Distribution Planning Community Engagement Needs Assessment Workshop

Presentation by CPUC Energy Division Staff and High DER Proceeding Consulting Team

December 13, 2022

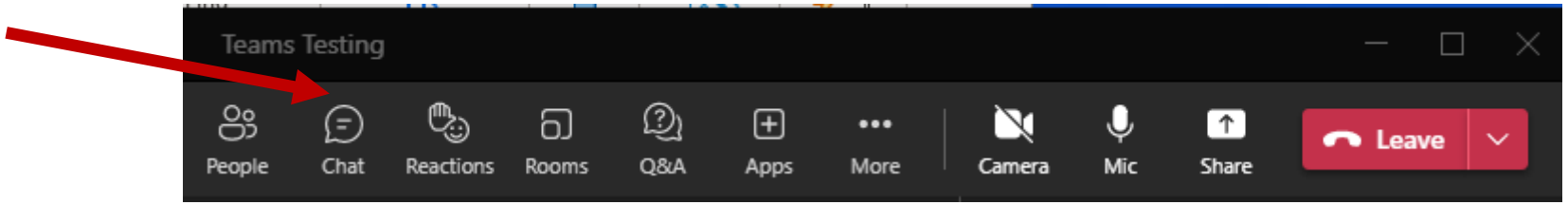
California Public Utilities Commission

This Event is Being Recorded

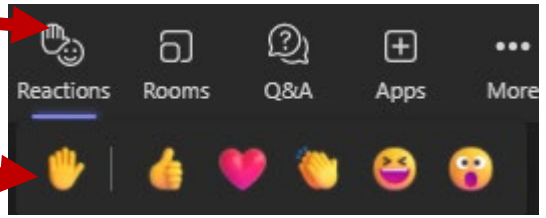
Teams Logistics

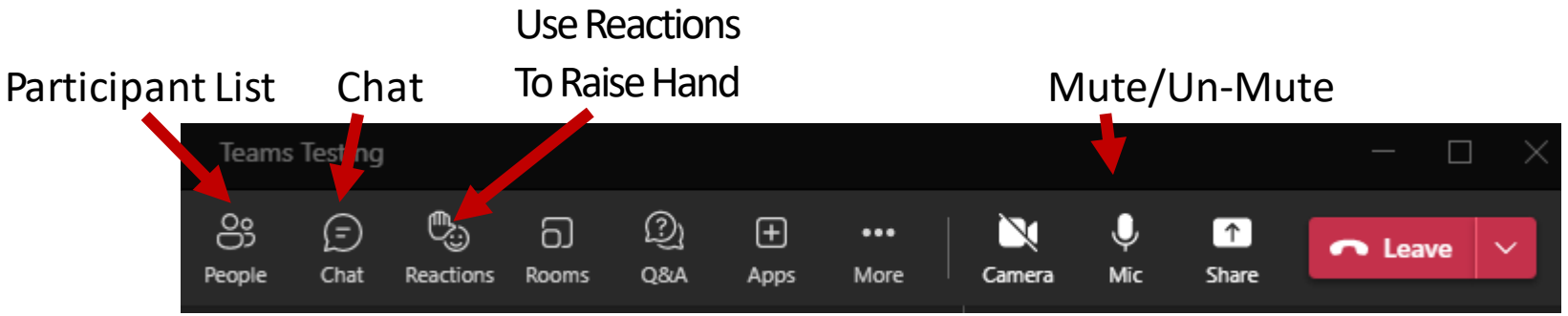
- All attendees have been muted.
- To Ask questions, please use the Chat function. Chat questions will be read aloud by staff; attendees may be unmuted to further discuss the question.

  *Reminder: Please press mute when done speaking



- To ask questions in open forum, please "raise your hand" in Reactions panelist will unmute you so you can ask your question.





Opening Leadership Remarks

Commissioner Darcie Houck, CPUC

Presentation Overview

- Preview of Workshop Agenda
- Overview of High DER Proceeding
- Overview of proceeding steps for the Distribution Planning Community Engagement Needs Assessment Scope of Work
- Purpose and Findings of Fall 2022 Outreach to Community Leaders

Workshop Agenda

9:00 – 9:15	Welcome by Commissioner Houck	Introduction to the workshop
9:15 – 9:45	Intro and Overview of High DER Proceeding and Distribution Planning Community Engagement Needs Assessment	Energy Division team presents on purpose of outreach and how it will be used in the proceeding. Summary of initial outreach meetings.
9:45 – 11:15	Distribution Planning and Community Engagement Primer by Utilities	Utilities present Distribution Planning 101 and their distribution planning community engagement pathways.
11:15 – 11:30	Break	
11:30 – 12:30	Presentation of draft Scope of Work	Consultants + Energy Division present draft Distribution Planning Community Engagement Needs Assessment Scope of Work.
12:30 – 1:00	Lunch	
1:00 – 2:00	Community Panel	A diverse panel of community leaders offer perspectives on utility presentation and Draft Scope of Work.
2:00 – 2:50	Questions and Comments on Draft Scope of Work	Feedback from community members.
2:50 – 3:00	Next steps	Inform audience of upcoming deliverables and workshops, and how they can stay involved.

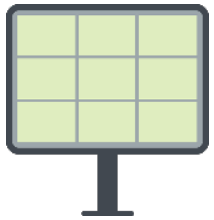
Background: State Climate Goals

The State of California has established ambitious goals to address climate change. Among the goals, are to:

- Transition to **renewable generation** sources (100 percent clean electricity retail sales by 2045)
- **Electrify vehicles** (all new cars and light trucks sold in California to be zero-emission vehicles by 2035)
- **Electrify heaters** (all new furnaces and water heaters to be zero-emission by 2030)

What are Distributed Energy Resources (DERs)

- Pursuant to State Assembly Bill 327 and Public Utilities Code Section 769(a), DERs include:



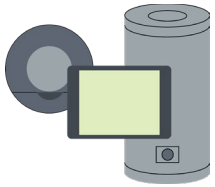
Distributed Renewable Generation Resources such as solar

Energy Efficiency

Energy Storage

Electric Vehicles

Examples: Thermostats, Internet-connected Water Heaters



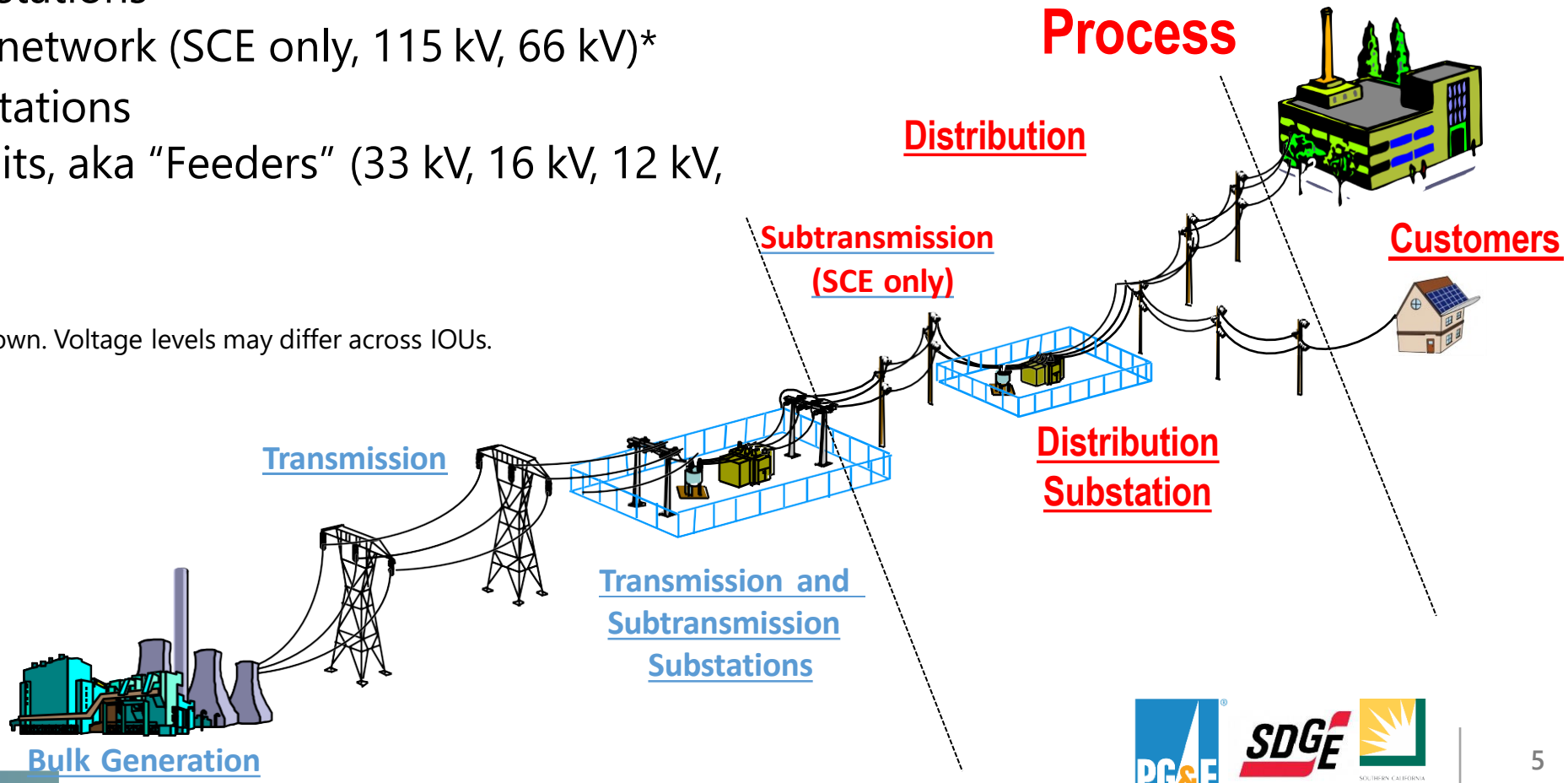
Demand Response Technologies

- A core objective of the CPUC's High DER proceeding is to prepare the electric grid for a high distributed energy resource (DER) future by determining how to integrate millions of DERs within the distribution grid to maximize societal and ratepayer benefits from DERs while ensuring grid reliability and affordable rates.

Electric Power System Overview

- The electric power system broadly consists of:
  - Central-station bulk generation
  - Transmission network (500 kV, 220 kV)*
  - Transmission Substations
  - Subtransmission network (SCE only, 115 kV, 66 kV)*
  - Distribution Substations
  - Distribution Circuits, aka "Feeders" (33 kV, 16 kV, 12 kV, 4 kV, 2.4 kV)*

*Typical voltages for SCE system are shown. Voltage levels may differ across IOUs.



High DER Grid Planning Proceeding Overview (2021–2024)

In response to State climate goals, the California Public Utilities Commission (CPUC) opened the High Distributed Energy Resources (DER) proceeding in 2021 to:

- Enable swift evolution of **PG&E, SCE, and SDG&E grid** capabilities and operations to integrate solar, storage, electric vehicle/electric vehicle supply equipment and other DERs to meet the State's 100 percent clean energy goals;
- Improve **distribution planning**, including charging infrastructure forecasting to support cost effective and widespread transportation electrification; and
- Optimize grid infrastructure investments by **facilitating community input** about planned developments, DER siting plans, and resiliency needs.

