

BayREN: Integrated Commercial Retrofits (BRICR) Summary

The goal of the BayREN Integrated Commercial Retrofits (BRICR) is to modify and enhance existing open source tools to perform large-scale building energy modeling analysis on small and medium commercial buildings throughout nine San Francisco Bay Area counties to reduce the cost of energy efficiency targeting, design, and project development. Small and medium buildings is a sector that is hard to reach and expensive to serve. BRICR will help serve this market more efficiently by incorporating the results into existing energy efficiency programs, directing building owners along two paths for comprehensive efficiency improvements: (1) deep energy retrofits, and (2) serial upgrades integrated into capital improvement cycles.

Project objectives include:

1. Creating an on-line open source data base and platform for building analysis using readily available data that provides deep retrofit packages.
2. Creating a user interface that provides comprehensive and compelling reports of the energy savings potential, financing options, and an investment plan for deep energy retrofits.
3. Creating an on-line training for program implementers and contractors.
4. Ensuring that 100 buildings or businesses have either completed deep energy retrofits or will have initiated the first phase of a multi-year retrofit program.
5. Provide three case studies of deep retrofits of buildings.
6. Disseminate the model to scale the approach nationally.

BRICR will draw from the Lawrence Berkeley National Lab's Commercial Building Energy Saver tool and National Renewable Energy Lab's (NREL) 'Insight' large scale simulation platform. These tools will be brought together to create a single on-line database and modeling tool for performing high level modeling on commercial buildings. The database and modeling tool will allow program implementers to upload site specific data to improve the quality of the modeled output.

The project will be led by the Association of Bay Area Governments which works with local governments and stakeholders to develop and implement innovative solutions. It develops and delivers efficiency services through a combination of 10 Local Government Utility Partnerships and Community Choice Aggregators (CCA), with continuous experience dating to the 2001 energy crisis. The principle Investigator for the project is the San Francisco Department of the Environment. In addition to LBNL and NREL, technical support will be provided by Prospect Silicon Valley and Open Energy Efficiency. The project team includes the Bay Area Regional Energy Network, Business Council on Climate Change, Cities of Berkeley and Oakland. The project will work with existing energy efficiency programs including three Energy Watch programs—East Bay, San Francisco and San Mateo. It will be advised by Joule Assets, Emerald Cities and Renew Financial.

Existing energy efficiency programs generally only provide measure-based improvements. This project will help them benefit from the identification of opportunities in buildings and be given a tool that will help to sell projects at lower cost. Utility and private financing programs, will reduce risk and cost for capital providers and customers.