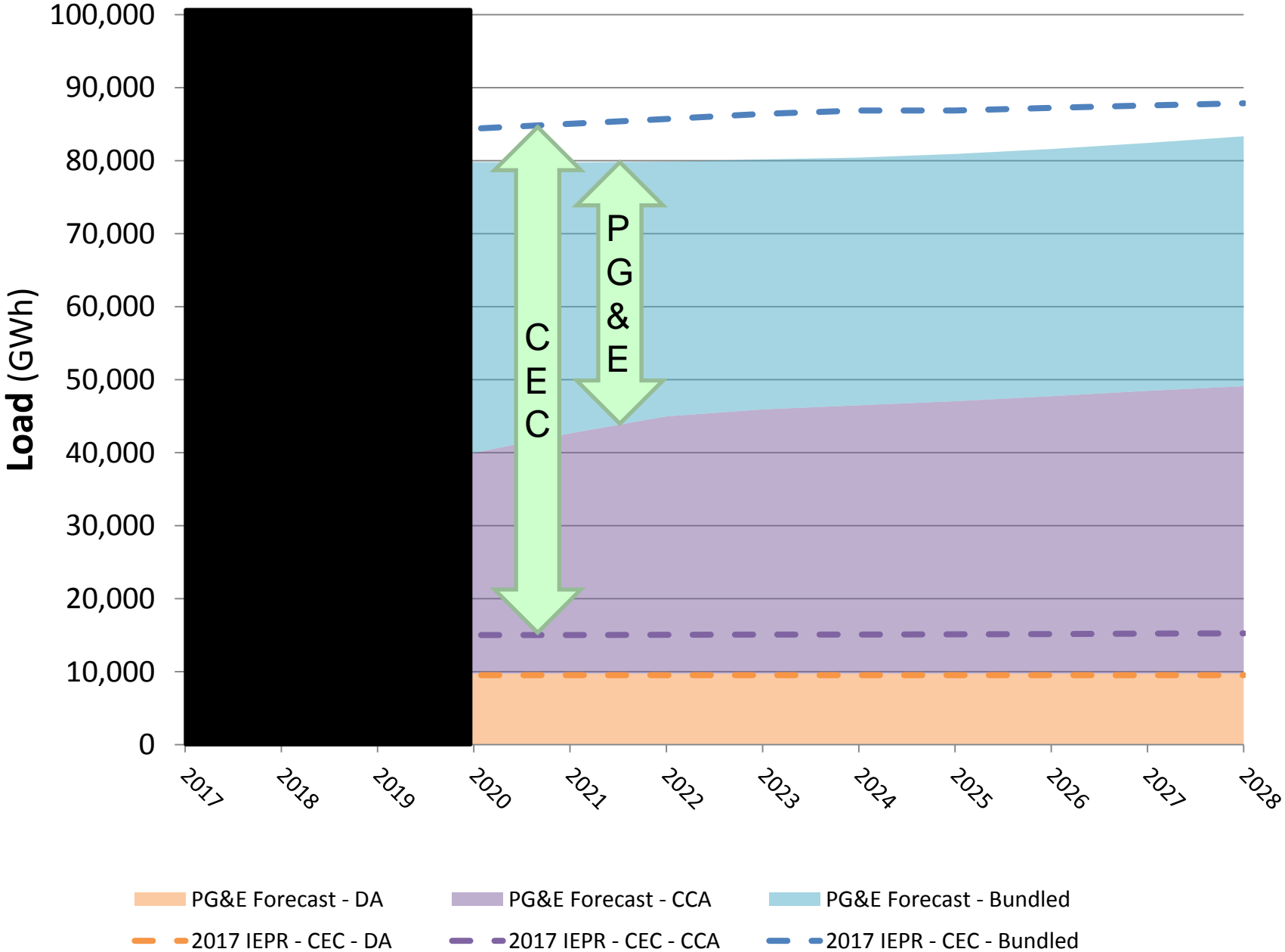


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**Vijay Bhaskaran – PG&E**

# **COMMUNITY CHOICE AGGREGATION FORECAST**

# Significant gap in CEC vs. PG&E CCA Forecast





# Current CCA's as of May 2017



**Launched:** May 2010

**Total Service accounts:**  
approximately 255,000

**Future enrollment phases:**  
Spring 2018



**Areas served:** Marin County, City of Richmond, Unincorporated Napa, San Pablo, Benicia, El Cerrito, Walnut Creek, Lafayette, American Canyon, Napa, Yountville, Calistoga and St. Helena.



