ongoing operation after the project ends;
- Have some unshaded roof area for solar panels on each house;
- Have an average annual energy bill per household of at least ~\$500 per year (gas and electric);
- Be willing to dedicate 3-6 curbside parking spaces with EV charging parking;
- Consist of ten (10) or more interested homeowners of single or small multi-family residences that are next to each other (contiguous) (maximum 30 housing units total) in the City of Oakland, CA.



Do you and your neighbors want to save money on your energy bills, reduce carbon emissions, and survive the next power outage?

The Oakland EcoBlock project is looking for 10-15 neighboring houses (up to 30 individual housing units) in Oakland to voluntarily participate in an energy efficient retrofit and solar microgrid research project. Benefits include free energy retrofit and free energy- and water-saving appliances.

Opportunity Notice: Interested Neighborhoods for the Oakland EcoBlock

Response due date: **December 30, 2019 by 11:59 p.m. PDT**

Community Outreach

- Community Based Organizations
- 7 Oakland City Councilmembers
- Word of mouth
- Facebook/NextDoor posts

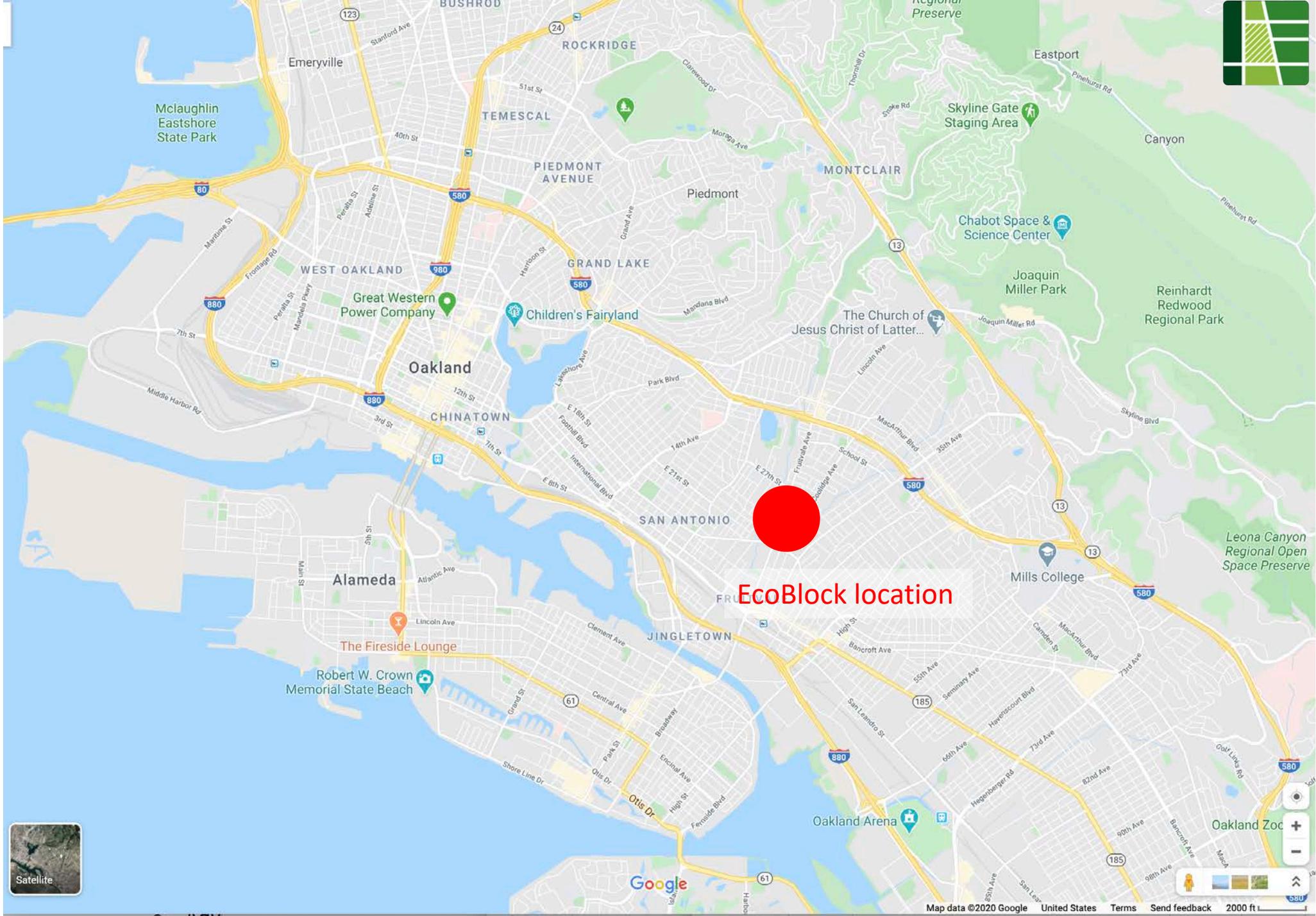
West Oakland Environmental Indicators Project
East Bay Clean Energy
The East Oakland Collective (EOC)
East Oakland Neighborhood Initiative (EONI)
Equitable Climate Action Plan
Latino Task Force
East Oakland Youth Development Center
Homies Empowerment
ACCE
The Friends of the Hoover Durant Library (FOHDPL)
Hoover Foster Resident Action Council
Five on the West Side - NCPC Beats 2X and 5X
North Oakland Senior Center
East Bay Housing Organizations (EBHO)
Allen Temple Baptist Church
Beth Eden Baptist Church
StopWaste
Black Arts Movement Cultural District
The Oakland Post