We Anticipate a High-Penetration Distributed Energy Resource (DER) Future

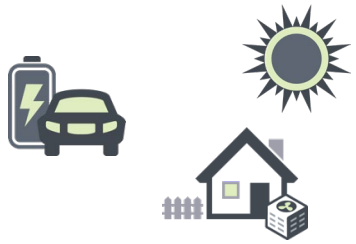
"This OIR anticipates a high-penetration DER future and seeks to determine how to optimize the integration of millions of DERs within the distribution grid while ensuring affordable rates."

– High DER OIR at p. 9

"This OIR neither seeks to set policy on the overall number of DERs nor does it seek to increase or decrease the desired level of DERs. This OIR focuses on preparing the grid to accommodate what is expected to be a high DER future and capture as much value as possible from DERs as well as mitigate any unintended negative impacts."

– High DER OIR at p. 10

Three High DER Proceeding Tracks



1

Distribution Planning Process and Data Improvements

- Phase 1: Near-Term Actions
- Phase 2: Distribution Planning Process Improvements
- Topics:
  - IOU Distribution Planning Processes
  - Electrification Impacts and Potential Mitigation
  - Data Portals
  - **Distribution Planning Community Engagement Needs Assessment**

2

Distribution System Operator (DSO) Roles and Responsibilities

- Long-term grid vision(s) and associated policy issues
- Investigation of grid operations models
- **Future Grid Study development and public outreach**
- Future actions identified that could lead to a successor proceeding

3

Smart Inverter Operationalization and Grid Modernization Planning

- Phase 1: Smart Inverter Operationalization
- Phase 2: Grid Modernization Planning and Cost Recovery
- Topics:
  - Business Use Cases for Smart Inverters
  - DER Dispatchability
  - Smart Grid Investment Planning

Adopted High DER Proceeding Work Plan

	2021	2022				2023				2024			
	2021-Q4	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
1	Workshop on Electrification Impacts Study Objectives and Scope	ICA and GNA Alignment and IOU Workplan Reports / Data Portals Improvement (Workshop, Focus Groups)	DIDF Guidelines / Distribution Forecasting Working Group Workshop / Electrification Impacts Study and Workshop	Community Engagement Needs Assessment Scope and Objectives Workshop	Electrification Impacts Staff Proposal with Workshop / IOU ICA Refinements 1st Annual Reports and Workshop	**Phase 1: Proposed Decision** (near-term actions)				Community Engagement Needs Assessment Report and Workshop	Data Portals Improvement Report / DPP Improvement Workshop	DPP Guidelines Staff Proposal and Workshop	**Phase 2: Proposed Decision**
2		White Paper and Workshop	Workshop Series (topics/sessions determined via white paper and workshop process)					Consultant Report and En Banc	**Proposed Decision**				
3		SIO Workshop on Working Group Organization and Schedule	Working Group Series (topics/sessions determined based on first working group meeting/workshop)			Working Group Report	Staff Proposal and Workshop (SIO use cases and necessary grid mod technologies)	**Phase 1: Proposed Decision**		Grid Modernization Plan and GRC Alignment Staff Proposal and Workshop	**Phase 2: Proposed Decision**		

Track 1 Scoping Questions About Distribution Planning and Community Engagement

Track 1, Phase 1

#5. What initial analysis is needed for the Commission to determine in Track 1, Phase 2, of this proceeding how best to improve local engagement in utility distribution planning?

- See also, Scoping Ruling at p. 13, "Energy Division will conduct a workshop on the scope and funding of a potential **community engagement needs assessment** during the third quarter of 2022 to inform Track 1, Phase 2 of this proceeding."

Track 1, Phase 2

#3. Leveraging the analysis identified in Track 1, Phase 1, are there ways in which utility distribution planning representatives could better engage with local and tribal governments, Environmental and Social Justice communities, and local developers to ensure new planned loads and developments are factored into Utility Distribution Planning Processes and local concerns regarding distribution planning are adequately addressed?

Note: The full list of scoping questions is provided in the proceeding's Scoping Ruling.

Track 1 Distribution Planning Community Engagement Needs Assessment

- Among the many Track 1 goals are to improve utility distribution planning to be more responsive to the needs and plans of communities.
- An external consultant is anticipated to create and implement a Distribution Planning Community Engagement Needs Assessment.
- The scope and cost of the needs assessment will be presented at today's workshop, submitted for public comment, and may be approved by the CPUC via a future Decision.

Informal Outreach Meeting Goals

1. Listen to stakeholders to gain an understanding and gather information about:
   a. **Community priorities** with respect to energy (electric and gas);
   b. Community **challenges and barriers** to adopting clean energy technologies and distributed energy resources (DERs);
   c. Community-specific, **long-term visions** and the role of electric utilities and DERs in achieving those visions;
   d. How the CPUC and California Energy Commission can achieve **meaningful community outreach** and establish partnerships; and
   e. How the utilities (PG&E, SCE, and SDG&E) can best include communities in **electric distribution system planning**.
2. Communicate to participants how insights from tribes, community-based and non-government organizations, and local governments will be used to:
   a. Inform development of a **draft scope of work for a statewide Distribution Planning Community Engagement Needs Assessment** to launch in 2023.
   b. Gain insights about potential visions, objectives, and characteristics of a future electric grid for California to inform a **Future Grid Study** to be developed in 2023.

Informal Outreach Meetings

- October and November 2022, **20 informal meetings** with:
  - Tribes;
  - Rural local governments;
  - Urban/suburban local governments;
  - Community-based and advocacy organizations; and
  - Community choice aggregators (CCAs).
- About **82 stakeholders** from **45 jurisdictions/organizations** and **9 tribes** including representation from disadvantaged community residents and experts
- CPUC and California Energy Commission staff both participated in the meetings
- A meeting summary document included in the appendix of the Draft Scope of Work

Outreach Findings – Tribes

- Frequent and lengthy **outages** have costly repercussions
- Need **reliable and resilient** energy service
- Desire **energy independence** through tribal owned-and-operated microgrids powered by DERs
- Not included in utilities' distribution planning processes
- Need for technical assistance and workforce development
- Selling power back to the grid to **generate revenue** for tribal community
- Change regulations to reflect **tribal sovereignty**
- Engage tribes in regular dialogue

Outreach Findings – Local Governments

- Common **reliability concerns** about mass electrification
- Many communities face regular and frequent **outages**
- **Affordability** is a concern with rates and DER adoption
- Interconnection times threaten economic viability of projects
- CCAs are embedded in communities and are trusted to deliver programs, subsidies, and rebates
- Prioritize relational engagement over transactional engagement. **Make outreach ongoing**
- Build in equity from the beginning of this transition
- Strong need for **language accessibility**

Outreach Findings – Advocacy Organizations

- Widespread **affordability** concerns
- Lower income communities want to be part of the clean energy transition
- Solar program issues with landlord-tenant and multifamily living situations
- Finding trusted installers / contractors is challenging
- **Resiliency and reliability** issues with electric service
- Outreach needs to **meet communities where they** are and provide compensation
- Overly technical discussions do not engage communities

Key Deliverables

- **Track 1: Distribution Planning Community Engagement Needs Assessment**
  - Hire a team and begin the assessment in 2023.
  - Conduct the needs assessment and report findings in 2024.
  - Issue a phase 2 decision informed by the study on improvements to the distribution planning process in 2024

- **Track 2: Future Grid Study**
  - What are the options for **electric distribution system operator models** for a future with high numbers of distributed energy resources? What are the trade-offs between different models of distribution system operations?
  - Complete the study in 2023 based on a series of technical workshops and stakeholder engagement to review and comment on the draft study.

Next Steps

Ruling forthcoming in Q1 2023 for comments on:

- **Public comment on the Draft Scope of Work**
- **Choosing an option for Future Grid Study community feedback plan**

- Technical workshops to begin Quarter 1, 2023 for development of the Future Grid Study

- 2023 Decision considering adoption of the Draft Scope of Work

Additional Slides

Proceeding Participation: Service List and Party Status

- The Service List receives all proceeding workshop and study issuance notices.
  - Sign up for the High DER proceeding (R.21-06-017) service list using the form and Process Office email available at: https://ia.cpuc.ca.gov/servicelists/sl_index.htm

- Choose to become a party to the High DER proceeding.
  - For details, go to: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/pao/party_081221.pdf

DPP 101: The Distribution Planning Process and Community Engagement

December 13, 2022

Workshop Agenda:

1. Complexity of the Future Grid
2. Distribution Planning Process (DPP)
   - Overview
   - Forecast Development
   - Determine Grid Requirements
   - Evaluation of Mitigation Options
3. Community Engagement
   - SDG&E
   - SCE
   - PG&E

Complexity of the Future Grid

The Complexity of a Changing Grid

Our collective electric system faces accelerating, multi-dimensional needs that we must address to deliver for our communities

Wildfire Mitigation

System hardening efforts to mitigate wildfire risks

Electrification

California electrification and DER enablement requiring infrastructure upgrades

Asset Health

Closely monitoring our assets and enhancing as needed to mitigate safety risks, including due to cybersecurity threats, age, and obsolescence

Reliability

Improving reliability & resiliency to respond to increasing challenges on the grid

Equity

Continuing to serve a diverse customer base that relies on us to deliver for them, day in and day out

Climate Adaptation

Supporting and strengthening our hometowns facing changes

We must continue to evolve our approaches to efficiently address our complex needs

