



California Public  
Utilities Commission

# Climate Adaptation Equity Workshop

Climate Adaptation Proceeding (R.18-04-019)

Meghan Cook – CPUC Climate Adaptation Analyst  
September 25, 2025



# Welcome & Introduction



# Restrooms & Safety Procedures

- In event of evacuation, we will meet at the Arts District Park on E 5<sup>th</sup> Street and S Hewitt Street
- Note bathroom locations



# Webex Logistics

- Today's presentations (.pdf) and agenda are available on the WebEx link under “Event Material.” Type the password “**ADAPT**” into the box and click “View Info”
- **Please note this meeting is being recorded.**

Mute/ Unmute



Participant List



Chat



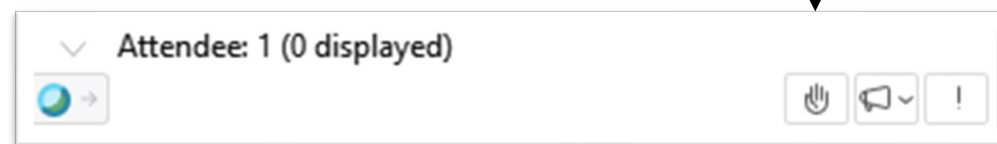
Audio Options



Leave Meeting



Raise Hand



- Please submit questions for speakers in the Chat Box or raise your hand to be unmuted by staff.
  - \*3 to raise hand and \*6 to unmute/mute over the phone
- Questions will be read aloud by staff (Reminder: Mute back!)



# Today's Agenda

Time	Content	Presenters/Participants
<b>Introductory Information</b>		
9:30 AM	<b>Welcome</b>	Meghan Cook - CPUC
9:40 AM	<b>Commissioner Opening Remarks</b>	Commissioner Houck
9:50 AM	<b>Overview &amp; Background</b>	Meghan Cook – CPUC
<b>IOU Roundtable: Identifying and Prioritizing Equity in CAVA Lessons Learned and Proposals for Refinement</b>		
10:10 AM	<b>Investor-Owned Utility Presentations</b>	SCE – Anna Brockway & Anuj Desai SDG&E – Sandeep Aujla SoCalGas – Geoffrey Danker
11:30 AM	<b>Break</b>	
11:40 AM	<b>Facilitated Roundtable Discussion</b>	Various Stakeholders and Experts
12:15 AM	<b>Lunch Break</b>	
<b>Integration of Equity Metrics into CAVA Process</b>		
1:45 PM	<b>Panelist Presentations</b>	Various Stakeholders and Experts
2:25 PM	<b>Break and Interactive Activity</b>	
2:40 PM	<b>Facilitated Discussion</b>	Panelists

# Today's Agenda (continued)

Time	Content	Presenters/Participants
Refinement of Community Engagement Requirements for CAVA Process		
3:15 PM	Panelist Presentations	Various Stakeholders and Tribal Representatives
3:55 PM	Break and Interactive Activity	
4:10 PM	Facilitated Discussion	
Next Steps & Closing Remarks		
4:45 PM	Closing Remarks	Meghan Cook – CPUC
5:00 PM	Adjourn	
5:15 PM	No Host Post-Workshop Event – Arts District Brewing Company	

# Community Agreements

- Workshop is structured to stimulate an honest dialogue and engage different perspectives
  - Keep comments friendly and respectful
  - Be present (as few additional screens as possible)
  - Assume best intentions but be mindful of impact
  - One person speaking at a time
  - Amplify underrepresented voices
  - Half thoughts are welcome
- Chat feature is only for Q&A or technical issues



# Purpose of Workshop: Improve Equity Considerations for IOU Climate Adaptation Vulnerability Assessments (CAVAs)

*CAVAs: Informational long-term planning reports to identify and mitigate risks to energy infrastructure due to climate change*

**Objective: 1) Engagement:** Gather input to refine existing requirements for Community Engagement to inform CAVAs for; **2) Quantitative:** Discuss methods and criteria needed to measure equity impacts of CAVAs within climate adaptation planning

**Outcome:** Workshop input will inform a Staff Proposal and a future CPUC Decision to improve Equity guidance and impacts, anticipated in early 2026

# Opening Remarks

Commissioner Darcie L. Houck

# Background: Climate Adaptation Proceeding



# Climate Adaptation Proceeding - (R.)18-04-019

**Purpose:** Requires IOUs to assess forecasted extreme climate impacts on energy infrastructure and IOU operations *decades* into the future and identify options to mitigate threats by developing and submitting to CPUC:

- Climate Adaptation Vulnerability Assessment (**CAVA**) every 4 years
- Community Engagement Plan (**CEP**) one year before their CAVA

**Equity Targets:** Disadvantaged and Vulnerable Communities (**DVC**) defined as: 1) Tribes, 2) 25% highest CalEnviroScreen scores, 3) median income less than 60% of state median

**Informational:** CAVAs are also used to inform nearer-term focus Risk Assessment Mitigation Phase (RAMP), general rate cases (GRCs), and may be used in other long-term planning proceedings (e.g., Integrated Resource Plans (IRP), Distributed Energy Resources (DER), Long-term Gas Planning)

# Alignment with State Climate Adaptation Strategy Priorities

- Strengthen protections for climate vulnerable communities
- Bolster public health and safety to protect against increasing climate risks
- Build a climate resilient economy
- Make decisions based on the best available climate science

# CAVA Requirements – Most Recently Updated in August 2024

## CAVAs must include:

1. Identify climate risk and conduct exposure analysis on infrastructure, operations, and service
2. Consider the following climate risks: Temperature, sea level, variation in precipitation (snowpack, flooding, drought, subsidence), wildfire, and cascading impacts
3. Utilize best available climate modeling requirements including baseline scenario, Global Warming Level approach, analyze specific degree scenarios (1.5 and 2 °C)
4. Consider green and sustainable remedies for vulnerable infrastructure
5. Include analysis of how IOUs promote equity in DVCs based on their adaptive capacity
6. Include summary of CEP work in the CAVA and attached CEP to CAVA
7. Use the two-step vulnerability methodology developed by DWR
8. Include off-ramp for assets with low climate risk with mechanism to reassess those assets in the future

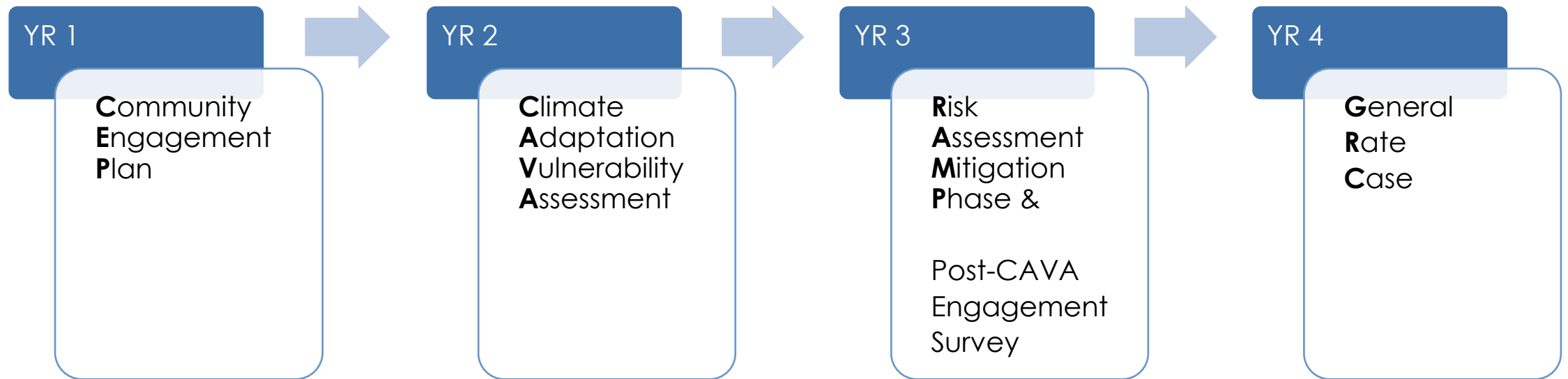


# Additional CAVA Requirements

## IOUs Must:

- Update climate modeling best practices as science evolves as per the California Climate Assessment and Cal-Adapt
- Publicly present and seek stakeholder and Tribal input on draft CAVAs 90 days prior to submitting to the CPUC
- Demonstrate **Incrementality**, **Prioritization**, **Cost-Effectiveness**, and **Justification** of any post-CAVA investment requests in GRC or other applications

# CAVA Process – Typical Timeline



# CAVA & CEP Submission Timeline is Staggered by IOU

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>SCE</b>	CEP	CAVA & RAMP	Survey & GRC		<b>CEP</b>	<b>CAVA &amp; RAMP</b>	Survey & <b>GRC</b>	<b>CEP</b>	<b>CAVA</b>	RAMP & Survey	<b>GRC</b>
<b>PG&amp;E</b>			CEP	CAVA & RAMP	Survey & <b>GRC</b>	<b>CEP*</b>	<b>CAVA*</b>	RAMP & Survey	<b>GRC</b>	<b>CEP</b>	<b>CAVA</b>
<b>SDG&amp;E</b>				CEP	<b>CAVA &amp; RAMP</b>	Survey & <b>GRC</b>	<b>CEP</b>	<b>CAVA</b>	RAMP & Survey	<b>GRC</b>	<b>CEP</b>
<b>SCG</b>				CEP	<b>CAVA &amp; RAMP</b>	Survey & <b>GRC</b>	<b>CEP</b>	<b>CAVA</b>	RAMP & Survey	<b>GRC</b>	<b>CEP</b>

*\*Note that CAVAs and CEPs move up one year starting in 2026 with PG&E as per D.24-08-005*

**Items in bold will require review by CEI team staff**



# Current Proceeding Scope to Consider Improvements

1.	<b>Should the Commission refine requirements regarding consultations with DVCs and the preparation of CEPs adopted in D.20-08-046 with regard to large IOUs, including but not limited to:</b>
1.1	Additional guidance regarding the purpose and intended outcomes of the CEP and DVC consultation processes?
1.2	Ways to reduce consultation fatigue and/or coordinate with other proceeding outreach processes?
1.3	Modifications to the definition of DVC adopted in D.20-08-026?
1.4	Additional guidance regarding consultation and collaboration with local governments during risk and vulnerability assessment processes? During adaptation proposal identification processes?
1.5	Refinement of Tribal consultation processes specific to climate adaptation matters?
1.6	Additional guidance regarding methods and scope for the determination of community adaptive capacity in CAVA analyses?
2.	<b>What are the impacts on environmental and social justice communities of actions taken in this proceeding, including the extent to which requirements impact achievement of any of the nine goals of the Commission's Environmental and Social Justice Action Plan?</b>

# Refinement: Integration of Equity Metrics in the CAVA Process

- The existing process for incorporating equity into the CAVA process is qualitative
  - Community Engagement Plans
  - Public comment opportunities on CAVAs
- Equity metrics can be incorporated into the analysis to provide a complementary measurable **quantitative** equity lens for climate adaptation in IOU planning
  - Coordinated with engagement approach
  - Based on CPUC guiding criteria

# Building Off Previous Workshops

CPUC held three public workshops in Fall 2024 that inform Today's Workshop:

- **Community Engagement Workshops (2):** Addressed challenges of community engagement for CAVA process in Northern and Southern California
  - Explored barriers to engagement including funding, accessibility, duplicative requests / limited capacity, and unclear link between CAVAs and specific projects
  - Identified need for clear solutions, criteria, and improved processes for CAVA engagement
- **Quantitative Equity Tools Workshop (1):** Explored tools and methodologies that can measure adaptive capacity impacts of CAVAs on DVCs
  - Explored several emerging research area including metrics, tools, and methodologies including mapping
  - Identified gaps in clear criteria necessary to inform CAVA equity metrics that are both effective and flexible to assess diverse communities and address evolving policies and technologies

# Framework for Quantitative Equity Metrics

*Establish clear framework for how a quantitative equity analysis will inform decision-making*

- Demonstrate alignment with other CPUC proceedings to inform long-term risk-based decisions
- Establish prioritization process for DVCs aligned with risk
- Establish, justify, and demonstrate the best available metrics, data, and methods
  - IOU-proposed metrics must be measurable, verifiable, and publicly accessible
- Identify measurable outcomes and baselines that can be used to demonstrate progress over time
- Identify what metrics and methodologies should be universal across IOUs and which should be tailored to a given territory and why
- Create transparent metrics justified by publicly accessible analysis and clear methodologies that prioritize and benefit DVCs

# Examples: Quantitative Equity Metrics Criteria

- Matrix assessment of community adaptive capacity with infrastructure adaptive capacity to identify “hotspots” of vulnerability to inform prioritization of engagement and adaptation
  - What other community metrics should be analyzed? (access to resources during an outage, cost burden of an outage, etc.?)
- Metrics accounting for variability in impacts of outages on different populations and customer types across geographies and demographics within a given areas
- Metrics accounting for community impacts of high frequency and/or long-duration outages



# Framework for Engagement Metrics

*Establish clear framework for how a qualitative equity analysis will inform decision-making*

- **Prioritization:** How should IOUs engage with DVCs to inform prioritization of adaptation efforts in DVCs?
- **Community Reality Checks on Identified Risks:** Should advisory meetings to IOUs be public and how best to conduct community feedback on accuracy of any mapping of vulnerability or other metrics?
- **Timing of Engagement:** At what points in the CAVA process should IOUs reach out to communities for the most productive feedback?
- **Targeted Education and Capacity building:** What resources and approaches are necessary to build technical capacity in communities?
- **Incorporation into CAVA Process:** How should feedback inform adaptation options listed in CAVAs or be incorporated into the GRCs?
- **Ongoing feedback over time:** How will IOUs engage with communities if an adaptation measure is approved and implemented?
- **Address Barriers to Engagement:** Such as using communities' time efficiently to reduce fatigue.

# Example: Qualitative Equity Metrics Criteria

- Actionable outcomes from public participation and public advisory group meetings
- Actionable and measurable Plans and reports
  - Demonstrate substantive and measurable Community Engagement
- Delineate a clear process for prioritizing adaptation options based on equity considerations
- Integrate outcomes of planning and building community technical capacity to understand CAVAs and long-term infrastructure planning, including with local governments
- Demonstrate incorporation of community and tribal feedback to inform key actions and prioritization in CAVAs
- Educate and measure impacts of DVCs in IOU and CPUC processes

# Your Role Today – Feedback & Dialogue

- Share your unique perspective and knowledge of existing models or best practices for equity in planning
- Help identify potential pragmatic solutions or key properties of effective framework to improve and incorporate equity into the CAVA process and outcomes
- Recommend and react to proposed criteria and metrics to inform improved structure and requirements for equity considerations

# Interactive Activities This Afternoon

- Mentimeter surveys for online participants
  - Utilize QR code or go to [menti.com](https://menti.com)
- Easel and sticker activity for in-person participants
- Both followed by group discussion

# Questions?



# Investor-Owned Utility Roundtable

# CPUC Climate Adaptation Workshop

SCE presentation

September 25, 2025



# Climate Adaptation is a shared responsibility among local, state, and federal government, community leaders, and critical infrastructure providers

Climate change and climate adaptation are broad challenges, not limited to energy utilities and electricity service

- Social, economic, institutional, housing/infrastructure, and environmental factors can shape a community's ability to withstand, mitigate, and recover from climate hazards

The CA Legislature recognized this in passing SB 379, requiring local jurisdictions to institutionalize climate change preparedness by integrating into existing planning processes

- As of 2023, only 51% of California municipalities completed main components of SB 379 requirements\*
  - Most local jurisdiction plans address mitigation and not adaptation
- Examples of preventative measures\*\* that communities could take in these plans:
  - Relocation of essential public facilities away from at-risk areas
  - Designation of adequate infrastructure and safety procedures in at-risk areas
  - Develop early warning systems
  - Create a plan to develop seawalls and storm surge barriers and dune reinforcement
  - Identify natural infrastructure approaches to building resilience (e.g., wetland restoration, forest protection, or urban tree planting)

\* Climate Resolve (2023), [Ounce of Prevention: Advancing Equitable Climate Resilience Planning in California](#)

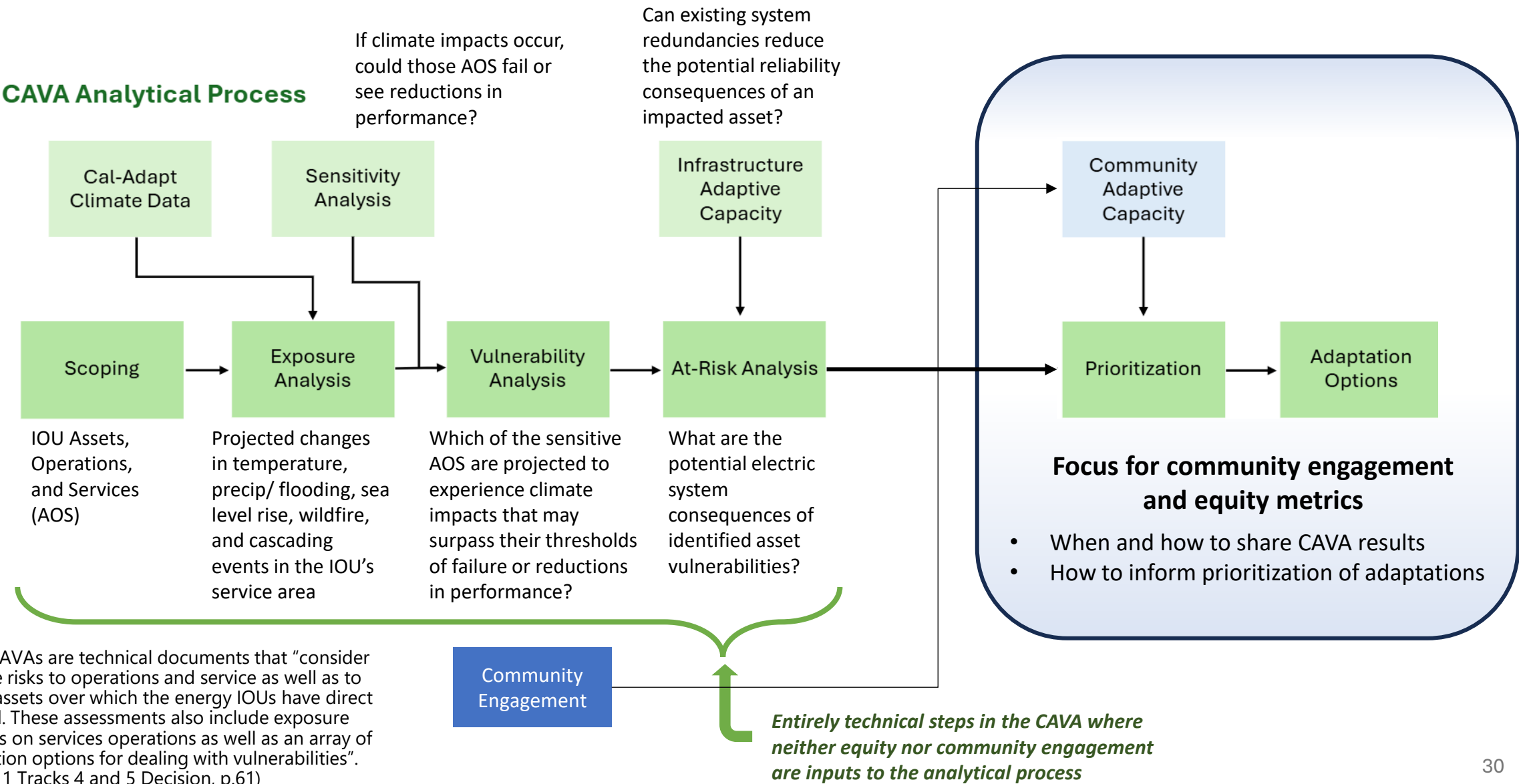
\*\* Alliance of Regional Collaboratives for Climate Adaptation (ARCCA), [SB-379-Fact-Sheet-2.24.16.pdf](#)

**The role of community engagement and equity work in climate adaptation planning is distinct from other utility planning processes**

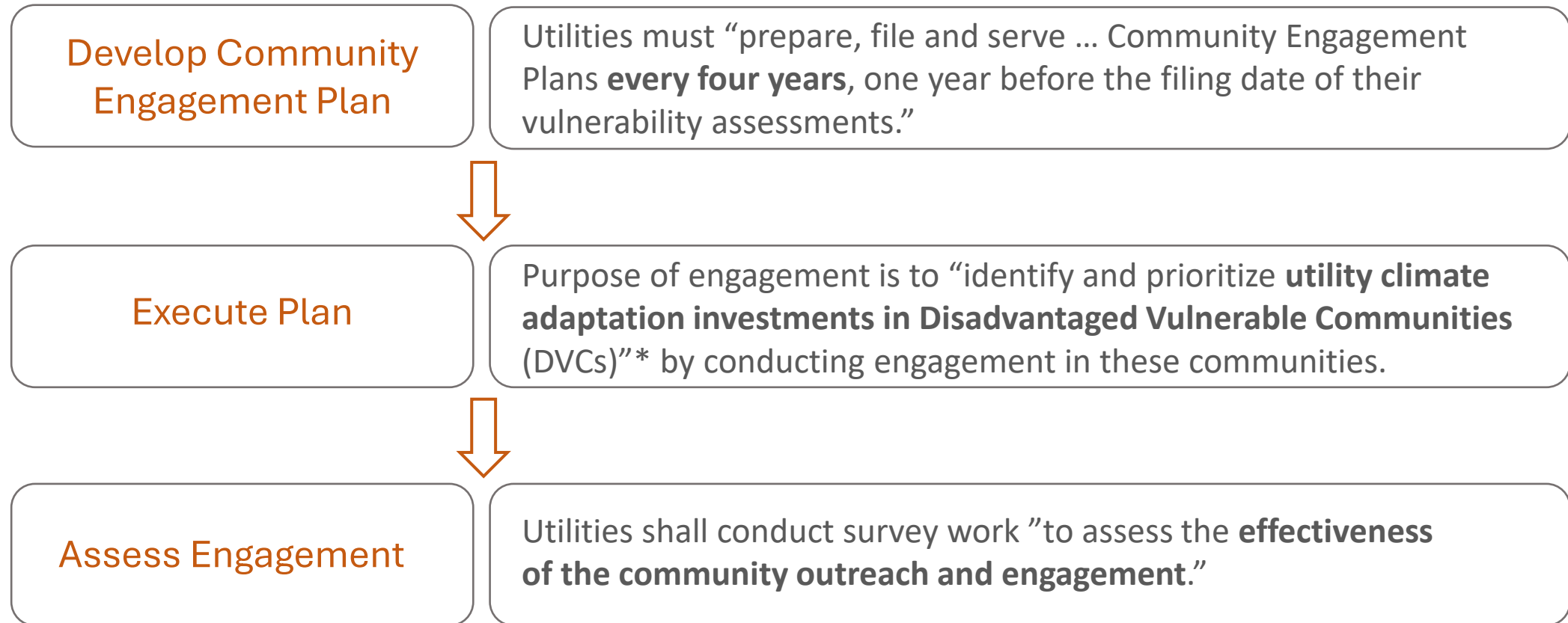
**Electric sector climate adaptation will only be successful if the communities we serve also adapt**

- Effective community engagement can help to:
  - Communicate climate exposure projections to deepen community awareness of their own resilience needs beyond energy service
  - Align utility and local jurisdiction efforts to address shared climate risks

# The CAVA is a technical assessment\* that identifies At-Risk assets based on physical vulnerability and reliability consequences



Current CAVA requirements focus on facilitating engagement with vulnerable communities but are less clear about how to get to the intended outcome



\*= Includes CalEnviroScreen 4.0 designated communities, California tribal lands, and communities meeting either extreme pollution burden or median income thresholds

All quoted requirements found in CPUC Decision [20-08-46](#)

# SCE's Climate Resilience Leadership Group (CRLG) is an effective mechanism to gather community insights

## Background

Paid forum launched in 2021 to **gather under-served community perspective** helps SCE embed an equity component into adaptation-related grid planning

Consists of **local nonprofit organizations** operating in DVCs or other vulnerable populations across SCE's service area

Blend of adaptation engagement **education; co-designing** of field materials, plans, and surveys; and in-community **survey collection**

## Objectives

*Find a way to meaningfully **embed equity** into climate adaptation planning*

***Develop a metric** with more variation than binary DVC designation currently used*

***Avoid static feedback** outcomes*

## Outcome

Nearly **800 surveys** collected from DVCs to help ground-truth SCE's Community Resilience Metric



Lessons learned as part of planning and executing community engagement have shaped SCE's approach to future collaboration with its CRLG

### *Prior to Community Engagement Plan Development*

Offer paid engagements *and* a learning opportunity

Work directly with DVC community leaders

Co-design and co-develop materials

### *During Core CRLG Collaboration*

Tribal engagement requires customized approach

Be open to community-generated DVC narratives

Find ways to lean into skill set of community leaders



Currently, community leaders and members participating in engagement activities are disconnected from activities that inform investment prioritization

