



CalCharge

The background features a dark blue field with abstract, flowing green lines that resemble stylized circuit traces or paths. These lines are layered, with some being solid and others appearing as faint outlines, creating a sense of depth and movement. The overall aesthetic is clean, modern, and technical.

# CalCharge Overview

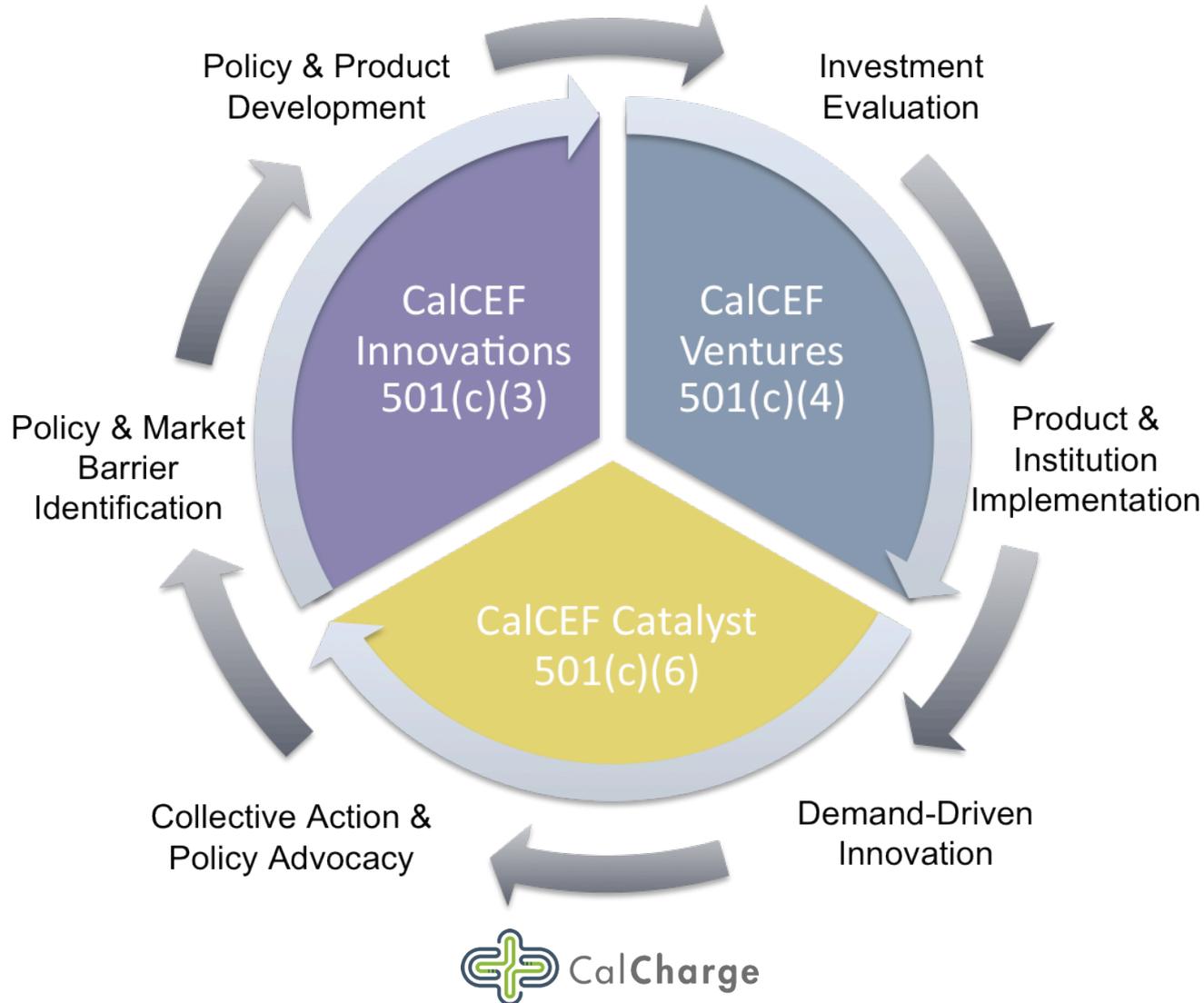
# CalCharge Origin



CALCEF



# What is CalCEF?



# California & Energy Storage

- Home to more than **130** companies and **13** academic & research institutions in energy storage
- **43%** of deployed US energy storage capacity is in California (excluding pumped hydro)
- Leads the nation in energy storage patent filings with **219** in 2013 - more than the next four states combined
- California energy storage startups received nearly **\$73 million** in venture capital in 2013, more than any other state
- As of 2012, California had over **2,500** jobs in the core energy storage sector