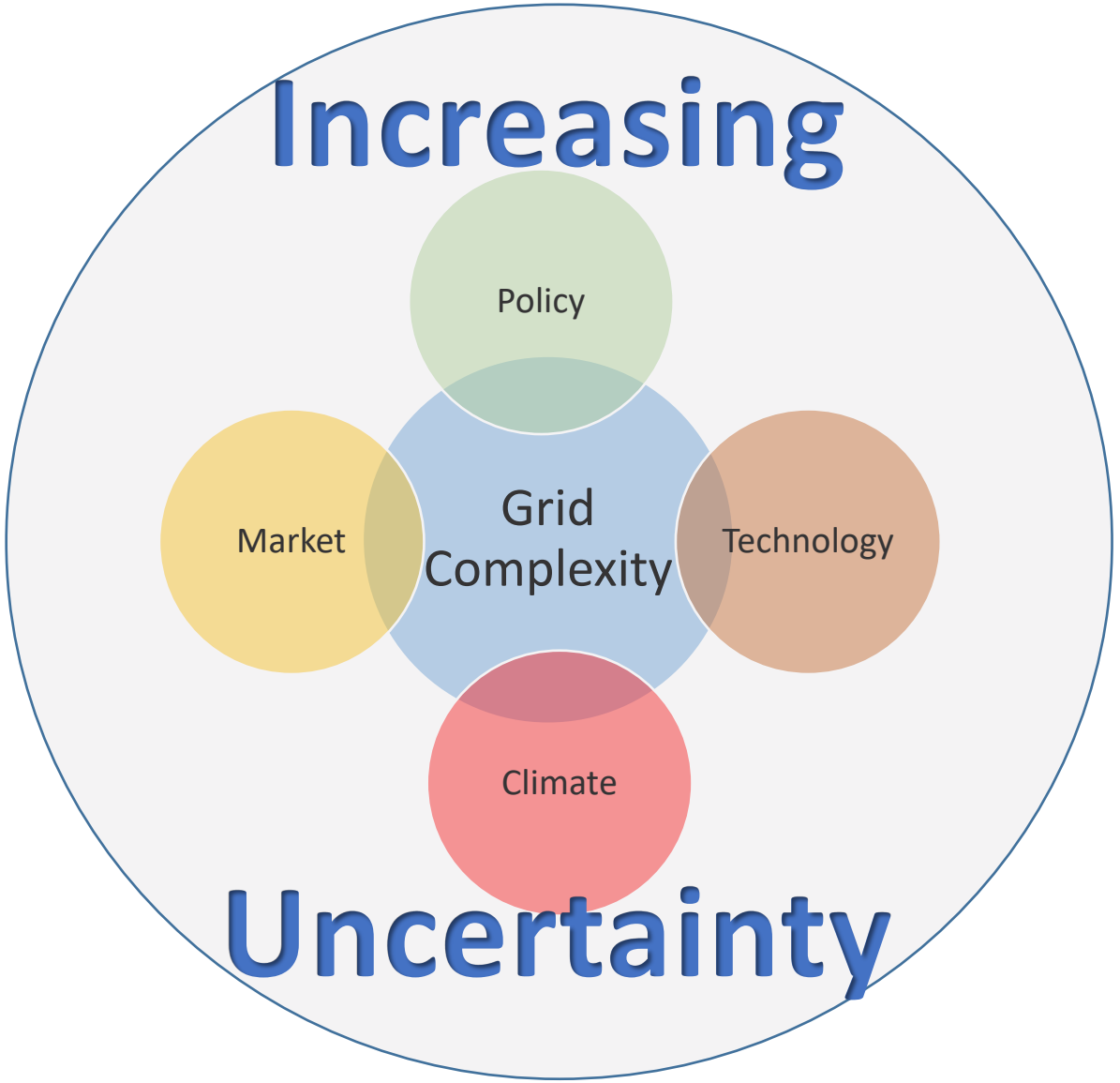
Convergence of industry change drivers is accelerating

Market Drivers

Policy Drivers

Technology Drivers

Climate



The Electric Grid is Evolving

The IOUs recognize planning must evolve due to electrification, climate change and California's goals:

- **The IOUs face accelerating, increasing multi-dimensional needs, such as wildfire mitigation, infrastructure renewal (aging), and capacity and flexibility for accelerated electric vehicle adoption and building electrification.**
- **Given these complex challenges, the grid must be adapted and managed holistically to address these needs in a comprehensive and optimal way to provide safe and reliable service for all customers and manage affordability, while considering climate change, electrification and our California goals.**

This objective is to deliver optimal outcomes for our communities and help prepare our grid for the future

Improve safety

Deploy solutions that strive to reduce wildfire risk while proactively improving system health

Connect our communities

Meet customers' growing electric needs and deliver on California's energy goals

Provide visibility

Help our customers understand when they can expect investments in their communities

Responsibly steward funds

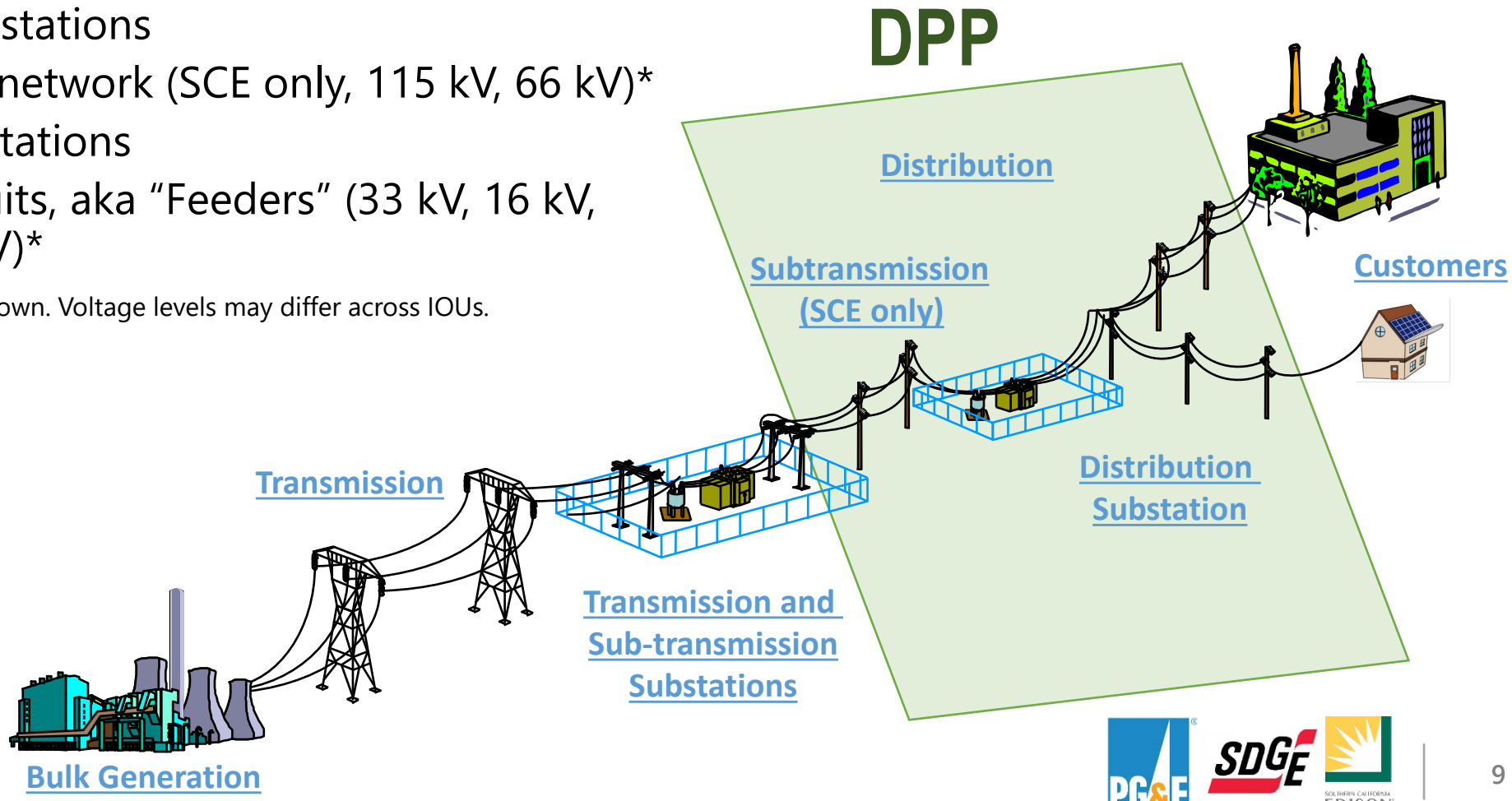
Maximize the impact of every dollar spent on our system while maintaining affordability for our customers

Distribution Planning Process (DPP)

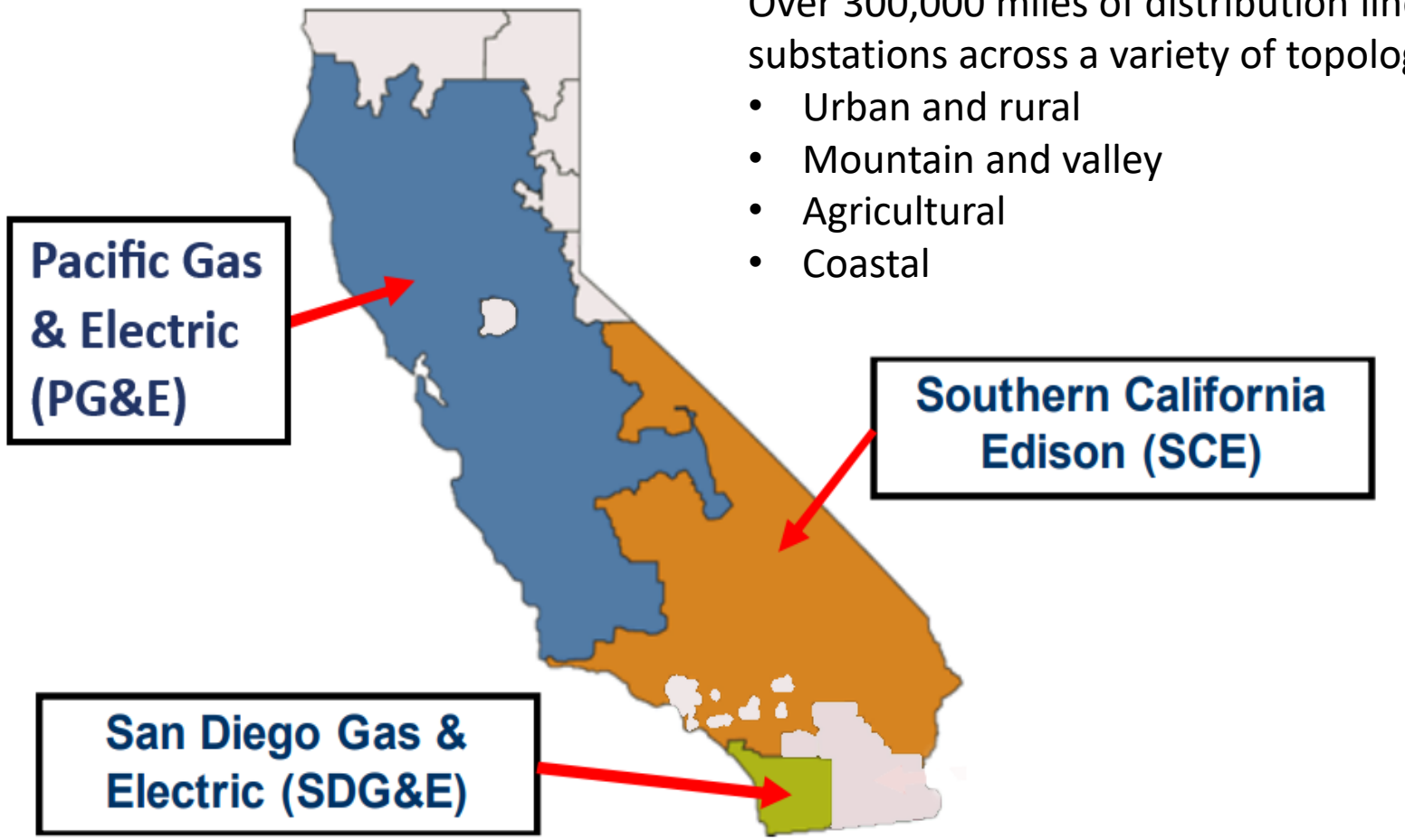
Electric Power System Overview

- The electric power system broadly consists of:
  - Central-station bulk generation
  - Transmission network (500 kV, 220 kV)*
  - Transmission Substations
  - Subtransmission network (SCE only, 115 kV, 66 kV)*
  - Distribution Substations
  - Distribution Circuits, aka “Feeders” (33 kV, 16 kV, 12 kV, 4 kV, 2.4 kV)*

*Typical voltages for SCE system are shown. Voltage levels may differ across IOUs.



