

Disadvantaged Communities Advisory Group

PG&E-Olivine Disadvantaged Communities Demand Response Pilot

January 2019

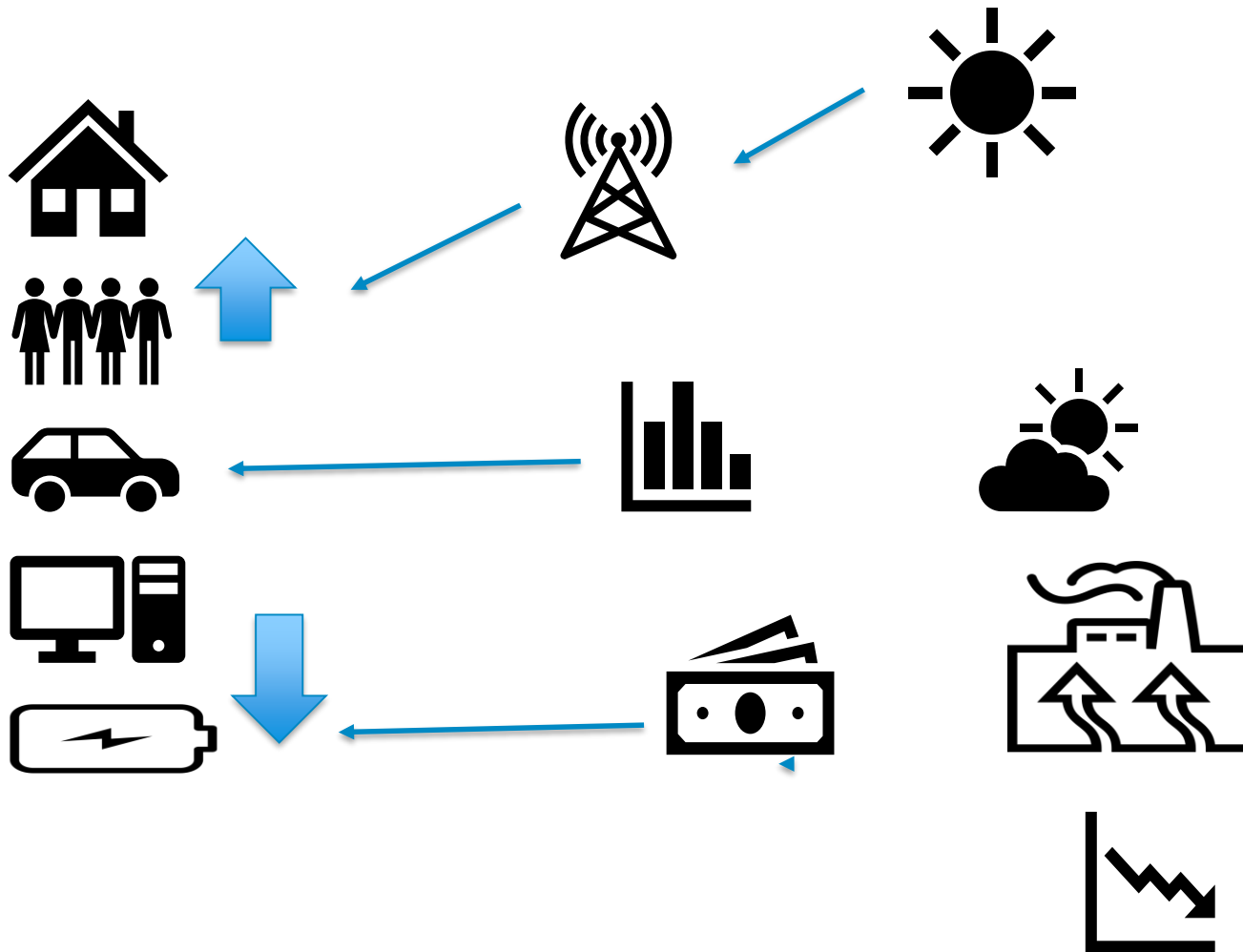
