

Advanced Energy Community

California Energy Commission

Challenge: The California Energy Commission funded a competition grant (GFO-15-312) that challenged project teams comprised of building developers, local governments, technology developers, researchers, utilities, and other project partners to develop innovative and replicable approaches for accelerating the deployment of Advanced Energy Communities (AEC) that meet 9 design criteria.

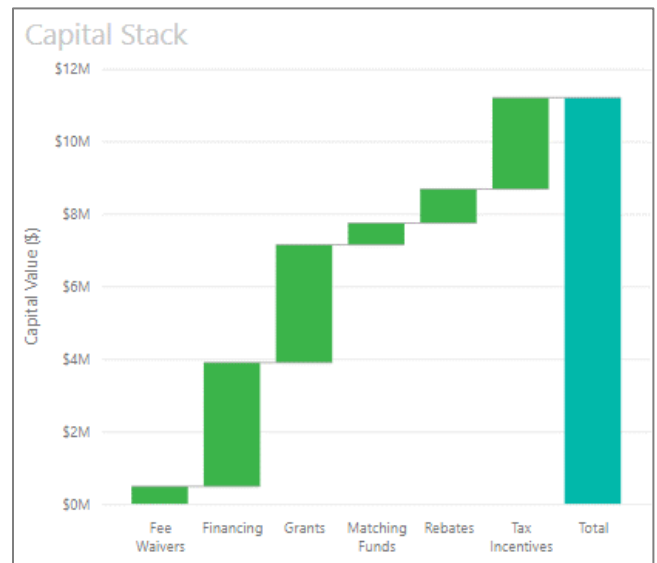
Approach: Tierra partnered with the Local Government Commission, Fresno Metro Ministry, and CalStart to develop a project pipeline that included commercial sites and activity centers identified in the City of Fresno’s 2018 General Plan, and led the development of all key project deliverables, including:

- ✓ Defining the project pipeline and complete all technical analysis and lead stakeholder engagements on distributed energy resource topics
- ✓ Developing a capital stack using all available funding mechanisms, including tax incentives, fee waivers, grants, rebates and financing
- ✓ Developing an AEC portfolio evaluation plan consistent with National, State, IEPC standard practices

AEC Design Criteria:

1. Minimize the need for new energy infrastructure costs.
2. Provide energy savings and maintain zero net energy status
3. Support grid reliability and resiliency by incorporating advanced technologies
4. Provide easier grid integration
5. Can be replicated and scaled-up to further drive down costs
6. Are financially attractive from a market and ratepayer standpoint, including equity considerations
7. Makes use of smart-grid technologies
8. Align with other state energy and environmental policy goals

Outcome: The team developed a pipeline of 16 commercial projects within Fresno’s Downtown and Blackstone Transit Corridor planning areas, including enhancements to existing programs used to fund development. The funding platform defined over \$28M in funding from various sources, including \$11M for commercial sector projects (shown at left) and \$17M for public facilities. The portfolio of energy efficiency, distributed generation, and battery storage projects is forecast to generate \$1.3M in annual cash flow after the full amortization of debt over 15 years. At buildout, the portfolio will save 3.3 GWh in annual electricity consumption, reduce peak demand by 4.2 MW and save participants over \$845,000 annually in fuel costs. Project implementation is ongoing and the portfolio performance planning forecasts can be found and this [link](#)*.



Contact

Floyd Keneipp, Principal
floyd.keneipp@tierrarc.com
 Direct | 925-305-8915

*<https://app.powerbi.com/view?r=eyJrljoiM2QzNzRiZTQtZTkwYy00OTE2LThtNDgtZjZiODBiY2JkOGRmIiwidCI6IjRkYyVWVjZGFjLTBhNTctNDBiZi1iMTMxLWJiOTZhMmEwMDI2MiIsImMiOjZ9>