California IOUs Have Diverse Topologies and Service Areas

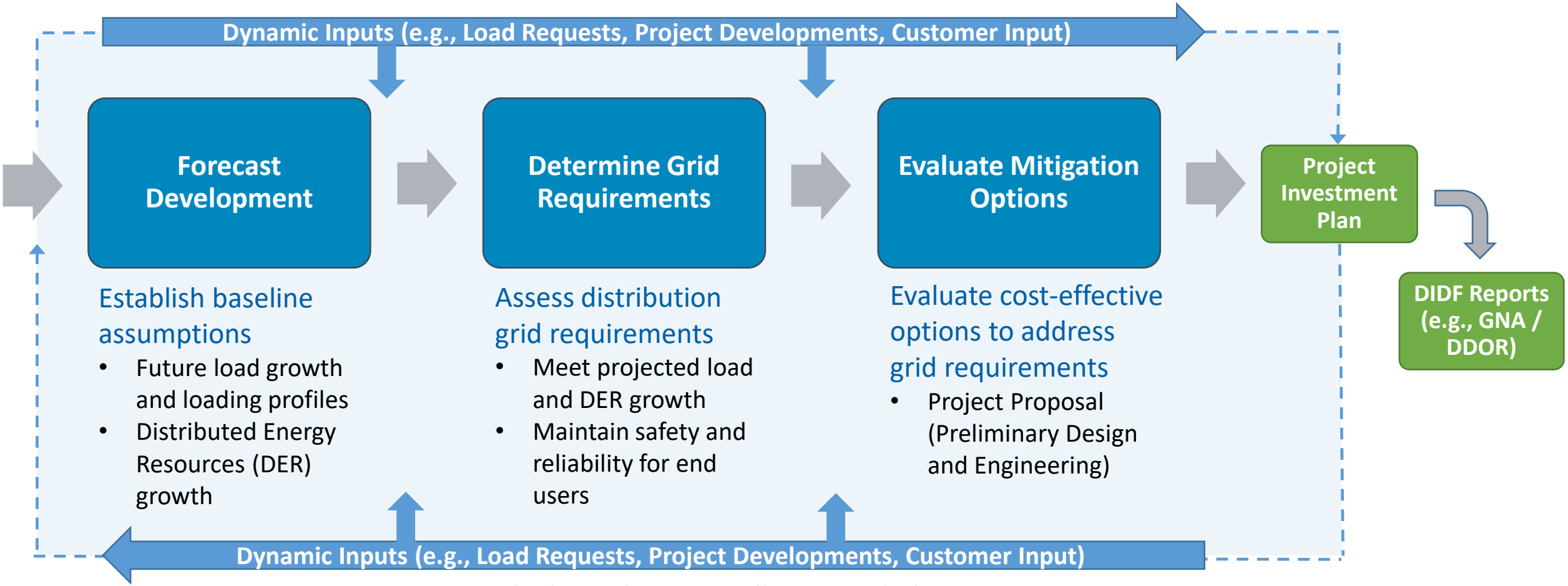


Over 300,000 miles of distribution lines and over 1,500 substations across a variety of topologies:

- Urban and rural
- Mountain and valley
- Agricultural
- Coastal

Distribution Planning Process Overview

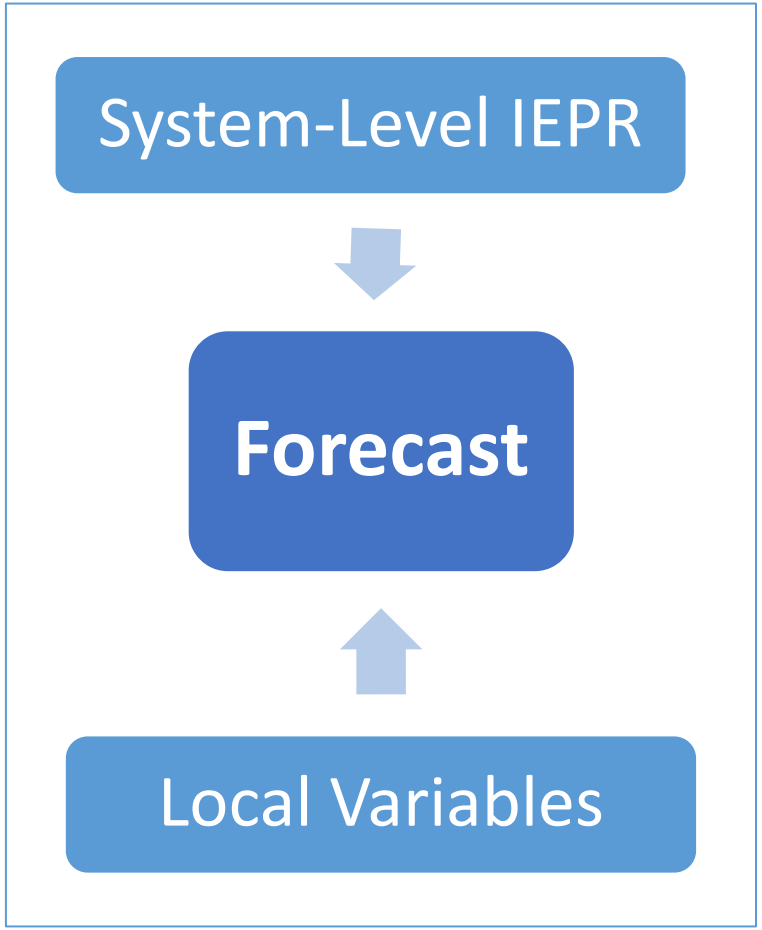
The **Distribution Planning Process** is an **annual**, **dynamic process** that identifies projected **distribution capacity** deficiencies and determines mitigation plans to address those projected deficiencies.



Forecast Development

Load Forecast

- System Level
  - Utilize CEC's Integrated Energy Policy Report (IEPR) (top down) forecast of system-level electric load growth
- Substation Bank and Feeder Levels
  - Utilize localized variables (bottom up) such as historical area loading, economic indicators and temperature data
  - Develop 1-in-10-year temperature-adjusted load forecast at the substation and circuit levels
- Load Service Applications
  - Account for requests for new load service at specific locations with specific in-service dates
  - Customer engagement on load applications



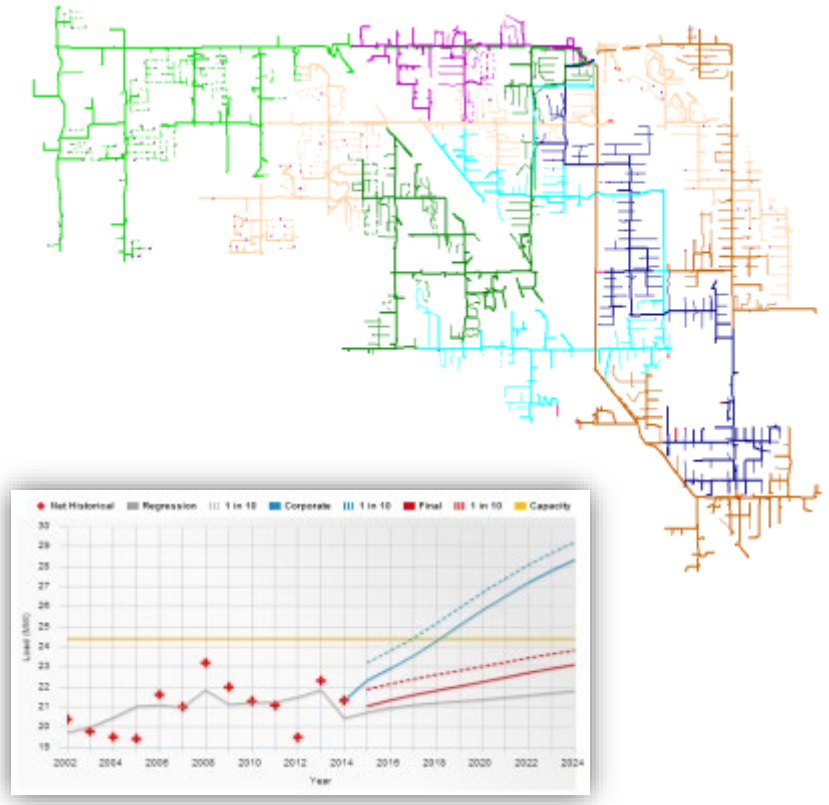
DER Forecast

- CEC's forecast of system-level DER growth disaggregated to circuit and substation level and added to forecast
  - DER hourly profiles are incorporated into the load forecast just as load growth is incorporated.
  - DERs can increase load (e.g., EVs) or decrease load (e.g., solar PV)

Determine Grid Requirements

Considerations

- Impact of projected forecasts on existing capacity equipment and configurations
- Maintain safety and reliability for customers
- Effects of planned utility projects and transfers
- Maintain operability to transfer customers under emergency conditions
- Diversity of specific geographic load and customer mix
- Effects on protection schemes
- Incorporations of customer needs and inputs



General Process

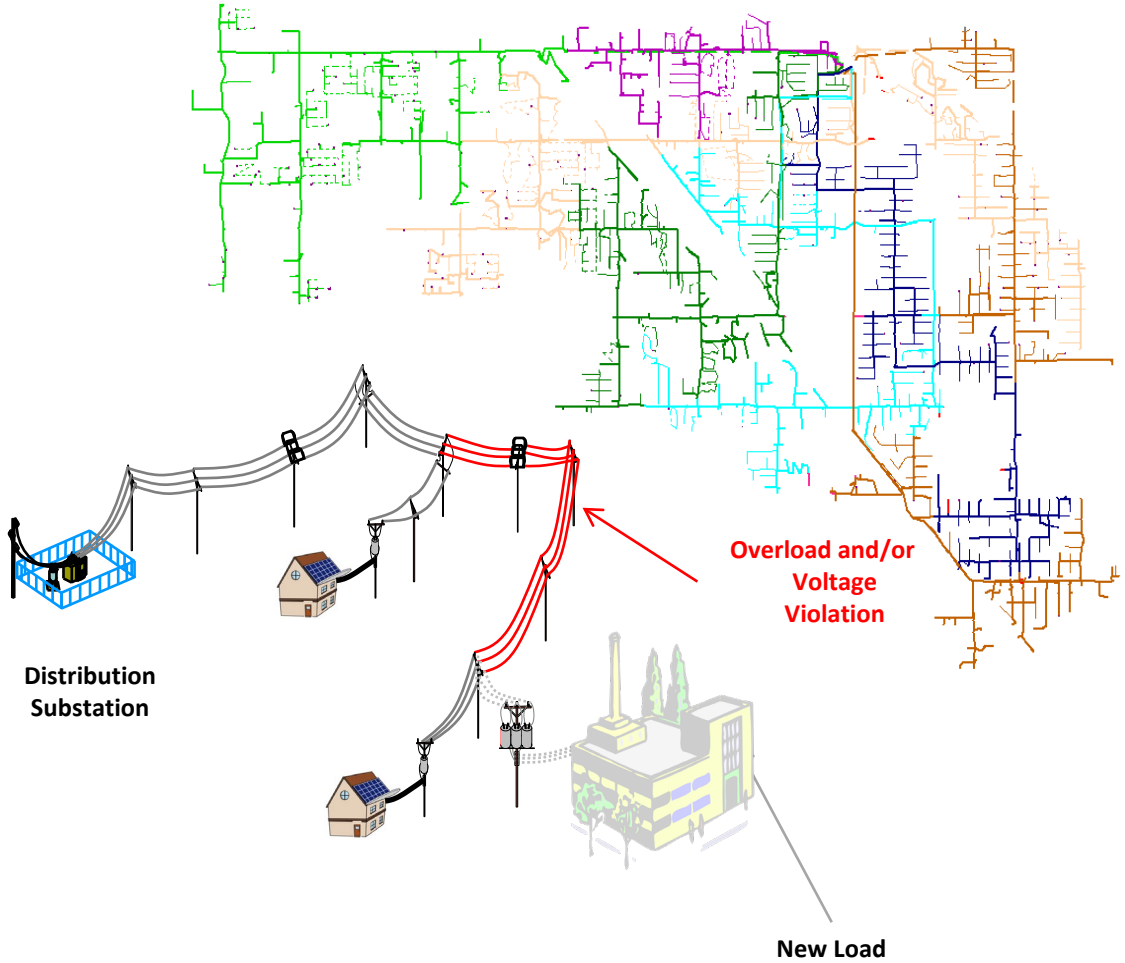
- Determine Thermal Capacity Needs
- Evaluate Voltage and Power Quality Needs