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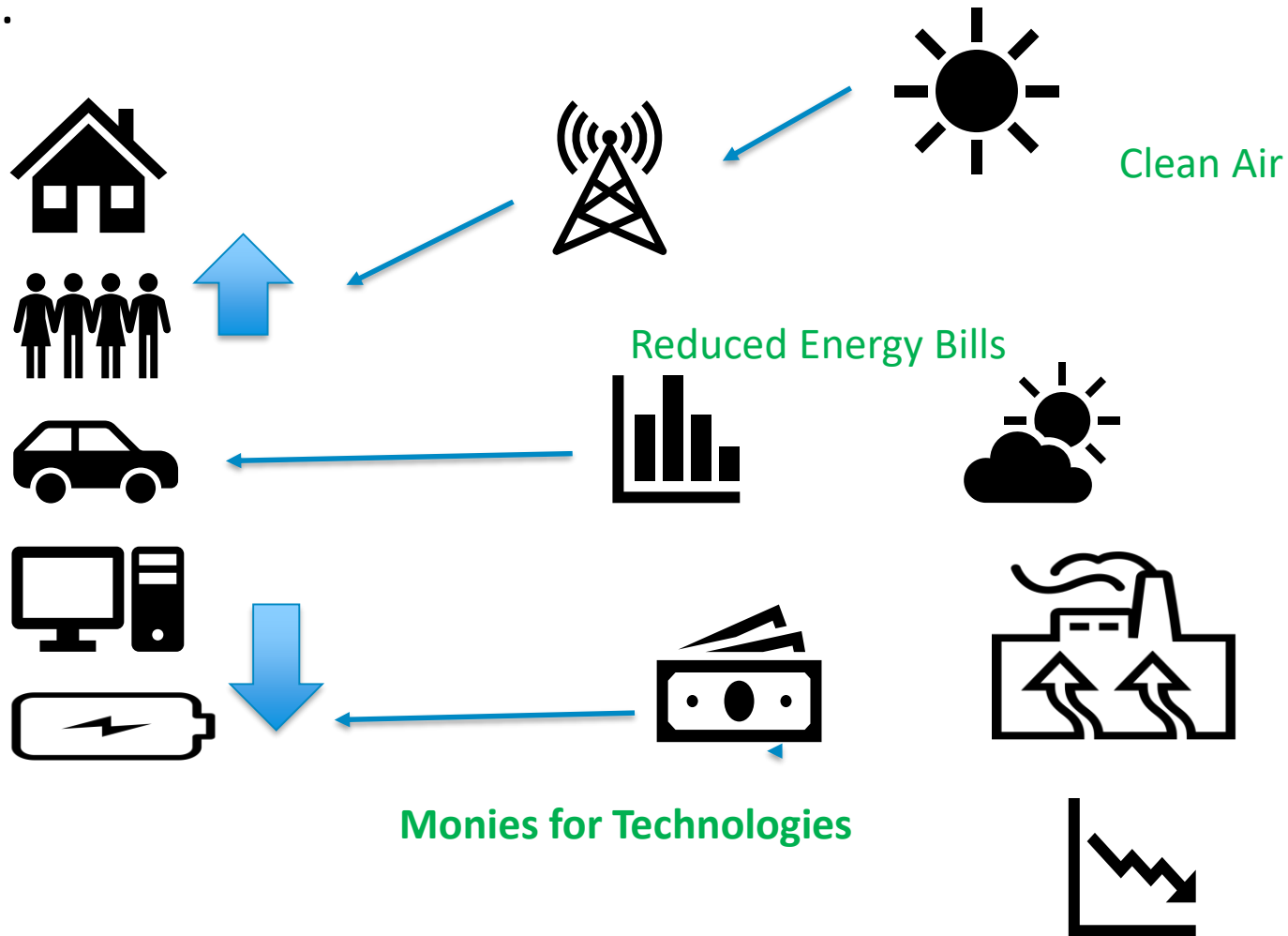
Together, Building
a Better California