**Launched:** May 2014

**Total Service accounts:**  
approximately 230,000

**Future enrollment phases:**  
No additional phases at this time.

**Area served:** Sonoma County, Petaluma, Rohnert Park, Cloverdale, and Mendocino County



**Launched:** May, 2017

**Total service accounts:**  
approximately 65,000

**Future enrollment phase:** no additional planned phases at this time

**Area served:** Humboldt County



**Launched:** May 2016

**Total Service accounts:**  
approximately 80,000

**Future enrollment phases:**  
Spring 2018

**Area served:** San Francisco



**Launched:** October 2016

**Total Service accounts:**  
approximately 300,000

**Future enrollment phases:** No additional phases at this time.

**Areas served:** San Mateo County



**Launched:** April, 2017

**Total service accounts:**  
approximately 215,000

**Future enrollment phase:** no additional planned phases at this time

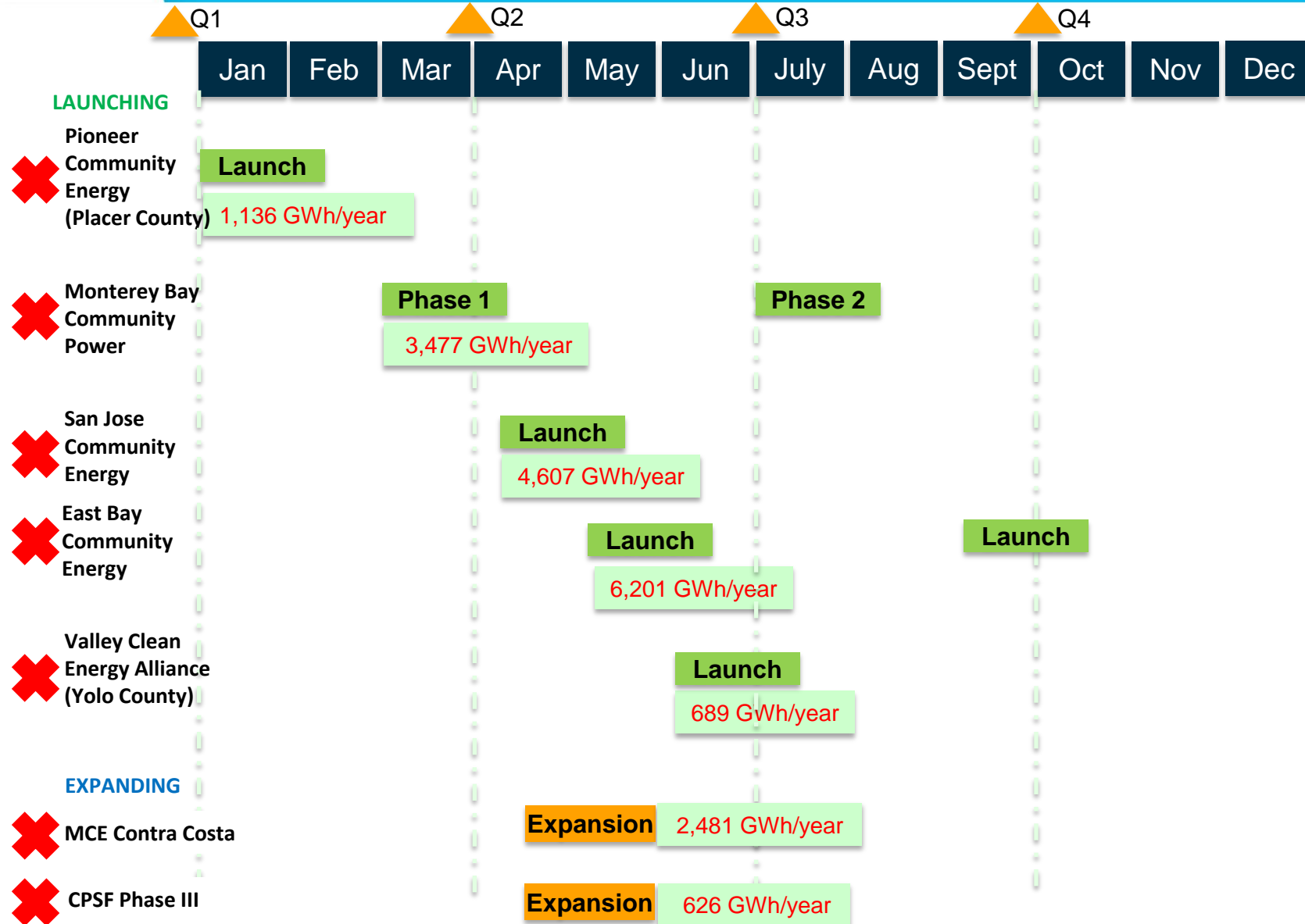