# Program Areas

## Technology Acceleration

- CRADA with Berkeley Lab
- CRADA with SLAC
- CRADA with LLNL (*coming soon*)
- IP Checkups

## Pre-Commercialization Support

- Advanced Manufacturing Roadmap
- Member Driven Initiatives

## Professional Development

- First MSE in Batteries with SJSU
- UC San Diego MSE (*coming soon*)
- Conferences & Seminars

## Ecosystem Facilitation

- IBEW-NECA Energy Storage Standard, Certification, Development, and Training
- White papers & market analysis

# Current Members



CALCEF



UC San Diego



San José State  
UNIVERSITY



NATIONAL  
ACCELERATOR  
LABORATORY

*Charter*



**BOSCH**

*General*



Alveo Energy



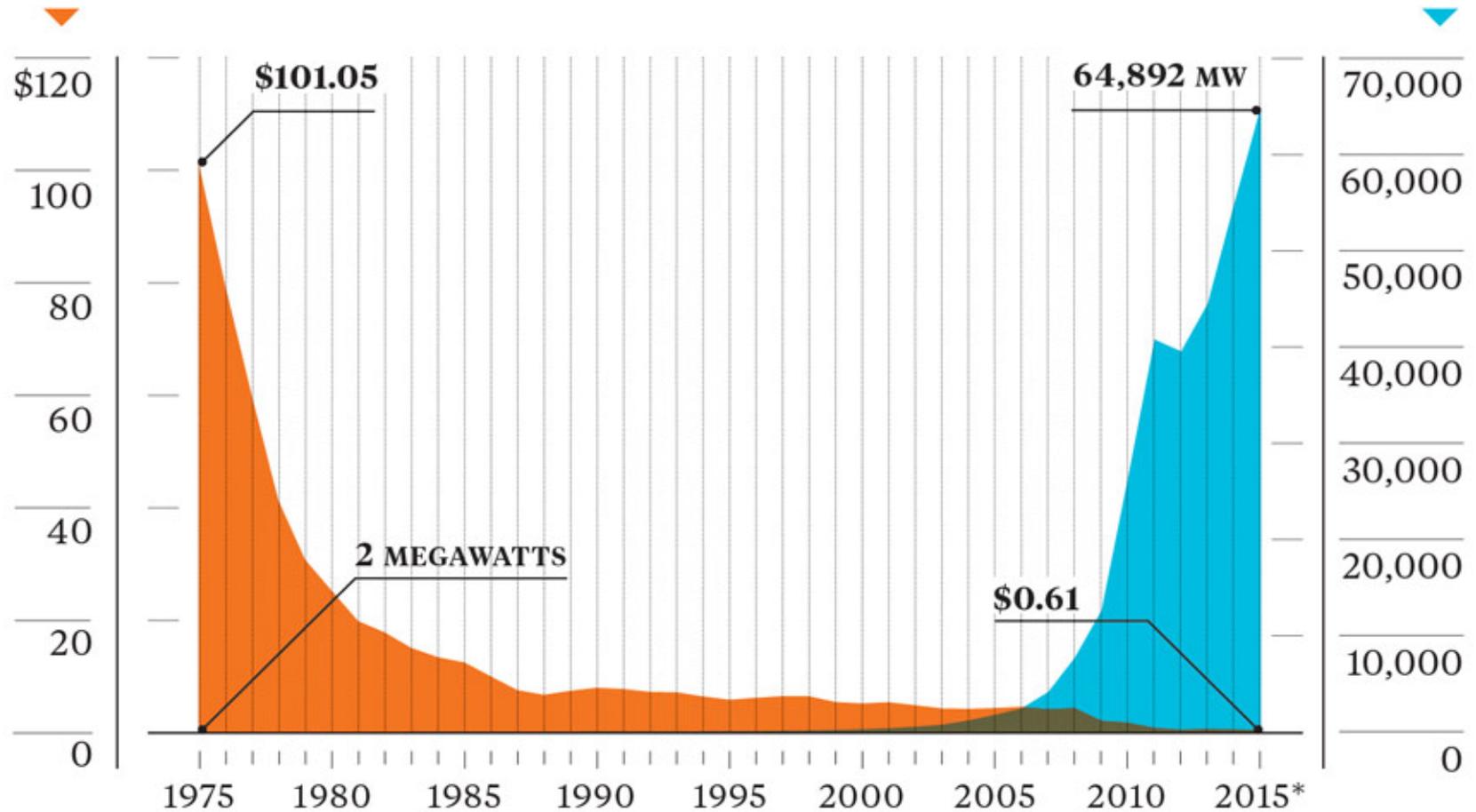
The background features a dark blue field with abstract, flowing green lines that resemble stylized circuit traces or topographic contours. These lines are thicker in some areas and thinner in others, creating a sense of depth and movement. The overall aesthetic is clean, modern, and technical.