Substation and Bank Capacity

- Evaluate substation equipment
  - Compare existing capacity ratings to forecast load
- Determining:
  - When? (e.g., 2024)
  - How much? (e.g., 4 MW or 10%)
- Local knowledge is needed to ensure accuracy, such as:
  - Historical regression
  - Weather patterns
  - Customer inputs, including load types
  - Local construction, economies, and geography
  - Identifying areas that have high potential for new load applications (e.g., Downtown, Port)

Distribution Circuit/Line Section Capacity and Voltage

- Evaluate circuit/line sections:
  - Compare existing capacity rating to forecast load
  - Compare voltage profiles to voltage limits
- Determining:
  - Overloaded circuits
  - Emergency circuit transfer capability
  - Overvoltage and undervoltage
- Local knowledge is needed to ensure accuracy, such as:
  - Local development projects
  - Customer inputs, including changes in loads
  - Projected area growth rates
  - Type of load (e.g., inductive loads)
  - Load diversity and variability
  - Amount, location and timing of power exported onto grid



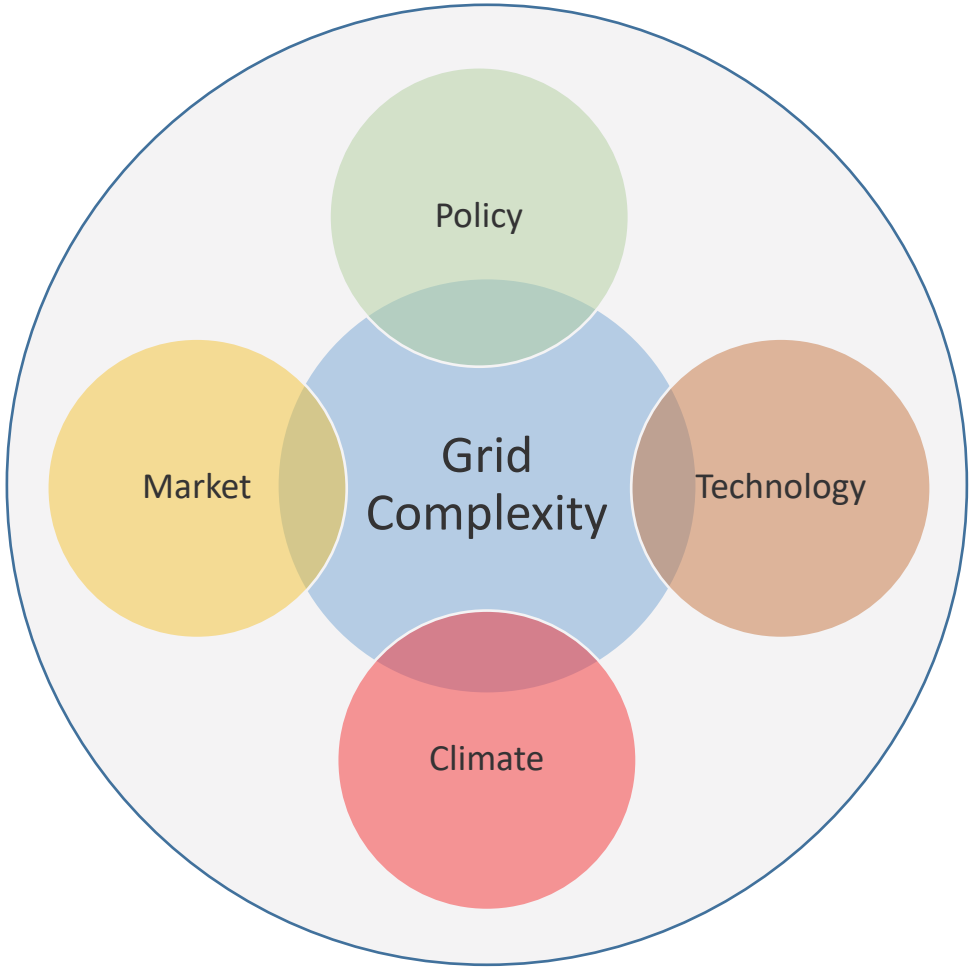
Evaluation of Mitigation Options

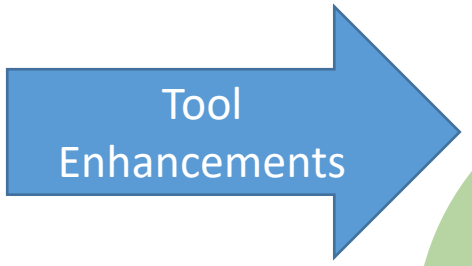
- Variety of mitigation options considered
  - **Transfers/operational changes:**
    Utilize existing capacity, where available
  - **Incremental Upgrades:**
    Identify smaller system upgrades to enable use of existing capacity
  - **New Capacity:**
    Determine if a capacity increase is needed (e.g., new circuit, substation capacity increase, new substation)
  - **DER solutions:**
    e.g., DIDF sourcing, Customer-driven projects

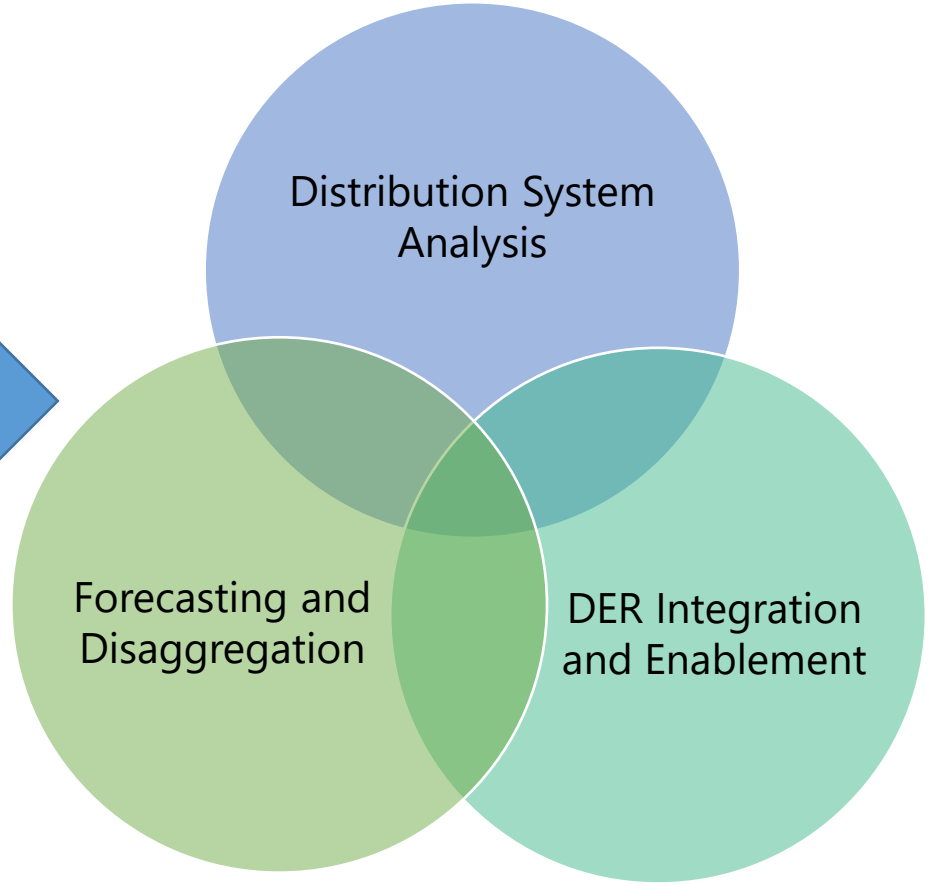
- Guiding principles include:
  - Cost effectiveness for customers
  - Ensure all grid requirements are met (e.g., capacity, voltage, reliability)
  - Ensure system reliability and power quality
  - Consideration of:
    - Customer needs
    - Forecasted loads and dependable information about future growth
    - Impact on grid operations
    - Mitigation options that address multiple grid requirements
    - Ensure equal treatment for all customers
- Mitigation Options are dynamic:
  - Grid need requirements are ever evolving
  - Resource availability may impact prioritization of mitigation options

Distribution Planning Tool Enhancements

- Increased complexity is driving the need for more advanced distribution planning tools
- Utilities are partnering with vendors in improving existing tools or developing new capabilities







QUESTIONS?