**Area served:** Santa Clara County





# Confirmed CCAs for 2018

\*This timeline is per implementation plans submitted to the CPUC



# CCA Forecasting Methodology - Overview


(1) **Identification of CCA participation:** PG&E identifies the level of public CCA activity observed in its service area



2) **Determination of departure probability:** Based on observed CCA activity, PG&E assigns a target probability of departure for communities in the service area



(3) **Determination of load forecast:** Load pertaining to potential CCA departure jurisdiction is identified as an independent variable in the simulation model with community-specific dependencies but without any correlations



(4) **Calculation of load departure (stochastically modeled):** For each year, the jurisdiction-specific departure probabilities and load forecasts are stochastically modeled (150,000 iterations) to produce a distribution

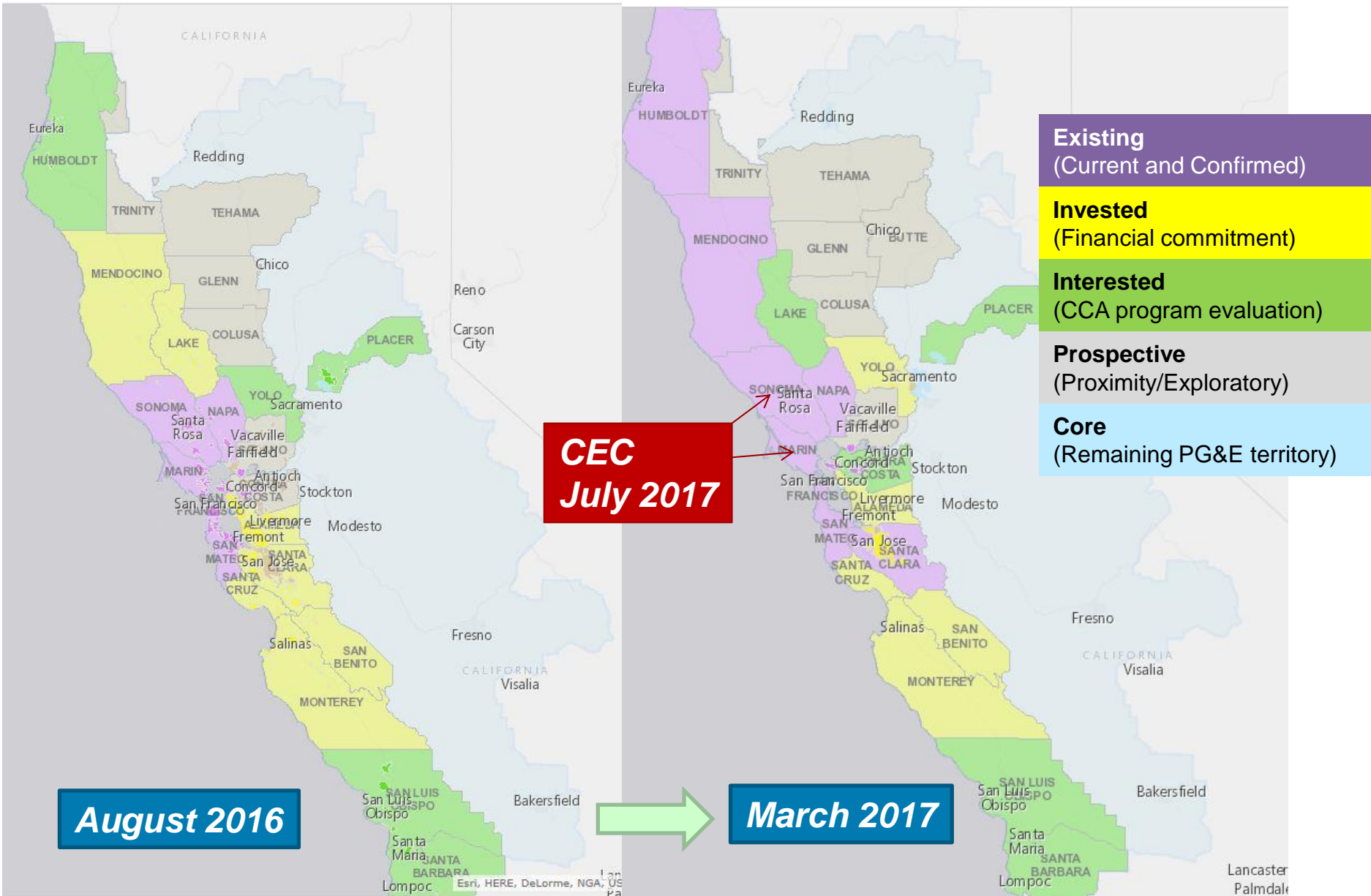
# CCA maturity defined by public activities

