

# You Can Make Community Solar Better!

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DER Project Manager

**Community Solar Procurements, Programs and Pricing**  
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Community  
Solar Value  
Project



- Led by Extensible Energy, with funding from US DOE SunShot. AJ Howard DER Project Manager, comes from Olivine, one of four firms supporting this effort.



- CSVP works with utilities, industry innovators, and community partners. The Project provides demonstration and documentation of four ways to make utility-led community solar better, including:



- strategic design
- target marketing
- procurement and pricing
- solar-plus integration



[www.communitysolarvalueproject.com](http://www.communitysolarvalueproject.com)

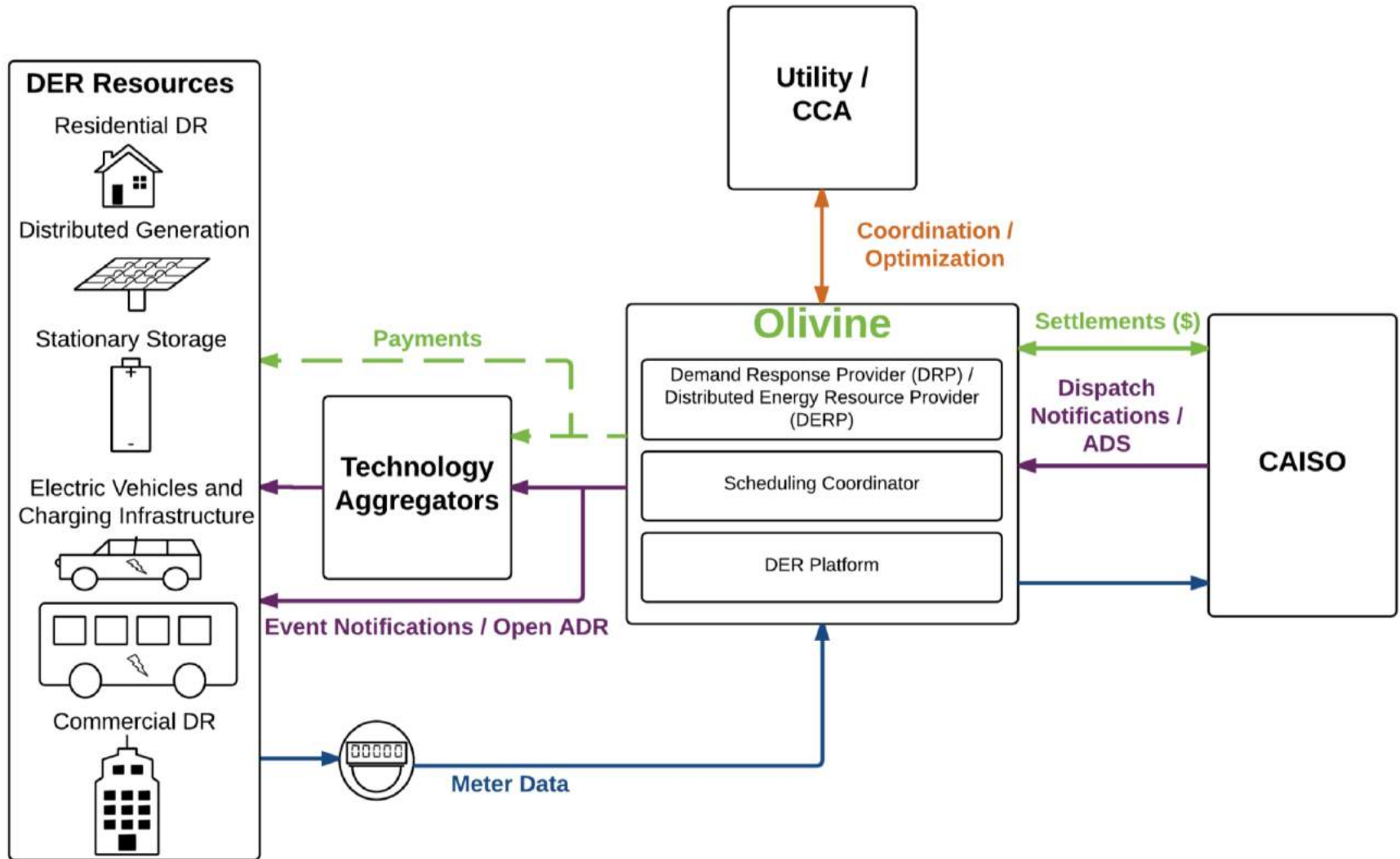


# Deploying Distributed Energy Resources (DERs) Throughout Communities

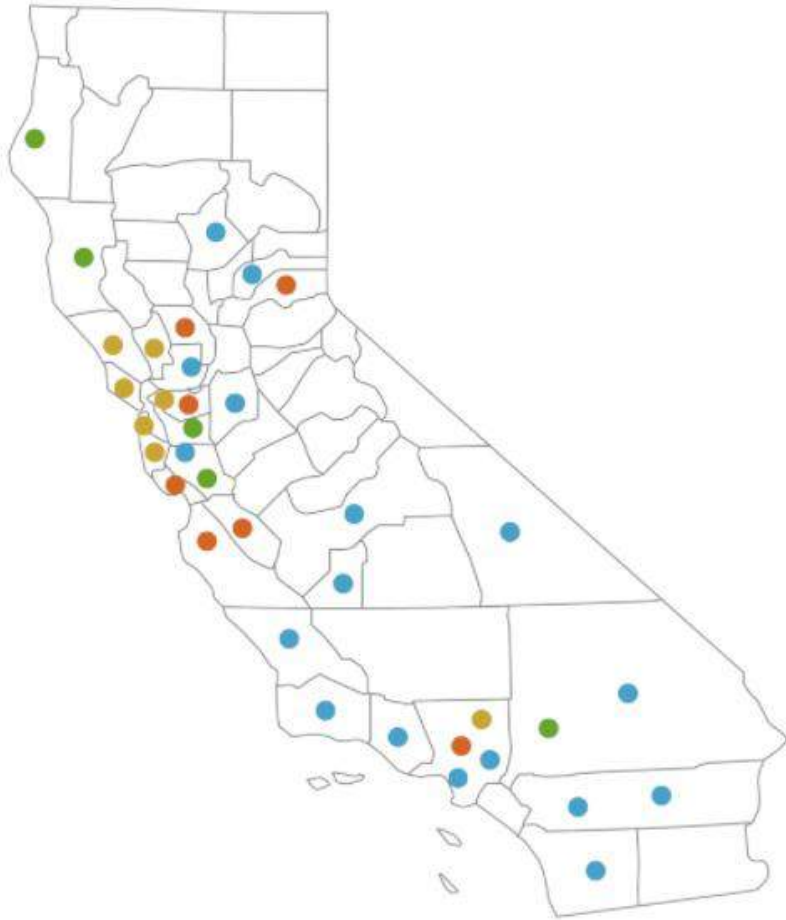


- Olivine is working with various communities with the explicit goal of enabling the deployment of DERs. We work with:
  1. Municipal Governments and Utilities
  2. Community Choice Aggregators
  3. Investor Owned Utilities