Community Engagement

Overview of SDG&E Community Engagement Efforts

Customer Engagement Approach Overview

CBOs

SDG&E identifies and partners with trusted Community Based Organizations (CBO) to learn appropriate outreach techniques and community insights

Outreach

SDG&E itself, with CBOs goes into communities to educate them on pressing issues, have open conversations, and garner feedback

Improvement

SDG&E is committed to continually going into communities to further develop trust, learn from communities' experiences, and have transparent iterative processes

Partner Outreach & Engagement

Local Government Outreach

- Listening Sessions
- Webinars
- Emergency Operation Center (EOC) Tours
- Quarterly Contact Update
- Notifications Exercise

Tribal Outreach

- Tribal Emergency Manager EOC Tour
- Listening sessions
- Survey & focus groups
- Feedback implementation (e.g., resource cards)

Liaison Functions

- Trained Liaison Officers to embed in local EOCs
- Ability to host partner Agency Representatives
- Coordination with local governments, public safety partners & tribes

Success Story: Wildfire Outreach & Education

CBOs

SDG&E partnered with local governments, fire agencies, and CBOs to hold town halls to engage customers about wildfire safety and Public Safety Power Shutoff (PSPS)

Outreach

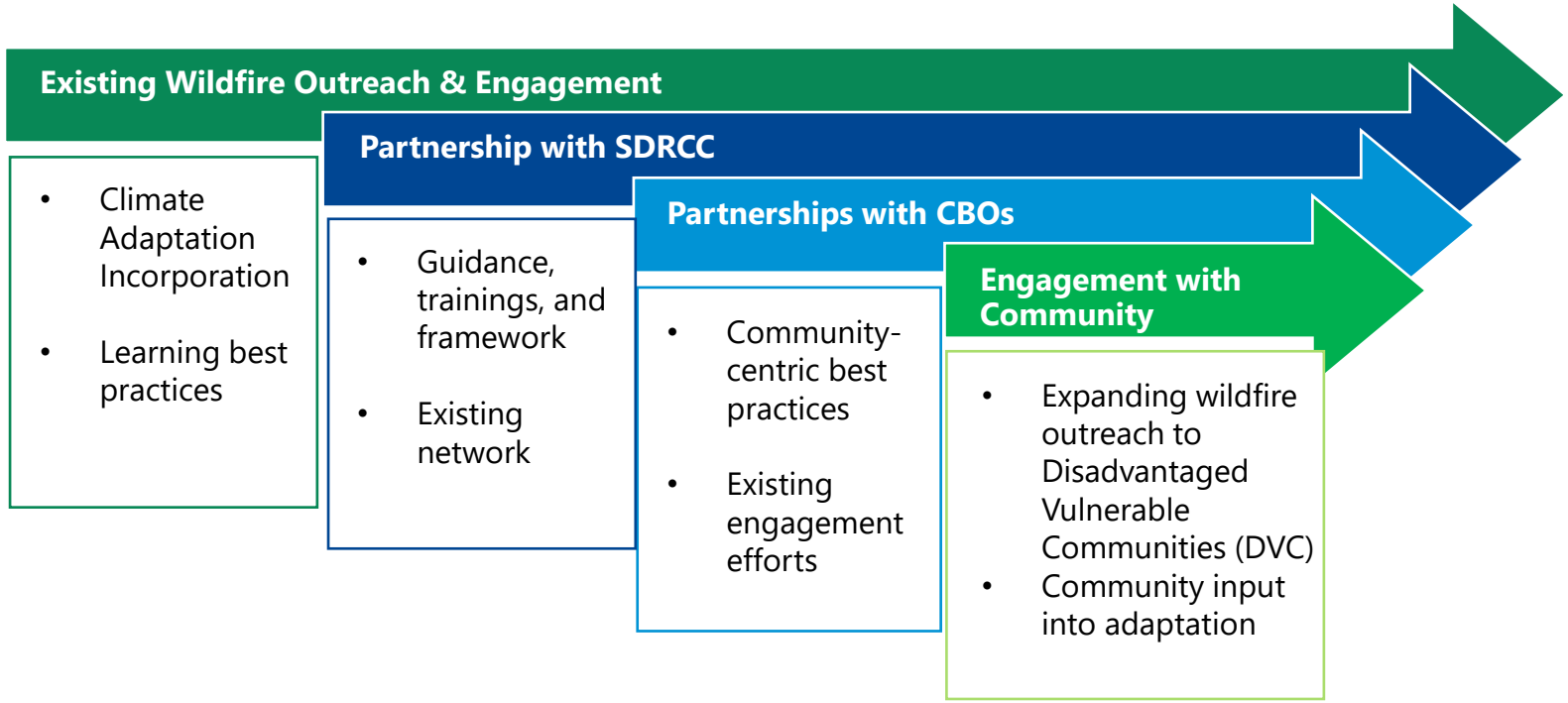
These town halls, albeit difficult at first, led to trust building and successful programs based on community feedback

- Generator Programs
- Wildfire Safety Fairs
- Community Resource Centers

Improvement

SDG&E has continually worked to improve its outreach programs based on customer feedback leading to improvements in aforementioned programs year over year

Climate Change Community Engagement Process



By expanding on existing successful outreach and education efforts in San Diego's High-Fire Threat Districts (HFTDS) and leveraging CBO expertise and networks, SDG&E plans to effectively and equitably engage its most vulnerable customers to ensure they are part of the adaptation process.

Success Story : Clean Transportation

Customer Engagement Highlights

EV Fleet Day

First of its kind fleet electrification event focused on customer education and program enrollment to meet goals

Connected fleets with:

- ✓ Vehicle manufacturers
- ✓ Charging and software providers
- ✓ Public agencies and media

sdge.com/Fleets

EV Day

World's largest community EV ride and drive focused on light-duty passenger vehicles and customer education

Partnerships highlighted with:

- ✓ Public agencies
- ✓ Charging providers
- ✓ Incentive programs

sdge.com/PYDmultiunit

Adaptive Ride & Drive

Partnership with Challenged Athletes Foundation for the region's first-ever adaptive ride and drive community event

All-inclusive event with:

- ✓ Vehicles adapted with hand controls
- ✓ Paralympians teaching seated games
- ✓ Inclusive fitness workouts

sdge.com/LOVELECTRIC

V2G Press Event

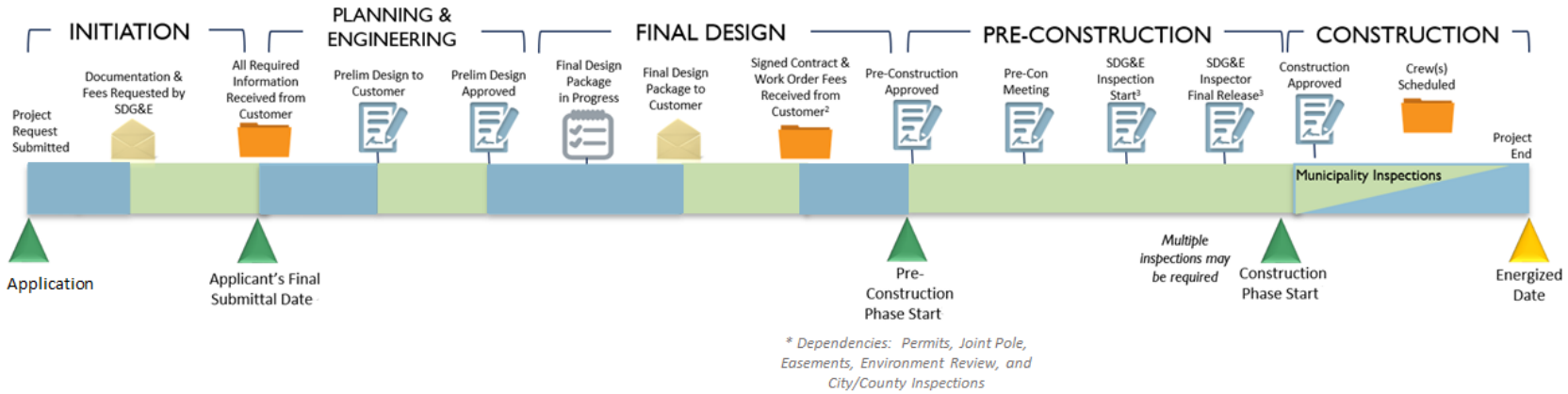
San Diego's first-ever vehicle-to-grid project with bi-directional bus chargers allowing energy to flow both ways

Collaboration with partners, including:

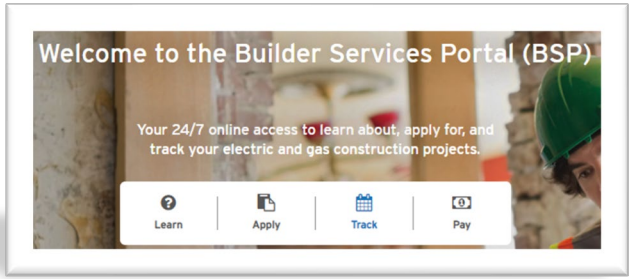
- ✓ Local school district
- ✓ Software and charging provider
- ✓ SDG&E Project Management Office

sdge.com/sustainability

Engaging Customers for New Service Request

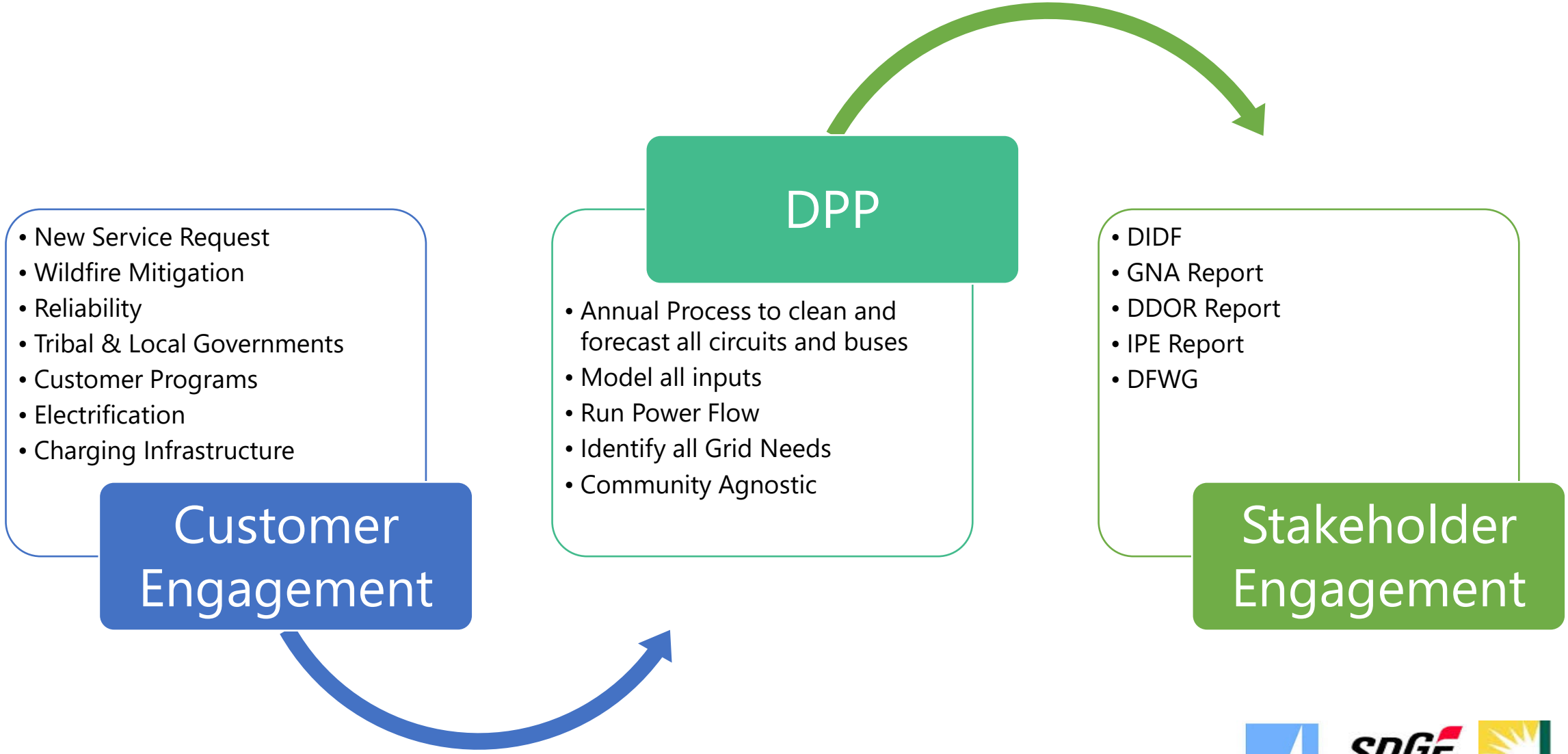


Customer Engagement



Customer Collaboration

Customer Engagement to DPP



Overview of SCE Community Engagement

How Edison Engages Stakeholders

Engagement Teams:

- Local Public Affairs
- Business Customer Division
- Community & Climate Equity
- Community Engagement
- Employee Resource Groups

Strategies:

- Host townhalls and community forums
- Stakeholder surveys
- Respond to community inquiries
- One-on-one meetings with stakeholders
- Proactive project updates and briefings
- Host project tours
- Participate in conferences & community events

Stakeholders:

- Tribal & Local Governments
- Advisory Panels
- Community Based Organizations
- Large Business Customers, including Developers & Fleet Operators
- Government/Business Organizations

With the feedback that Edison receives, we are able to:

- Inform Infrastructure Upgrades
- Inform Policy Proposals
- Educate Stakeholders
- Improve Public Safety
- Improve Customer Experience
- Make Operational Improvements

Examples of Collecting Stakeholder Input

Economic Development Services meets monthly with business organizations, cities, counties, tribes and state stakeholders to share services that Edison provides for our customers and discuss capacity and the local planning process.