**Engagement lifecycle from outreach to approved investments exceeds 4.5 years**

- Lifecycle to be extended by an additional year moving forward

**Current engagement is shaped by timing and DVC focus of regulatory requirements**

- SCE's approach to requirements results in engagement that relies on an in-community survey exercise using a hypothetical set of solutions in response to in-progress at-risk analysis
- Survey results ground-truth Community Resilience Metric scores that later inform prioritization
- DVC is an imperfect definition and leads to gaps in engagement with other vulnerable populations

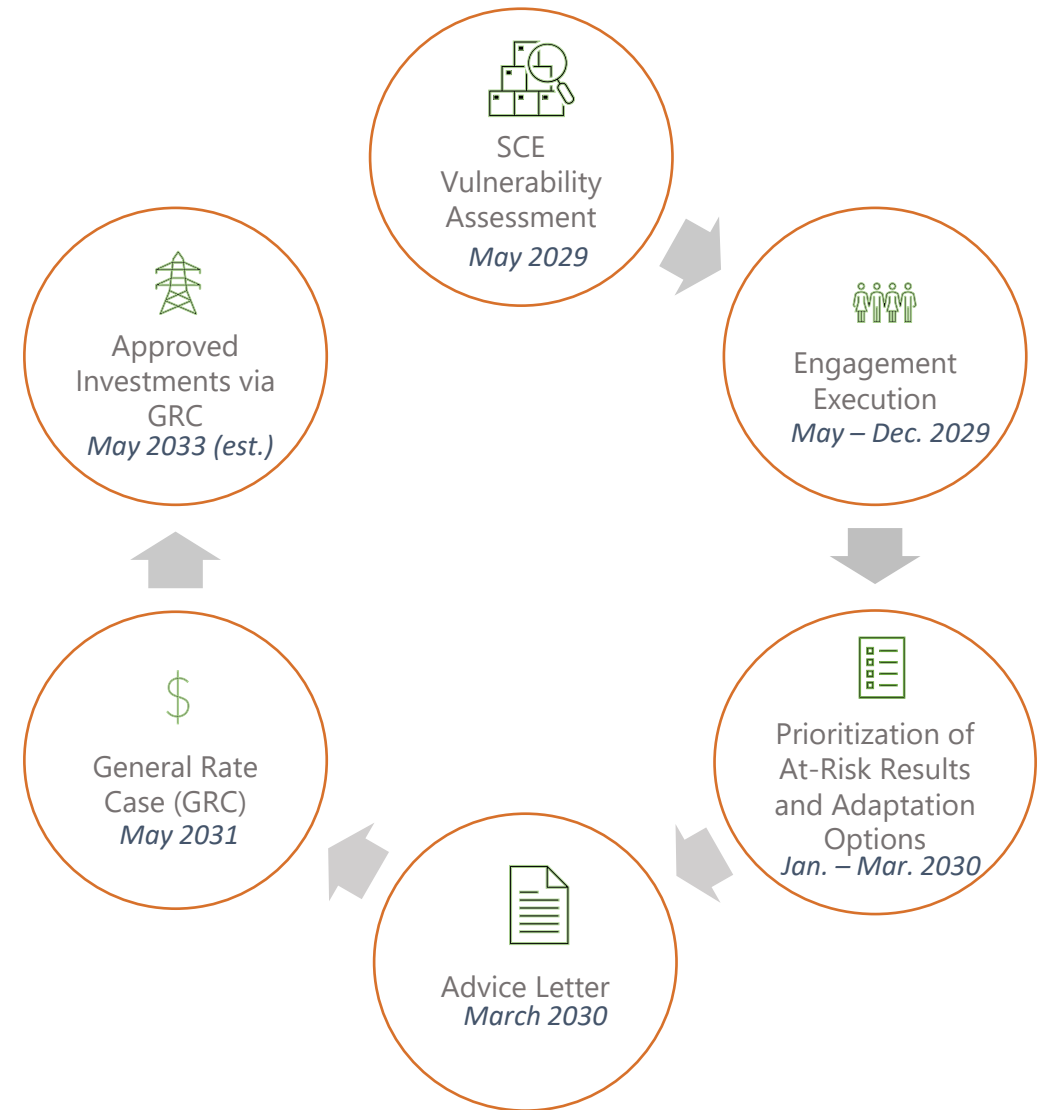
**Approach misses out on connecting to key downstream activities**

- Limits how much detail can be shared with community leaders on relevant electric system vulnerabilities and solutions when having to conduct engagement while still completing technical phases of Vulnerability Assessment

More meaningful engagement can occur after electric system's vulnerabilities are better understood

**New two-year period between Vulnerability Assessment completion and General Rate Case is an opportunity to shift engagement**

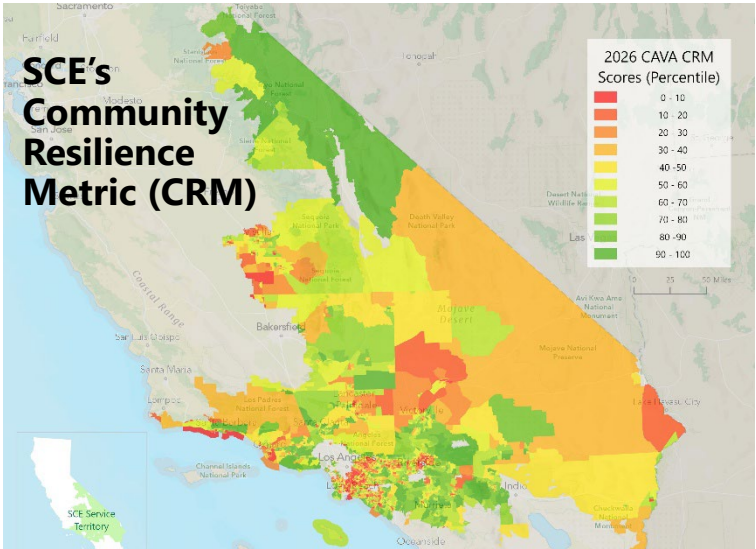
- Significant value in continuing to work with CRLG and communities they serve to validate Community Adaptive Capacity metrics that factor into subsequent prioritization
- Additionally, CRLG can now **inform how SCE further considers adaptation options**, expanding how vulnerable communities inform climate adaptation planning
- SCE can **share more defined vulnerabilities, risks, and solutions that could impact electric service** with the CRLG and communities served
- Vulnerability Assessment plus subsequent annual Advice Letter could serve as key reporting functions on planned and performed engagement activity, replacing Community Engagement Plan and Independent Survey Report





# Need for Community Adaptive Capacity Metrics

- A binary DVC designation covering ~50% of SCE’s service area does not provide sufficient information to inform equitable adaptation planning
- SCE developed a **Community Resilience Metric (CRM)** that measures the relative adaptive capacity of DVCs to address the DVC binary designation shortcoming
  - Can be used to help prioritize adaptation actions to benefit those communities least able to adapt to future climate conditions
  - Engaging DVCs to validate / ground truth CRM results for their communities allowed SCE to fine tune final scores based on feedback
- Multiple Community Adaptive Capacity metrics have been explored in this proceeding. Any of them seem to provide the needed relative measurement of community adaptive capacity, so **there is no need to focus on developing a new metric in this proceeding**



Assigns a score to each census tract based on 12 indicators of Adaptive Capacity and 25 indicators of Sensitivity

Metric criteria	SCE’s CRM	SDG&E’s CVI*	FEMA BRIC**	VCP***
Focused on community capacity to withstand service outages (including those driven by climate events, but not exclusively)	X	X	Disaster focus	Climate impacts focus
Incorporates multiple dimensions of community sensitivity and community adaptive capacity	X	X	X	X
Provides relative (not binary) ratings	X	X	X	X
Uses publicly available data	X	X (mostly)	X	X (mostly)
Vetted and/or received community feedback	X	Planned	X	Planned

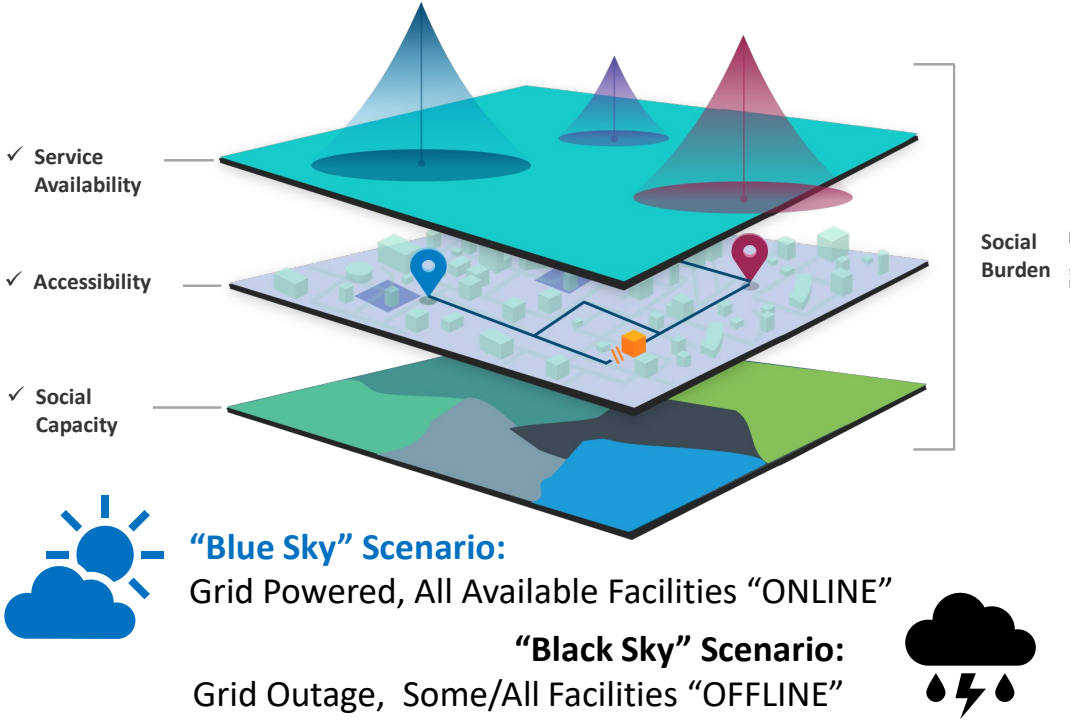
\*SDG&E’s Community Vulnerability Index (CVI)  
\*\*Federal Emergency Management Agency’s Building Resilient Infrastructure and Communities Index, Used by PG&E in their 2024 CAVA, no longer being updated  
\*\*\*Vulnerable Communities Platform, in development by the Governor’s Office of Land Use and Climate Innovation



# Sandia's Social Burden metric cannot currently support utility planning

- Findings from SCE and Sandia collaboration:
  - Limited value add:** Using just the CRM explains 72% of the resulting Social Burden Score
  - Significant work would be required to address the tool's identified limitations (see table)**
- Background: SCE and Sandia collaborated in 2023-2024 to pilot the use of SCE's CRM with Sandia's ReNCAT and "Social Burden" metric, adding a dimension of distance and service access to SCE's CRM
  - The Social Burden metric measures the availability and accessibility of critical non-electric services and the social impacts of disruptions in accessing those services (e.g., due to a power outage)

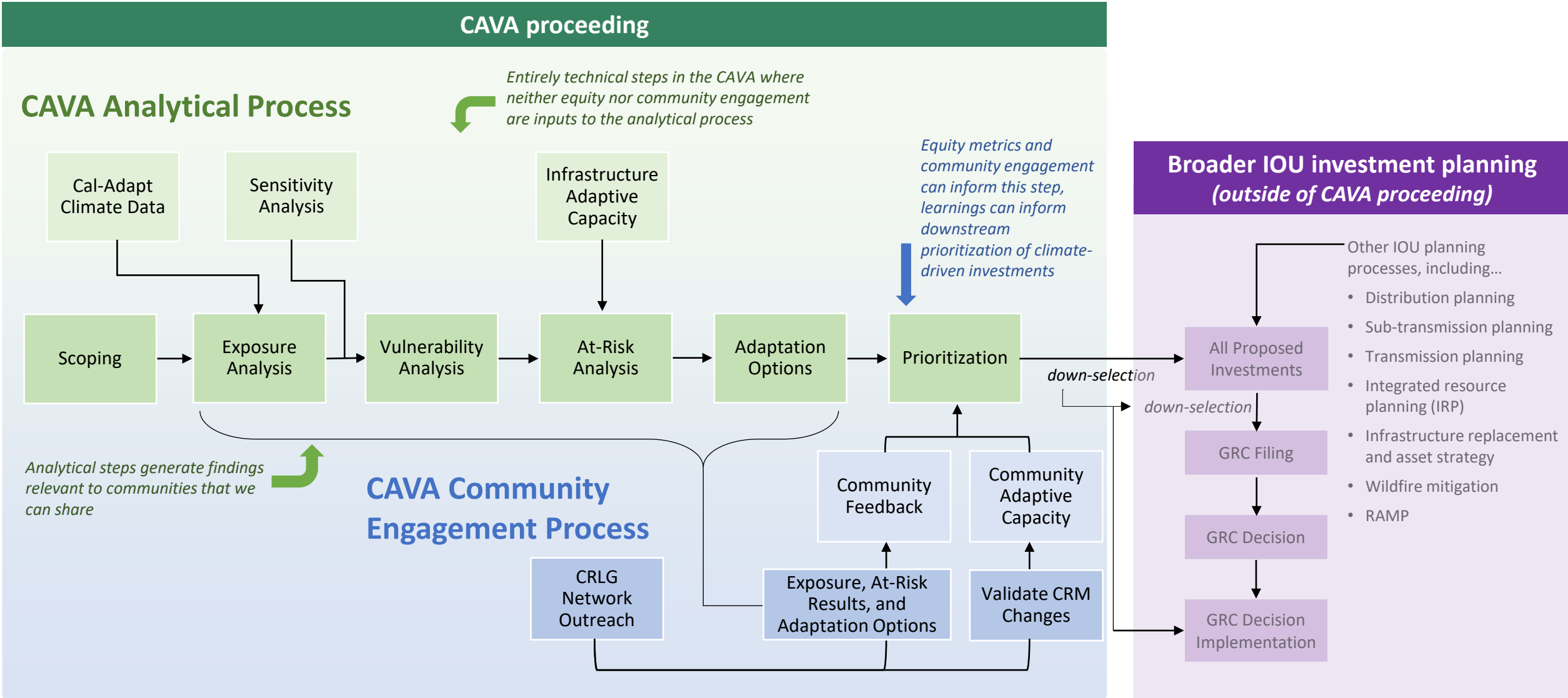
**SCE takeaway:**  
**Do not support pursuing further**  
The effort required to appropriately implement Social Burden is not proportional to its potential value



Limitation	Implications
Social burden values only have relative, not absolute, meaning	It is impossible to identify which values are “acceptable” or “unacceptable”, how much variability is meaningful or actionable, and how this may differ across different types of customers (e.g., urban, rural, tribal)
Social burden values do not account for outage duration or time-varying impacts	It is impossible to understand how outage duration may impact critical service needs or availability
Social burden tool does not contain geographic cutoffs for where customers benefit from services	It is impossible to understand which services people are likely to access depending on distance, service density, and community type (e.g., urban, rural, tribal), and therefore where power outages would actually impact loss of service
Social burden tool contains inherent geographic bias	Tool magnifies higher burden for rural areas by assuming the population of each census block group is located at its centroid (this is significantly less accurate for rural areas and results in inflated distance to services)
Social burden tool relies on precise estimates of geographic outage extents	Geographic outage extents are challenging to estimate and computationally prohibitive to calculate for all potential outage causes

\*Final report from collaboration available here: [Integration of equitable resilience metrics into climate-informed electric utility planning processes: phase one | OSTI.GOV](#)

# Implementing the proposed process for CAVA facilitates community engagement informing downstream planning decisions



\*Community Adaptive Capacity is an input into SCE's CRM

## Key recommendations

1. Community engagement would deliver more value if shifted to after the CAVA filing
2. CBO networks (e.g., CRLG) are an effective approach to community outreach and should be continued
3. Existing Community Adaptive Capacity metrics should continue to be used to inform relative rankings of community resilience



# CPUC Climate Adaptation Workshop

Sandeep Aujla, Vanessa Vandever, Darbi Berry





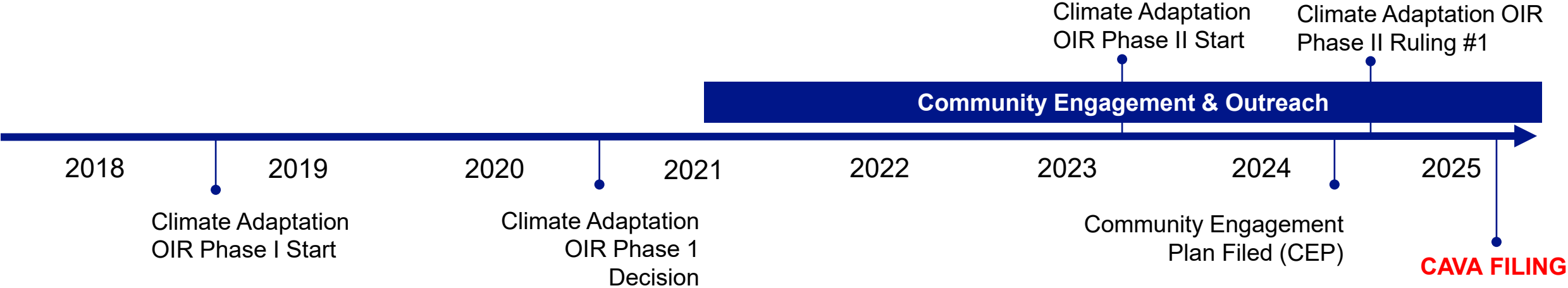
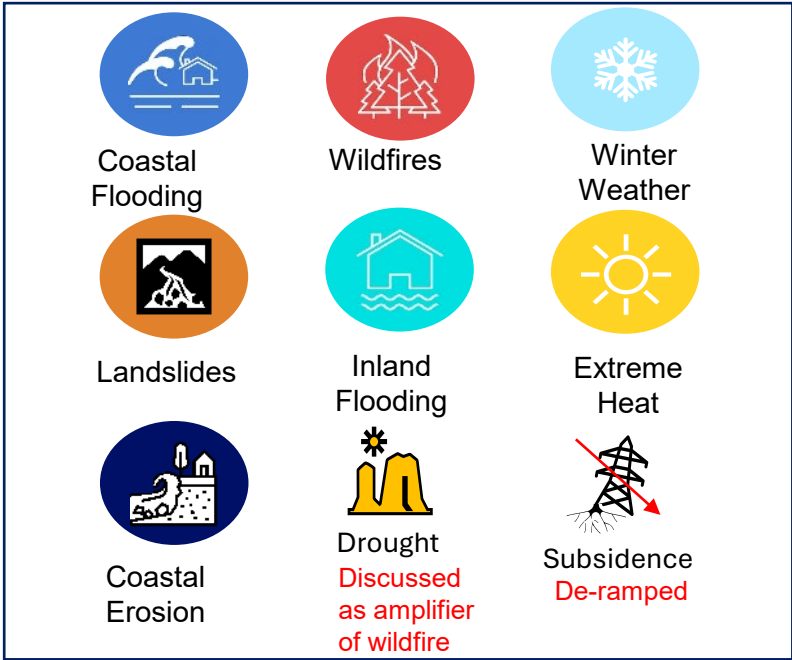
Current Process

# Climate Adaptation Timeline and Progress to Date

CPUC Rule 18-04-019 and Decision D.20-08-046 issued in 2020, requires IOUs to conduct and file a detailed Climate Adaptation Vulnerability Assessment (CAVA)

Scope: SDG&E's Infrastructure

- Timeframe : 2030, 2050 and 2070
- Prioritized hazards: temperature, sea level rise, precipitation [inland & coastal flooding], wildfire and cascading events





# CAVA Results Inform Grid Resilience Strategy & Community Outreach

## Multi-Hazard View

- **Extreme heat** events are projected to intensify, especially affecting inland and mountain areas
- **Wildfire** risk is increasing due to drier conditions and longer fire seasons
- **Inland flooding** will increase due to more intense rainfall and storm runoff
- **Sea level rise and coastal flooding** threaten assets near San Diego Bay and Mission Bay, with projected exposure doubling by 2070

## Equity Focused Community Engagement

- The **Equity-First Climate Coalition (EC3)** was established with local organizations to co-develop engagement plans, provide feedback on vulnerability findings, and guide locally relevant adaptation strategies
- A diverse **engagement toolkit** is implemented to gather feedback from all communities including workshops, information sessions, surveys, interviews, and multilingual materials
- The **Community Engagement Plan (CEP)** includes long-term commitments to transparency, accountability, and iteration ensuring community feedback informs future adaptation filings and regulatory planning, not just short-term compliance

## Understanding Asset and Community Vulnerability

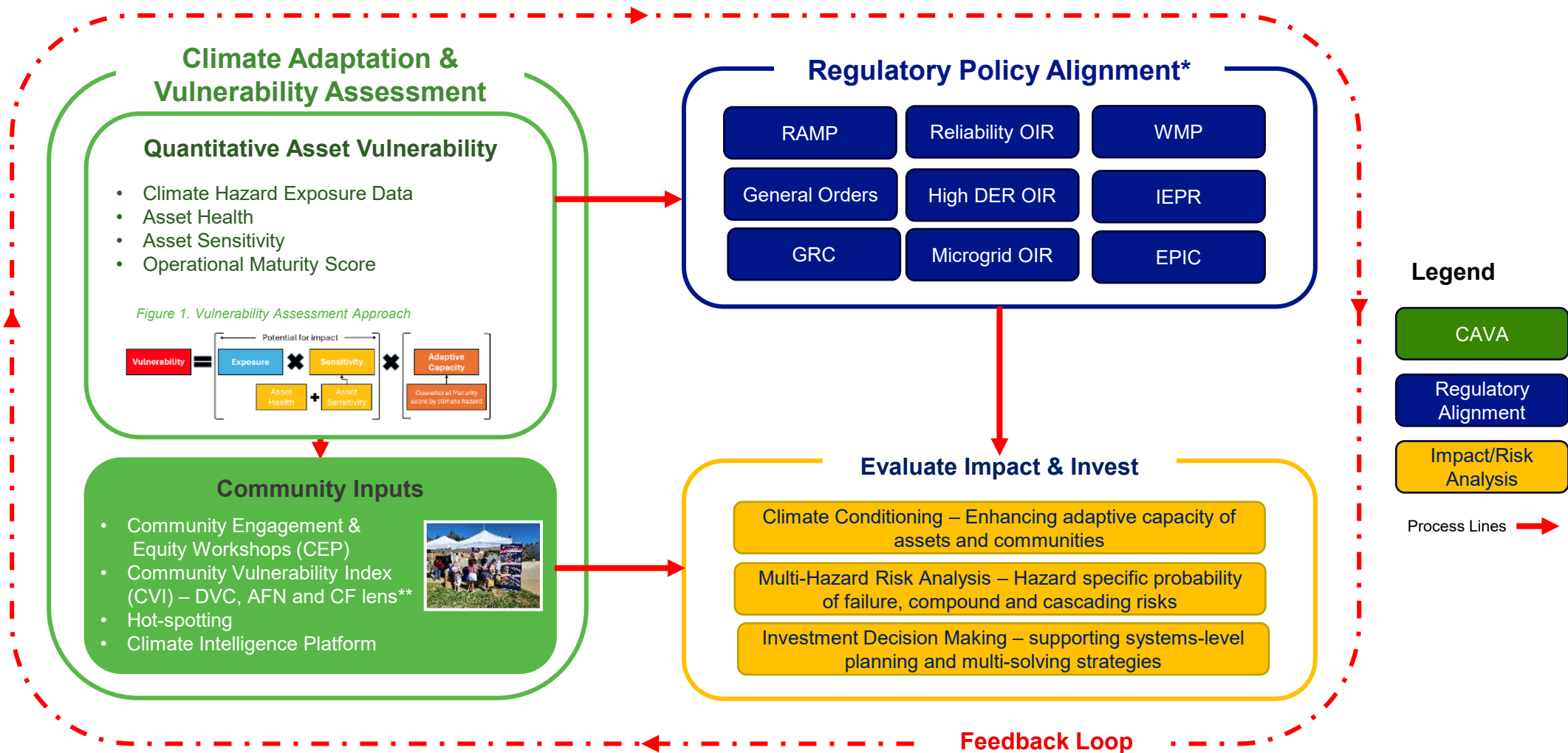
- **Critical infrastructure:** including overhead lines, voltage regulators, gas pipelines, and communication systems is increasingly exposed to climate hazards with vulnerability accelerating through 2070
- **Operations:** such as asset management, supply logistics, and field communications are particularly sensitive to heat and fire events, requiring targeted resilience measures to maintain system reliability
- The **Community Vulnerability Index (CVI):** evaluates community adaptive capacity – a community's overall susceptibility to climate impacts by integrating exposure, sensitivity, and vulnerability indicators

## Informing Grid Resilience Strategy

- SDG&E's **resilience strategy** is anchored in four core objectives, withstand, absorb, recover, and advance the development of adaptive solutions across all climate hazards
- A comprehensive suite of **resilience measures** is applied across asset types and risk profiles to mitigate extreme climate impacts, including cooling systems, infrastructure elevation, targeted undergrounding, and microgrids
- The **Climate Intelligence Platform (CIP)** enables dynamic forecasting, scenario planning, and spatial analysis by integrating climate data, asset sensitivity and community vulnerability