- Demand Response Pilot
 - What is Demand Response?
 - What is the Pilot about?
- Overview of Proposal
- Your Thoughts

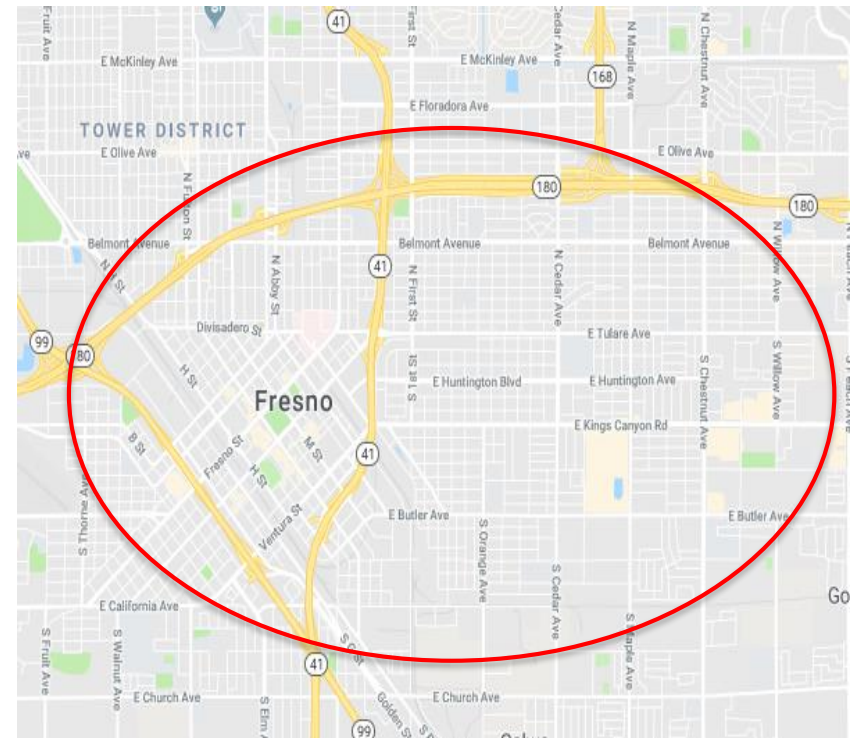
Demand response is the cleanest energy resource . . .