Account Managers reach out to our large customers to get an understanding of where zero-emission vehicles will be, in what quantities, and how they will fuel. We then incorporate that into our plans. We're also looking at where it may make sense to proactively build out the grid at strategic locations.

Environmental Health and Services reviews local project EIRs and General Plan updates for their impacts to our system. Providing comments on the potential ramifications of upcoming projects.

Proactive Education

- Education on distribution and transmission systems
- Outreach in advance of large licensed projects
- Regular circuit reliability reports to local governments
- Ongoing conversations with local governments about the distribution grid

Case Study: Climate Adaption Vulnerability Assessment

- Eleven community leaders representing diverse disadvantaged vulnerable communities (DVCs) in SCE's service area participated in a six-month, paid Climate Resilience Leadership (CRLG) membership.
- CRLG members surveyed DVC residents using co-designed materials presenting region-specific grid vulnerabilities.

What We Learned

- Findings from this effort will allow SCE to identify critical impacts to performing adaptation actions and raise gaps in our understanding
- Help us define 'Positive', 'Neutral', and 'Negative' designations for Community Burden and Potential Public Amenity Indicators
- Top recommendations centered around improving communication when taking action in the future, using air filters and barriers, deploying clean technologies and vehicles, and planting trees.

FEEDBACK EFFORT

781 Total surveys completed

546 Surveys completed online (~70%)

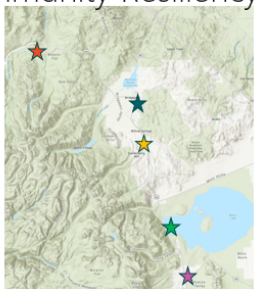
235 surveys completed in-person

86+ participating DVCs

47 Tribal members across 11 tribes consulted

19+ additional partners used by 11 CRLG members

Community Resiliency Feedback Survey – Bridgeport Indian Colony



Resiliency Definition:

Ability of communities to withstand and recover from power outages.

This can include:
- Physical and psychological health of the population
- Social and economic well-being of the community
- Social connectedness for resource exchange, response, and recovery
- Governmental and nongovernmental organizations providing aid

Your name	**Your email address and/or phone number**					
Your City/Tribe						
Rank the resiliency of your city/tribe to power outages from 1-5. *(1 = least resilient, 5 = most resilient)*		1	2	3	4	5
What are your main concerns with power outages? *(Who is most at risk? What are the most impactful effects?)*						
Assign resiliency of these communities to power outages from 1-5. Leave blank if you are not familiar with community. *The communities are marked approximately on the map.* *(1 = least resilient, 5 = most resilient)*	Sonora Junction	1	2	3	4	5
	Bridgeport	1	2	3	4	5
	Willow Springs	1	2	3	4	5
	Mono City	1	2	3	4	5
	Lee Vining	1	2	3	4	5

SCE's Local Planning Process

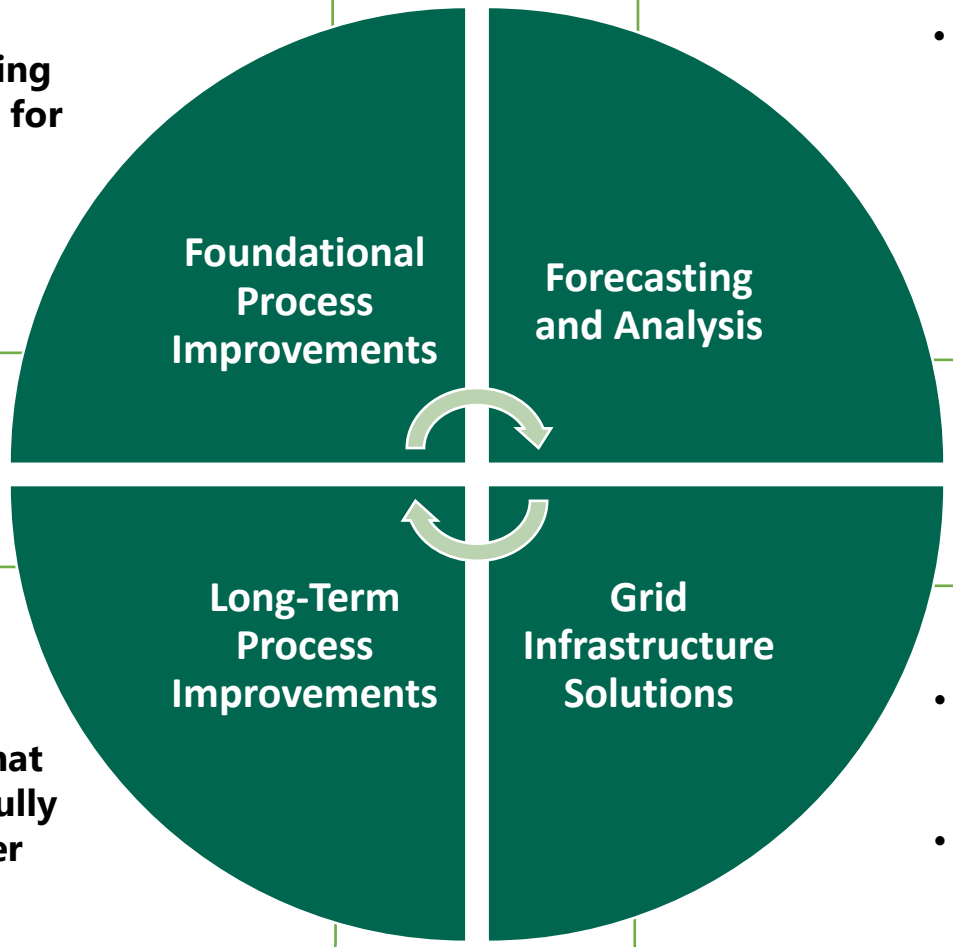
What is the Local Planning Process?
Your assigned planner will contact you to discuss the details of your project and request completion of additional forms and information which may include:

Submittal of a complete Customer Project Information Sheet: Customer Project Information Sheet

Step 1: Customer Information Package	Step 2: Design	Step 3: Customer Requirements	Step 4: Scheduling	Step 5: Construction & Final Accounting
Customer completes all requirements, signs, and returns to SCE planner	SCE planner meets with customer to complete the design process	Customer receives design and completes requirements	Final permits secured, materials ordered, and crews are scheduled	Job constructed in field according to map and final materials

SCE's Power Service Availability (PSA) Action Plan

- **Foundational process improvements and building foundational capabilities for broader PSA success**



- **Continuous improvements to gain certainty for where, when and how TE and BE demand growth will impact SCE's Grid**

- **Longer Term Planning process improvements that streamline and thoughtfully engage TE/BE stakeholder requests**

- **Grid solutions and infrastructure Investment to meet expected TE/BE demand growth**
- **Distribution Feeder of the Future Design (RTG) to accommodate high levels of electrification**

PSA – External Engagement & Communications

- Build partnerships with stakeholders to help plan adequately for the growth of cities and economic development.
- Schedule Townhalls with areas experiencing significant growth and high demand for new service requests.
- Educate stakeholders, including jurisdictions, on SCE's System Planning Process including Load Growth Tools, Forecasting, Service Request Applications and Economic Development Services.
- SCE hosted two Townhalls in Q4 2022, Riverside and Santa Clarita, to address growth demand and project timelines.

Engagement to support grid readiness for Transportation Electrification

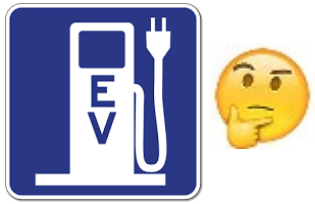
- *The rapid growth in transportation electrification is a key driver of grid infrastructure investments*
- *SCE is planning augmented engagement to better plan the grid and minimize adverse impacts.*

Fleet Operator Engagement and Workshop(s)

- Engage Fleet Operators to understand their plans for electrification in SCE Territory and develop more granular load growth expectations
- Engage OEMs and California Transportation Commission (CTC) to participate in fleet operator engagement workshop(s)

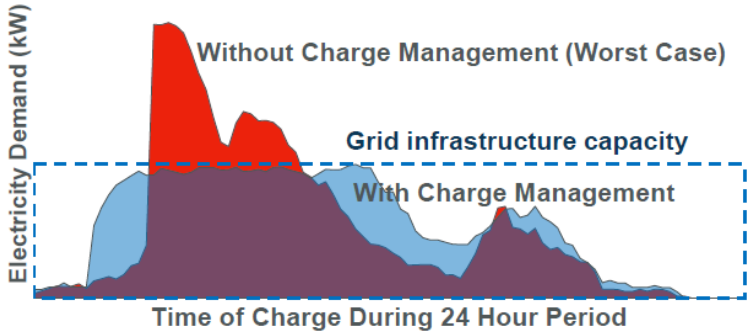
Minimize Grid Impact Through Customer Education & Engagement

"Right sizing"



Level 2 or DCFC?