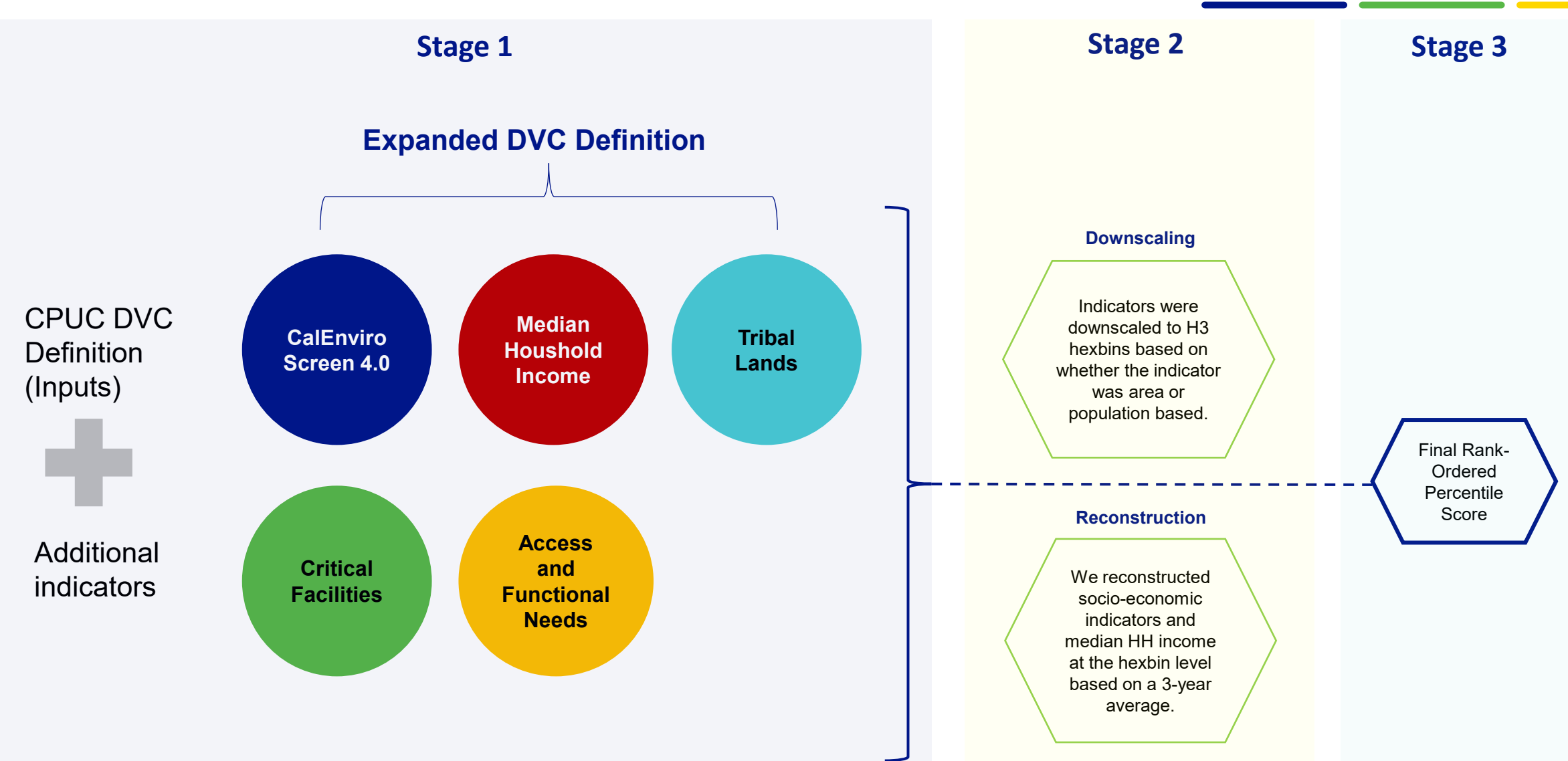
# Adaptive Capacity Building Blocks – Operationalizing CAVA

“Systems” approach to equity based on the interconnectedness of climate, assets, communities, and vulnerabilities





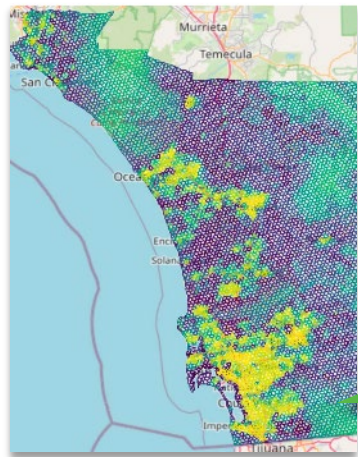
# Quantifiable Community Vulnerability Framework



# Deepening Local Engagement with CEP and CAVA Updates

1

## Identify Community Vulnerability & Predict Long-term Hazards



Community engagement enables validation of Community Vulnerability Index (CVI)

CALIFORNIA STATE GEOPORTAL



FEMA



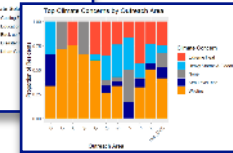
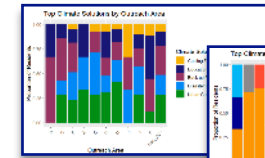
2

## Community Surveys & Workshops



### Community Surveys: Understanding Local Needs

1. Identify top **climate concerns** and **preferred solutions**
2. Assess the **impacts of planned and unplanned outages**
3. Understand community **capacity to plan and prepare** for disruption



### Tribal Community Surveys: Centering Tribal Priorities

1. Identify **climate impacts** experienced now and anticipated in the future
2. Assess the **impacts of planned and unplanned outages** on daily life
3. Understand **adaptation and resilience investments** most important to each Tribe

# Translating Insights into Action to Build Operational Adaptive Capacity

## 3 Current Operational Resilience Measures

### Vegetation Management



- Proactive vegetation clearing in high fire-risk zones
- Enhanced inspections & LiDAR scanning for overgrown areas
- Integration with wildfire risk models to prioritize proactive fuels management

### Safety Operations



- Smart grid sensors and remote shutoff systems
- PSPS minimization through grid sectionalization
- Weather-triggered protection schemes (auto-trip relays)
- Real-time fire simulation models to prevent ignitions

### Communications



- Community-facing dashboards for outage alerts & cooling centers
- Integrated app & SMS alert systems
- Community advisory groups for CVI and resilience planning
- Equitable language access and digital outreach in DVCs

### Grid Reliability Planning



- Strategic Undergrounding Program
- Covered conductors & steel poles
- Self-healing circuits & CVI hotspot targeting

### Asset Management



- Substation rebuilds & transformer upgrades
- Aging conductor
- Climate-informed planning & ADMS rollout

### Emergency Response



- Incident management training & tabletop drills
- Real-time outage & wildfire situational dashboards
- 24/7 All-Hazards Coordination Center & response planning

# RAMP- ESJ Pilots: Integrated View of Community Climate Vulnerability

## Current Role of CAVA Climate Equity Information

- Identifies community-level climate vulnerabilities at a granular scale
- Informs but not quantified in RAMP or ESJ pilot
- Goal is to build a robust understanding of local DVC needs and resilience gaps

## Relationship to RAMP and ESJ Pilots

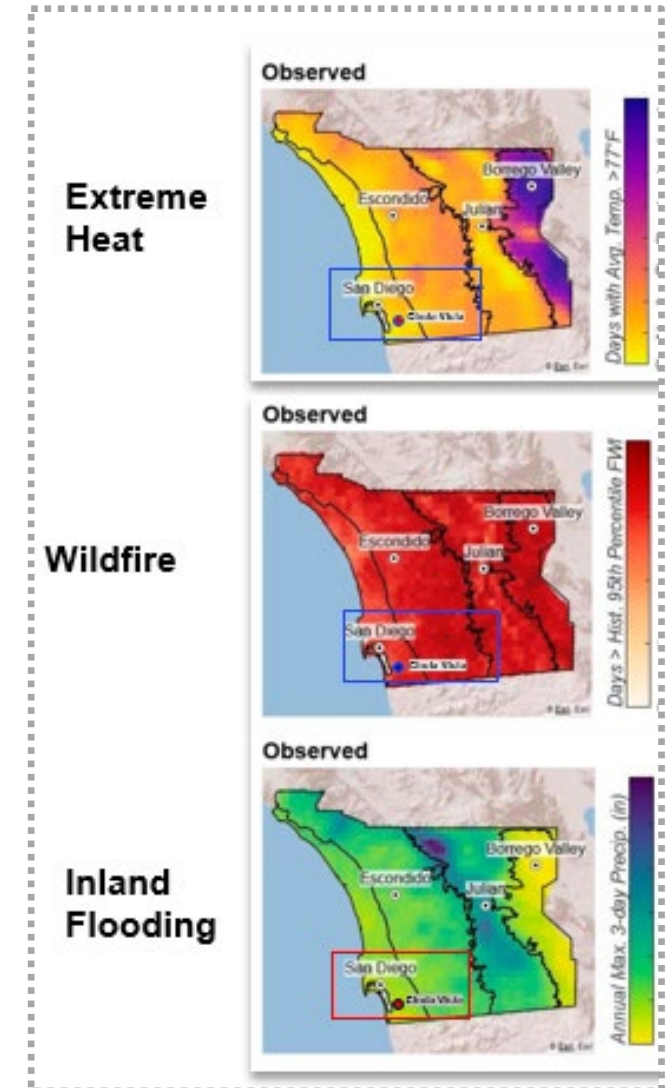
- RAMP- ESJ Pilot: CAVA supports qualitative alignment of climate resilience with risk mitigation efforts, but does not integrate equity data quantitatively

## Equity-centered Risk Mitigation

- Potential opportunities: embed CAVA equity indicators into RAMP scoring, expand ESJ pilot to include measurable equity outcomes. Requires quantitative scoring to be implemented and a fit for purpose metric
- Utilized DVC layer and scoped RAMP mitigation spatial data to understand where risk mitigations are taking place in DVC communities for Wildfire & PSPS and Electric Infrastructure Integrity Risks

# Collaboration with Local Jurisdictions on Resiliency Actions

- Local jurisdictions in SDG&E Service Territory are focused on multiple resiliency strategies
  - Development and implementation of Building Codes
  - Climate Action Plans (CAPs)
    - ▶ Coastal/Sea Level Rise Plans, Land Use Plans, and Resiliency Solutions
- SDG&E's Codes & Standards team partners with the California Energy Commission and local jurisdictions to shape building codes and appliance standards that promote energy efficiency, electrification, GHG reduction, grid flexibility, and equity
  - Focus areas include higher-performance, low-GHG building envelopes; efficient mechanical systems; batteries, PV, enhanced panels; and EV requirements for new construction and major retrofits





# SDG&E's Wildfire Climate Resilience Center (WCRC) Engagement

**305** Educational  
Tours

**5594** Visitors

**701** Organizations

- 4079 External Visitors
  - 1785 Students
- Organizations:
  - 140 Utilities
  - 108 Industry Collaborators
  - 129 Government Agencies
  - 109 Stakeholders
  - 102 Community-based Organizations
  - 33 Higher Education
  - 12 Tribal Communities
  - 59 Schools
  - 9 Media





# Lessons Learned

# Consolidated Feedback From Engagement with Local Tribes

## ■ Sovereignty, equity and affordability are top of mind

- Dedicated support must be set aside for tribes to address historical injustice (tribes are all in High Fire Threat Districts and many are too remote to develop a viable economy)
- Programs benefit only shovel ready projects which exclude less resourced tribes (e.g., SUG and R45)
- Create a separate designation for tribal nations, including funding for emergency response, to address gaps
  - ▶ Back up power for community wells
  - ▶ Back up power for all tribal homes that are regularly impacted by PSPS
  - ▶ Support their resource centers with warm food, supplies, water, laundry services, and mobile generators, showers, and restrooms
  - ▶ Propane refill and propane heater support during freezing winter weather
  - ▶ Reimbursement of food spoilage and medicine loss
  - ▶ Technical assistance grant funding to support Tribal Governments for emergency coordination tribal energy champion
  - ▶ Revise eligibility criteria for low-income programs to include more tribal members

## ■ Partnering and building trust with tribal nations is key

- Shared-vision for a safe, reliable, clean and affordable energy future that incorporates tribal knowledge
- Tribal sensitivity training and engagement workshops for SDG&E employees
- Tribal-led emergency preparedness workshops for tribal communities
- Economic benefits for tribal nations, members and organizations





# Engagement with Local Community Based Organizations

## Top Priorities

### **Need for Building Knowledge, Trust, & Capacity**

- Communities engaged expressed they lacked the resources/information to provide feedback that could effectively inform the CAVA and subsequent adaptation actions. The lack of understanding of climate science was a perceived barrier for many

### **Desire for Sustainable, & Continuous Engagement**

- Continuously engaging, supporting, and working with communities was identified by partners as the most effective way to build trust, knowledge, and capacity. Showing up beyond the CAVA process and supporting other aligned needs of CBO partners is essential for capacity building

### **Clear and Transparent Feedback Loops & Accountability**

- Communities emphasized the need to know how and where their input and feedback would be used—clarity on how their efforts would result in action was a motivating and necessary component to engagement. Building in accountability to integrated feedback is essential

## Additional Considerations

It is critical that the word “Community” is defined when executing Community Engagement

- Working with Community Based Organizations (CBOs), Agency Staff, Tribal Governments vs. Individuals, Ratepayers, Etc. requires different engagement mechanisms, time, resources, and relationships
- CBO’s also expressed frustration with the term DVC, citing the disempowering nature of language identifying them as disadvantaged and vulnerable



# Vulnerability | Adaptive Capacity | Resilience



- Vulnerability  $\neq$  Adaptive Capacity. They are related but not interchangeable
- Adaptive capacity depends on broader conditions (e.g., governance, funding, infrastructure) shaped by inequities and requiring multi-level feedback (city, county, state)
- Strong partnerships, adequate sustained funding and multi-solving at every level, across multiple organizations is paramount to building local adaptive capacity



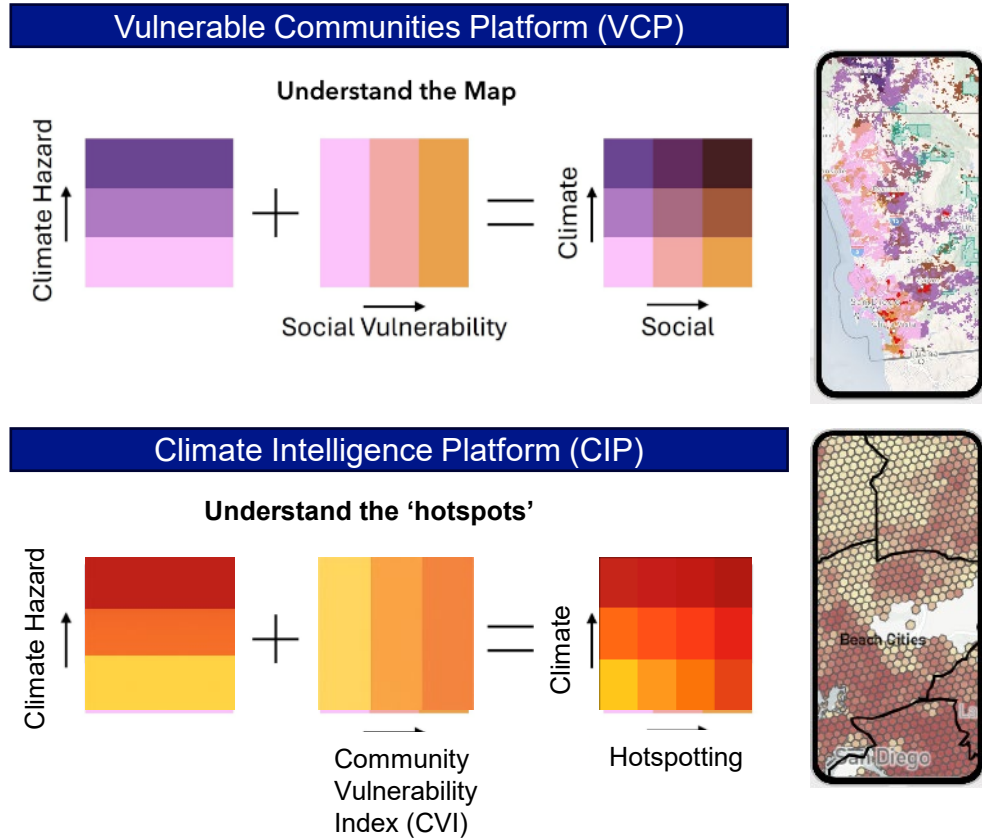




# Recommendations – Metrics & Process

# Community Vulnerability Metrics & Visualizations

Current tools use a mix of climate and socio-economic indicators to highlight vulnerability hotspots



Dimension	CA - Vulnerable Communities Platform*	SDG&E Climate Intelligence Platform (CIP)**
<b>Climate Hazards</b>	Wildfire, Extreme Heat, Flood, Sea Level Rise, Drought	Wildfire, Extreme Heat, Coastal Flooding, Inland Flooding, Sea Level Rise
<b>Temporal Coverage</b>	Present; 2050 snapshots	Present & projected hazards (forward-looking to 2070)
<b>Granularity</b>	Population Squares (90x90m); variables aggregated to block group / tract	Hexbins (Uber H3 R8, ~0.85 km <sup>2</sup> )
<b>Social Indicator Scale</b>	Census tract level	Hexbin-level assignment of indicators (higher spatial resolution)
<b>Core Data Sources</b>	Census/ACS, FEMA, LandScan (nighttime pop), health/env. datasets	Census/ACS, CalEnviroScreen 4.0 base, SDG&E internal datasets (critical facilities, AFN), WorldPop
<b>Social Dimensions</b>	Accounts for isolation and essential services variables	Accounts for a larger range of environmental variables
<b>Intended Use</b>	Public-facing visualization, planning tool	Regulatory compliance (CAVA), detailed vulnerability “hot spotting”

# Engagement Room for Process & Content Improvement

## CEP Process

- Report annual progress with clear accountability and transparency
- Engage communities through their trusted local partners best positioned to surface needs and guide infrastructure decisions
- Build alignment and a unified outreach strategy to address equity priorities across regulatory, company, and stakeholder efforts while reducing community and CBO fatigue

## Post-CAVA Enhancements

- Improve survey format to capture more actionable feedback from participants
- Address systemic barriers to engagement by integrating compensation, benefits, and ongoing capacity building into the process

Economic



Education



Health & Safety



Transportation



Mental Well-Being



Communication & Info



*Community Feedback - Outage Impacts*



# **CLIMATE ADAPTATION EQUITY WORKSHOP**

Geoffrey Danker, AICP  
September 25, 2025



Equity-First Framework	Climate Adaptation Public Survey	CBO Partnerships & Regional Advisory Boards	Tribal Engagement
<ul style="list-style-type: none"><li>▪ SoCalGas’s approach was grounded in DACAG Equity Framework, with a focus on Health &amp; Safety, Access &amp; Education</li><li>▪ SoCalGas worked with Del Sol Group, a services firm with expertise in community engagement and organizing, to train internal staff</li></ul>	<ul style="list-style-type: none"><li>▪ Surveys were co-created with community partners</li><li>▪ Surveys gather information on community awareness, understanding, and concerns about climate change and climate adaptation</li></ul>	<ul style="list-style-type: none"><li>▪ Created 4 RABs comprised of CBO leaders</li><li>▪ Held 16 RAB workshops (topics included: background on climate adaptation, outreach process, CAVA methodology, adaptive capacity)</li><li>▪ Worked with CBOs to co-create outreach materials and surveys</li></ul>	<ul style="list-style-type: none"><li>▪ Engaged 10 Tribal Governments</li><li>▪ Held 3 Tribal Talking Circles</li><li>▪ Topics discussed included:<ul style="list-style-type: none"><li>▪ Impacts of climate change, including impacts on cultural resources</li><li>▪ Tribal-led climate efforts already underway</li></ul></li></ul>

# SoCalGas Disadvantaged Vulnerable Communities (DVC) Engagement

60



- » Regional approach was community-centered, focusing on each community's unique needs, history, experiences, and culture.
- » Prioritized the needs of DVCs within SoCalGas's service territory, Community Based Organizations (CBO) leaders provide direct services to DVCs.
- » Engaged with communities in Labor, Agriculture, Women's Group, Youth Groups, Senior Citizen Groups, ADA/Assisted-Living Groups, Housing, Environmental, Community Organizers, Homeless Services, Food Banks, Ethnic/Cultural Organizations, etc.
- » Communities have different circumstances, different resources, and unique opportunities to overcome barriers.
- » DVCs require unique levels of support and attention as SoCalGas focuses on making changes or upgrades to its assets, utility infrastructure, operations, and services.



# CBO Engagement: Regional Advisory Board Approach

61

» The RAB approach enhanced the Community Engagement Plan process:

- Enables nuanced understanding of target DVCs and regional concerns.
- Focused RAB conversations encourage detailed feedback.
- Centralizes resources for target communities, promoting equity.
- Builds relationships to support future SoCalGas initiatives or next iterations.
- Meets community leaders where they are.



# CBO Partners

Northern RAB	
Organization	CBO Representative
<a href="#"><u>Agua Dulce Women's Club</u></a>	Kat Hupp – President
<a href="#"><u>Antelope Valley Boys &amp; Girls Club</u></a>	Jay Duke – Executive Director
<a href="#"><u>Community Action Partnership of Kern</u></a>	Savannah Maldonado – Advocacy & Public Relations Manager
<a href="#"><u>Greater Conejo Valley Chamber</u></a>	Danielle Borja – President & CEO
<a href="#"><u>El Concilio</u></a>	Yvonne Guitierrez – Executive Director
<a href="#"><u>Sequoia Valley Riverlands Trust</u></a>	Nadia Omar – Advancement Officer
<a href="#"><u>VC CoLAB</u></a>	Louise Lampara – Executive Director

Los Angeles RAB	
Organization	CBO Representative
<a href="#"><u>Habitat for Humanity of Greater LA</u></a>	Erin Rank – President & CEO
<a href="#"><u>Operation Progress LA</u></a>	Cristina Cuellar – Executive Director
<a href="#"><u>Strengths Based Community Change</u></a>	Colleen Mooney – Executive Director
<a href="#"><u>LA Chamber of Commerce</u></a>	Maria Salinas – Executive Director
<a href="#"><u>Mar Vista Family Center</u></a>	Blanca Hladek – Associate Director
<a href="#"><u>Girl + Environment</u></a>	Diamond Spratling -- Founder

# CBO Partners

Orange Coast RAB	
Organization	CBO Representative
<a href="#">Asian Youth Center</a>	Michelle Freridge – President
<a href="#">Boys &amp; Girls Club of Buena Park</a>	Todd Trout – CEO
<a href="#">MECCA</a>	Yesenia Ochoa – Executive- Director
<a href="#">Orange County Conservation Corps</a>	Katharyn Muniz – CEO
<a href="#">OC Hispanic Chamber</a>	Reuben Franco – President & CEO
<a href="#">Vietnamese Community of SoCal</a>	Khoi Vo – President, Board of Directors
<a href="#">Vital Link</a>	Dihn Thai – Development Manager

South Inland RAB	
Organization	CBO Representative
<a href="#">Community Access Center</a>	Faustino Alvarez – Executive Director
<a href="#">FIND Food Bank</a>	Debbie Espinoza – President and CEO
<a href="#">Inland Empire Economic Partnership</a>	Jessica Barriga – Public Policy Manager
<a href="#">Making Hope Happen</a>	Niki Dettman – Executive Director
<a href="#">Young Visionaries Youth Leadership Academy</a>	Terrence Stone – Founder
<a href="#">Youth Action Project</a>	Tremaine Mitchell – Executive Director
<a href="#">American Indian Chamber of Commerce</a>	Tracy Stanhoff – President

# Tribal Engagement

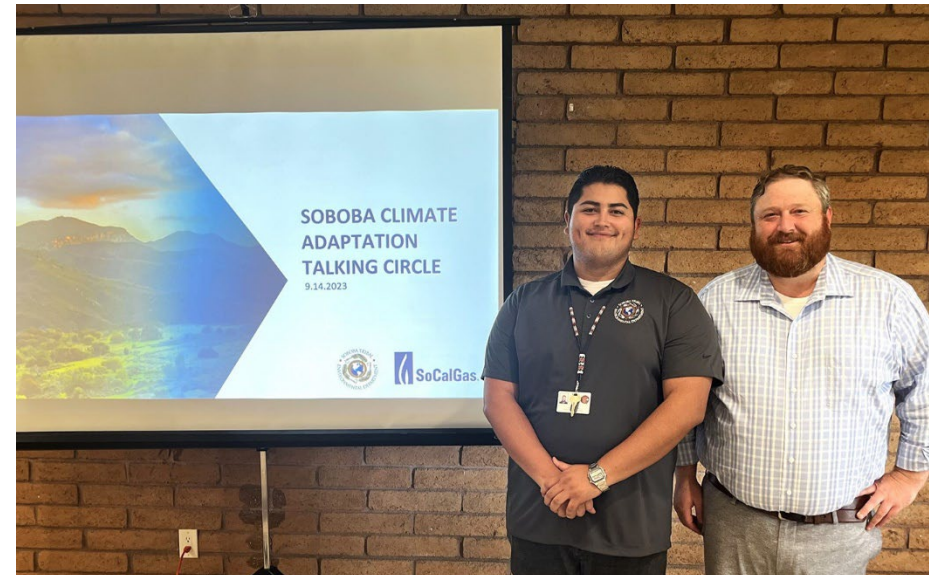
64

## » Engaged Tribal Governments

1. Agua Caliente Band of Cahuilla Indians
2. Augustine Band of Cahuilla Mission Indians
3. Cabazon Band of Mission Indians
4. Morongo Band of Cahuilla Mission Indians
5. Pechanga Band of Luiseño Mission Indians
6. San Manuel Band of Serrano Mission Indians
7. Santa Ynez Band of Chumash Mission Indians
8. Soboba Band of Luiseño Indians
9. Fort Mojave Indian Tribe of Arizona
10. Twenty-Nine Palms Band of Mission Indians