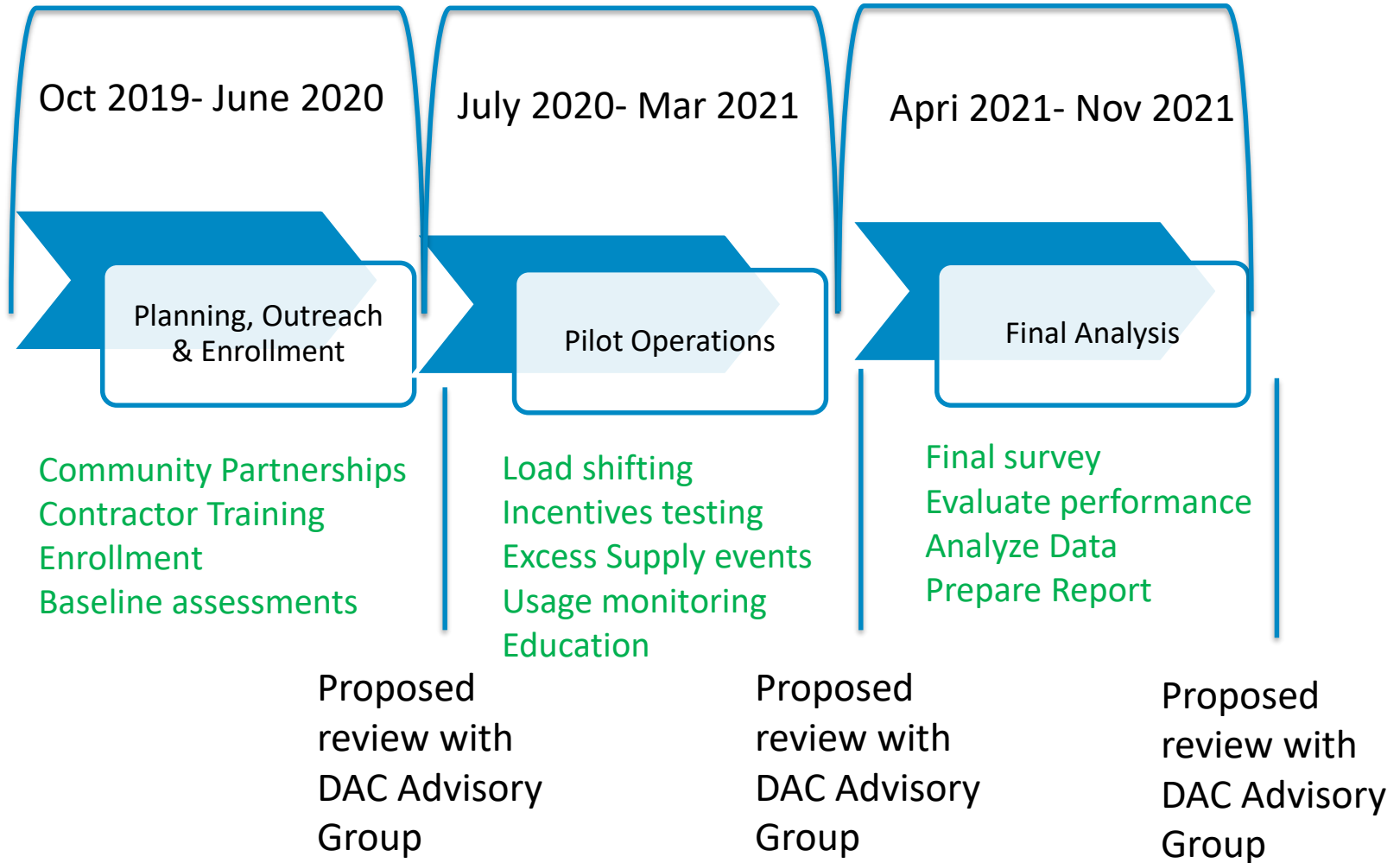


Demand response as a clean renewable energy resource . . .

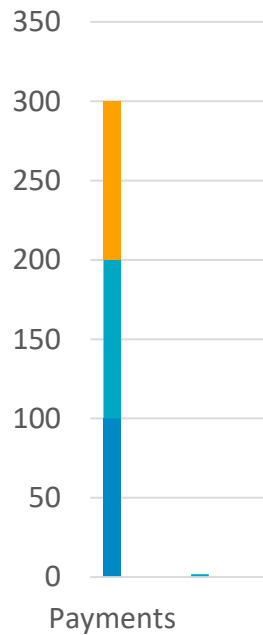


- 75th percentile – CalEnviroScreen
- Direct economic benefit
- Grid Benefit -> sustainability
- Increased Participation
- Reduce peaker plant use
- Reduce localized pollution
- Up to 2,500 households





Possible Incentives



- Load Shifting
- Peak Shaving
- Participation/Surveys

- Free technology installation
- Energy Usage Monitoring and Education
- Customer Support
- Assessment for access to other program enrollment/incentives
- Energy Savings/Bill reduction
- Target 50% of budget for incentives



Appendix Slides



Questions the Pilot Intends to Answer

- **Energy use:** How do the different DAC households use energy in their homes? How well can they respond to and participate in demand response programs? If our population is large enough, we intend to compare usage and response by households in DACs and not in DACs.
- **Outreach:** What are the best methods to reach different types of households in DACs, including those that are hard to reach?
- **Messaging:** What kind of messages resonate best with households?
- **Benefits:** What kinds of demand response incentives and program offerings will be of greatest value to DAC households and benefit them the most?

