From Tech to Market

Scaling up Efficiency Beyond Early Adopters

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TRC
Advanced Energy Services

[explore & plan]
- Tech-to-market
- Technical market research
- Policy support & analysis

[design & deliver]
- Pilots, large-scale, & statewide
- Portfolio energy management
- Comprehensive technical solutions

[innovate & transform]
- Resiliency & reliability
- Systems thinking & integration
- Engineering & implementation

DISTRIBUTED ENERGY
- Integrate transformative solutions to the grid

RESEARCH & TECHNOLOGY COMMERCIALIZATION
- Analyze and support market adoption

PROGRAMS
- Implement scalable market solutions
TECH-TO-MARKET

Technology demonstration and development of scalable market-based approaches and programs.
Move ‘beyond widgets’ by looking at integrated measure packages and solutions

TECHNICAL MARKET RESEARCH

Market exploration and characterization, including technology adoption status, barriers, and opportunities.

POLICY SUPPORT & ANALYSIS

Support frameworks for practical market application and oversight.
California | 2016 - Present

- **CEC EPIC-funded integrated tech package demos** for existing buildings:
  - Leading in Los Angeles: Automated shades, lighting controls/sensors, plug load mgmt., advanced meters, M&V 2.0
  - Best-in-Class Solution: Plug-and-play HVAC and lighting system controls
  - Empowering Big-Box Retail/Grocery: Integrated, pre-commercial HVAC refrigeration, lighting, and building controls
  - Smart Ceiling Fan: Integrated auto-controlled, learning fans and thermostats

- **TRC services**: tech procurement, field demonstration, market transformation roadmaps, evaluation, knowledge transfer

Large, diverse teams supporting increased efficiency and comfort – e.g., LBNL, NREL, UC Berkeley, DOE, SDG&E, SCE, Kaiser Permanente, Walmart, and technology partners.
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The essential challenge is to learn from early adopters but adapt solutions that address the majority...

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