## » Talking Circle Objectives

- Provide an overview of the CPUC Process
- Empower Tribes to provide feedback on SoCalGas's approach to engagement and the Vulnerability Assessment
- Encourage Tribes to bring forward their communities' concerns about climate change





# Local Government Capacity Building

65

## Climate Adaptation & Resiliency Grants

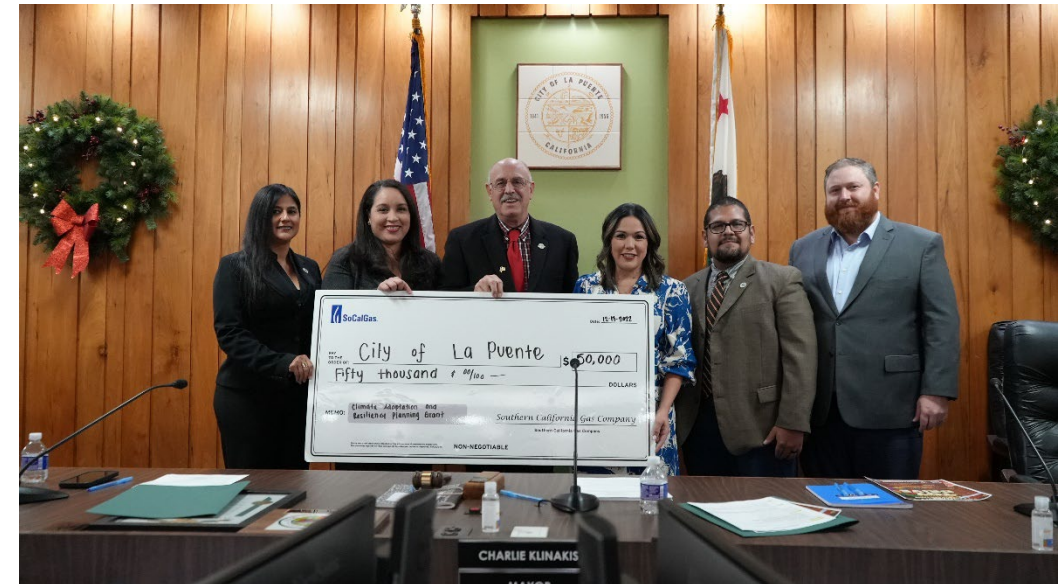
- Since 2018, SoCalGas has provided \$50,000 grants to 19 municipalities to support local planning efforts in preparation for and recovering from climate events:

- **City of Artesia (2018)**
- **City of Redlands (2018)**
- **LA County (2019)**
- **City of Malibu (2019)**
- **City of Loma Linda (2019)**
- **City of Compton (2020)**
- **City of Palmdale (2020)**
- **City of Anaheim (2020)**
- **City of Maywood (2021)**
- **City of San Fernando (2021)**
- **City of Pico Rivera (2021)**
- **City of McFarland (2022)**
- **City of La Puente (2022)**
- **City of Colton (2022)**
- **City of Costa Mesa (2023)**
- **Soboba Band of Luiseno Indians (2023)**
- **City of Santa Ana (2024)**
- **City of Calipatria (2024)**
- **City of Carson (2024)**



## LA County Adaptive Capacity Assessment

SoCalGas awarded the LA County Department of Regional Planning with a grant to develop LA County's Adaptive Capacity Assessment



*Glad to be of service®*

**"Thanks to you and SoCalGas for creating opportunities like the Climate Adaptation and Resilience Grant Program.**

**As you know, ILG works with many local governments helping them access grant funding. Your program was one of the most accessible and straight forward opportunities we have come across to date. We want to thank you for creating a program that prioritizes low capacity, disadvantaged communities and makes available gap funding that is crucial to helping them achieve their planning requirements and climate resilience goals.**

**Congrats on such a great program, and thanks again.**

**Karalee Browne | Assistant Executive Director  
INSTITUTE FOR LOCAL GOVERNMENT**

Briefly outline the **quantitative methods** the IOUs currently use to **measure community adaptive capacity** and any other equity metrics (such as CRM, BRIC, etc.) and to set baselines and demonstrate progress towards CAVA equity priorities in DVCs. (Task 2, 1.6)

67

- » Communities have shared that utilities are not best equipped to determine and quantify **community adaptive capacity**
- » Explored BRIC and ReNCAT equity models with utility partners
  - BRIC: Building Resilient Infrastructure and Communities; developed by FEMA
  - ReNCAT: Resilient Node Cluster Analysis Tool; developed by Sandia National Lab
  - Not adequately funded and maintained
  - Working with utilities to identify other methods, like CRM (Community Resilience Metric-Social Burden)
- » Support the Office of Land Use & Climate Innovation (LCI) in efforts to build out Vulnerable Communities Platform (VCP)
- » Support consistent guidance on community adaptive capacity
  - Gas system considerations (dual-fuel, gas generators/fuel cells, etc.)



🏠 / News & Views / FEMA News / FEMA Ends BRIC Program, Leaving States in the Lurch

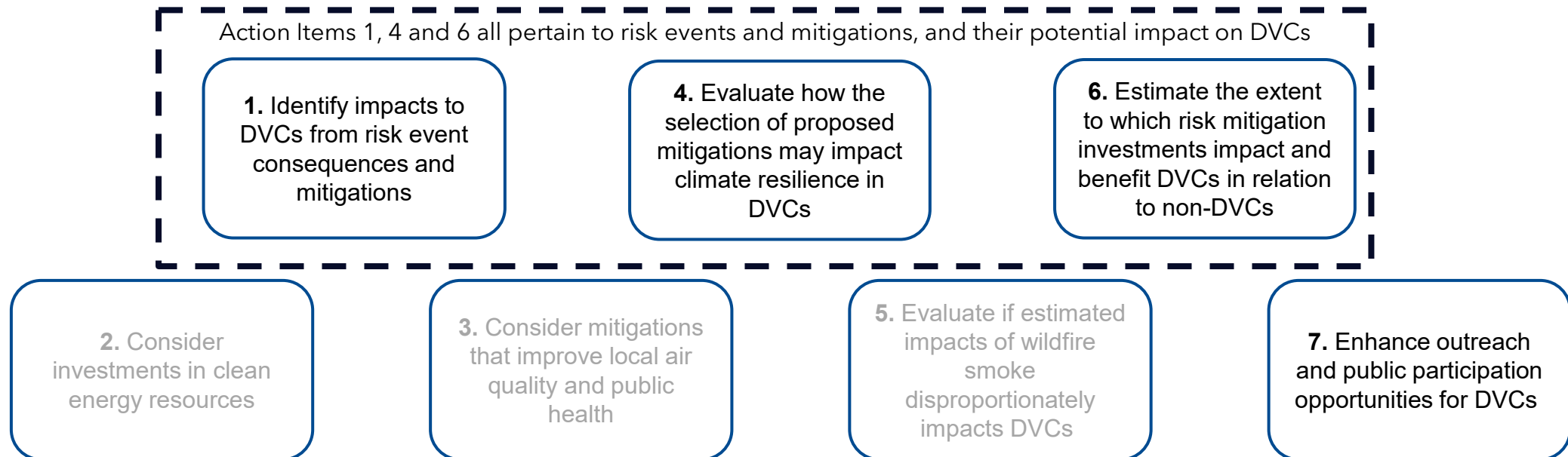
FEMA NEWS | POLICY MATTERS

## FEMA Ends BRIC Program, Leaving States in the Lurch

By News Editor • April 8, 2025

On Friday, FEMA announced that it is ending the Building Resilient Infrastructure and Communities (BRIC) program and canceling all BRIC applications from Fiscal Years 2020-2023. If grant funds have not been distributed to states, tribes, territories and local communities, funds will be immediately returned either to the Disaster Relief Fund or the U.S. Treasury. It has also canceled the fiscal year 2024 notice of funding opportunity (NOFO), where \$750 million in grants was to be allocated.

- » In 2022, the Commission directed SoCalGas (D.22-12-027) to develop an Environmental Social Justice (ESJ) Pilot Study as part of the 2025 RAMP filing, which included seven action items.
  - Enhanced outreach and public participation opportunities for DVCs to meaningfully participate in risk mitigation and climate adaptation activities.
  - Expanded our climate risk discussions to include SoCalGas's highest enterprise risks as well. This was a new opportunity for RABs to weigh in on the impact SoCalGas's enterprise risks, such as Excavation Damage (third party dig-ins), may have on DVCs. It also served as an introduction to the RAMP process for many of our partners, further expanding their knowledge and opportunities to provide input on SoCalGas's risk mitigation activities.
- » SoCalGas plans to mature the equity information to use in our 2028 CAVA. It would be beneficial if the Commission provides guidelines on community adaptive capacity assessments

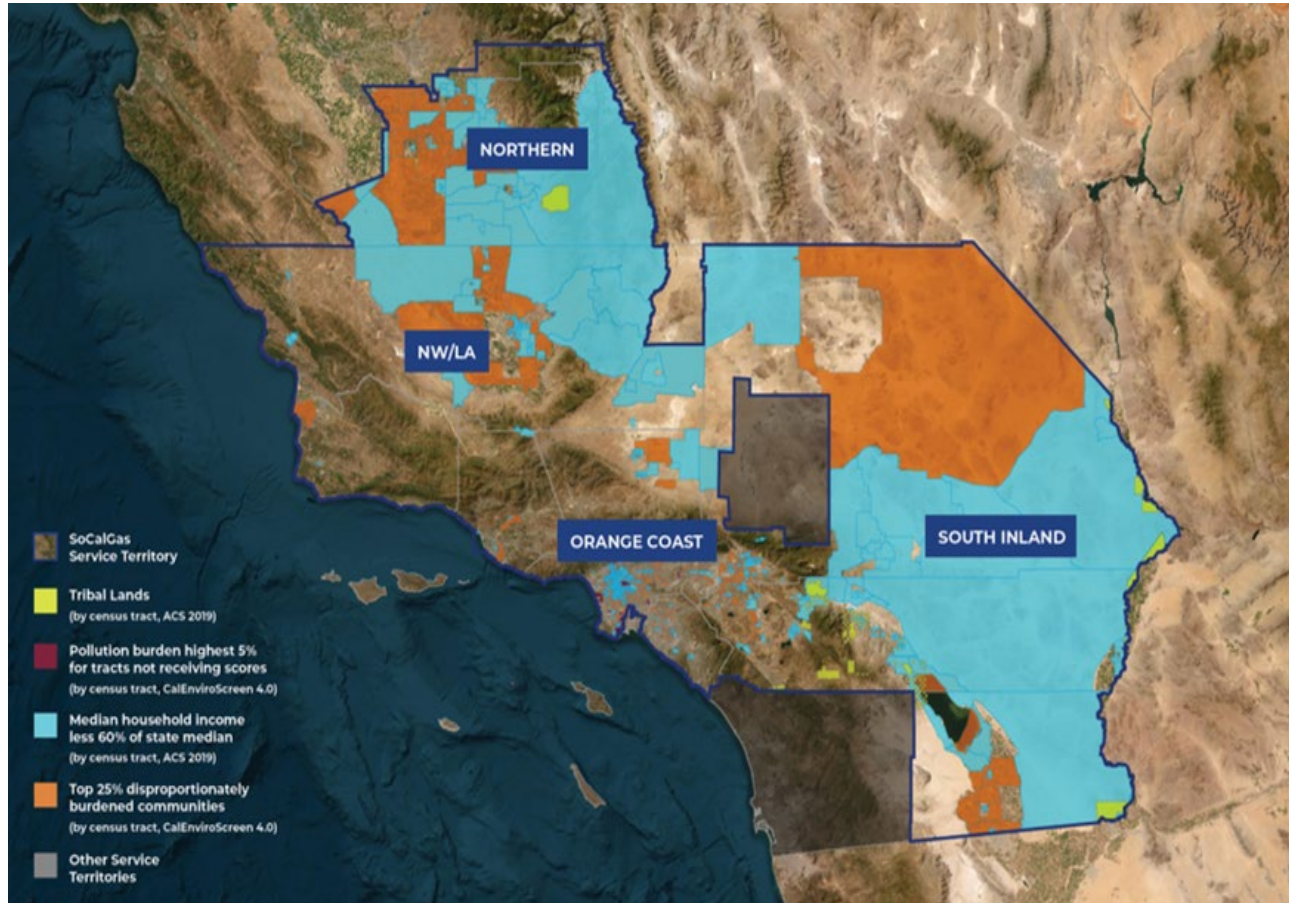




Explain the process that IOUs currently utilize to **inform prioritization of investment proposals for DVCs**, including in the **GRC CAVA chapter**.

- Include any existing efforts to address DVC prioritization including mapping and visualization of how layers of DVC regions and risks are correlated. (Task 2, 1.1)

69



- » DVC Mapping on SoCalGas website: <https://www.socalgas.com/climate-adaptation-at-socalgas>
- » Need better tools to evaluate within DVCs and low adaptive capacity customers not located in DVCs
  - Support State's VCP development
  - Finding BRIC and ReNCAT tools may be inadequate
- » Developing **Local Equity & Adaptation Prioritization (LEAP)** tool internally
- » Existing Customer Programs focus on eligibility (income, medical baseline, etc.) and not DVC geographies

Describe how IOUs **convey complex data to DVCs** and broad stakeholder groups to explain risks, priorities, measurable progress, impacts, and benefits for DVCs.

70

- » Grounded our approach with DACAG's Equity Framework
- » Worked with grassroots engagement firm to train staff
- » SoCalGas engaged four (4) RABs and 10 Tribal Governments to understand regional considerations around equity and climate change adaptation.
- » Co-developed our community engagement plan, surveys and outreach materials in focus group formats
- » Program materials and surveys translated to Arabic, Korean, Punjabi, Chinese, Spanish, Tagalog and Vietnamese and made accessible for visually impaired via a screen reader
- » Technical experts/engineers described CAVA methodology and solicited feedback
- » As exposure analysis was developed, we shared with RAB members in a methodical way, providing ample time to go through each potential hazard for their specific region.
- » Presented the results of CAVA using clear language, visuals, charts and diagrams that were easy to understand.



**Lessons Learned:** Explain **benefits and limitations of current process** as described above and recommendations for **maintaining process or proposed modifications of the process.** (Task 2, 1.1)

**Quantitative:** Propose a **quantitative equity analysis/metrics** approach to address gaps in the existing process to demonstrate that **equity considerations**, including **adaptive capacity**, are incorporated to prioritize DVCs (Task 2, 1.6)

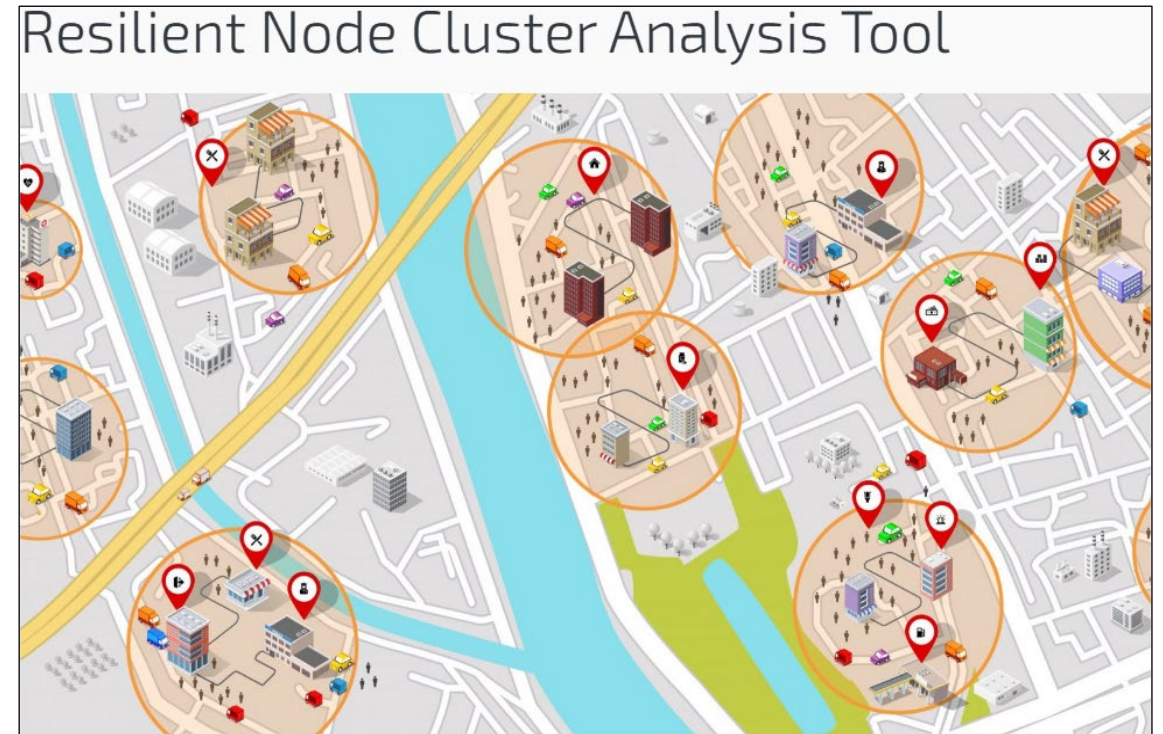
Propose minimum **criteria for equity metrics to prioritize** DVCs in the CAVA process and in the GRCs.

- Address whether the DVC definition is useful for the Commission's intended purpose **or propose other optimal guidance** that would better address the Commission's objective. (Task 2, 1.3)

- » Almost 50% of SoCalGas's service territory contains DVCs
  - Need better available tools to quantify community adaptive capacity to help prioritize investments
  - Coalesce around community adaptive capacity model
- » Virtually all communities in Southern California are exposed to more than one climate hazard.
- » If desired outcome is to enhance local climate resilience, engaging local government to build community resilience is more beneficial.
  - Better collaboration with local/regional government efforts and electric/water/telecom efforts
- » Shift engagement later in process to focus on projects/programs as opposed to before CAVA results are available
  - Technical Advisory Committee/Planning Advisory Committee
- » Metrics to consider: Energy Burden (% of income spent on energy), Social Cohesion, etc.



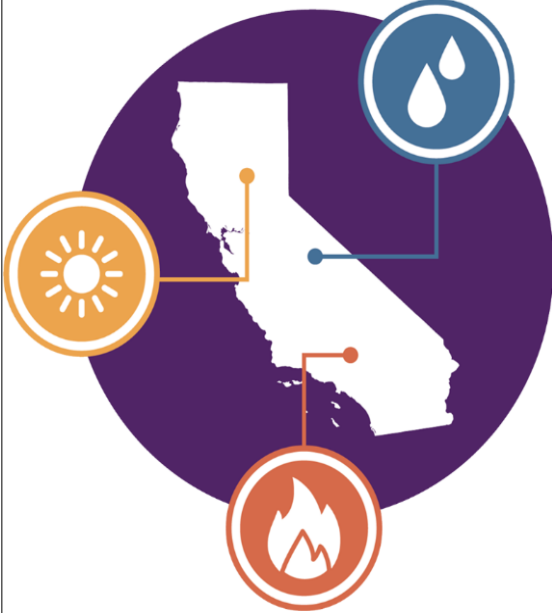
- » Uncertainty with BRIC and ReNCAT
- » Developing GIS Equity Model called LEAP (Local Equity & Adaptation Prioritization)
- » Land Use and Climate Innovation LCI effort on Vulnerable Communities Platform
- » Majority of existing tools focus on electric outages



Describe how IOU has looked to lessons learned from other IOUs; equity metrics/criteria used by other states/organizations; coordinated with other long-term planning efforts such as DER, IRP, Resilience, Long-term Gas Planning.

73

- » Sister utility SDG&E is recognized leader
- » Meet with PG&E and SCE regularly
- » Support development of VCP software to quantify equity metrics
- » Developing LEAP model internally
- » Internal Climate Advisory Group



### Climate Vulnerability Map

The Climate Vulnerability Map allows users to look at the intersection of current and projected climate impacts with relevant social and demographic factors.

Agencies can use this map to assist in identifying frontline communities that are most vulnerable to the impacts of climate change to inform outreach and funding strategies. Local governments and community-based organizations can use the map to get an overview of their area's vulnerabilities and pinpoint key challenges.

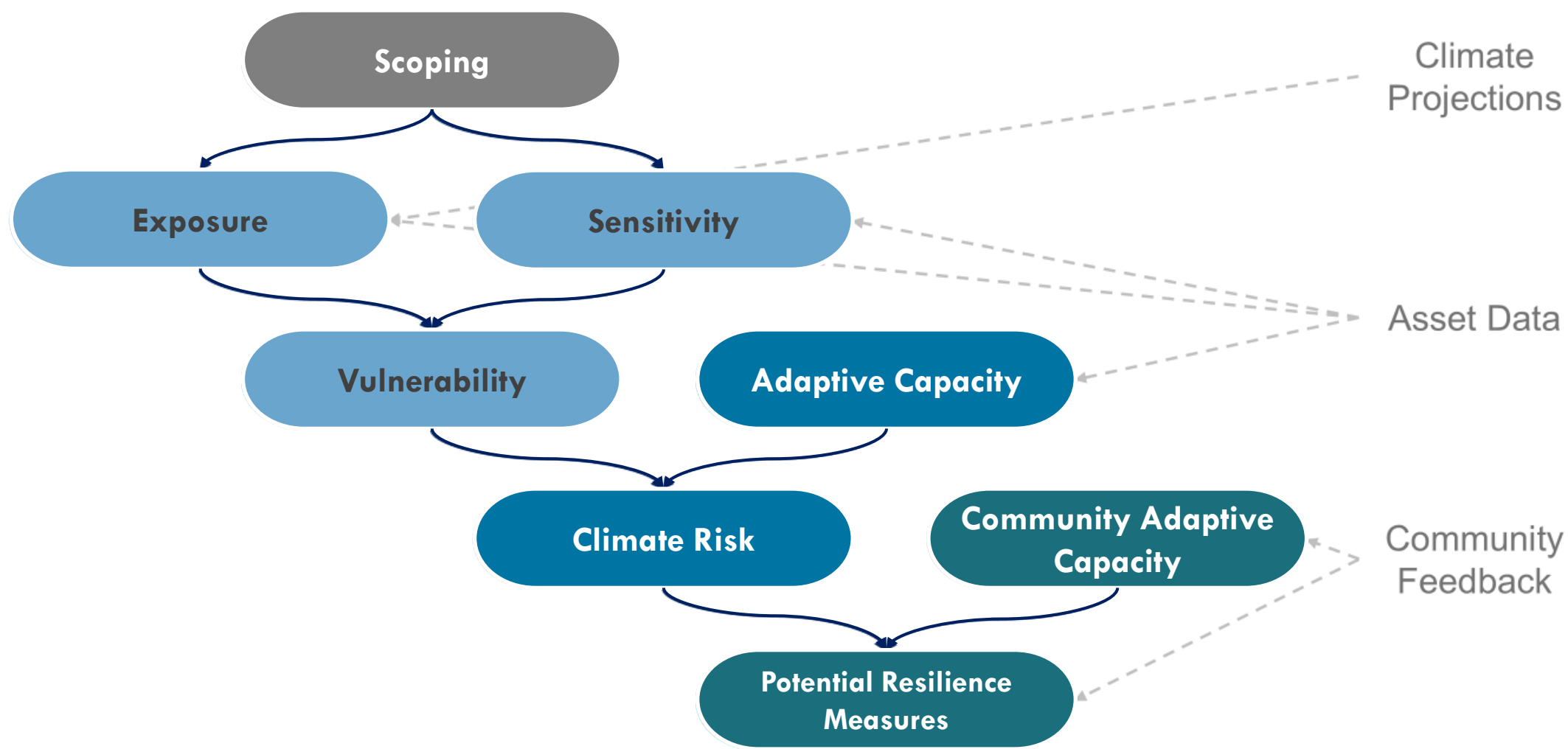
[View Climate Vulnerability App](#)

**Engagement:** Propose how **CEP process/content** should evolve or be modified to improve flow of equity information into the CAVA, RAMP, and subsequent CAVA GRC chapter. Or explain why the current process works. (Task 2, 1.1)