Answers to these questions will be used to inform demand response programs that are tailored to different DAC households and will provide the greatest benefits.

- D. 18-11-029 (issued December 10, 2018) ordered the IOUs to each submit a Tier II Advice letter within 60-days (February 8, 2019) proposing a demand response pilot focused on providing direct economic benefits to disadvantaged communities.
- Total funding for the DAC DR Pilots over the period 2019-2022 is \$2.5 million across the three IOUs with PG&E and SCE both allocated \$1.0 million and SDG&E allocated \$0.5 million. 10% of the budgets are to be allocated to EM&V.
- The Commission notes in D. 18-11-029 that: “Parties in general support the testing of marketing and outreach efforts to increase enrollment and participation in disadvantaged communities, while learning more about the target population and the residents’ ability to respond to demand response events.”
- D. 18-11-029 defines disadvantaged communities as census tracts that score above 75th percentile using the CalEnviroScreen tool plus an additional 22 census tracts that score in the highest five percent of CalEnviroScreen’s pollution burden but do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data. This is same DAC definition as used for IRP.

Proposed pilot location: Customers residing in zip codes 93701, 93702, 93703 93721 and 93728. All the census tracts in these zip codes are DACs that fall within a 10 mile radius of the Malaga natural gas fired peaking plant in south Fresno. These DACs have some of the highest EJ percentile rankings in the State. These DACs are also served by PG&E substations that have high loading conditions on hot summer days in the late afternoon and early evening.

Proposed target population: Residential customers in the targeted zip codes. Approximately 25,000 households (approximately 75% are CARE eligible). Target enrollment for pilot is 2,500 households (including controls and test populations).

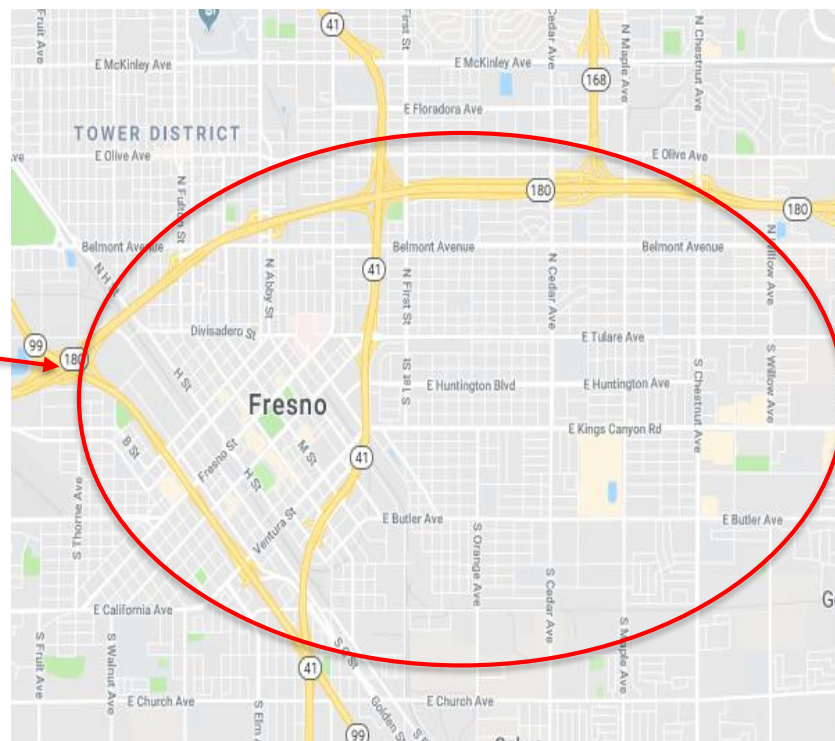
Proposed program design strategy:

- Leverage and expand on Olivine’s recently completed Richmond based Community project (50 households in Richmond) to a larger population in Fresno (target of 2,500 customers for the pilot). Generalize findings to similarly situated households in the Central Valley region (approximately 500,000 households).
- Link expanded Olivine Community Energy Initiative to PG&E’s Supply Side Pilot II (SSP II) to test potential future demand response program designs that best utilize the load shift/load reduction capabilities of customers who reside in disadvantaged communities in the Central Valley areas (approximately 2,500 MW of summer peak load). Also may allow for testing of DR for distribution as distribution substations serving this area experience high summer loading conditions.