- Includes a variety of DERs: community solar, smart EV charging, energy storage, facility demand charge management, demand response, ancillary services, etc.
- Olivine has over 100 MW of resources in the CAISO market
- Focus on a single administrator model for
  - Compliance management
  - Brand extension
  - Allowing participation by a wide variety of DER technologies and aggregators to increase customer choice

# DER Implementation and Aggregation Framework



# Community Choice Aggregations (CCAs)



## ● Operational CCA/CCEs

- MCE Clean Energy (*includes Marin and Napa Counties, parts of Contra Costa and Solano Counties*)
- Sonoma Clean Power
- Lancaster Choice Energy
- Clean Power San Francisco
- Peninsula Clean Energy (*San Mateo County*)

## ● 2017 Launch

- East Bay Community Energy (*Alameda County*)
- Mendocino County (*as member of Sonoma Clean Power*)
- Redwood Coast Energy Authority (*Humboldt County*)
- Silicon Valley Clean Energy (*Santa Clara County*)
- Town of Apple Valley

## ● 2018 Launch (anticipated)

- Contra Costa County
- Monterey Bay Community Power (*Monterey, Santa Cruz and San Benito Counties*)
- Los Angeles County (*Phase 1*)
- Placer County
- Valley Clean Energy Alliance (*Yolo County and City of Davis*)

