EPIC 5 Strategic Goals, Equity

EPIC Disadvantaged Community Benefits

- SCE's Labs, where EPIC demonstrations take place are located in disadvantaged communities (DACs) (e.g., Westminster and Pomona)

- Many of our EPIC demonstrations that have a field testing and evaluating component are located in DACs, (e.g., Distribution Center of the Future, located in Dominguez Hills and Smart Cities, located in Porterville, CA)

- These field demonstrations have a variety of benefits for DACs:
  - **Environmental**: Distribution Center of the Future, electrifying transportation to improve local air quality (reductions in carbon dioxide (CO_2), sulfur oxide (SO_x) and nitrogen oxides (NO_x) and Volatile organic compounds (VOCs))
  - **Reliability**: Smart Cities, using a micogrid to keep a community's critical facilities powered during an outage

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DACAG Equity Framework

SCE applied the DAC Advisory Group (DACAG)'s Equity Framework to its EPIC 4 Investment Plan

Topic	Health & Safety	Access & Education	Financial Benefits	Econ. Development
Adaptive protection	X			
Ultra low-latency communications				
Ubiquitous situational awareness	X			
Seamless grid flexibility	X			
Localized & edge control		X	y	Y
Inertia substitution				
Customer load flexibility		X	X	y

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Topic	Health & Safety	Access & Education	Financial Benefits	Econ. Development
Energy buffering				
Bidirectional power flow		X	y	y
Islanding & Reconfigurability	X			
Hardening & Remediation	X	X		
Safety & work methods advancement	X	X		y
Data driven operations	X	X		X
End-to-end advanced simulations & analytics	X	X	X	X

Marked where applicable, X = direct benefit; y = indirect benefit

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Benefits Framework

Benefit Area	Measurement	Resources/Tools Applied
Reliability	1. Equipment service life extension 2. Outage number, frequency and duration reductions 3. Reduction in system and equipment failures 4. Improved reliability to DAC customers	• Final Reports • Internal Presentations • SME Estimates • Interruption Cost Estimate (ICE) Calculator • Various models
Safety	1. Worker safety improvement and hazard exposure reduction 2. Public safety improvement and hazard exposure reduction 3. Safety improvements targeted towards DAC	• Final Reports • Internal Presentations • SME Estimates •https://www.energy.ca.gov/datareports/energy-almanac/zero-emissionvehicle-and-infrastructure-statistics/lightduty-vehicle • Various models

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Benefit Area	Measurement	Resources/Tools Applied
Environmental Benefits	1. Habitat area disturbance reductions 2. Reduce GHG emissions (MMTCO2e) 3. DAC Residents impacted by reduced emissions	• Final Reports • Internal Presentations • SME Estimates •https://www.californiadgstats.ca.gov/charts/ • CalEnviroscreen 4.0 • Various models
Economic Benefits	1. Maintain/reduce O&M costs 2. Maintain/reduce capital costs 3. Peak load reduction 4. Reduced cost of DER adoption 5. Reduced cost of DER adoption for DAC. 6. Avoided customer energy use 7. Follow-on funding to projects 8. Customer bill or interconnection savings 9. CO2 equivalent savings	Final Reports • Internal Presentations • SME Estimates • Various models
Effectiveness of Information Sharing	1. Number of industry sharing events/papers presented 2. Number of times reports are cited in scientific journals and trade publications for selected projects 3. Number of information sharing forums held 4. Stakeholder attendance at workshops 5. Results provided to standard development organizations	• Final Reports • Internal Presentations • External presentations • Other published papers • SME Estimates

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Benefit Area	Measurement	Resources/Tools Applied
Adoption of EPIC Technology	1. EPIC project results referenced in regulatory proceedings 2. Number of technologies/use cases demonstrated, in direct use post-EPIC 3. Number of technologies included for funding in the GRC, or for which post-EPIC funding has otherwise formally been committed	
Technology Development Progress	1. Technology Readiness Level (TRL) Scale Assignment	

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