- Propose logistically how the equity analysis, qualitative engagement results, and infrastructure analysis might interact to inform the RAMP and the GRC. Consider utilizing a flow chart. (Task 2, 1.1; Task 2, 1.6)

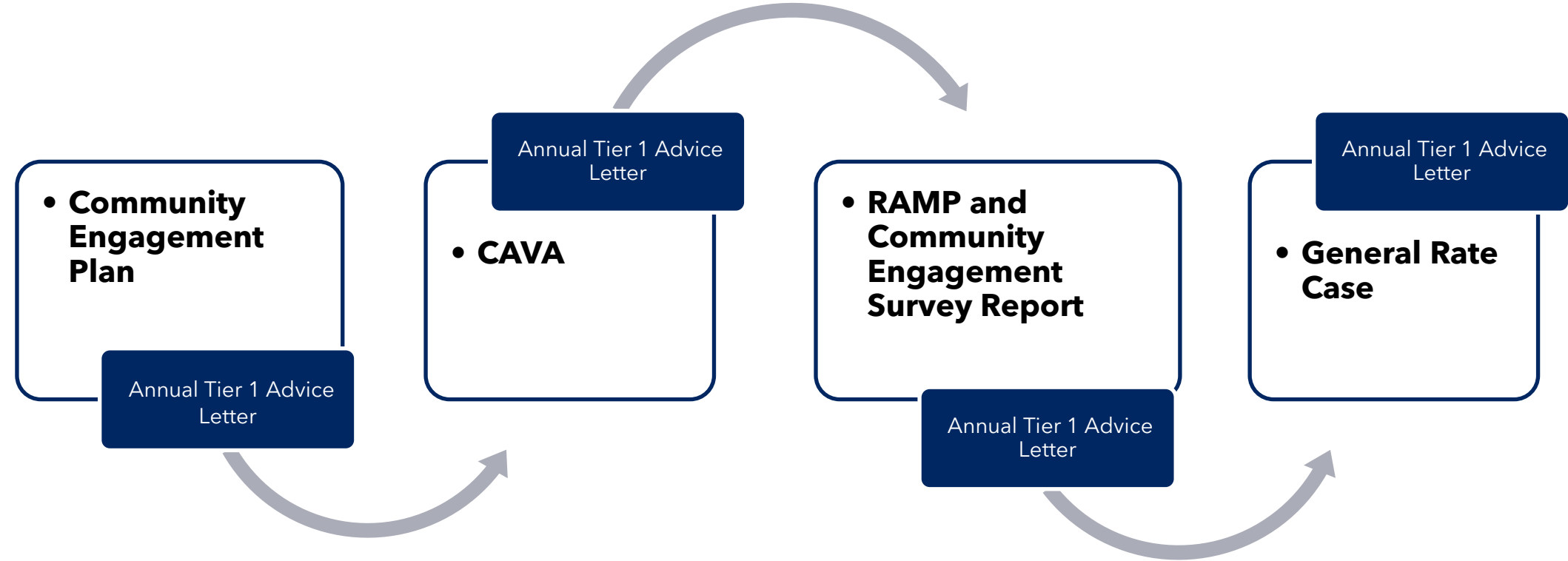
- » SoCalGas intends to integrate its CAVA community engagement into its routine engagement activities through regional public affairs and community relations managers.
  - Directly involved in the communities within their designated areas and have established relationships with community leaders, elected representatives and local organizations to enable information sharing on all facets of SoCalGas's operations.
- » Combine CAVA CEP activities with other stakeholder engagement tied to other proceedings (R&D, GRC, RAMP, etc.) when there are overlapping stakeholders
- » Recommend focusing engagement on adaptation projects/programs

# CAVA Framework with Key Data Input Types





# CAVA PROCESS FLOW CHART



\*SoCalGas filed its CEP in 2024, CAVA/RAMP in 2025 and will file its Engagement Survey Report and GRC in 2026. For future filings, D.24-08-005 moves timing for CAVA filing to 1 year prior to RAMP.

# Climate Change and the Communities We Serve

77

1

**Center equity** in decision-making processes, investments and programs.

2

**Improve emergency notifications** and community education on hazards and resources.

3

**Invest in and expand existing workforce** development programs.

4

**Provide financial support** for the development and sustained operation of community resilience centers.

5

**Maximize enrollment and longevity** of existing SoCalGas programs in Disadvantaged and Vulnerable Communities.

6

**Invest in upgrading our current infrastructure** serving Disadvantaged and Vulnerable Communities.

Contact: ClimateAdaptation@socalgas.com

Website: <https://www.socalgas.com/climate-adaptation-at-socalgas>

**SHARE FEEDBACK**

# Equity Metrics Criteria Panel

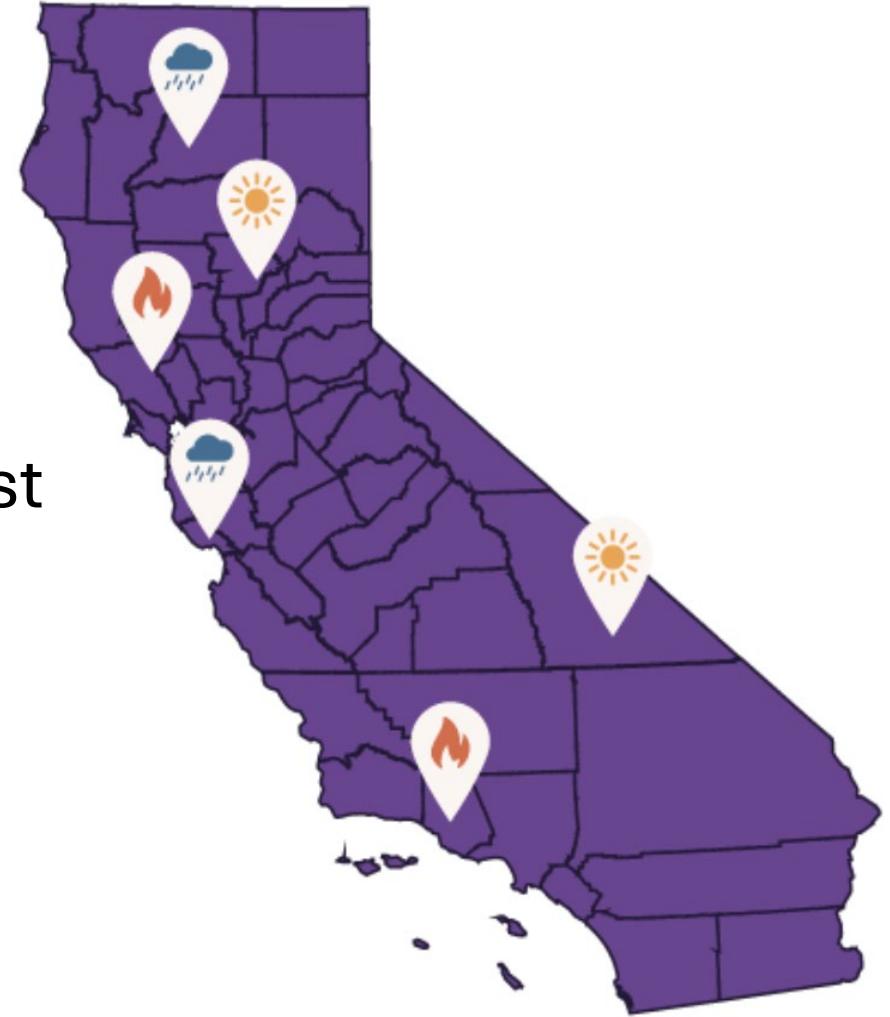
# **Vulnerable Communities Platform**



# Vulnerable Communities Platform (VCP) Overview

The VCP will help the State, community organizations, local governments, and concerned residents understand:

- Where different climate hazards will be most severe,
- Which communities are most vulnerable,
- And, what makes them vulnerable.



# VCP Purpose

No State tool or resource assesses current and future impacts to communities of wildfire, extreme heat, flooding, sea level rise, and drought all in one platform.

How is it different than other tools used to evaluate disadvantage?  
(CalEnviroScreen, Healthy Places Index, CDC SVI)

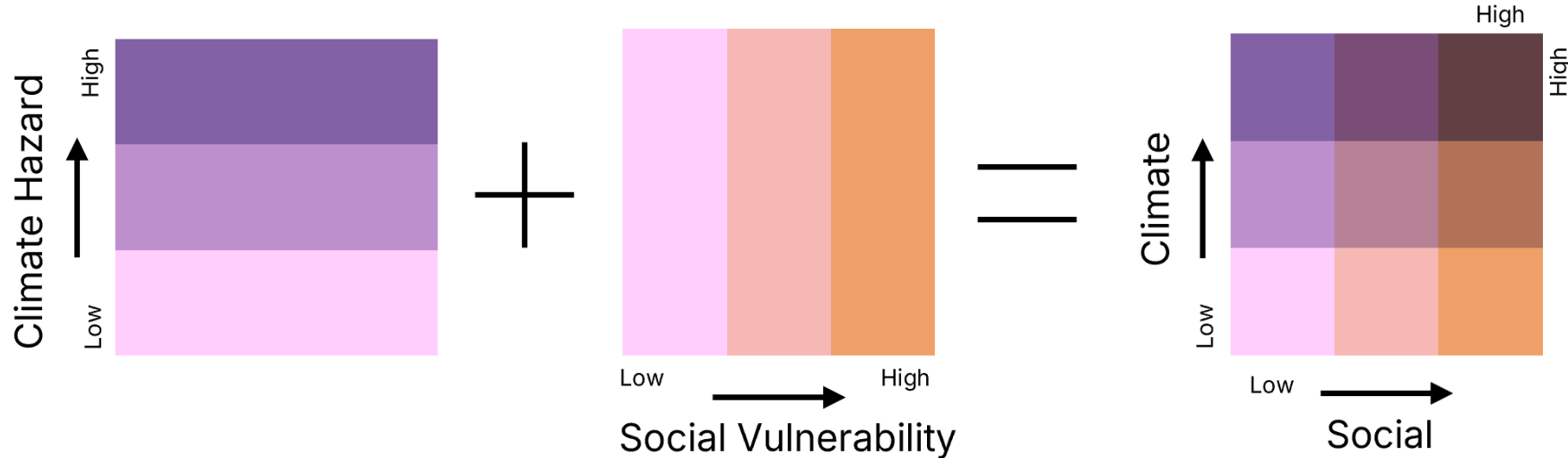
- Tailored to climate impacts and uses climate projection data.

How is it different than other climate data tools? (Cal-Adapt, NOAA CMRA)

- High-level, easy-to-understand picture of risk
- Integrated with social vulnerability

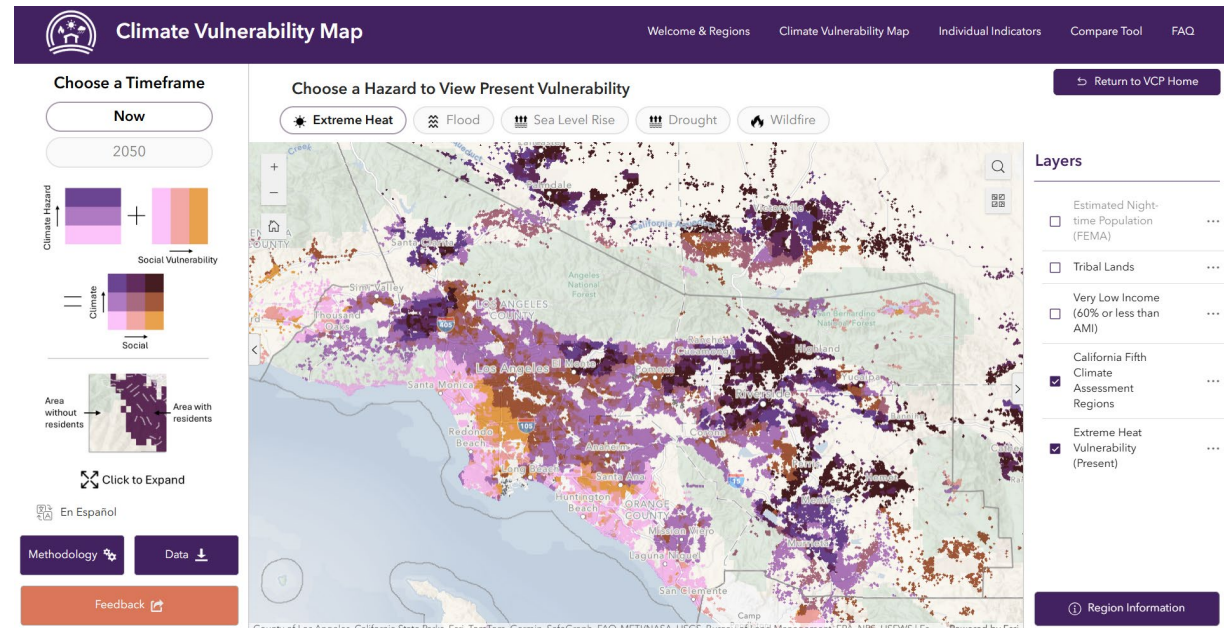


# Bivariate index for each climate risk; extreme heat, flooding, sea level rise, and drought (except wildfire)



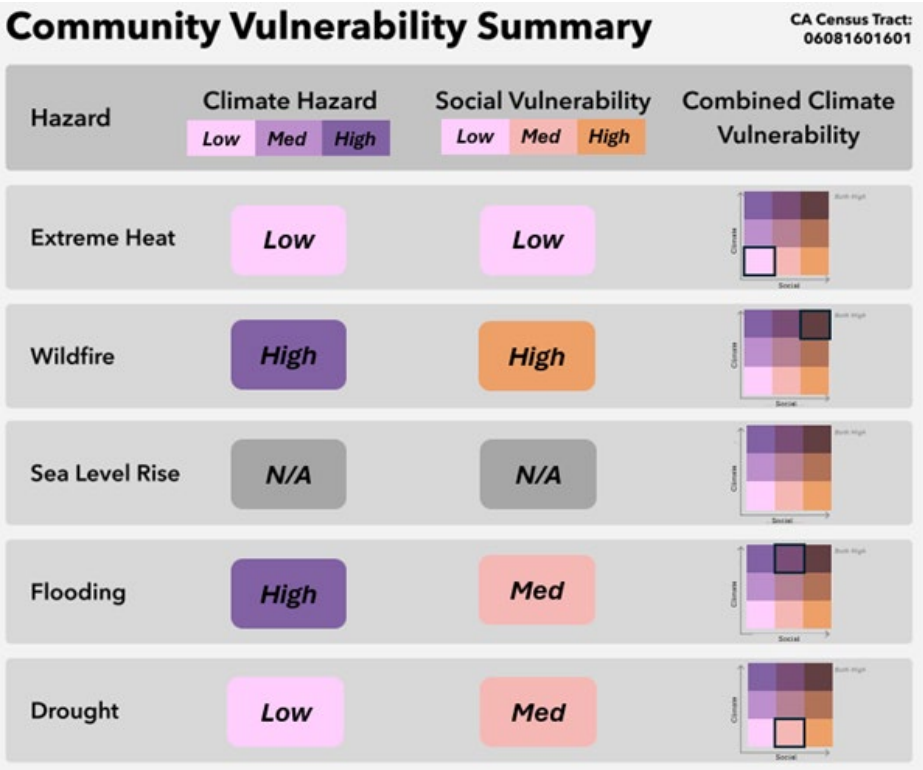
- Purple gradient uses hazard data (ex. Days >100°, Summer Max Temp).
- Orange gradient uses related social data (ex. Asthma, Diabetes, Outdoor Workers).
- **Dark maroon color** in combined gradient represents areas with the highest vulnerability – the co-occurrence of indicators from these data.

# Climate Vulnerability Map



Displays mapped areas of low, medium, and high climate vulnerability.

# Report Generator



Allows users to enter their city/town, zip code, or census tract to create a simple 2-page pdf that summarizes the area's vulnerability.

# Where did the data come from?

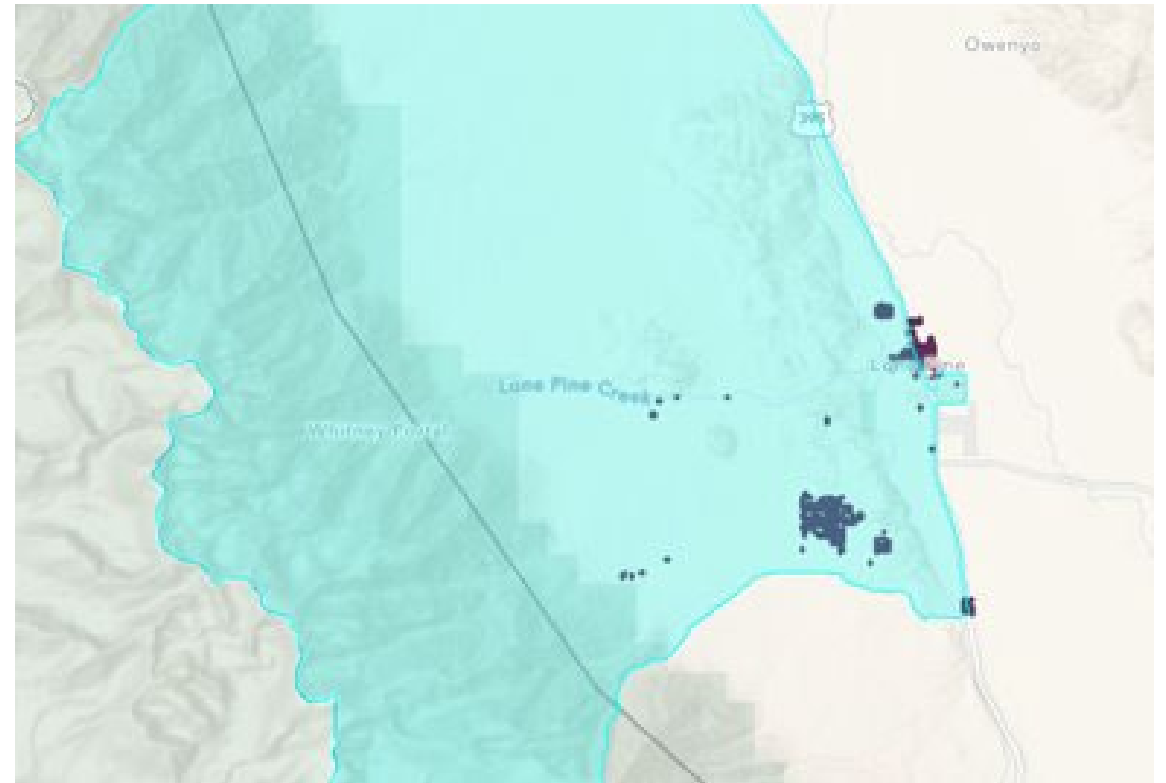
## Climate Hazard Data:

- Climate projections data (SSP 370) from Cal-Adapt Analytics Engine.
- SLR projections from USGS CoSMoS.
- Wildfire data from CAL FIRE.
- Floodplain data from CA DWR.

## Social Vulnerability Data:

- American Community Survey (US Census).
- CDC PLACES Survey.

FEMA “Population Squares” to display data for where people live



# VCP for IOU Climate Adaptation

CPUC defines DVCs as census tracts with top 25% CalEnviroScreen score, less than 60% state median income, and/or 5% highest CalEnviroScreen pollution burden

IOUs are meant to conduct Community Engagement Plans to identify and prioritize utility climate adaptation in DVCs

VCP can help identify communities that have a high socioeconomic burden and high exposure to one or more adverse climate impacts, thereby requiring specific attention and extra resources to adapt







Community Health and  
Environmental Policy Program



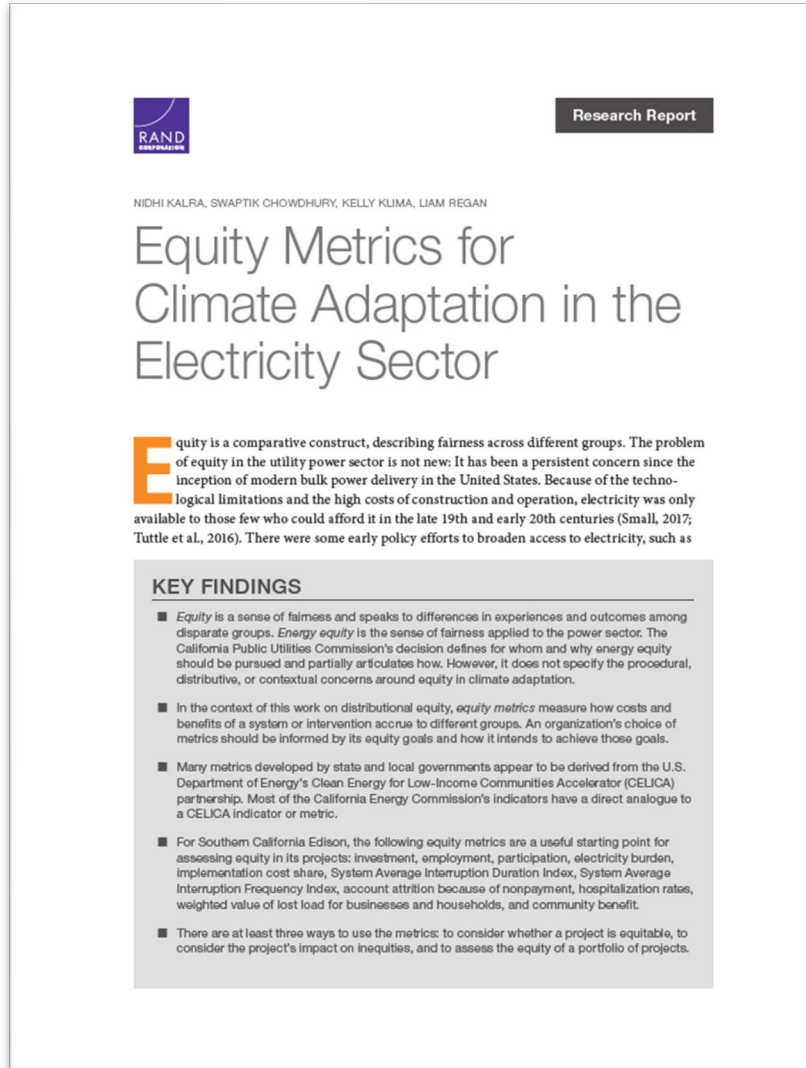
# Energy Equity

Recent Research on  
Equity Metrics

How to Include Within  
Climate Adaptation  
Vulnerability  
Assessments (CAVAs)

Benjamin Preston, RAND  
Climate Adaptation Equity Workshop  
September 25, 2025

# During the Fall 2024 panels, we shared our research identifying 35 electricity equity metrics



## Questions to ask

- Context: What counts?
- Target: Who counts?
- Goal: Why?

## 3 Types of Equity

- Contextual: Who needs more equity?
- Procedural: Is the process equitable?
- Distributional: Will outcomes be equitable?