## ● Exploring / In Process

- Butte County
  - City of Hermosa Beach
  - City of Pico Rivera
  - City of San Jacinto
  - City of San Jose
  - Fresno County
  - Inyo County
  - Kings County
  - Nevada County
  - Riverside County
  - San Bernardino County
  - San Diego County
  - San Joaquin County
  - San Luis Obispo County\*
  - Santa Barbara County\*
  - Solano County
  - Ventura County\*
- \*Central Coast Tri-County*

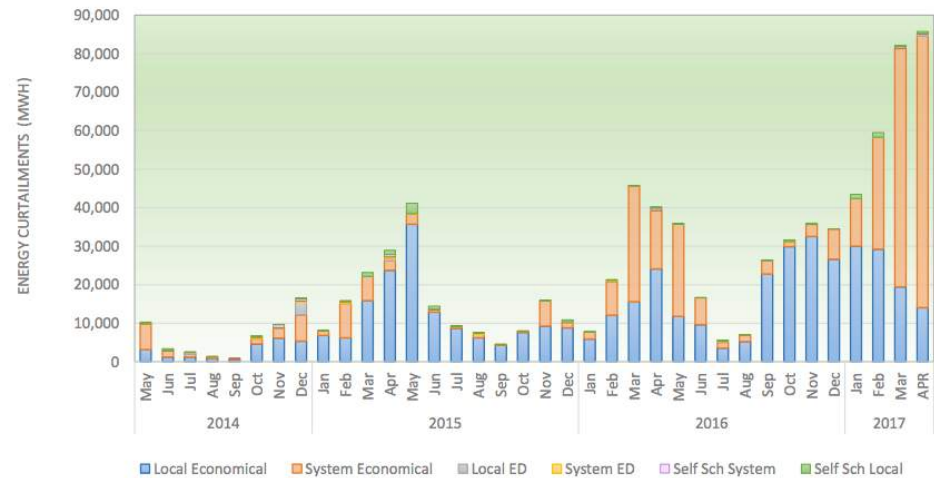
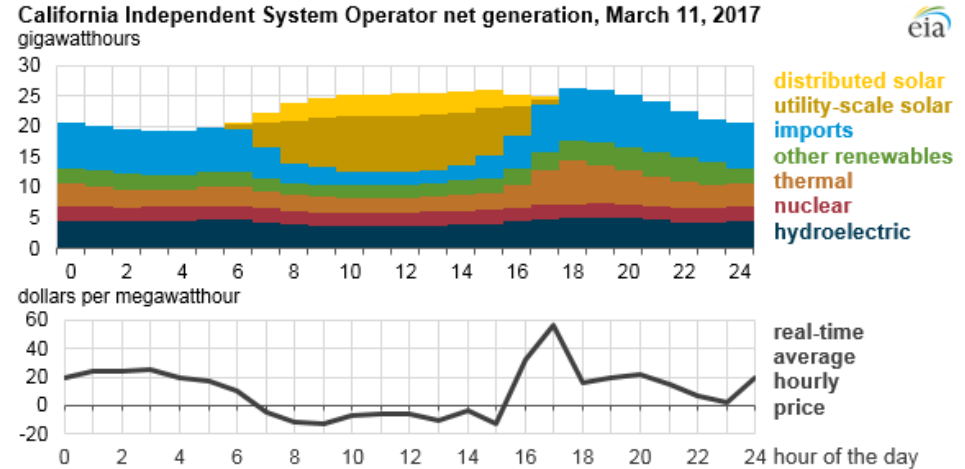
CCAs are also active in