<b>Existing</b> (Current and Confirmed)
<b>Invested</b> (Financial commitment)
<b>Interested</b> (CCA program evaluation)
<b>Prospective</b> (Proximity/Exploratory)
<b>Core</b> (Remaining PG&E territory)

## Community Status Criteria (\*criteria specific for joining existing CCA)

<b>Existing</b>
Actively serving customers Full financial commitment and confirmed to serve customers Existing CCA actively serving customers* Existing CCA procures for new community*
<b>Invested</b>
Negotiating contract w/ energy provider Implementation/business plan Feasibility study completed Financial commitment for startup Formal JPA established New load feasible for existing CCA to accept* Existing CCA submits updated Implementation Plan to CPUC* Confirm contract w/ existing CCA* Existing CCA Board approves application*
<b>Interested</b>
CCA program formed Preliminary feasibility/assessment study started Requests PG&E load data Membership application submission* Sent letter of intent to existing CCA*
<b>Prospective</b>
City Council or County Board of Supervisors discussion City Council voted to abstain from JPA In proximity to communities exploring CCA
<b>Core</b>
Remaining PG&E service territory

# CCAs are evolving rapidly

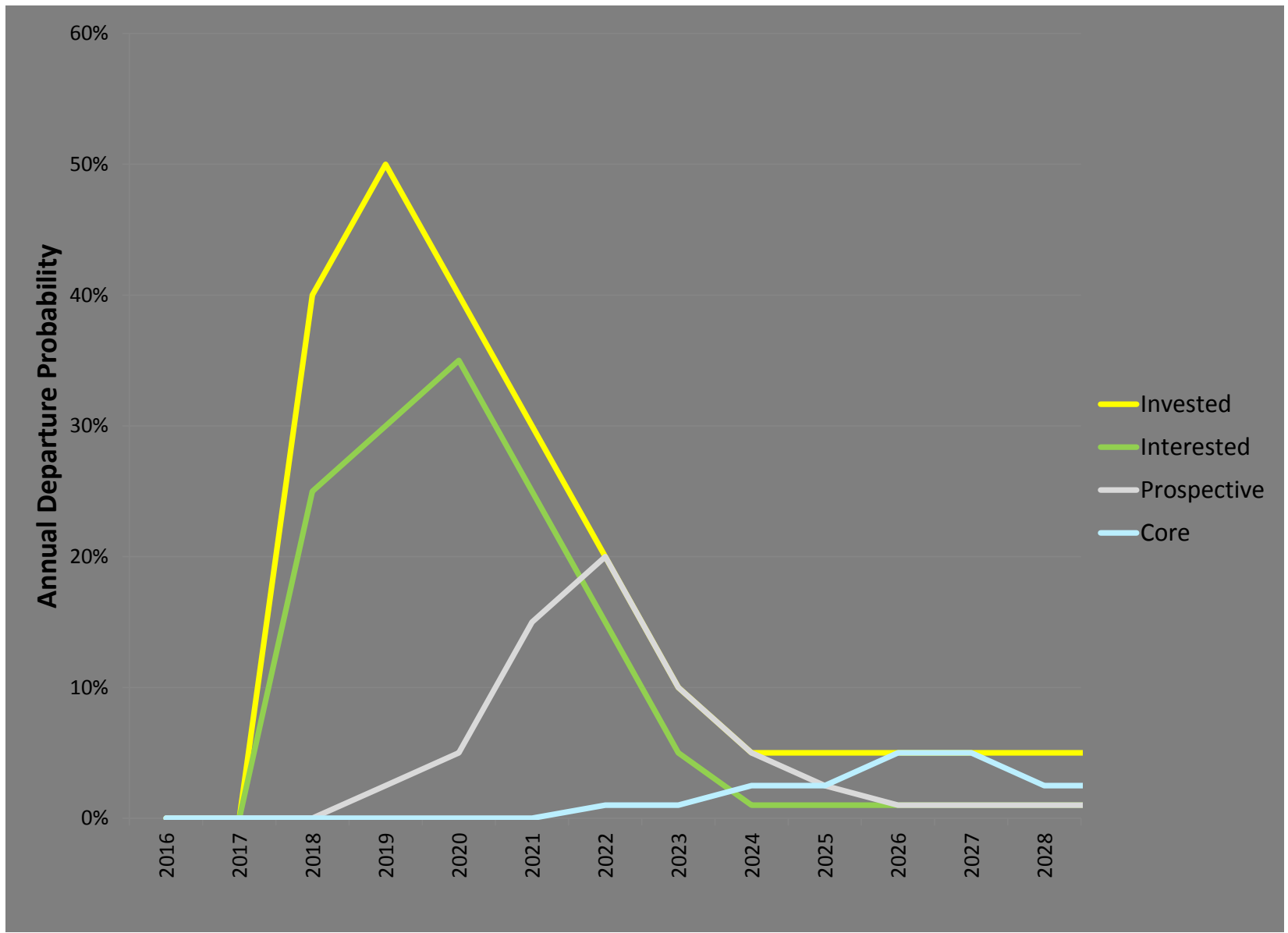


**August 2016**

**CEC  
July 2017**

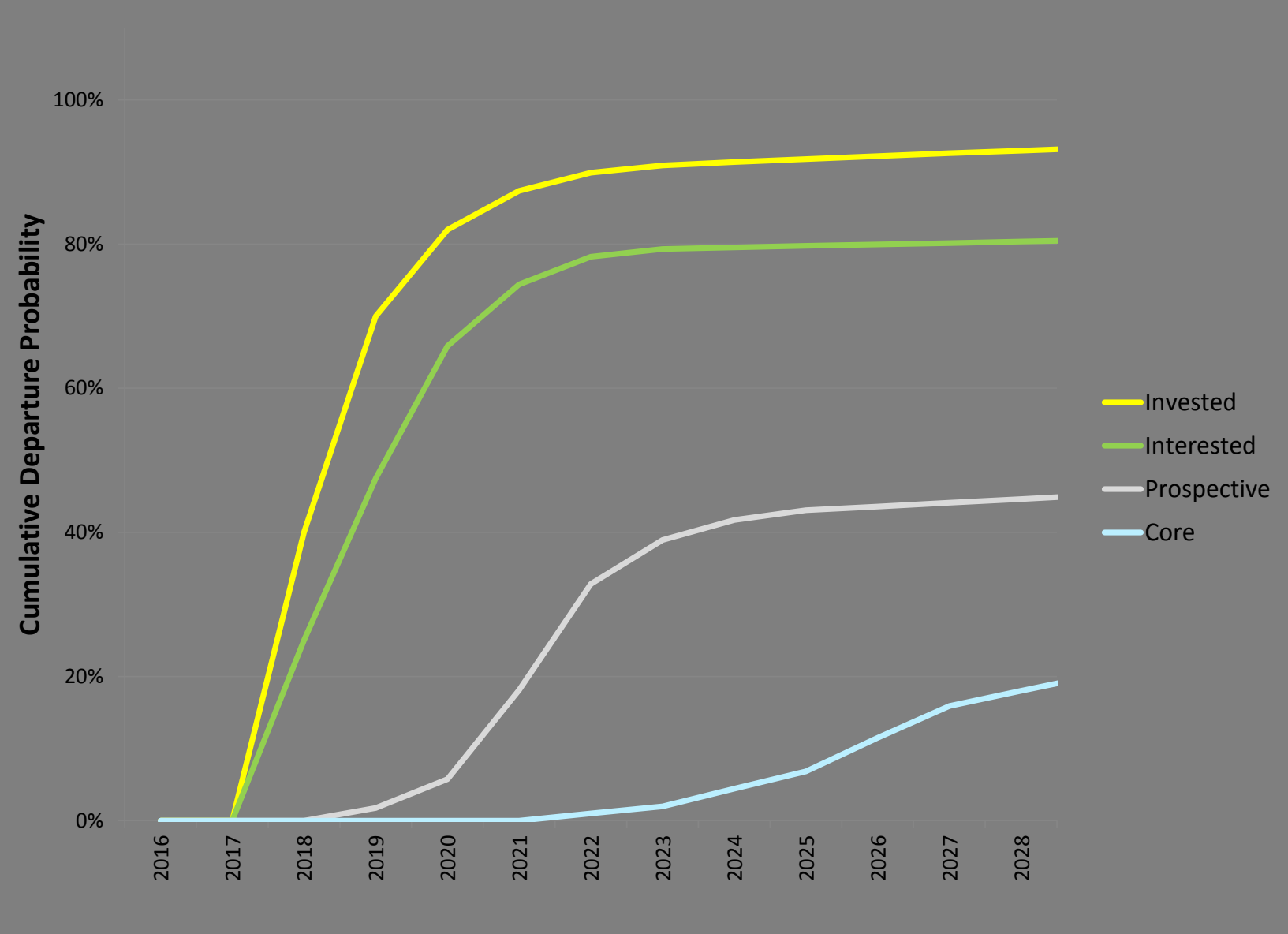
**March 2017**

# Annual departure probability based on maturity



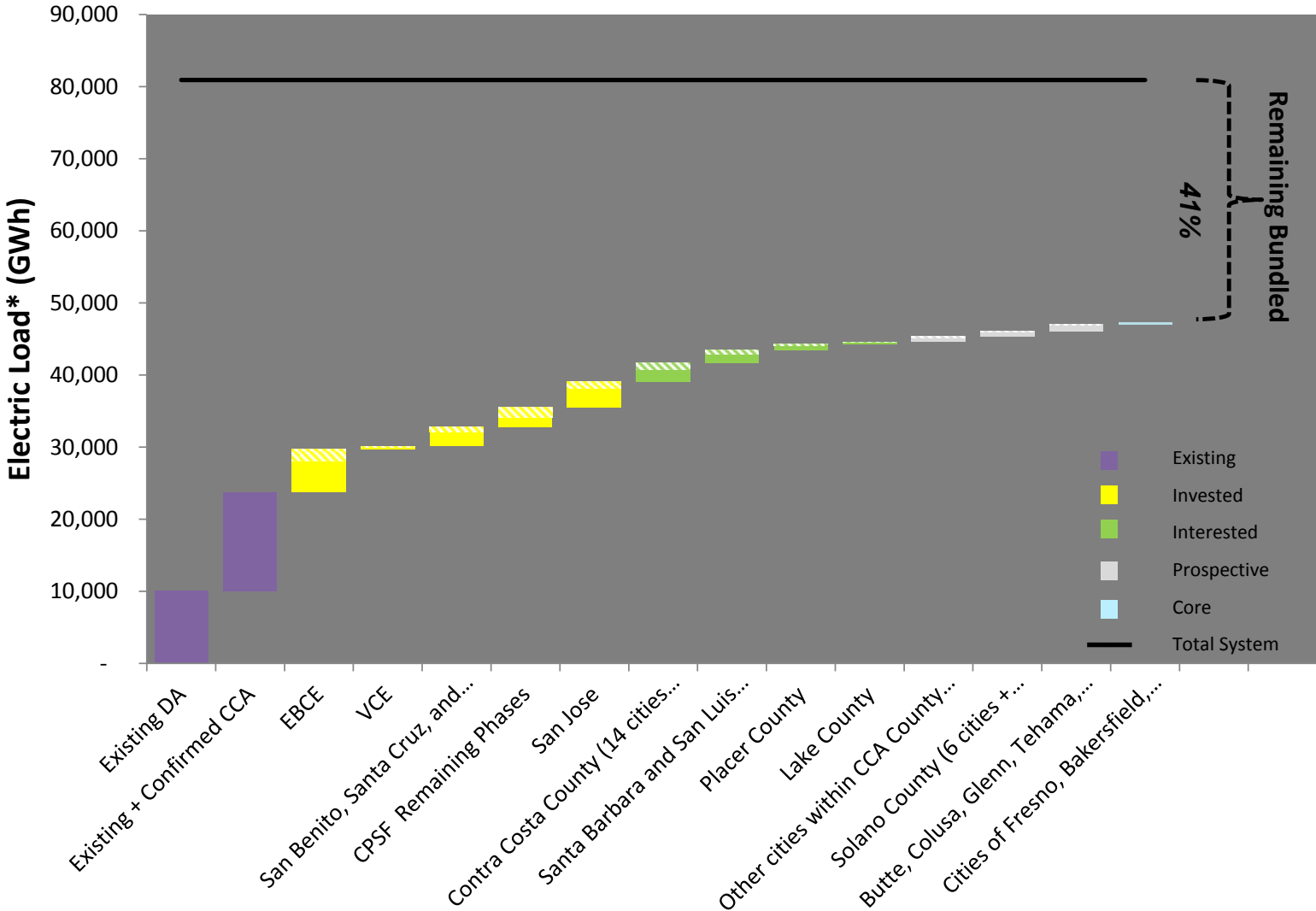


# Cumulative departure probability based on maturity



# CCA growth expected in entire PG&E service territory

### Expected Departures by 2025



\*Does not represent total load in each community, but PG&E's probability adjusted estimate of expected load loss

# CCA maturity definitions modified

## Key:

**Existing:** Currently Serving Customers

**Invested:** Financial Commitment

**Interested:** CCA Program Evaluation

**Prospective:** Proximity/Exploratory

**Core:** Remaining PG&E Territory

## Community Status Criteria

### Existing

- Filed BNI with PG&E
- Actively serving customers
- Filed RA with CEC/CPUC
- Implementation Plan certified by CPUC
- Negotiated contracts or approved energy procurement loans
- **Implementation Plan submitted to CPUC**
- **Submitted ERRA forecast as part of Meet & Confer**
- **CCA Board approval to expand**

**NEW**

### Invested

- Conducted feasibility study
- Committed financially
- Established JPA or invitation to join existing CCA
- Voted to join JPA

### Interested

- Hired consultants
- Requested electric load data
- Formed CCA or committee
- Sent letter of intent to existing CCA