- St. Mary's Center
- East Bay Housing Organizations (EBHO)
- USC Benioff Children's Hospital
- USC Benioff Children's Hospital, Govt Relations, Public Public & Community Outreach
- KPFA
- KNPR
- APEN
- Black Arts Movement Cultural District
- Blue Star Integrative Studio Inc
- East Oakland Black Cultural Zone
- East Oakland Neighborhoods Initiative
- Village Bottoms Cultural District
- Sobrante Park Resident Action Council (RAC)
- Block by Block Neighborhood Organizations (BBON) and Mary Forte
- La Clinica de la Raza
- Carmen Flores Recreation Center
- West Oakland Neighbors

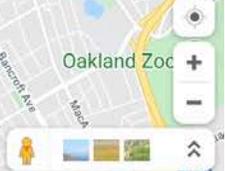




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EcoBlock location



Ongoing Engagement

- Community liaison professional
Cathy Leonard on the research team
Oakland native, woman of color,
main point of contact
- Socially-distanced, bi-monthly outdoor
block meetings with pizza
- Private page of website
ecoblock.berkeley.edu for updates
communication for participants
- Monthly update via newsletter



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Ongoing Engagement

Communicating technical information:

- Short, focused tutorials at bi-monthly meetings

e.g. heat pumps, homeowner's insurance, induction cooking

- Option to participate in topical working groups

e.g. stormwater management, plantings, EV planning, clean-up parties



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Decision-making process

- Two-way relationship: researchers and community, education and listening to feedback
- Provide time for assimilation and questions between meetings
- Governance rules to be determined and formalized
- Independent professional facilitation and consultation



Today

 **Block / Public (microgrid, street, sidewalks): Everyone on block**

 **Home / Private Property: Participating owners & renters**

 **Researchers**

EcoBlock Challenges



Technical

- Novel combinations of electrical hardware and control strategies

Economic, Legal, Regulatory

- Cost-effective implementation as a retrofit, not new construction
- Aggregating multiple utility customers on a cooperative microgrid across property lines
- Self-governance of block organization (e.g. HOA) after research project ends

Social

- Creating a neighborhood community including diverse cultures and languages on an existing block
- Significant financial stakes for participants (ongoing insurance/operation)
- Participants with no Internet, no email: communication, gathering data
- Trust in ivory-tower researchers, government agencies, utility