## 4 major themes

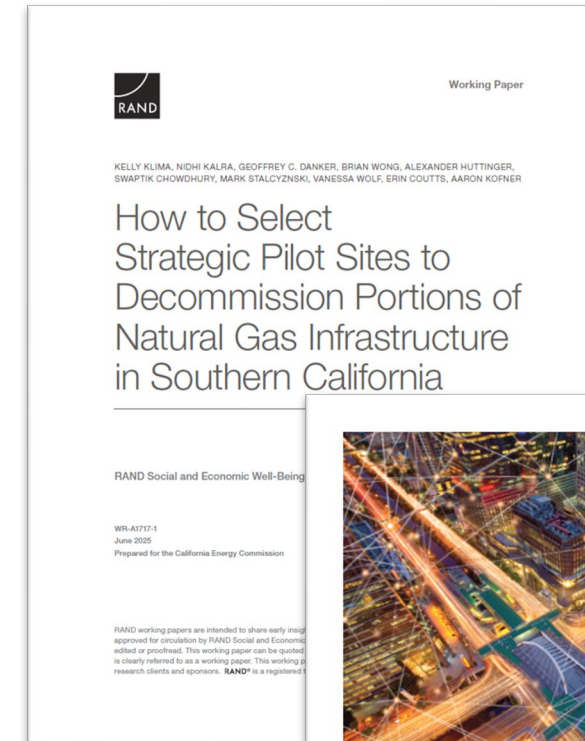
- Robust community engagement is critical to equitable decommissioning
- Support to transitioning communities should be multidimensional
- Policies should focus on historical inequities
- Policies should leverage existing programs



# Beyond electricity, we can use this approach to identify other equity considerations

- Directly for partnering communities
  - Different communities are at different institutional capacities to work with IOUs
  - Different sites have different infrastructure ownership
  - Projects may increase or decrease monthly utility bill
- Indirectly for neighboring communities
  - Temporary power shutoffs, needs for system betterment, and other engineering requirements that affect others outside project area
  - Choices made by IOUs affect those in non-IOUs
  - Choices made in California affect Tribal lands

In addition, natural gas and electricity systems are different, and likely require different tailored metrics



## Developing Metrics and Scoring Procedures to Support Mitigation Grant Program Decisionmaking

JOSHUA MENDELSOHN, GRANT JOHNSON, KELLY KLIMA, RACHEL STERATORE, SAMANTHA COHEN, GEOFFREY KIRKWOOD, LLOYD DIXON, JANIE L. HASTINGS, PAUL S. STEINBERG

HSOAC  
HOMELAND SECURITY  
OPERATIONAL ANALYSIS CENTER

An FFRDC operated by the RAND Corporation under contract with DHS

# Our research suggests potential criteria for quantification of equity in the CAVA process

## Previously identified (Fall 2024)

- investment
- employment
- participation
- energy burden
- implementation cost share
- reliability metrics
- account attrition because of nonpayment
- hospitalization rates
- weighted value of lost load for businesses and households
- community benefit

## Potential equity considerations

- Utility focused (defer to utilities on specifics)
  - Non-electricity equivalents of previously identified metrics
  - Beyond the project's direct customers  
Number of additional IOU customers, non-IOU customers, and others outside the project area that are affected
- Customer focused
  - Applicant institutional capacity
  - Percentage of customer's income toward utility bill
  - Change in infrastructure ownership

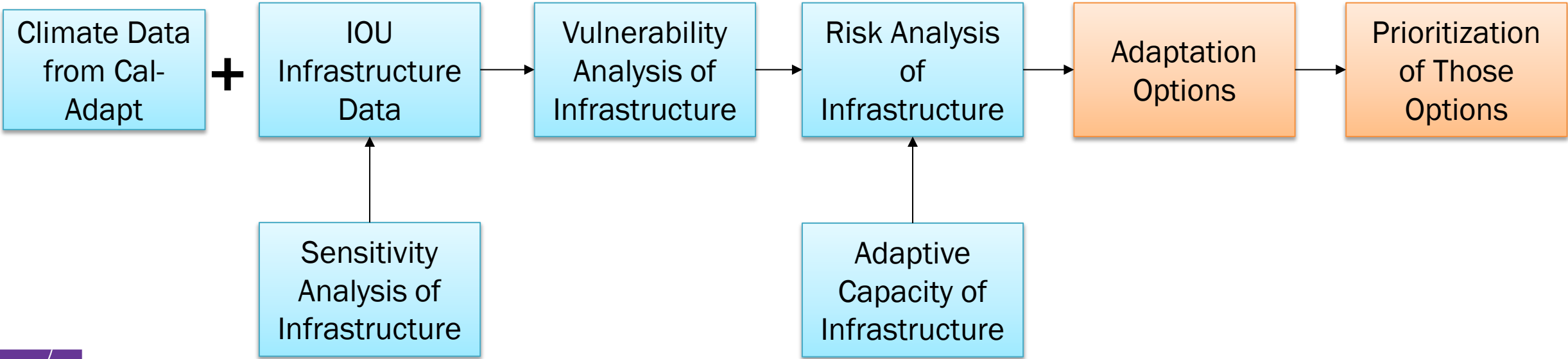
# Now let's consider where these might fit into the CAVAs. Here's the existing process:

Where to Plug In

D.20-08-004: “The broad range of responses and adjustments to daily and extreme climate change-related events available to communities. This includes the ability and resources communities have to moderate potential damages, take advantage of opportunities, and cope with consequences.”

Community Adaptive Capacity (per D.20-08-004)

Community Input Via Engagement



Blue: Existing CAVA Process  
Orange: Existing Analysis Results  
Green: Equity Analysis

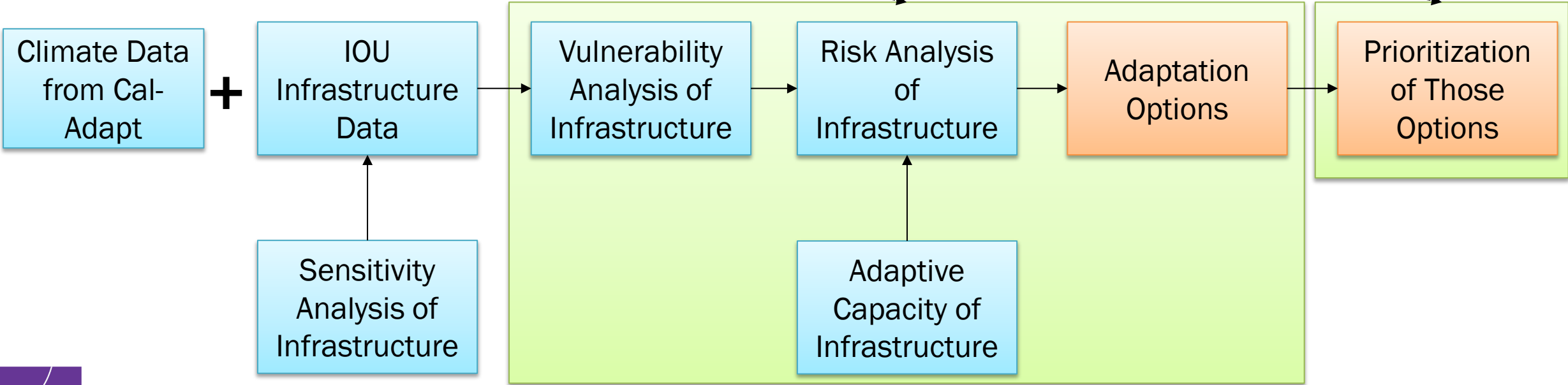
# Depending on which equity metrics are included, the could affect multiple parts of the CAVAs.

Where to Plug In

D.20-08-004: “The broad range of responses and adjustments to daily and extreme climate change-related events available to communities. This includes the ability and resources communities have to moderate potential damages, take advantage of opportunities, and cope with consequences.”

Community Adaptive Capacity (per D.20-08-004)

Community Input Via Engagement



# Perhaps more important than where these enter, is how they are measured

- Approach 1: Checklist of metrics that apply to a project (e.g., a customer program should use equity metrics A, B, and D.)
- Approach 2: Checklist as performance scoring system, to see if a project is equitable.
  1. Quantitatively measure each equity metric for a project for the different groups of interest (e.g., SB535 Disadvantaged Communities' community cost burden).
  2. Define some criteria by which an equity metric would be met, or “checked” on the list. In other words, “What constitutes an acceptable equity outcome, such that this project checks the box?” The threshold or criteria could be quantitative or qualitative.
  3. See whether each evaluated projects checks the box on each of the relevant equity metrics. This could be a stop-light “red-yellow-green” rating system for each project and each equity metric.

# Funders & Contact Information



California Energy Commission

Community Health and  
Environmental Policy Program

Benjamin Preston

[bpreston@rand.org](mailto:bpreston@rand.org)

Kelly Klima

[kklima@rand.org](mailto:kklima@rand.org)



# Specificity in Metric Selection

Applications for Climate Resilient System Planning



Heidi Scarth  
Research Economist, Electric Power Research Institute (EPRI)

CPUC CAVA Workshop  
September 25<sup>th</sup>, 2025



## Vision

To be a world leader in advancing science and technology solutions for a clean energy future

## Mission

Advancing safe, reliable, affordable, and clean energy for society through global collaboration, science and technology innovation, and applied research.

*Together...Shaping the Future of Energy®*



# Climate READi Process for Selecting Metrics



Identify Relevant Concepts



Measure these Concepts



Parse Through Potential Metrics



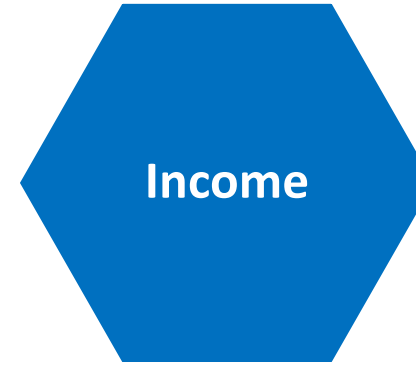
Select Final Metrics



Plug into Modeling and Planning Processes

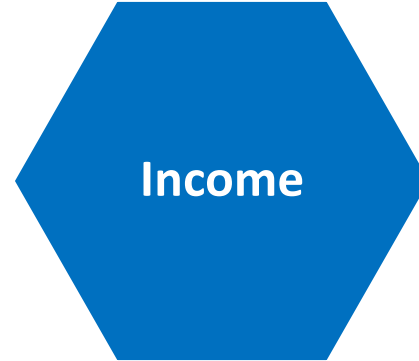
# Identify Relevant Concepts

- Multiple avenues for identification:
  - Literature review
  - Community engagement and input
  - Previous experience with specific climate hazards and impacts

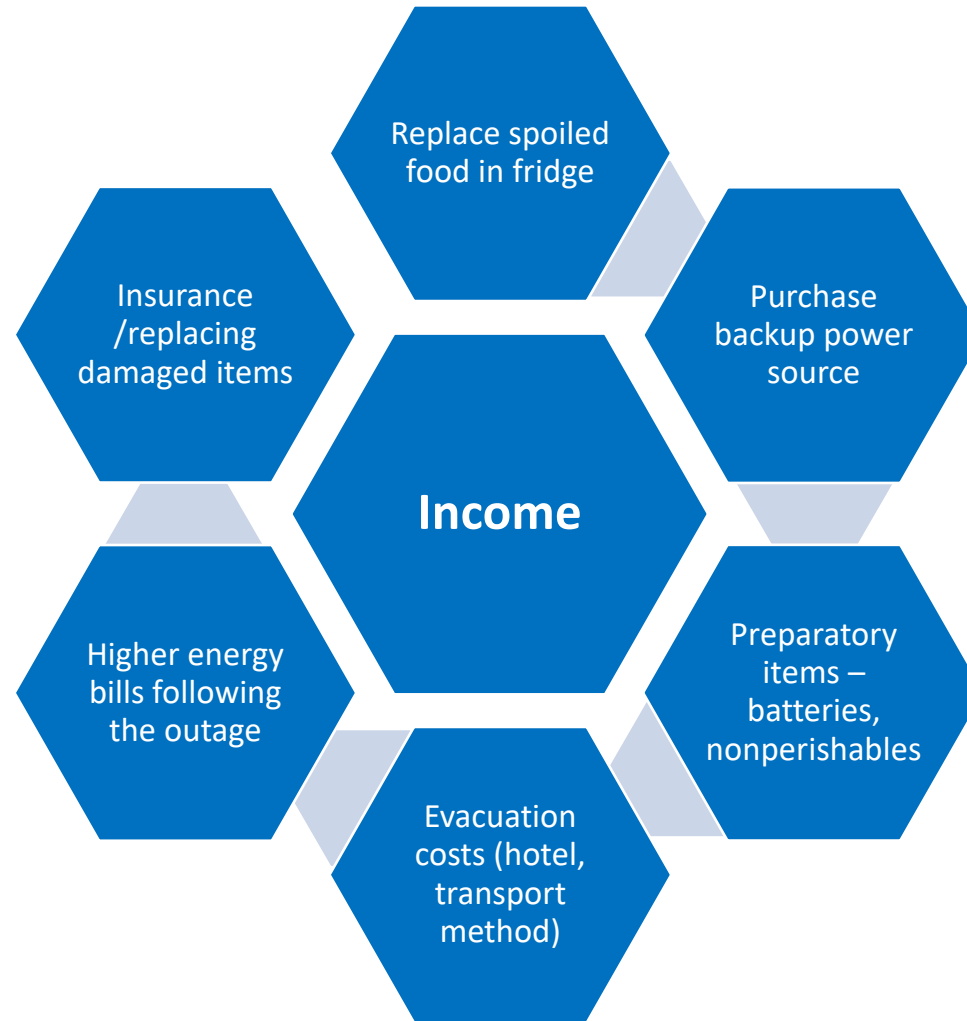


*Selected relevant concepts for Climate READi,  
determined through a literature review.*

# Identify Relevant Concepts



# Identify Relevant Concepts

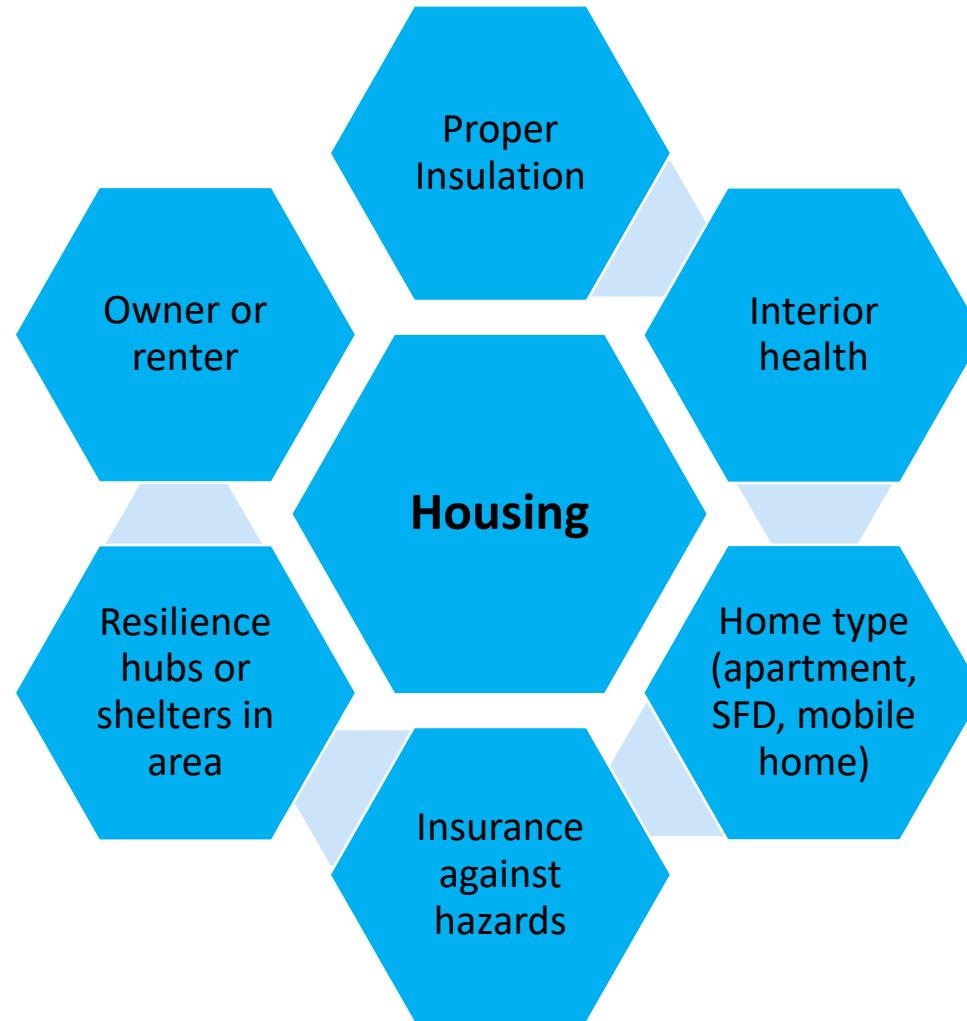




# Identify Relevant Concepts



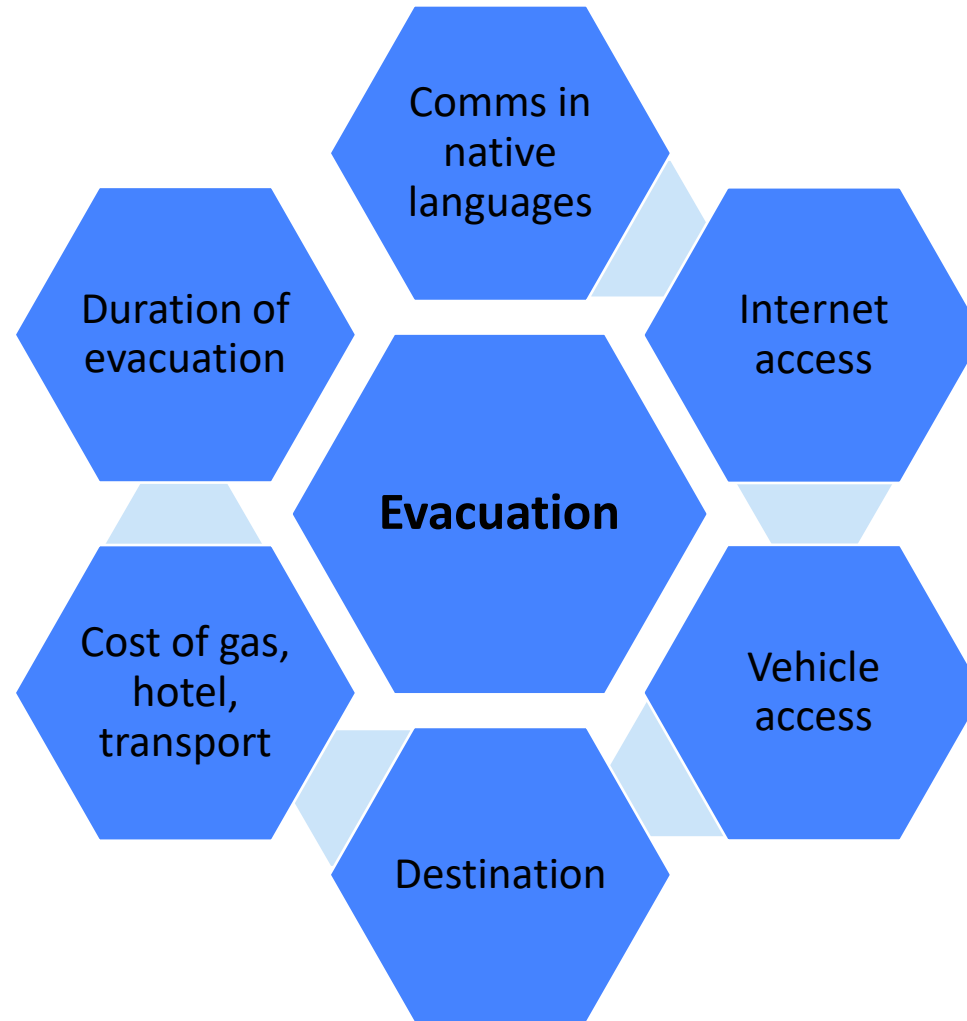
# Identify Relevant Concepts



# Identify Relevant Concepts



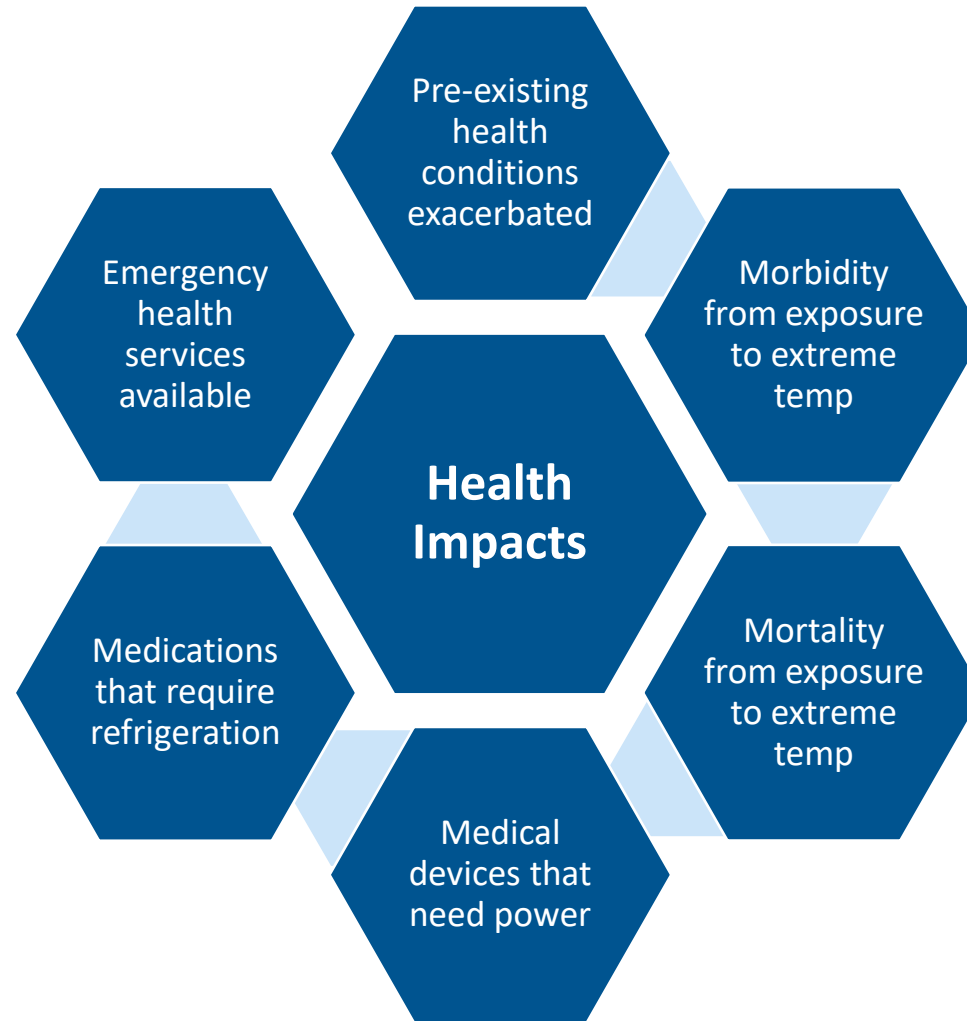
# Identify Relevant Concepts



# Identify Relevant Concepts

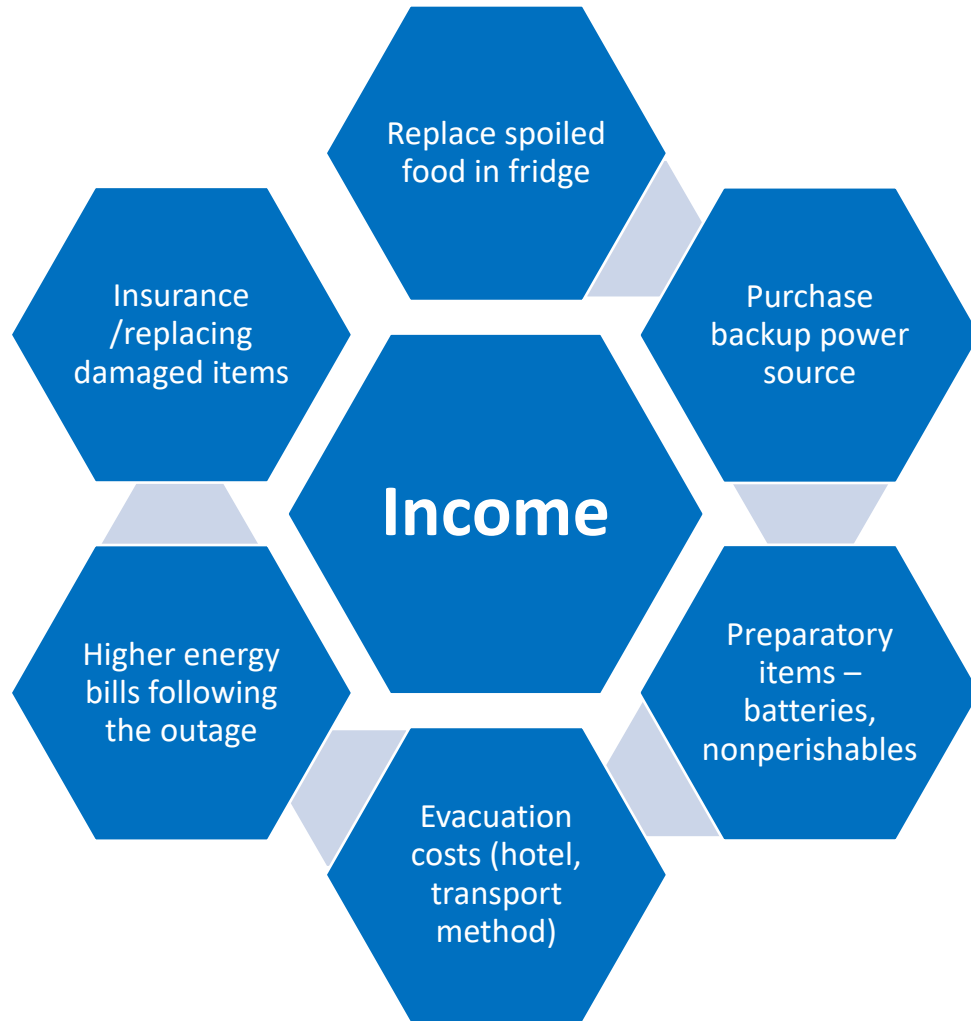


# Identify Relevant Concepts





# Measure these Concepts



## Potential Metrics from Public Sources:

- Median value (\$) of owner-occupied housing units
- Percent of individuals below 200% Federal Poverty Line, imputed and adjusted
- Percent of individuals below 100% Federal Poverty Line
- Percentage of persons below 150% poverty estimate
- Energy burden
- Median household income as a percent of area median income
- Percentile for % low income
- Percentage of households that make less than 75,000
- Percentage of persons who are uninsured
- Population for whom poverty status is determined