### Prospective

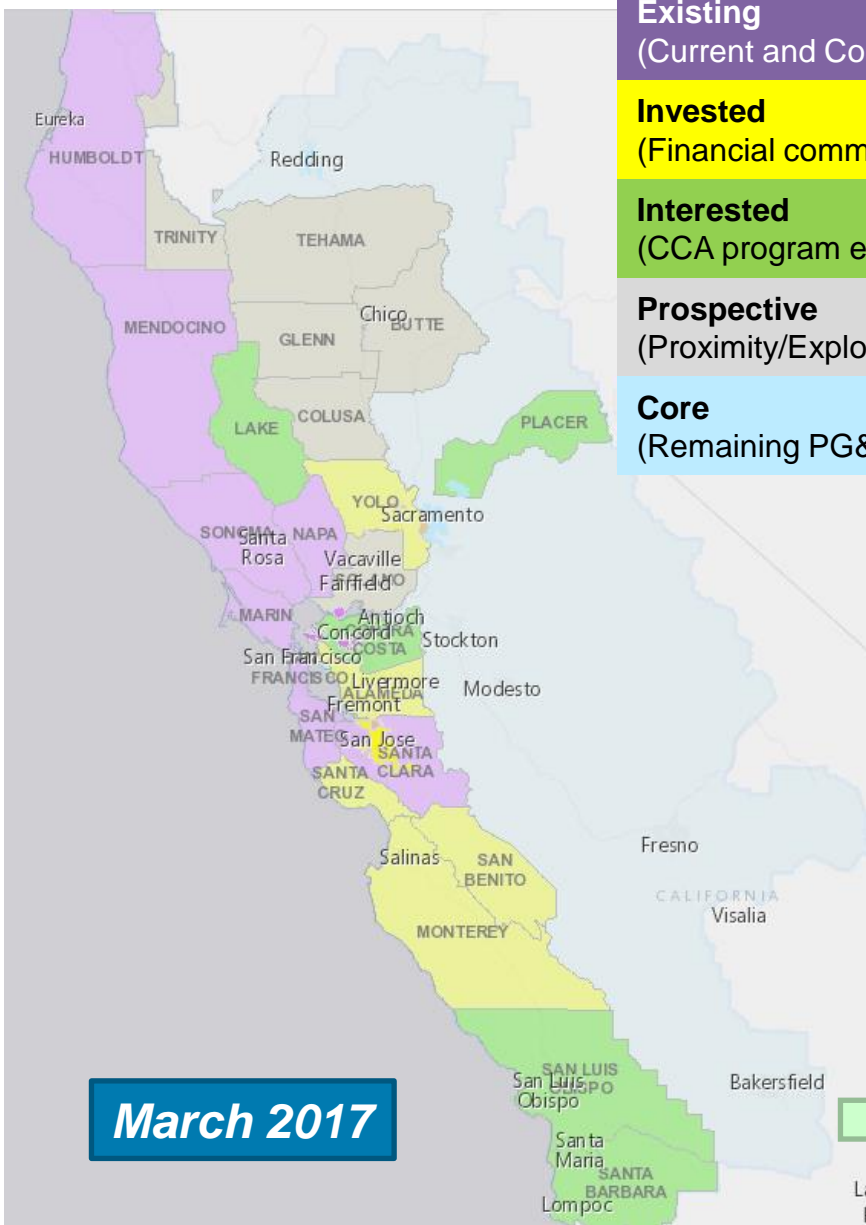
- Discussed CCA in public forums
- Public media reports or initial exploration

### Core

- In proximity to active CCA communities
- Remaining PG&E service territory

# CCAs continue to evolve

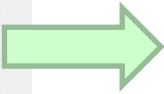
- Existing**  
(Current and Confirmed)
- Invested**  
(Financial commitment)
- Interested**  
(CCA program evaluation)
- Prospective**  
(Proximity/Exploratory)
- Core**  
(Remaining PG&E)



**March 2017**



**September 2017**



# PG&E Recommendations

- 1. Correct CEC's CCA load forecast for:**
  - A. Existing CCAs serving customers in 2016-17**
  - B. New CCA's with implementation plans to the CPUC for 2018**
- 2. Consider PG&E's probabilistic forecast for additional CCAs beyond 2018**
- 3. Modify IEPR process to:**
  - A. Request CCAs (including <200 MW) that *plan* to serve load**
  - B. Update forecast in the interim year for new CCAs**

# CCA communities

Jurisdiction	JPA	CCA
Marin, Napa, and Contra Costa (13 cities and Unincorporated) Counties, and City of Benicia (Solano County)	Marin Clean Energy	MCE