# Lessons from Solar

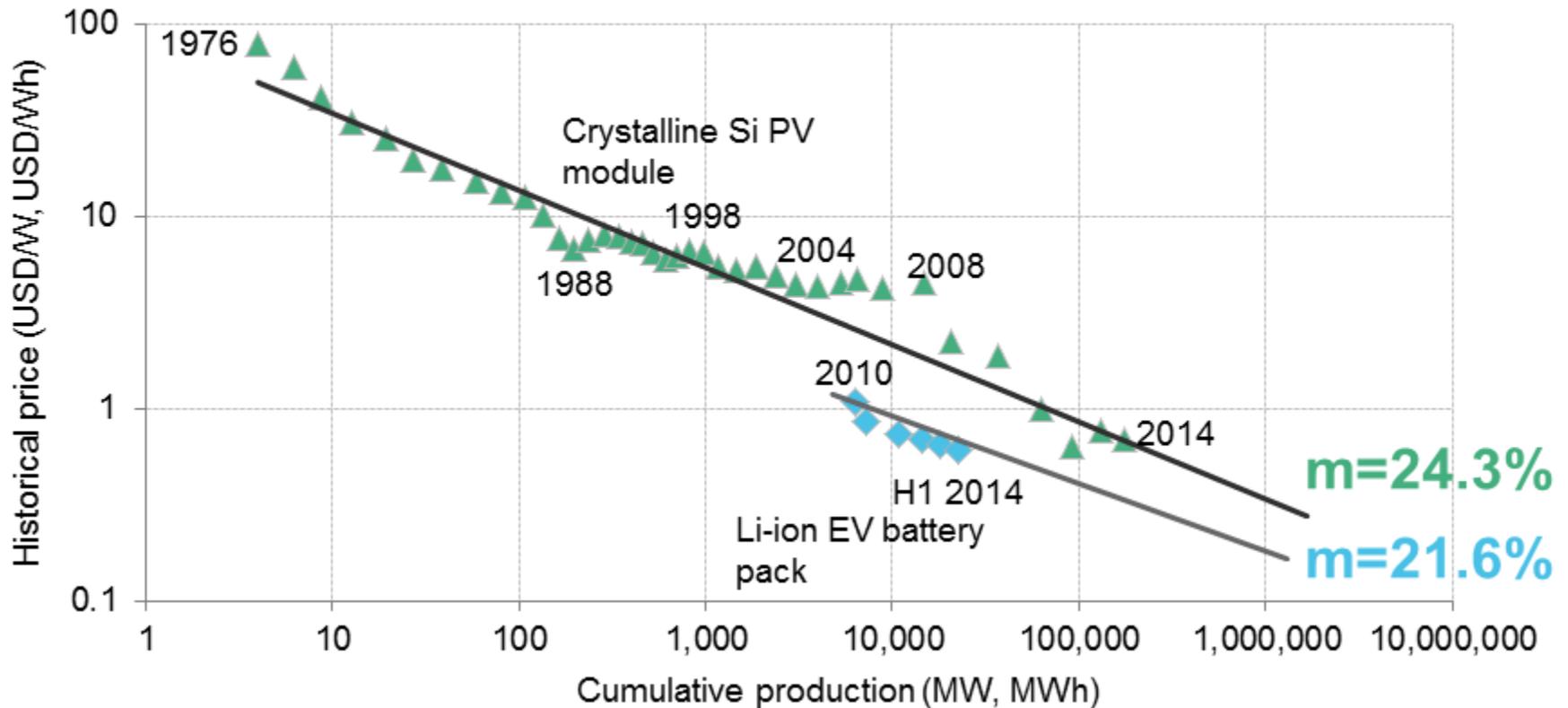
# A Tale of Two Hockey Sticks

Price of a solar panel per watt

