



CalFlexHub

Advancing Dynamic Energy
Management



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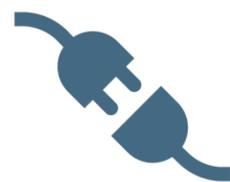
What is CalFlexHub?

A new research, development, demonstration, and deployment program led by Berkeley Lab.

Its goal is to advance the capability of buildings to provide a flexible energy load for the State of California.



CalFlexHub seeks to:



Identify, evaluate, develop, and demonstrate pre-commercial, load-flexible technologies



Standardize signals used to communicate dynamic price and GHG information to these technologies to support CEC Load Management Standards





**SERVICE &
FINANCING
PROVIDERS**

**TECHNICAL
ADVISORY
COMMITTEE (TAC)**

**TECHNICAL
INNOVATORS**

**FIELD
DEMONSTRATION
PARTNERS**

**DISADVANTAGED
COMMUNITIES**

CalFlexHub Ecosystem

**EQUITY ADVISORY
COMMITTEE (EAC)**

**SOFTWARE &
COMMUNICATION
PROVIDERS**

**BUILDING & HOME
OWNERS, & FACILITY
MANAGERS**

**HARDWARE
MANUFACTURERS**

**POLICY MAKERS &
PROGRAM
IMPLEMENTERS**

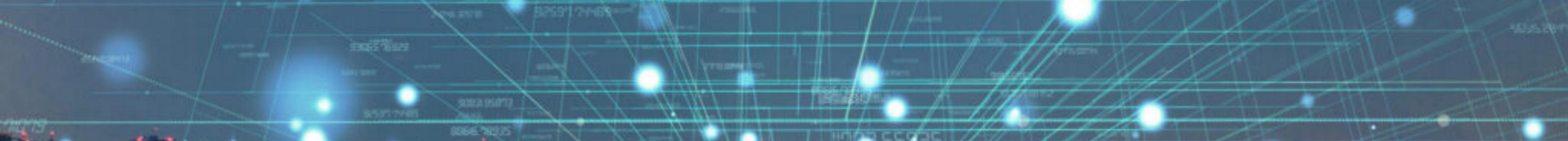
**UTILITIES,
COMMUNITY CHOICE
AGGREGATORS**

Partners



Rising Sun





The Grid Is Changing

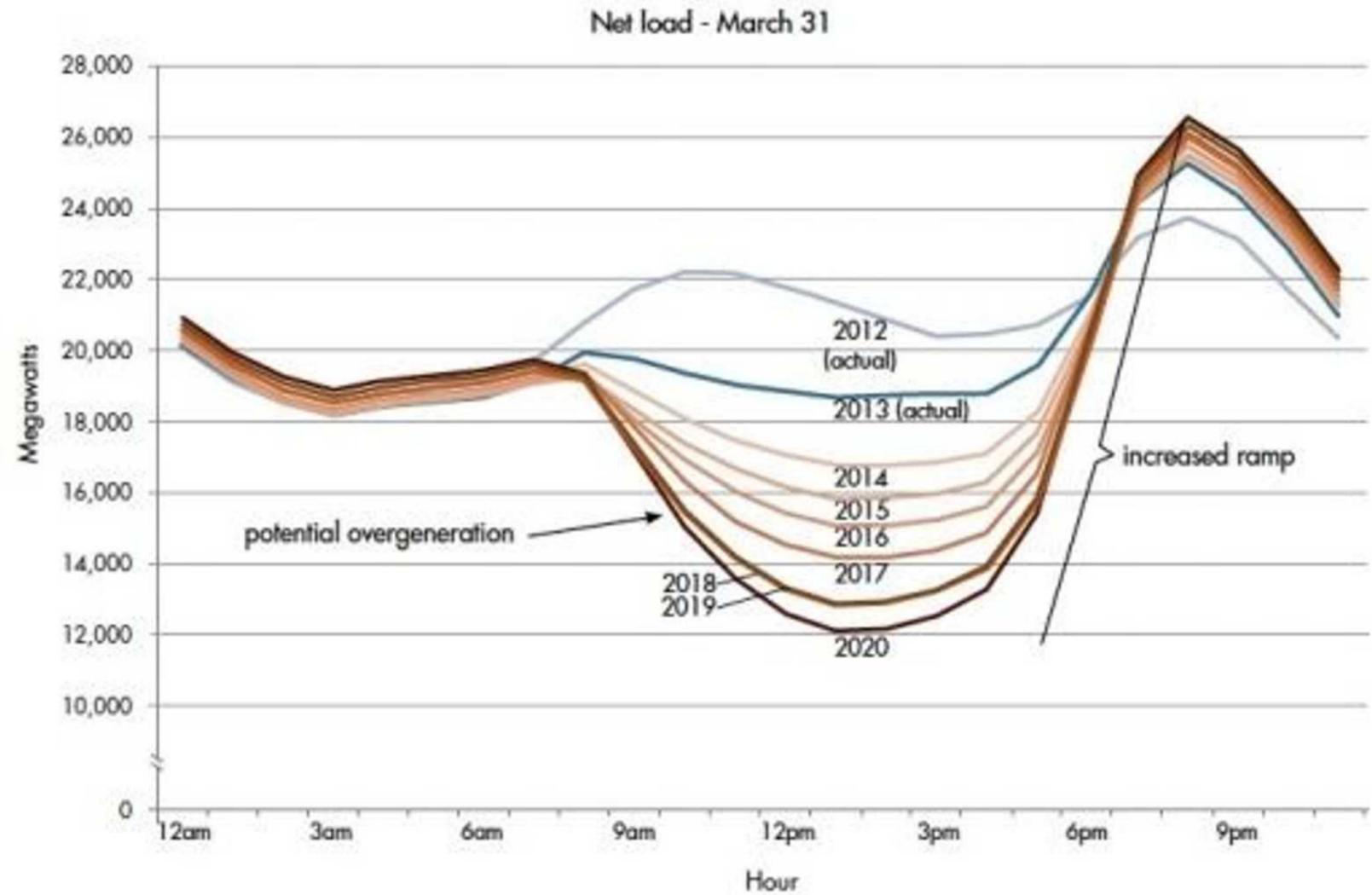
California seeks to decarbonize electricity production by 2045.