The target area proposed for the DAC DR Pilot are the residential neighborhoods in the city of Fresno that fall between California Highway 180 and California Highway 99.

The vast majority of census tracts in this area fit the definition of DACs as defined by the CPUC for the purposes of the DR pilot. DACs in this area are consistently in the highest Cal EnviroScreen percentiles.

Finding from the proposed pilot in this area (2,500 household pilot target) can be generalized to similarly situated households throughout the Sacramento, San Joaquin and Central Valley areas (approximately 500,000 households).



DACs in this area are within a 10-mile radius of Malaga power generation plant (96 MW gas fired peaking plant)

DACs in this area are served by PG&E substations with high summer loading.



Overview of Olivine's Community Energy Initiative



Home Earn Rewards Enroll FAQ About Contact

Welcome to the Olivine Community Energy Initiative



The Community Energy Initiative is an innovative study with the mission to bring clean energy to all communities. Your participation will pay you to help us learn about how you use energy and help us grow programs to make the air cleaner for all Californians.

Earn up to \$225 in rewards! Sign up soon, enrollment is limited to 50. Potential bonus rewards, too!

To enroll and earn rewards, you will need to:

- Live in one of the following zip codes: 94601, 94603, 94621, 94801, 94803, 94804, 94805, 94806
- Have access to a smartphone OR a working email address and the internet
- Have or create an online account with PG&E (available to all households which pay their utility bill)

There is NO cost to participate and NO commitment

PARTICIPATE TO EARN

After you enroll, you can participate and earn cash gift cards in any of these ways:



\$75
SURVEY

By filling out a short survey, we will learn about how your household generally uses energy



\$100

HOME ENERGY STUDY

By participating in a study of home energy use where you are asked to reduce your energy on specific occasions



\$50

HOME ENERGY SURVEY

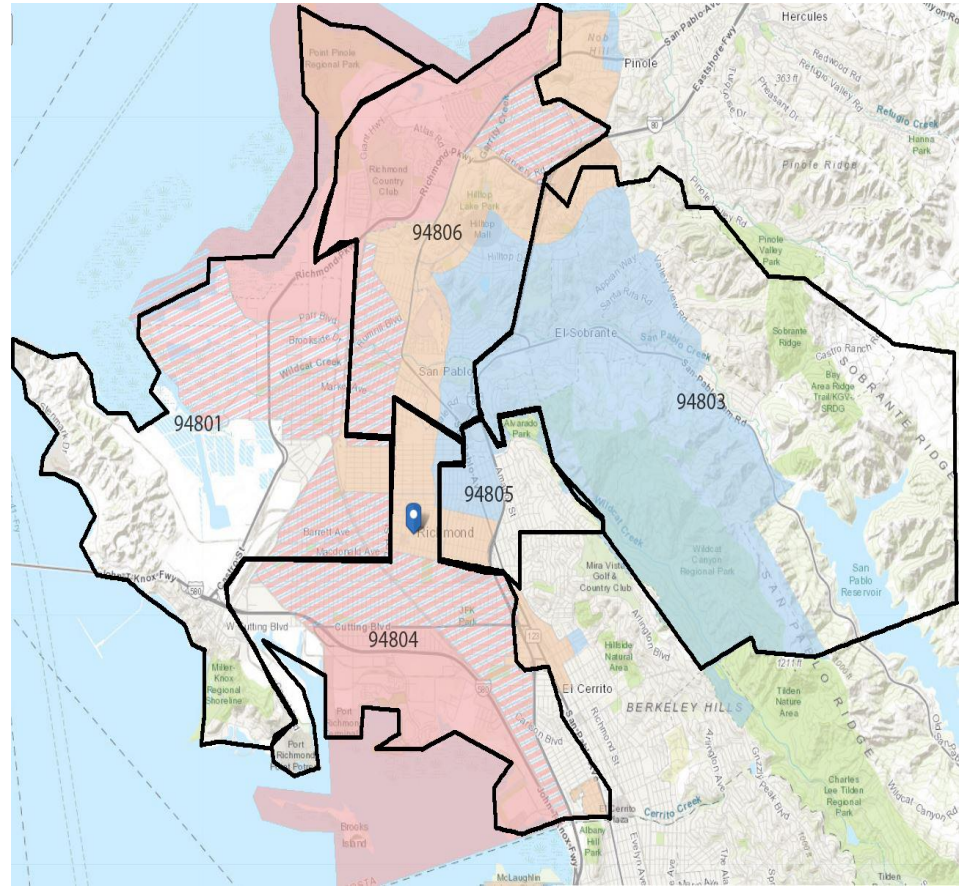
There will be a survey sent to participants in the Home Energy Study for an additional \$50 VISA e-gift card reward.



