

Leading in Los Angeles

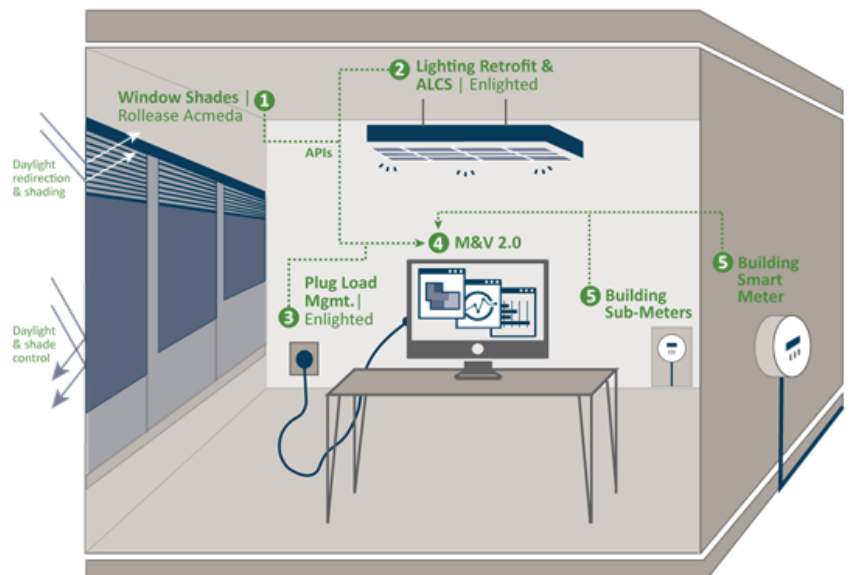
Demonstrating scalable emerging energy efficient technologies for integrated façade, lighting, and plug loads

Project Description

[New Buildings Institute](#) is leading a major research project in response to the critical need to greatly reduce energy use in California's existing commercial buildings with cost-effective and scalable solutions, particularly in the Los Angeles Basin where energy constraints from the Aliso Canyon fuel leak are acute. Working with prominent energy efficiency entities [TRC](#) and [LBNL](#) the project launched in June 2017 and is a 3-year lab test, field demonstration and market connection effort to move an integrated set of emerging commercial retrofit technologies into wider adoption.

The 'INTER' Solution

Leading in Los Angeles (LA) combines an innovative set of pre-commercial technologies targeted across lighting, HVAC, and plug loads. These end uses make up the majority of a building's energy use (70% for a typical office). The technology package integrates (1) automated self-powered shades from Rollease Acmeda, (2,3) advanced lighting controls and sensors plug load management from Enlighted, and (5,6) advanced meters which are tied together with central controls and validated by (4) M&V 2.0 procedures.



The set of technologies are called the Integrated Technologies for Energy-efficient Retrofits (INTER) solution set and are comprised of shading products from Rollease Acmeda and lighting and plug load systems and controls from Enlighted. The technologies can be combined and customized to suit a variety of building types and spaces resulting in an estimated whole building energy reduction of **up to 32%**. Market attraction will be improved occupant control and comfort, reduced transaction costs, and ease of installation.

In *Leading in LA*, the INTER solution set will first be lab tested at LBNL FlexLab, customized to each demonstration site, then installed at a minimum of three large government office buildings in disadvantaged areas of the LA basin, specifically in the Santa Ana area. The project incorporates extensive market and policy adoption strategies that will target both the LA basin and the state as project results are completed.

This study has two fundamental goals:

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1. Validate the commercial viability and scalability of INTER systems in existing commercial buildings;
2. Accelerate market adoption of INTER system to address Los Angeles basin and statewide needs for energy and carbon reductions through deep energy efficiency retrofits.

The objectives are to:

1. Demonstrate energy savings and improved comfort of INTER systems,
2. Identify and address market barriers to wider acceptance and adoption, and
3. Develop scalable technology packages, integration guidelines, case studies, utility program ideas and energy code connections to facilitate widespread implementation.

Funder: [California Energy Commission \(CEC\) Electric Program Investment Charge \(EPIC 16-302\)](#)

Project Team: [NBI](#), [TRC](#), [LBNL](#) + [The Energy Coalition](#), [DELOS](#), [CEES-Advisors](#)

Manufacturing Partners: [Rollease Acmeda](#), [Enlighted](#)

Demonstration Partners: [City of Santa Ana](#)

Match funds: [Enlighted](#), [Rollease Acmeda](#), [Southern California Edison \(SCE\)](#), [U.S. Department of Energy \(DOE\)](#), [Delos](#), [TRC](#)

Project Partners/letters of Support: [Attachment Energy Rating Council \(AERC\)](#), [Integral Group](#), [ARUP](#), [EHDD](#), [P2S Engineering](#), [Taylor Engineering](#), [UC Berkeley Center for Environmental Design Research](#), [San Diego Gas and Electric \(SDG&E\)](#), [U.S. Department of Energy](#)

Technical Advisory Committee: *invitations in process*

Project Term: June 2017 – December 2020

Status: As of August 2017: a) Establishing the Technical Advisory Committee, b) Developing Initial Lab Testing Methodology and c) assessing field demo sites

Primary Project Contact: [Cathy Higgins](#), New Buildings Institute higgins@newbuildings.org