As we add renewable energy to the grid, we are unable to consume it all.



The “Duck” Curve

The more renewable energy we add,
the worse this problem becomes.

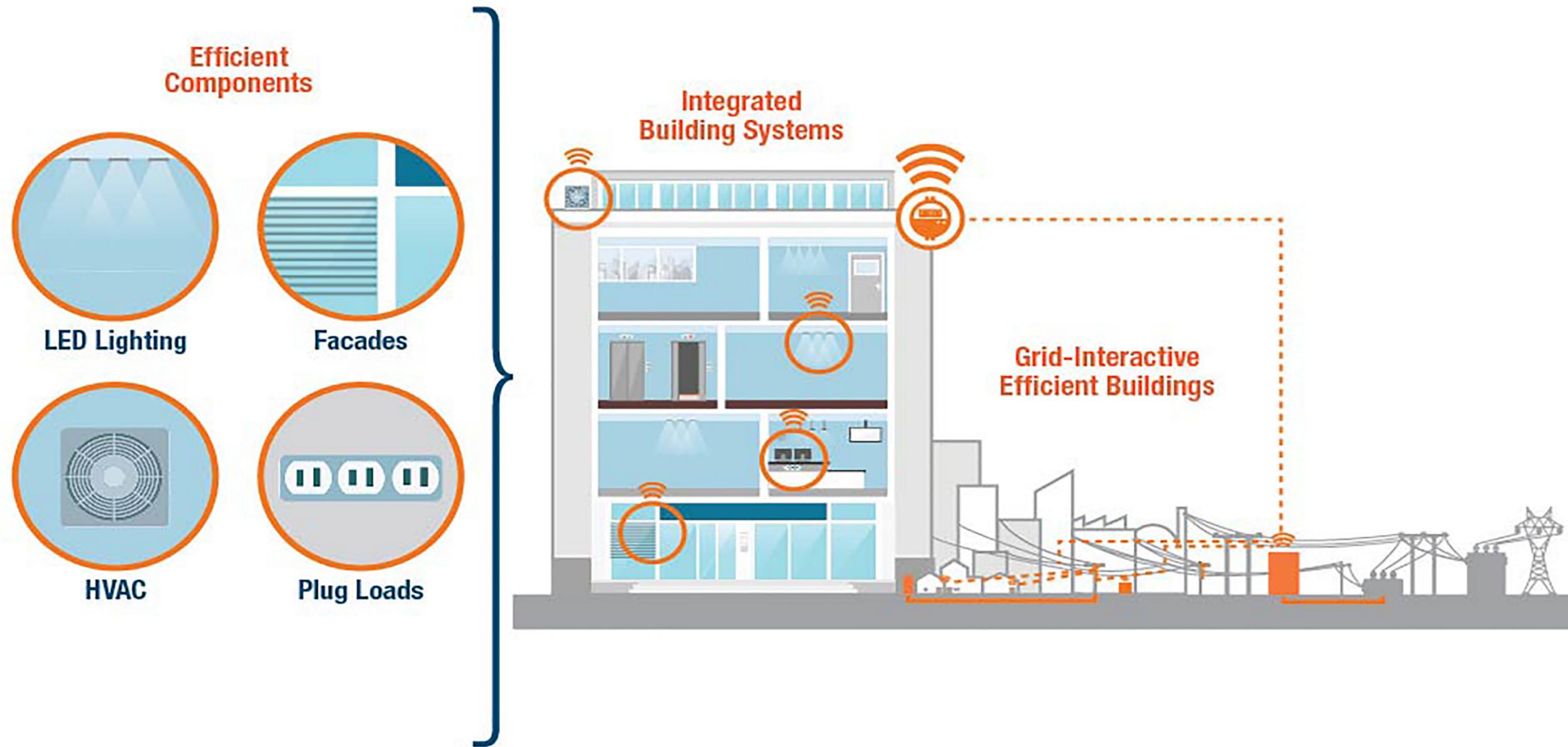


The Solution: Prices To Devices

A future where building loads receive continuous price information and adjust their electricity consumption automatically for maximum affordability, reduced carbon content, or a mixture of both.