- Illinois
- Massachusetts
- New Jersey
- Ohio
- Rhode Island
- New York

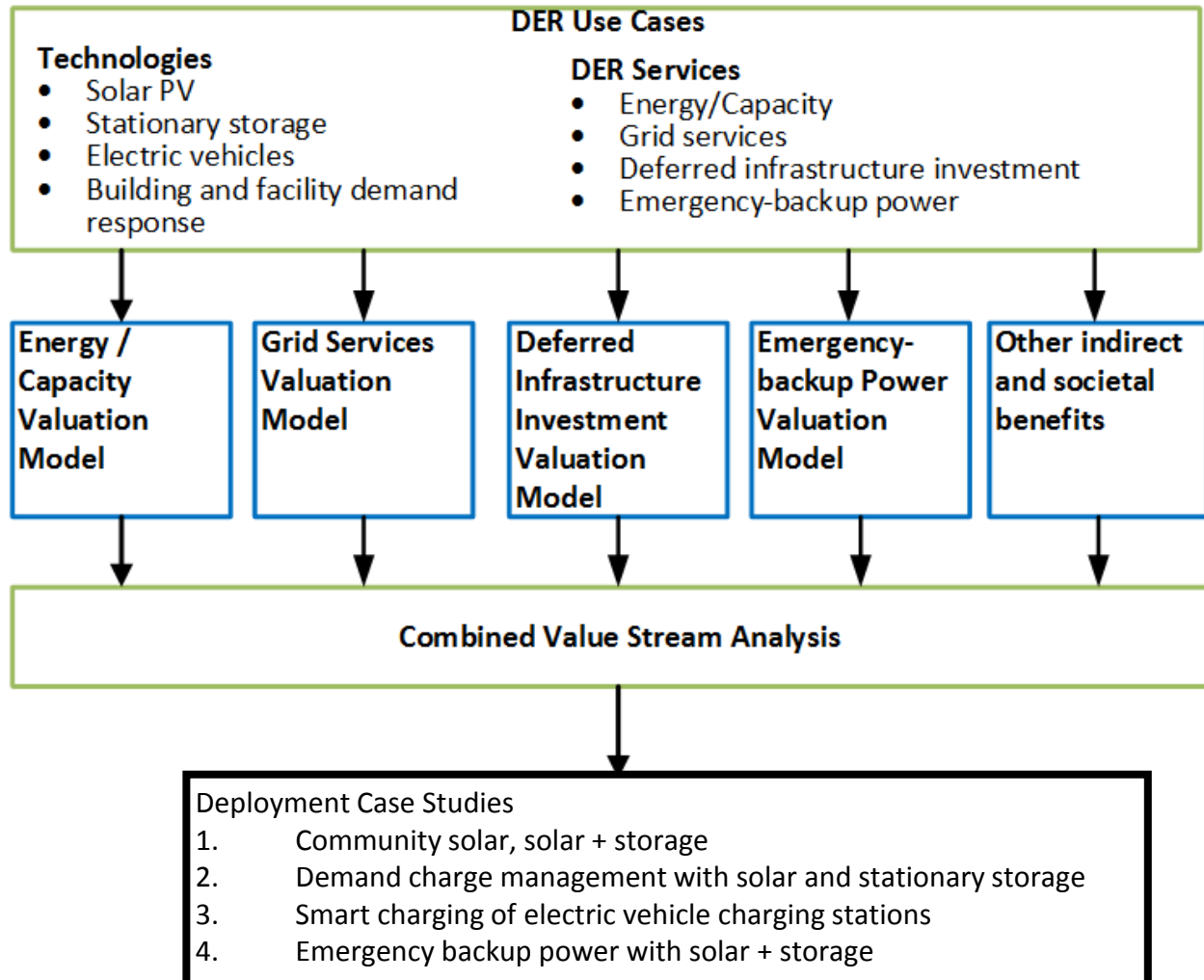
Source: Lean Energy US

# Renewable Over Generation in California

- Solar projects in the works are projected to double California capacity from 17 GW in 2016 to 34.5 GW in 2022
- The effects of solar over generation are driving negative prices and increased curtailment
- Deploying DERs to help balancing solar over generation is critical need in areas of high solar penetration!



# Olivine DER Valuation Model



# Community Solar Valuation Case Study



- Analyzing a potential community solar program for the City of Lancaster / Lancaster Choice Energy
- Three Lancaster city sites, 3 MW installations each

## Analysis

- Avoided costs vs modeled solar output (8760 model)
- Comparing different community solar business models
  - Community-scale distributed solar (rate-based)
  - Subscription-based model with retail billing credits (virtual net metering)
  - Rate structure specific to local solar content
- Examining community solar as load modifying vs a wholesale resource
- Will be examining the value impact of including storage and load-following smart inverters



# ***The Presenter and the Project***

**AJ Howard** is a DER Project Manager at Olivine, Inc and a DER expert for CSVP. AJ focuses on projects to determine the value of DERs with the goal of deploying them at scale throughout communities. **Contact him at [ahoward@olivineinc.com](mailto:ahoward@olivineinc.com)**

***The Community Solar Value Project*** led by Extensible Energy, Lafayette, CA, (John Powers, Project Director) with support from Cliburn and Associates, Navigant, Olivine and Millennium Energy. **See more at [www.CommunitySolarValueProject.com](http://www.CommunitySolarValueProject.com)**  
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