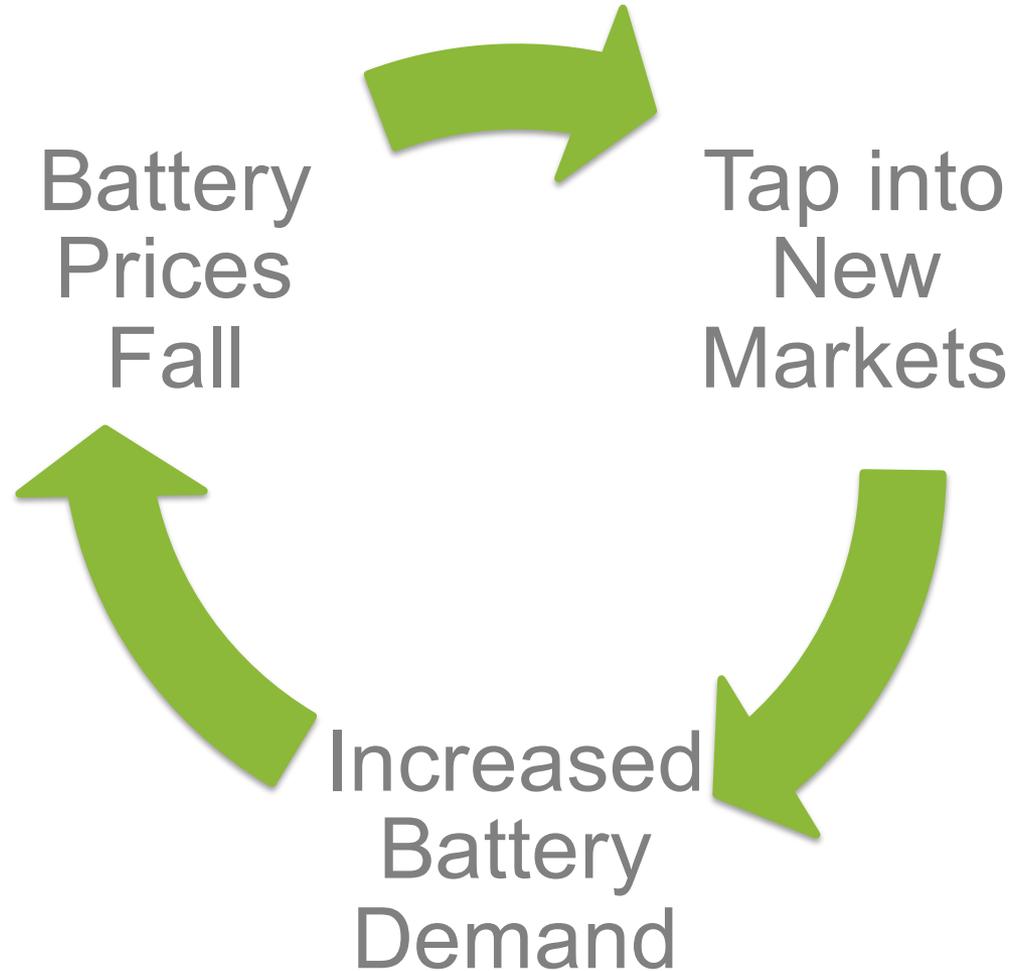
Global solar panel installations



# Solar vs. Li-ion Batteries



# The Virtuous Cycle





CalCharge