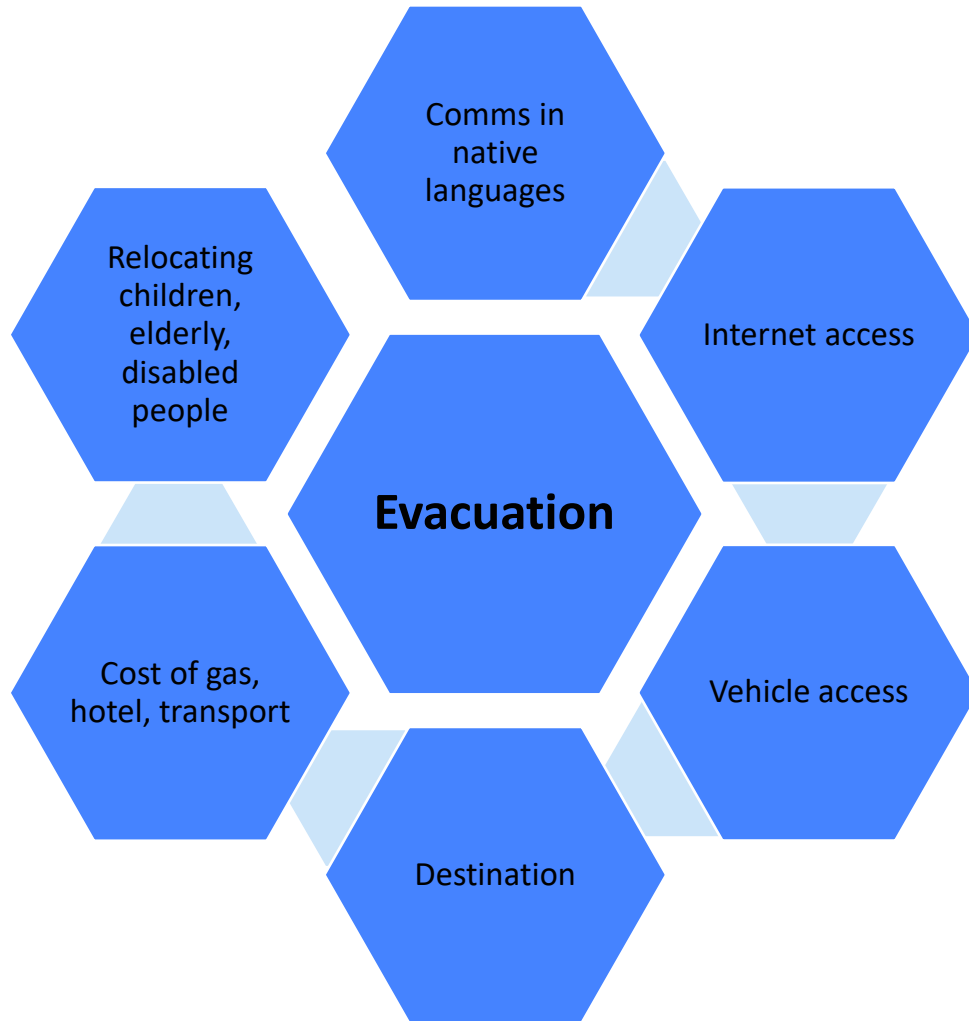
# Measure these Concepts



## Potential Metrics from Public Sources:

- Mobile homes estimate
- Housing cost-burdened occupied housing units with annual income less than \$75,000 (30%+ of income spent on housing costs)
- Housing in structures with 10 or more units
- At household level(occupied housing units), more people than rooms
- Households with no vehicle available
- Persons in group quarters
- Percentage of houses built pre-1980 (lead exposure)
- Percentage of persons who rent
- Housing units built before 1960
- Lead Paint

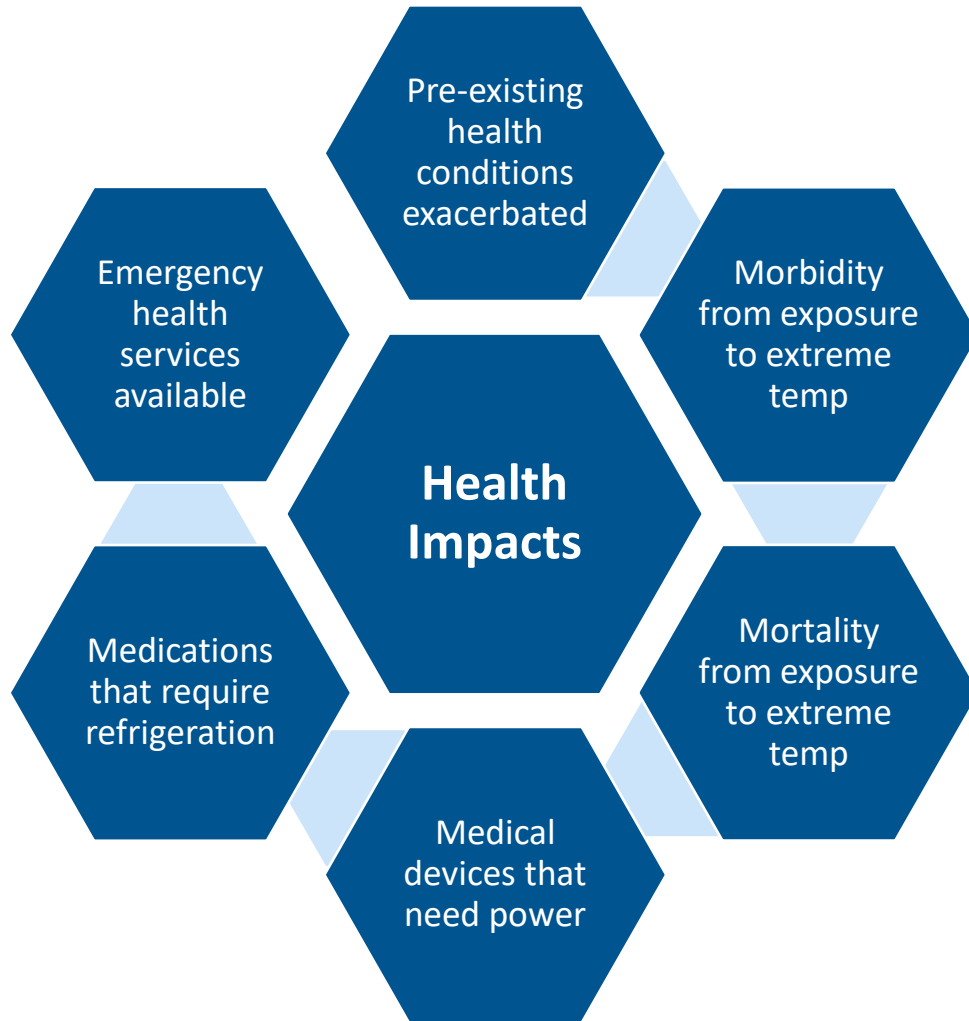
# Measure these Concepts



## Potential Metrics from Public Sources:

- Linguistic isolation
- Persons (age 5+) who speak English "less than well" estimate
- Limited English-speaking households
- Single-parent household with children under 18
- Households with no vehicle available
- Households with no internet access
- Households with children under 5
- Households with adults over 65
- Civilian noninstitutionalized population with a disability

# Measure these Concepts



## Potential Metrics from Public Sources:

- Civilian noninstitutionalized population with a disability estimate
- Coronary heart disease among adults aged greater than or equal to 18 years
- Current asthma among adults aged greater than or equal to 18 years
- Diagnosed diabetes among adults aged greater than or equal to 18 years
- Low life expectancy
- Uninsured in the total civilian noninstitutionalized population
- Persons aged 65 and older
- Percentage of persons with cancer
- Percentage of individual reporting not good mental health
- Percentage of individuals with Raw high blood pressures values
- The probability of contracting cancer over the course of a lifetime, assuming continuous exposure;
- Air toxics cancer risk
- Air toxics respiratory HI

**All of the above metrics can be represented as absolute units, a percentage, or a percentile – which is better?**

# Parse Through Potential Metrics

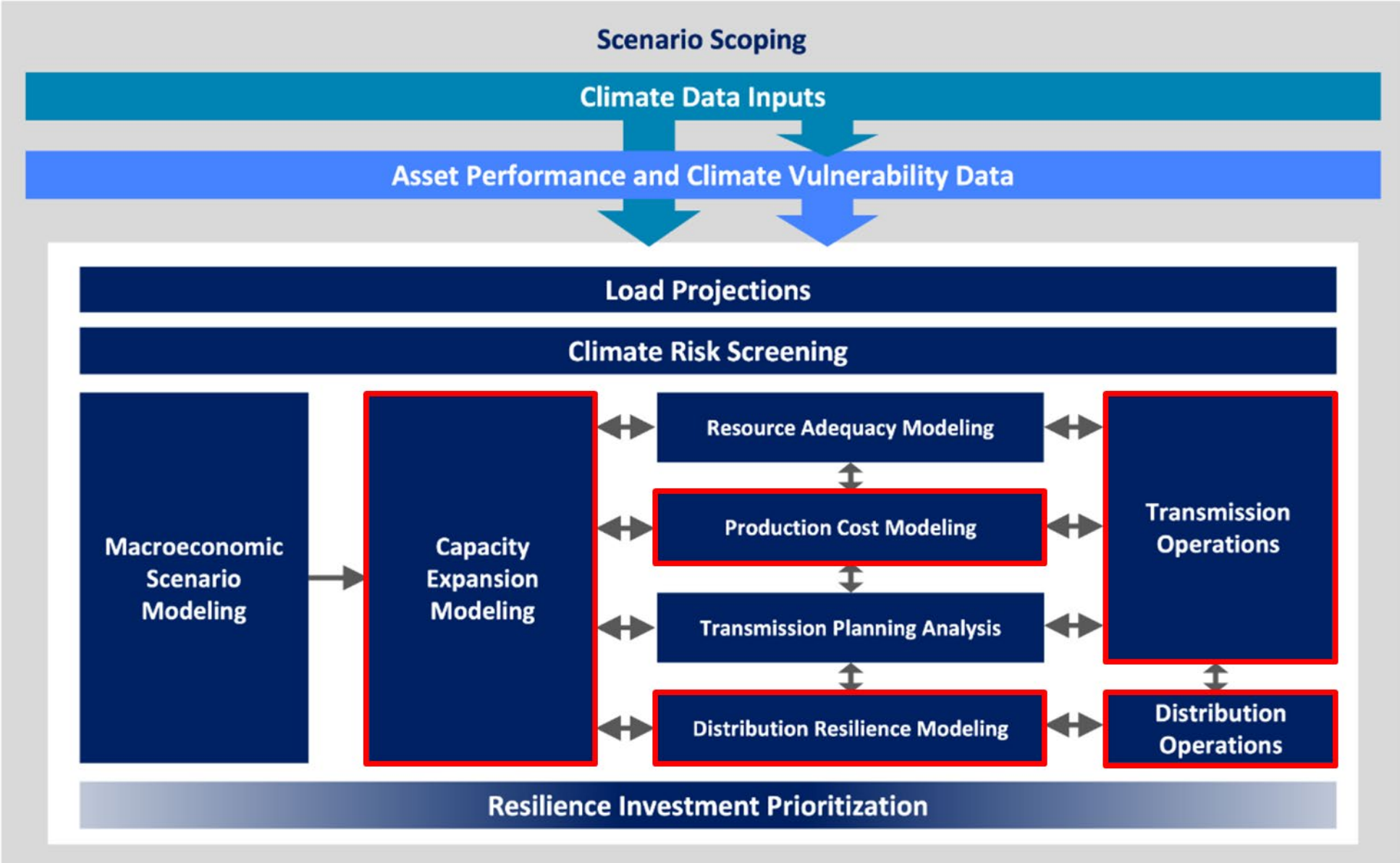
- Dive into metrics from public sources:
  - Identify metrics that correspond closely to the broader concepts
  - Avoid or remove repetitive metrics to avoid double-counting community attributes
- Identify gaps in public data sources:
  - Determine which broad concepts do not have clear metric representation, or might be difficult to observe
  - Remove metrics that do not have sufficient coverage/observations
- Take steps to fill these gaps:
  - Supplement public data with company-level data as applicable
  - Develop proxy variables for broad concepts as available

# Select Final Metrics

Indicator	Category	Source
Median household income as a percent of area median income	Income	CEJ Screening Tool
Percent of the population over 65	Demographic	EJ Screen
Percent of the population under 5		CEJ Screening Tool
Asthma among adults	Health	EJ Screen
PM 2.5 concentration		CDC SVI
Non-institutionalized population with a disability		CDC SVI
Number of shelters in each tract	Housing/Transportation	National Shelter System Facilities
Linguistic isolation		CEJ Screening Tool
Houses Built before 1960		CEJ Screening Tool
Mobile homes estimate		CDC SVI
Percentage of households with no vehicle		CDC SVI



# Plug into Modeling and Planning Processes



# Plug into Modeling and Planning Processes

## Capacity Expansion Modeling

One way to empirically consider demographic and socioeconomic characteristics of the communities served by power system assets is by capacity expansion models according to these metrics.

## Transmission Operations Strategy

Assessing outage duration for DVCs compared to other regions allows transmission operators to draw conclusions on whether restoration times vary by DVC designation, and whether changes are needed to better manage restoration priorities.

## Distribution Planning and Operations

Demographic and socioeconomic metrics can be incorporated into distribution operations as a consideration for prioritization. For example, selected communities can be exempt from certain load-shedding procedures due to the increased proportional costs they may face. Additionally, they can be added as a component to existing investment prioritization and upgrade ranking methods.

## Production Cost Modeling

The metrics identified here can be applied directly into a cost-benefit framework, in which a weight can be applied to the net benefits of certain investments and resilience strategies that correspond to the vulnerability designation of a census tract. These weights can make costs incurred to vulnerable regions relatively more expensive, and benefits realized by these areas relatively more attractive.



**TOGETHER...SHAPING THE FUTURE OF ENERGY®**





California Public  
Utilities Commission

# CPUC Affordability Metrics Climate Adaptation Equity Metrics

Energy Division | September 2025



# Overview of Affordability Metrics

## Affordability Ratio (AR)



$$\frac{\$ \text{ essential services bill}}{\$ \text{ household income} - \text{non-discretionary expenses (housing and other utilities)}} = \text{AR}$$

where utility services are least affordable for households at a particular point of the income distribution (e.g., AR<sub>20</sub> is households at the lowest 20th percentile of income)

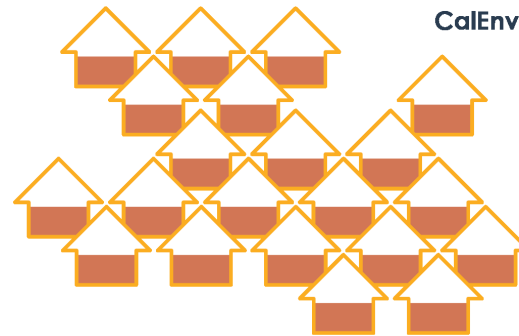
## Hours at Minimum Wage (HM)



# hours of earned employment at the local minimum wage needed to pay for essential services.

= **HM** where low-income households will have the most difficulty paying for essential services, regardless of the socioeconomic condition of the neighbors.

## CalEnviroScreen (CES)



relative standing of community (census tract) based on:

- population characteristics
- pollution burden

= **CES** identifies communities least able to afford increases in charges for essential services

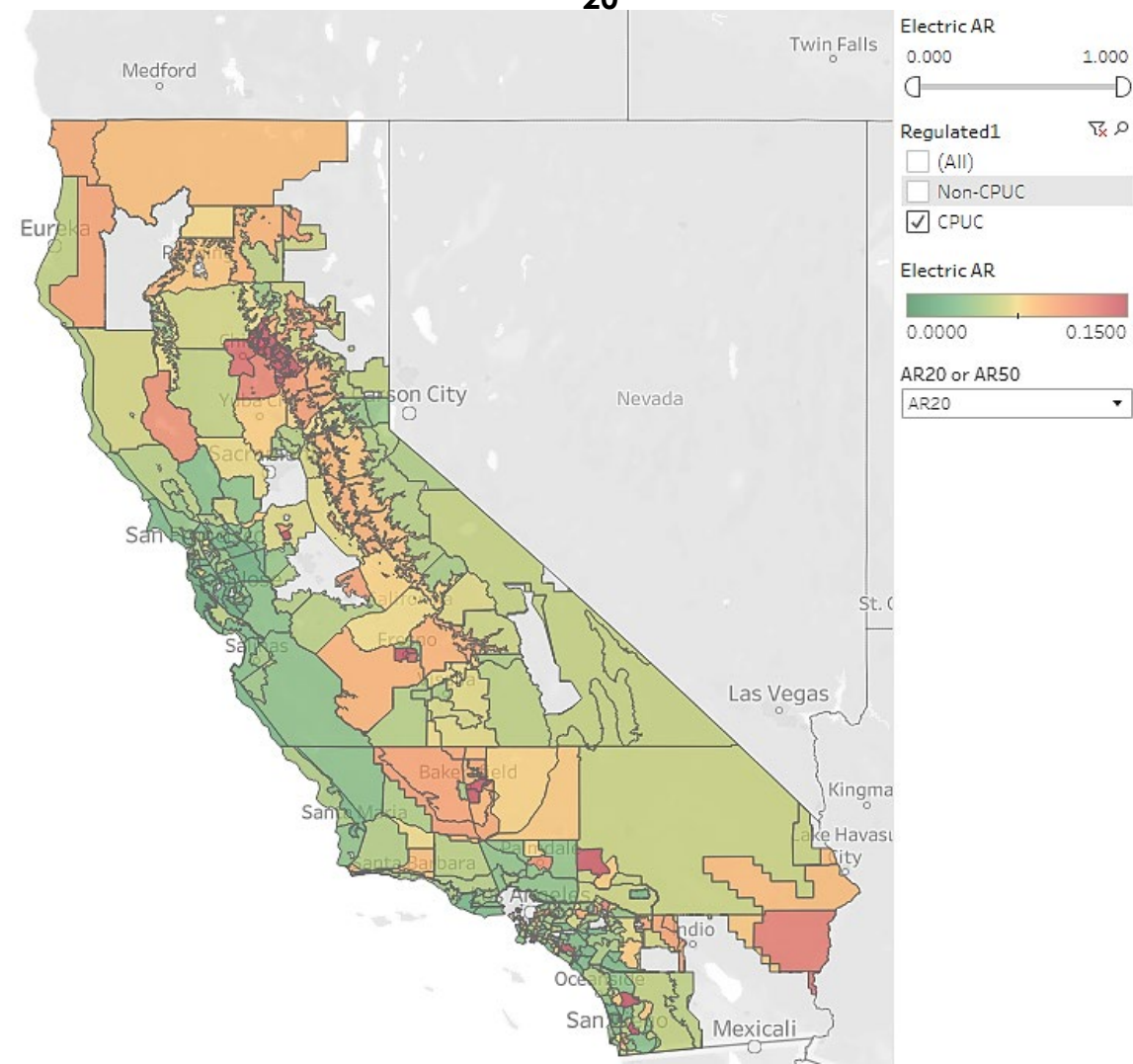
# Affordability Ratio: Methodology

- Income and housing cost data from the American Community Survey microdata used to estimate relationship between income and housing cost within each Public Use Microdata Area (265 PUMAs in CA); estimates for 20<sup>th</sup> and 50<sup>th</sup> percentiles of income distribution within each PUMA are generated
- Electricity, natural gas, water, and telecommunications bill data requested from service providers for an “essential” level of usage
- PUMA and service territory/climate zone boundaries are overlaid using GIS analysis to identify unique combination of providers for each census tract
- AR values are calculated for households at the 20<sup>th</sup> and 50<sup>th</sup> percentiles of the income distribution for each census tract (AR<sub>20</sub> and AR<sub>50</sub>, respectively)
- Customer-weighted averages are generated for more aggregated reporting areas

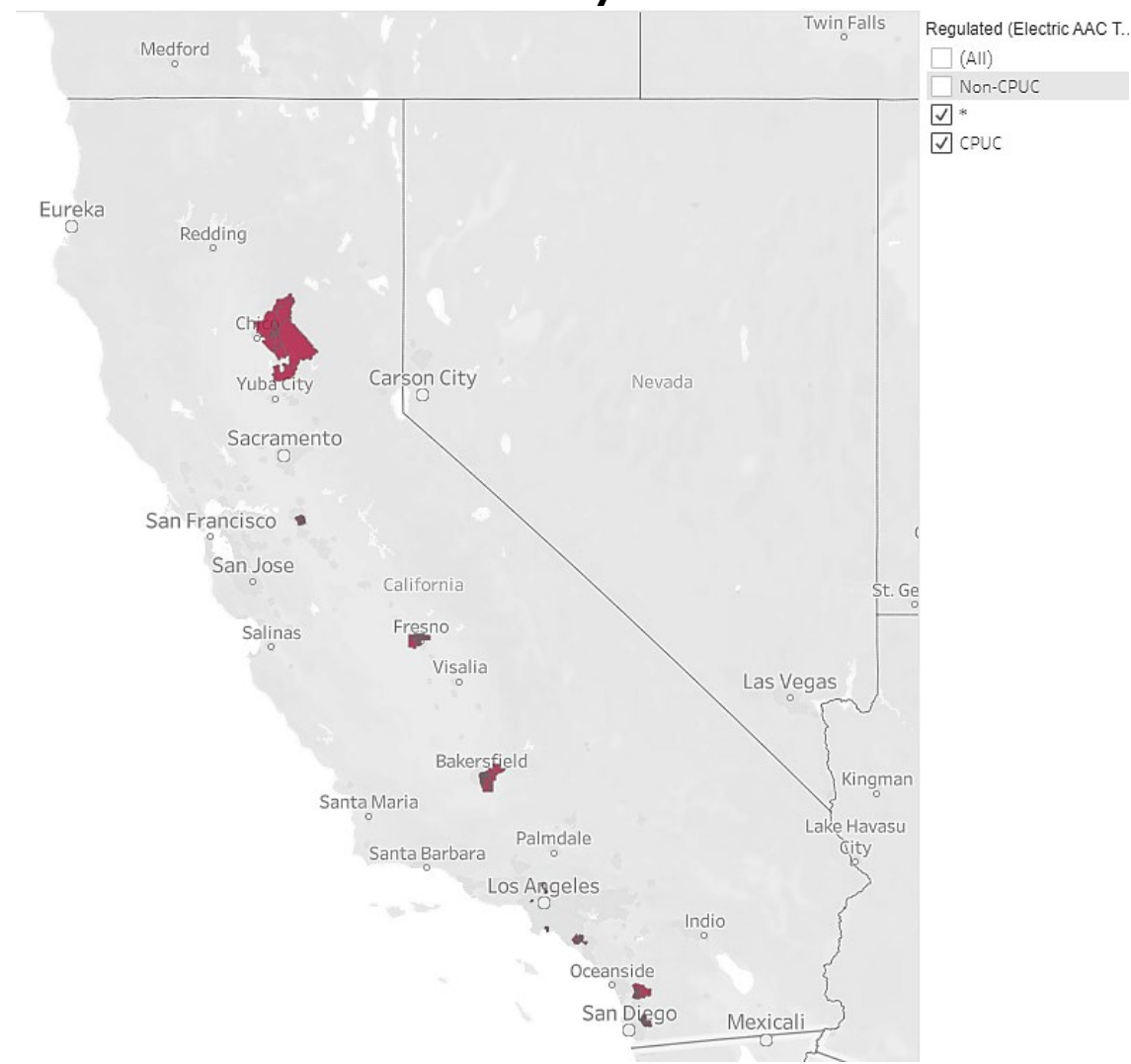


# AR<sub>20</sub> Results and Areas of Affordability Concern

Electric AR<sub>20</sub>



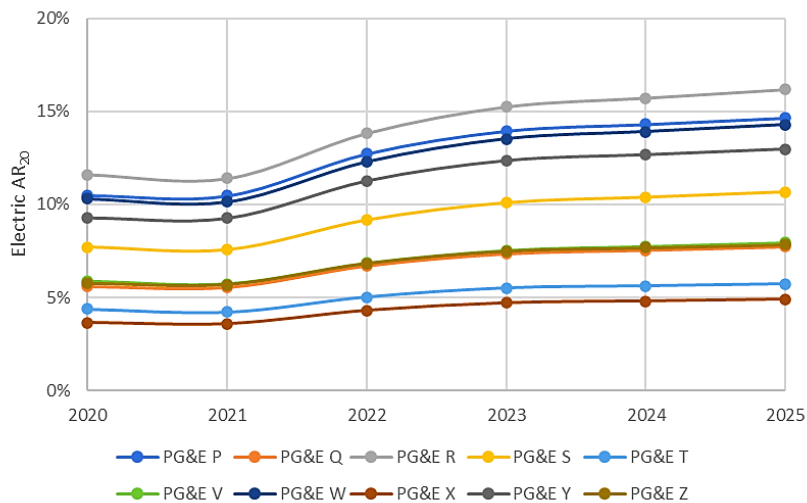
Areas of Affordability Concern



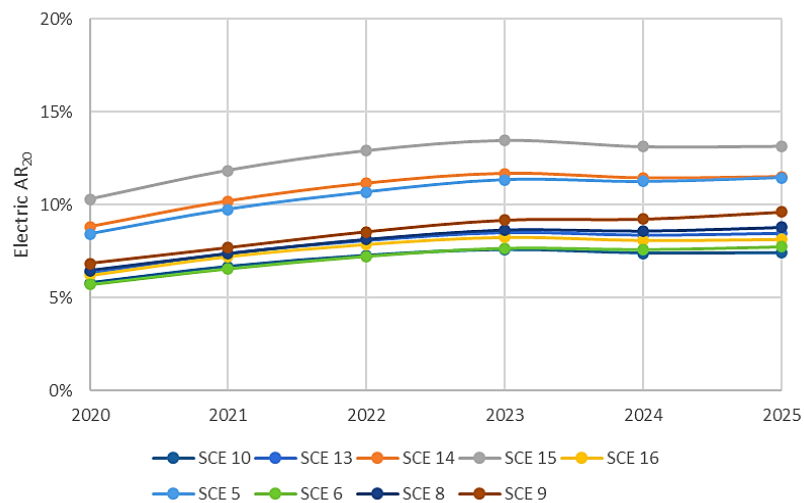
# Example Use: Electricity Affordability Projections

- Current forecast of residential electric bills, household incomes, and housing costs indicate that electricity will become less affordable between now and 2025 (higher  $AR_{20}$  value = less affordable)
  - Graphs show percent of income needed to pay electric bill after housing costs and other essential utility bills are deducted. Results for low-income households (20<sup>th</sup> percentile of local income distribution)
  - Hot climate zones = PG&E – P, R, S, W; SCE – 5, 10, 13, 14, 15; SDG&E – Mountain and Desert

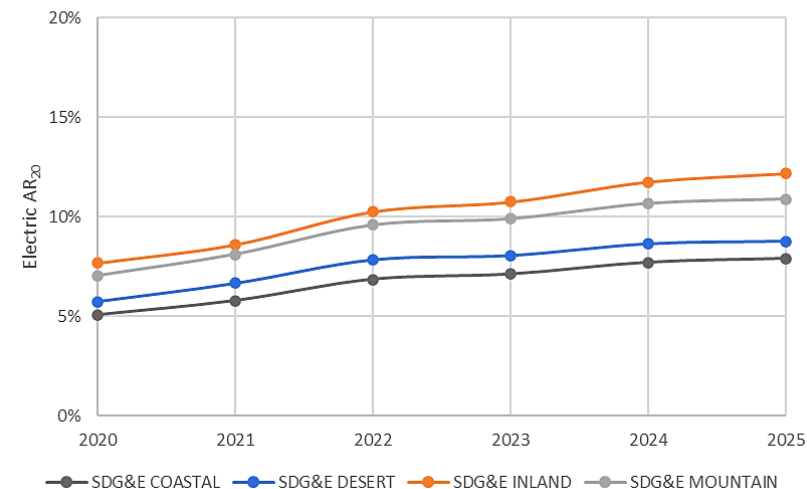
PG&E  $AR_{20}$  Projections Based on CRT Forecast



SCE  $AR_{20}$  Projections Based on CRT Forecast



SDG&E  $AR_{20}$  Projections Based on CRT Forecast



# Contact Information:

**Ankit Jain – [ankit.jain@cpuc.ca.gov](mailto:ankit.jain@cpuc.ca.gov)**

# Equity Metrics in Distribution Planning and Execution Process (DPEP)

High DER Proceeding – D.24-10-030

Angelica Gloria Velasco

Public Regulatory Analyst



California Public  
Utilities Commission

# Background – Distribution Planning and Execution Process

## IOUs' Obligation to Serve

- Investor-Owned Utilities (IOUs) must plan and build distribution systems to meet customer needs wherever they arise.
- This obligation ensures reliability, safety, and universal access.