Grid-Interactive Efficient Buildings Support an Electric Grid with More Renewables





HUB PORTFOLIO MANAGEMENT

Innovation,
Discovery &
Recruiting



Annual Review Cycle



Technology Assessment & Prioritization

Research & Development

Demonstration & Deployment

Performance Evaluation

Flexibility Solutions Adopted by Industry and building stock at scale.

Identify, analyze, and screen innovations



Develop & validate early-stage innovations



Refine solutions & validate performance in field



Quantify potential impact using key metrics.



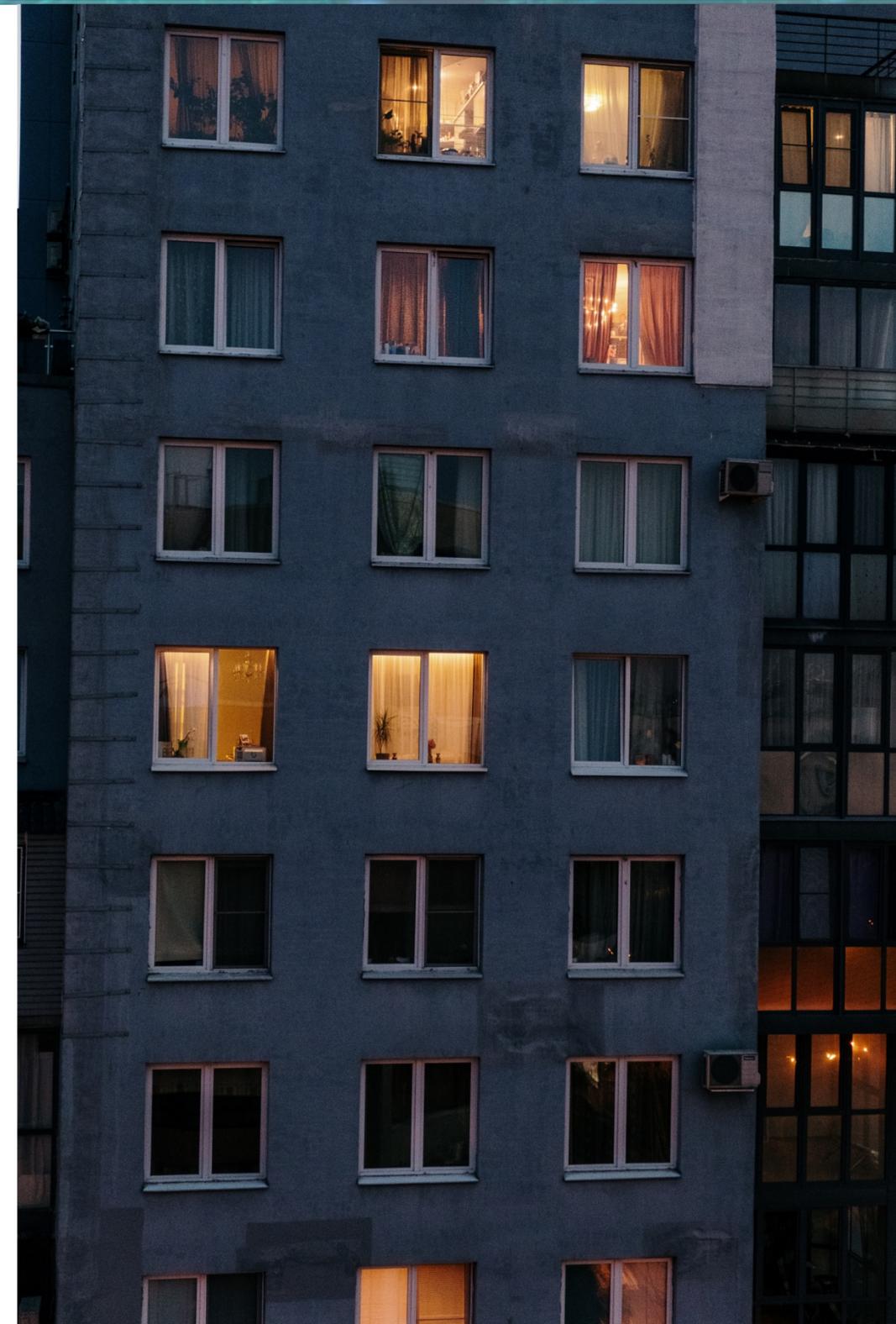


Equity

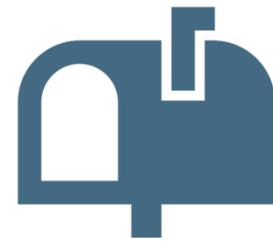
CalFlexHub seeks to benefit all Californians, including those from disadvantaged communities.

Target technologies will be practical, affordable, and reliable.

Signals will be broadcast over the internet and via FM radio waves—accessible to virtually every household and business in California.



CalFlexHub will launch in mid-2021.



To sign up for our newsletter and learn more, visit
www.CalFlexHub.org.

Or contact Mary Ann Piette directly, at mapiette@lbl.gov
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