Sonoma and Mendocino Counties	Sonoma Clean Power	SCP
San Francisco County	CleanPower San Francisco	CPSF
San Mateo County	Peninsula Clean Energy Authority	PCE
Santa Clara County (11 cities and Unincorporated)	Silicon Valley Clean Energy	SVCE
Humboldt County	Redwood Coast Energy	RCEA
Placer County	Pioneer Community Energy	Pioneer
San Benito, Santa Cruz, and Monterey Counties	Monterey Bay Community Power	MBCP
Alameda County (11 cities and Unincorporated)	East Bay Community Energy	EBCE
San Francisco County	Clean Power San Francisco	CPSF
San Francisco County	Clean Power San Francisco	CPSF
City of San Jose	San Jose Clean Energy	SJCE
Yolo County (Davis, Woodland, and Unincorporated)	Valley Clean Energy Alliance	VCE
Santa Barbara and San Luis Obispo Counties		
Lake County		
Butte County		
Remaining Contra Costa County (6 cities)		
Remaining Yolo County (West Sacramento, Winters)		
Milpitas		
Remaining Alameda County (Newark, Pleasanton)		
Remaining Solano County (6 cities + Unincorporated)		
Colusa, Glenn, Tehama, and Trinity Counties		
Cities of Fresno, Bakersfield, Stockton		
Remaining PG&E Service Territory		