## Shared Costs

- The costs of expanding and maintaining the grid are shared by all ratepayers.
- Careful planning ensures investments are efficient, fair, and aligned with statewide goals.

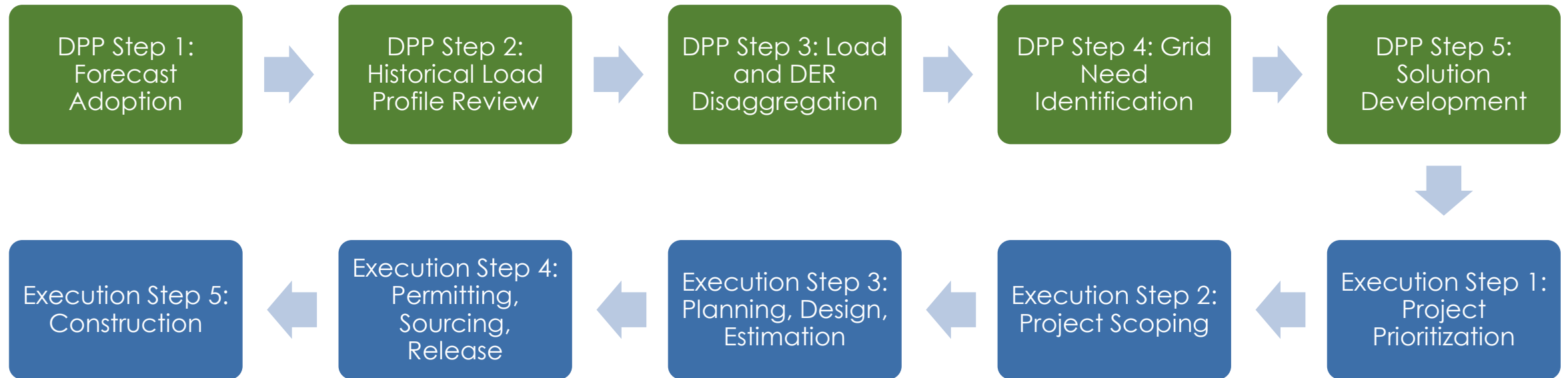
## How Planning Works

- Utilities forecast demand growth (e.g., electrification, new industries). Identify where grid capacity is constrained.
- Plan and initiate upgrades (e.g., new substations, line extensions) to meet future needs.

In this process, **Equity Matters Because...**

- Distribution planning shapes who has access to grid capacity and how quickly upgrades are delivered.

# Distribution Planning and Execution Process





# Context

- Decision D.24-10-030 (Oct 2024) in the High DER Future proceeding (R.21-06-017).
- Ordering Paragraph 25 directed IOUs to propose equity metrics to ensure distribution planning fairly serves equity-priority populations.
- Equity-priority groups defined in the Decision:
  - CARE
  - FERA
  - Medical Baseline
  - Tribal Communities
  - Disadvantaged Communities (SB 535 – CalEnviroScreen 4.0)

# Why Equity Metrics?

- Historic Change in Load Growth
  - Transportation electrification (EV depots, ports) and new sectors (data centers) are driving localized demand increases.
  - Some upgrades take 3-8 years (e.g., new substations), while new loads can appear in weeks or months.
- The Commission recognized the risk of inequities in grid upgrades and project prioritization.
- Purpose of Equity Metrics in Distribution Planning Process (DPP):
  - Identify whether vulnerable populations have equitable access to distribution capacity.
  - Track project initiation and investment patterns across communities.
  - Increase transparency and accountability in DPEP

# Procedural Requirements

D.24-10-030 [OP 25]

- **It required IOUs to:**

- Hold a public workshop to present draft equity metrics → completed Jan 21, 2025.
- File a Tier 3 Advice Letter with a final set of metrics and any correlated variables within 45 days → filed Mar 7, 2025 (AL 5498-E / 7530-E / 4617-E).
  - Joint AL was open to public review, protest, and Commission modification.

- **Goal of OP25:**

- Establish a standardized set of metrics for reporting in Grid Needs Assessments (GNA) and Distribution Upgrade Project Reports (DUPR).
- Propose data and metrics that can inform if the outcomes of the distribution planning process are equitable or inequitable.

# Utility Proposals on Equity Metrics

## SDG&E:

- **Load Growth Metric** - compares DER-based load growth on DAC vs. non-DAC circuits.
- **Project Initiation Metric** - tracks whether upstream distribution projects are initiated more or less often on DAC circuits.

## PG&E & SCE:

- **Grid Access Metric** - measures available headroom (capacity) on DAC circuits vs. the number of equity-priority customers (CARE, FERA, Tribal, Medical Baseline, DAC).
- **Project Initiation Metric** - tests whether projects are more or less likely to move forward on circuits serving equity-priority populations.

## Staff Review:

- Energy Division staff is currently analyzing these proposals.
- Goal is to ensure any equity metrics adopted are reliable, transparent, and repeatable year over year.
- A Resolution will be drafted to finalize equity metrics for DPEP.

# Lessons Learned (...so far)

- **Population Design Matters**

- Some early proposals suggested the aggregation of categories (e.g., rolling all into a single DAC label), which risks obscuring important differences between communities.

- **Overlap of Populations Sometimes Is Unavoidable**

- Many customers belong to multiple groups (e.g., Tribal + CARE + DAC). Overlaps create challenges for analysis and reporting without double-counting.
- **Lesson:** Define clear methods to handle overlaps so results are accurate and transparent.

- **Challenges: Aligning Geographic vs. Circuit-Level Data**

- CalEnviroScreen 4.0 DACs are defined at the census tract level, while utility metrics are at the circuit or project level.
- Translating between geographies introduces complexity (circuits often span multiple census tracts).
- In this case: Methodological transparency is key, how populations are mapped to circuits or projects must be documented.

- **Equity Metrics Must Be Practical**

- Metrics need to be reliable, replicable, and transparent year after year.
- The goal is not just statistical validity, but clear insights that utilities, regulators, and communities can use in planning.
- The development of metrics should be paired with careful interpretation; these metrics are **not intended to forecast distribution planning behavior**, but rather to provide analytical insights from an equity perspective.

# Next Steps

- Advice Letter Review (2025–2026)
  - AL 5498-E and companion filings are under Energy Division review.
  - Staff is consulting with internal subject-matter experts to vet metrics for consistency, transparency, and feasibility.
  - **Goal:** ensure metrics can be applied reliably and repeatably year after year.
  - Because these are Tier 3 Advice Letters, they require formal Commission action via resolution.

Until the Advice Letter process reaches a resolution, IOUs are not required to report equity metrics in their distribution planning filings.



# Questions?





# California Public Utilities Commission

[AngelicaGloria.Velasco@cpuc.ca.gov](mailto:AngelicaGloria.Velasco@cpuc.ca.gov)

# Engagement Criteria Panel



# Strategic Growth Council's Community Assistance for Climate Equity Programs

CPUC Climate Adaptation Equity Workshop  
September 25, 2025



CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL





# Community Assistance for Climate Equity (CACE) Program

a suite of capacity building initiatives that offer funding, trainings, technical assistance, and knowledge exchanges to ensure that under-invested communities can lead their own climate solutions



CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL



# Why does technical assistance matter?

Underinvested communities in California have faced years of disinvestment and systemic discrimination.

As a result, these communities are the most vulnerable to severe climate impacts and often have the lowest capacity to access critical funding to address climate impacts.





A stylized illustration of a city skyline with various buildings, trees, and people on bicycles, rendered in shades of blue.

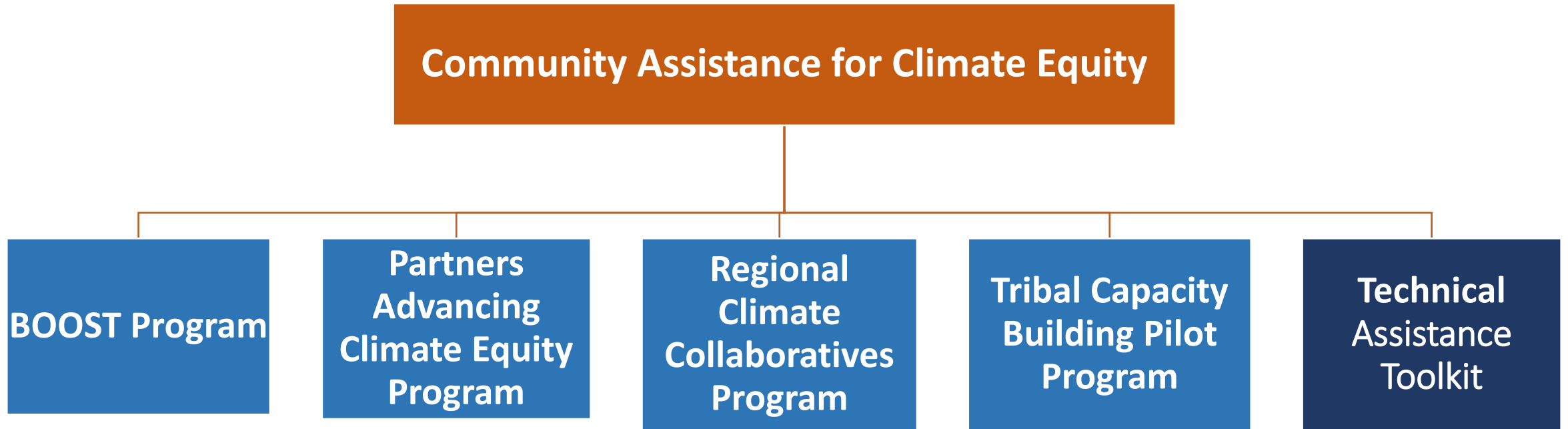
# **Community Assistance for Climate Equity Programs & Initiatives**

A solid orange horizontal bar spanning the width of the slide.

CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL

A stylized illustration of a rural landscape with houses, trees, a tractor, and mountains, rendered in shades of blue.

# CACE Programs & Initiatives



# BOOST

Build • Organize • Optimize • Strengthen • Transform

***Increasing local government capacity and addressing resource shortfalls*** by providing customized coaching—staff training, grant application support, and stakeholder and community engagement—to under-resourced local governments.



CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL

# BOOST Imperial Valley

- Imperial Valley Civic Ecosystem Initiative
  - BOOST Imperial Valley – In partnership with the Institute for Local Government
  - Activate Imperial – CBO capacity building led by the Latino Community Foundation
  - Strategic partnership with CEC, Governor's Office and Freedman Consultin





## Technical Assistance Toolkit

### A Funders Guide to Building Community Capacity and Resilience

[Home](#) | [Programs](#) | [CACE](#) | [Resources](#) | [Toolkit](#)

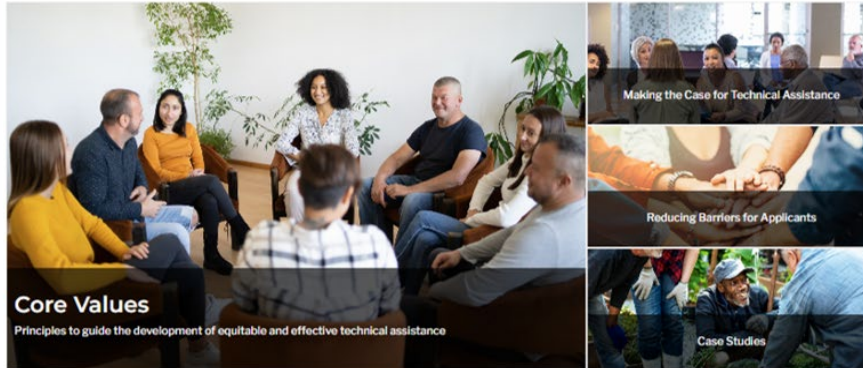
The Technical Assistance Toolkit (Formerly "Technical Assistance Guidelines for State Agencies") has been developed to support California state agencies and other public and private funders in developing technical assistance programs that make a meaningful difference in under-resourced communities. Due to historic and continued under-investment, under-resourced communities often lack the staff capacity, partnerships, or resources to secure competitive funding and implement projects and policies. Technical assistance and capacity building support can be pivotal in leveling the playing field and ensuring that State resources go to the communities that need them the most.

Recognizing the importance of technical assistance in advancing equity, the State of California enacted Senate Bill 1072 (2018, Leyva), directing SGC to develop this guidance. The Technical Assistance Toolkit offers a step-by-step process and set of checklists to design a technical assistance program, along with sections offering guidance on day-to-day implementation and effective evaluation. This web-based playbook also includes case studies, templates, and other resources to help ensure the success of any TA effort, effective evaluation. This web-based toolkit also includes case studies, templates, and other resources to help ensure the success of any TA effort.

#### Toolkit FAQ

Please visit this page for a list of frequently asked questions about the Technical Assistance Toolkit.

[FAQ](#)



#### Getting Started

This section recommends a six-step process intended to help program staff determine the key elements and structure for a TA program.



##### Step 1

Analyzing Needs and Gaps



##### Step 2

Setting Goals and Intended Outcomes



##### Step 3

Determining the TA Program Structure



##### Step 4

Identifying a Funding Source



##### Step 5

Selecting TA Providers and Recipients



##### Step 6

Develop a Feedback Loop

#### Implementing Technical Assistance

This section offers detailed guidance to ensure successful day-to-day management and meaningful outcomes for your TA program.

# Technical Assistance Toolkit



CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL

# What does the TA Toolkit Offer?

- Technical Assistance Core Values
- Six-step process for developing impactful TA programs
- Articles providing guidance for implementing TA
- Case studies, resources, templates & samples
- Definitions & FAQ





# TA Toolkit Sections

## Steps for developing a TA program

1. Analyze Needs and Gaps
2. Set Goals and Intended Outcomes
3. Determine the TA Program Structure
4. Identify a Funding Source
5. Select a TA Provider and TA Recipients
6. Develop a Feedback Loop

## Guidance for effective TA implementation

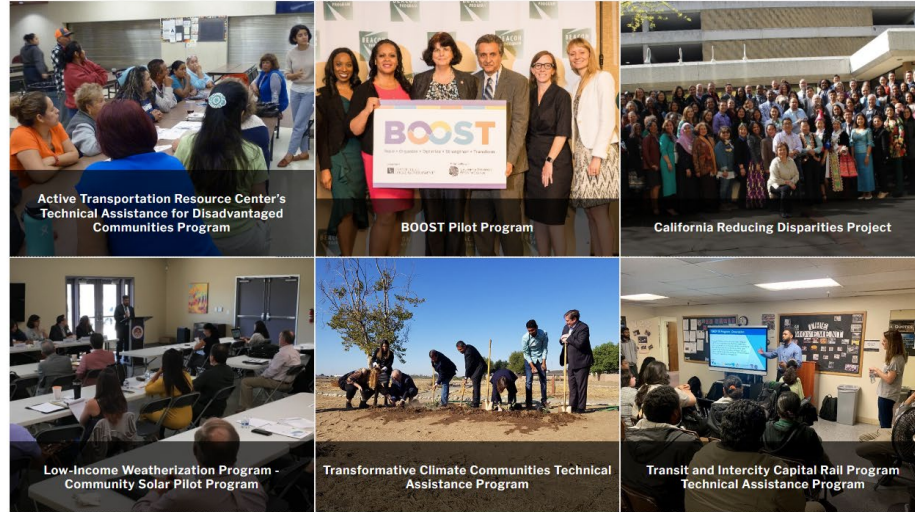
- Reducing Barriers for Applicants
- Making the Case for TA
- Contracting Guidance
- Outreach and Engagement
- Project Management
- Storytelling/Communications
- Evaluation
- Coming soon: Tribal TA best practices



## Technical Assistance Toolkit Technical Assistance Profiles and Case Studies

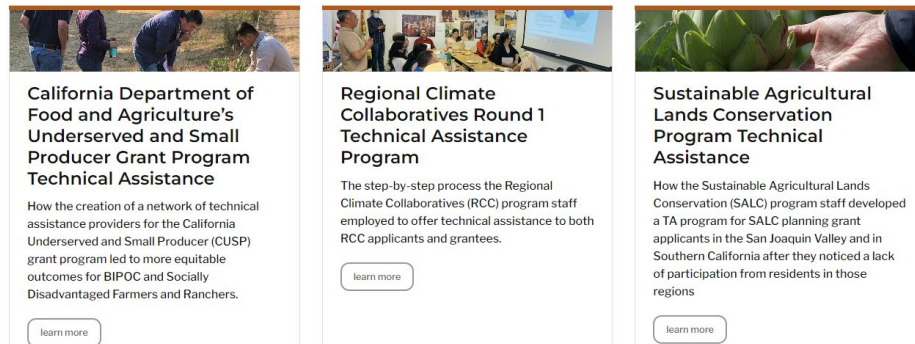
### Technical Assistance Profiles

Brief overviews of the goals, outcomes, and lessons learned from various types of technical assistance programs in California.



### Case Studies

Detailed descriptions of the process State agencies undertook to develop successful technical assistance programs.



# Best Practices for Equitable Engagement

- **Collaborate with Community-based organization (CBO) networks** and coalitions to engage traditionally under-represented populations
- **Fund local CBOs and other trusted organizations** to provide outreach and engagement support to **facilitate effective community participation**
- Create resources or hold workshops and other engagement activities to **build partners' understanding of your work and capacity to engage**
- **Compensate CBO and resident participation** in events and workshops. Secure funding for childcare, food, and other components of effective events
- **Trusted relationships are key!**



CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL

# Thank you!

## CONTACT

Ena Lupine

Program Manager

Community Assistance for Climate Equity

[Ena.Lupine@sgc.ca.gov](mailto:Ena.Lupine@sgc.ca.gov)



CALIFORNIA  
STRATEGIC  
GROWTH  
COUNCIL



# CPUC Climate Adaptation Equity Workshop

Tomas Castro



**CLIMATE ACTION**

C A M P A I G N

# Climate Action Campaign's Mission

## FIVE FIGHTS | ONE LENS

Through the lens of equity and justice, we are fighting for a Zero Carbon future with:



100 %  
Clean Energy



Bikeable-Walkable  
Neighborhoods



World-Class  
Transit



Resilience



All-Electric  
Buildings



# Irvine at Odds Over Proposed Hydrogen Pipeline on UCI campus



BY **HUGO RIOS**

Apr 29, 2025

[Why you can trust Voice of OC](#)



*Daily Pilot*

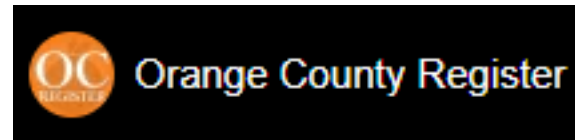
Orange County drafts plan on how to tackle climate change for years to come

## Irvine will stay with the Orange County Power Authority

Hanna Kang

PUBLISHED: September 12, 2025 at 6:31 AM PDT

[Environment](#), [Local News](#), [News](#), [Top Stories](#)



TIMESOC

These groups are helping change climate policy in Orange County



Ayn Craciun, left, and Lexi Hernandez with nonprofit Climate Action Campaign at Irvine City Hall. (Kevin Chang / Staff Photographer)

By **Ben Brazil**  
Staff Writer



# CAC's Equitable Outreach: Recent + Upcoming Highlights

## TECH Clean CA

- Facilitated community outreach for **heat pump installation** to **Japanese/Korean-speaking communities** in regulated multifamily “affordable” housing community in Torrance.
- Included live translation, culturally appropriate food, prizes.

## CARB State Mobile Monitoring Initiative (SMMI)

- Held **multiple workshops in Santa Ana** to map best locations to collect **air pollution data**.
- Included live translation, childcare, food, gift cards.

## Equitable Building Decarb (EBD)

- CAC selected to conduct community outreach for **CEC's EBD direct install program** in Southern California.



# Centering Equity into CAVA Process

## Guiding Principles

- Equitable Workshops Feature:
  - Language Accessibility
  - Childcare
  - Central meeting location
  - Stipends
- Allow Multiple Opportunities for Feedback
  - Follow Up Communication

## Quantitative Metrics

- Utilize Data on Arrearages
- Continue Utilizing CalEnviroScreen Data
- Provide Costs of Climate Impacts to Ratepayers

# Qualitative Metrics

- **CBO-led Community Workshops in DVCs**
- **Submit CAVAs to Local Governments**
- **Include CAVA Feedback Links on Website, Bills, and Mailing Materials**

# Questions?

**Tomas Castro**

**OC Climate Equity Advocate and Organizer  
Climate Action Campaign**

**[tomas@climateactioncampaign.org](mailto:tomas@climateactioncampaign.org)**

**949-350-1428**

# Next Steps



# Next Steps

- **October 16<sup>th</sup>:** Workshop comments due
  - Submit via email: [Meghan.cook@cpuc.ca.gov](mailto:Meghan.cook@cpuc.ca.gov)
  - Note: These are informal comments to staff, not part of proceeding docket
- **Q4 2025:** Staff Proposal - anticipated to be issued for Comment
- **Q2 2026:** Proposed Decision - anticipated

# How to Participate in the Proceeding

- Staff will use the mailing list you received this Notice for upcoming follow-up;
  - If we don't have your email, sign-up at the check-in table
- The full docket card for each proceeding can be accessed through the [CPUC docket card search tool](#).
  - Enter the proceeding number (R1804019) without any periods or dashes to search.
  - Final decisions can also be located on the CPUC website using this [decision search tool](#).
- The CPUC's [Public Advisor's Office](#) provides procedural information and advice to individuals and groups who want to formally participate in proceedings.

# Closing Remarks

# Please Join Us for Post-Workshop Networking!

*5:15-7:00 PM*

**Arts District Brewing Company**

828 Traction Ave.

Los Angeles, CA 90013

## For more information:

- **Visit:** [www.cpuc.ca.gov/industries-and-topics/electrical-energy/climate-change](http://www.cpuc.ca.gov/industries-and-topics/electrical-energy/climate-change)
- **Email:** Meghan Cook at [meghan.cook@cpuc.ca.gov](mailto:meghan.cook@cpuc.ca.gov)





# California Public Utilities Commission