\$20

BONUS REFERRALS

Refer a friend and earn \$20 for every referred friend who enrolls



READY TO ENROLL?
See step-by-step instructions on how to sign up and start earning rewards. It's easy to get started!
There is no commitment and no cost to you to participate.

SIGN UP

<https://olivinecommunity.org/>



Enhancements/Extensions to Olivine's Community Energy Initiative for the DAC DR Pilot

	Richmond	Fresno
Study Population	50 residential households	2,500 residential households
Climate Zone	Coastal/Winter Peaking	Inland/Summer Peaking
AC Saturation	Low	High
Customer Outreach	Social Media and Community Organizations	Social Media and Community Organizations plus ESA contractors and Community Energy Navigators
Customer Education Level	70% with Bachelors Degrees	20% with Bachelors Degrees
Study Events	Load Reduction	Load Reduction and Load Shifting
	Behavioral	Behavioral and Automated
	Rewards Earned at End of Study Period	Rewards Earned After Each Successful Event
	Rewards Via Gift Card Only	Rewards Redeemed Via On-Line Store for Energy Automation Devices or Gift Card
	Resources not Market Integrated	Resources Market Integrated via Supply Side Pilot



Proposed Schedule for Pilot

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Q1'2019	Q2'2019	Q3'2019	Q4'2019
Submit tier II advice letter for review and approval.	Tier II advice letter approved.	Finalize contract with Olivine and finalize pilot protocols	Identify the Fresno area community organizations and develop social media outreach plans
Q1'2020	Q2'2020	Q3'2020	Q4'2020
Begin community awareness and outreach efforts and deliver DAC DR pilot training for ESA contractors and SJ Valley Pilot CENs. Begin initial enrollments.	Formal DAC DR Pilot enrollment period. Customer engagement and education, initial survey and participant assessment. First DAC DR Pilot incentive payments of \$50	Begin home energy peak shaving study event season. (10 peak shaving events of 1-2 hour duration during late afternoon early evening hours July-September) Participants receive incentive payment for each event they successfully participate in (e.g. \$10)	Begin home energy excess supply study event season. (5 load shifting events of 1-2 hour duration on weekends during periods with excess renewable generation) Participants continue to receive incentive for each event they successfully participate in.
Q1'2021	Q2'2021	Q3'2021	Q4'2021
Continue home energy excess supply study event season. (5 load shifting events of 1-2 hour duration on weekends during periods with excess renewable generation) Participants continue to receive an incentive for each event they successfully participate in. Specific triggers may change from previous event period.	Participants who successfully participated in 5 or more peak shavings events or 5 or more load shift events complete home energy survey and receive incentive payment of \$50.	Olivine will monitor and evaluate performance throughout the study periods and will compile and analyze survey and event data collected. DAC DR Pilot report published.	Results of DAC DR Pilot are incorporated into PG&E's post-2022 program funding application (to be filed November 2021).