"Flatten the curve"

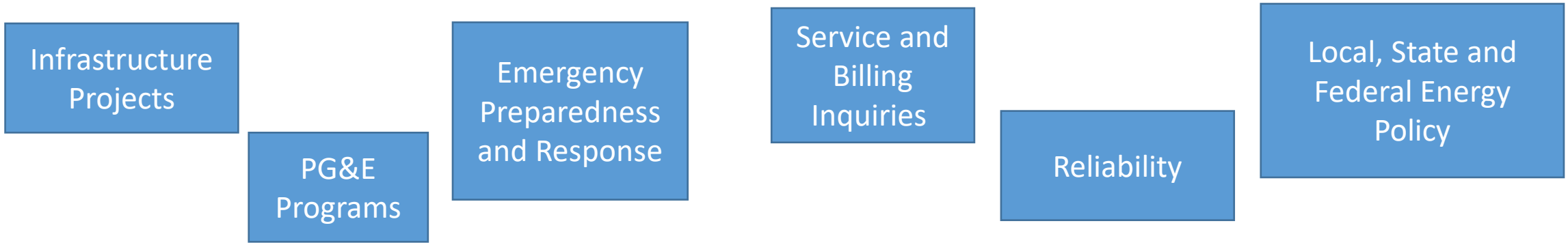


Existing PG&E Community Engagement

Current PG&E Outreach

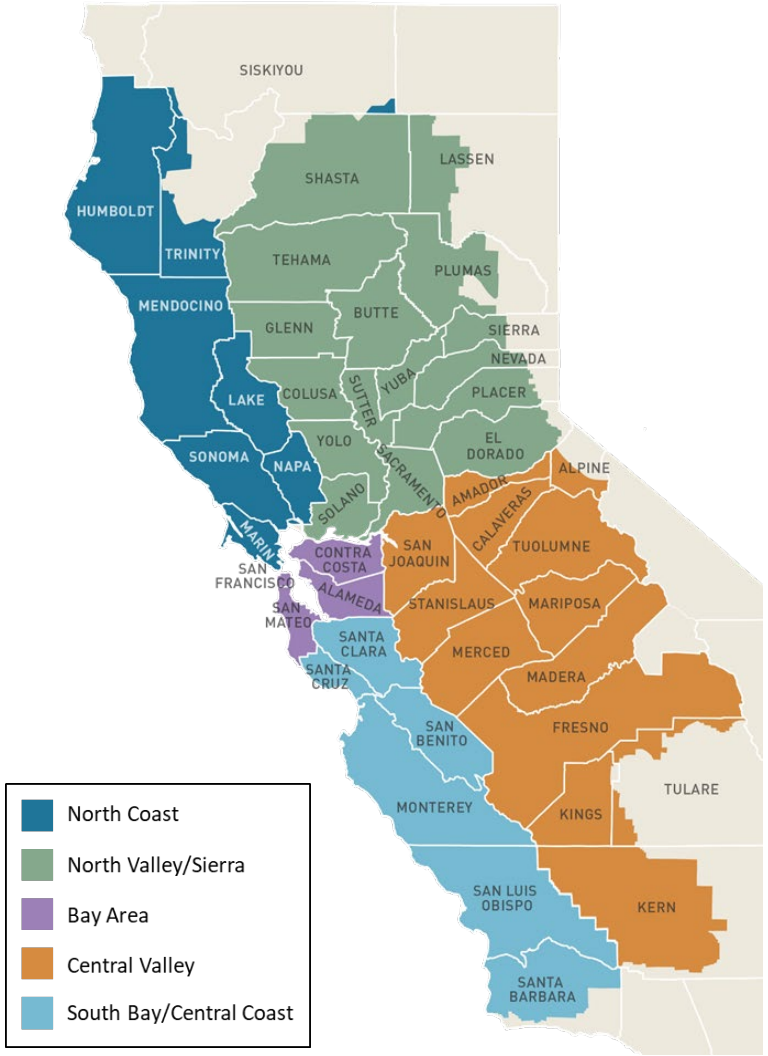
- PG&E currently manages relationships with thousands of community stakeholders
  - ❑ 47 Counties
  - ❑ 246 Cities
  - ❑ 62 Federally Recognized Tribes
  - ❑ Local, State and Federal Agencies
  - ❑ Local and Regional CBOs, Organizations and Associations

- PG&E collaborates/communicates on variety of topics of interest to the stakeholders and communities:



- Communities currently help inform the DPP through new service applications and ad-hoc engagement.

PG&E Stakeholder and Community Engagement in the Regional Service Model



- To effectively manage communication to communities and stakeholders, various teams engage and coordinate:
  - Tribal Liaisons, Local Government Affairs, Low Income Programs and DAC, Public Safety Specialists, Economic Development, Customer and many more

- Additionally, in 2021, PG&E implemented the Regional Service Model to strengthen PG&E's local presence, operational performance and customer interactions.
  - Resolve challenges more efficiently and effectively
  - Leverage first-hand knowledge of community to understand unique needs and prioritize work
  - Improve safety and operational outcomes for customers

Engagement throughout Project Development and Evaluation

Ultimately many factors affect project development, timeline for project interconnection and when projects are reflected in forecasts including processes outside of PG&E's control (e.g., permitting, environmental and land use impacts assessments, etc.). Customers should contact and work with PG&E directly to provide specific details of their project in order to evaluate timelines and obtain accurate information for request the relocation, removal, upgrade, or new installation of PG&E Gas and/or Electric facilities for service.

New Business/Service Planning Process:

Application
- Customer submits application at Yourprojects-pge.com

Project Intake
- Gather detailed project scope information
- Identify customer needs
- Engineering Advance

Estimating
- Design service route and meter location
- Planning review

Dependencies
- Permits, Joint Pole, Easements, Environment Review
- PG&E and City/County Inspections
- Sign & pay contract

Construction
- Coordinate site logistics and validate site readiness
- Service installation
- Meter set

Close Out
- Commence customer energy billing

Note: PG&E has experienced approximately a 35% drop out rate throughout the new business end to end process.

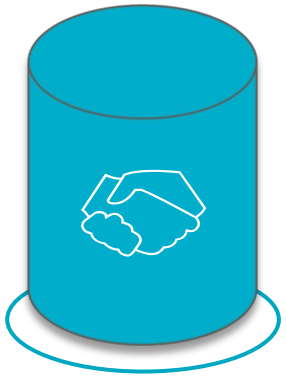
Lower → Higher

Certainty

Expanding PG&E Community Engagement For DPP

Objectives for Community Engagement Informing DPP

- PG&E engage in two-way dialogue with communities to solicit feedback and better understand community needs related to DPP.
- PG&E leverage existing outreach to gather input on new planned loads and other developments that can be factored into the Distribution Planning Process (DPP) to achieve the following objectives:



Incorporate Community Input

Input from community stakeholders can be used to validate needs and make informed investment decisions

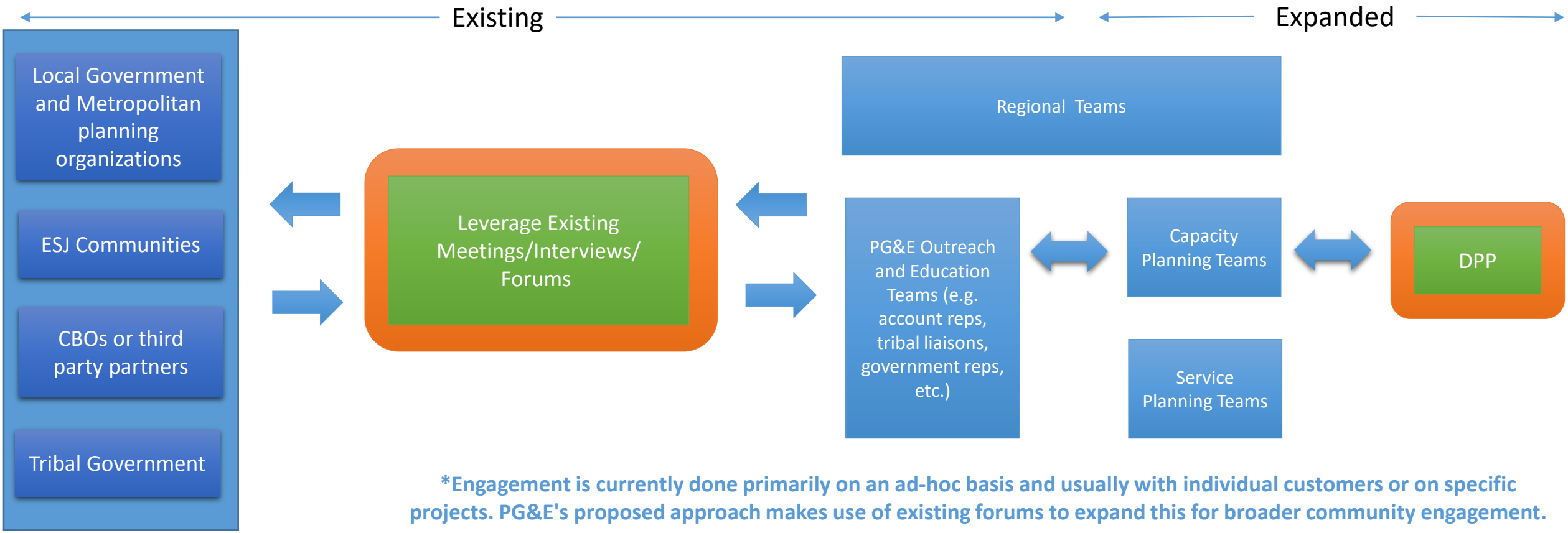
Provide Better Transparency

It helps customers to understand when they can expect investments in their communities

Continuous Improvement

How community engagement process could be refined over time based on feedback from communities

PG&E Bi-directional Engagement for Distribution Planning



***Engagement is currently done primarily on an ad-hoc basis and usually with individual customers or on specific projects. PG&E's proposed approach makes use of existing forums to expand this for broader community engagement.**

- Information from communities on DER/electrification plans is intended to be directional as feedback is uncertain and therefore will not be a guarantee of specific investments.
- IOUs will take communities' input and compare to forecast—adjustments to the forecasts will be on a case-by-case basis dependent on several factors.
- Communities will provide specific details as projects develop and go through the IOUs' various interconnection/service planning processes at which time actual projects will be reflected in forecasts with higher certainty.

Early community engagement can inform long lead time planning projects

- Large Distribution (e.g., Substation) and Transmission Projects often take several years (~3-10) to complete and needs major investment, therefore advanced planning and a high degree of certainty is required.
- It can be advantageous for developers and customers to include the environmental impacts of new substation and transmission facilities in their Environmental Impact Report (EIR) if these new facilities will be needed to serve new load.
    - CPUC General Order 131D exempts IOUs from obtaining approval from the CPUC provided its planned facilities have been included in the larger project's California Environmental Quality Act (CEQA) review, the review has included circulation with the State Clearinghouse, and the project's lead agency finds no significant unavoidable environmental impacts.

Parting Thoughts from the IOUs on Community Engagement

Key Takeaways

- IOUs are committed to further engaging with communities to better understand their needs and gather beneficial stakeholder feedback.
- IOUs conduct a wide array of outreach with communities through numerous mediums on varying topics—these opportunities should be leveraged to maximize value for stakeholders and avoid engagement fatigue (more is not always better).
- Community engagement is just one input into a multi-step planning process. Providing accurate data on a timely basis through IOUs' established processes supports and enables the DPP.

QUESTIONS?

Distribution Planning Community Engagement Needs Assessment Study

Draft Scope of Work (SOW)

CPUC Energy Division

California Public Utilities Commission

Scoping Questions

Track 1 Scoping Questions About Distribution Planning and Community Engagement

Track 1, Phase 1

#5. What initial analysis is needed for the Commission to determine in Track 1, Phase 2, of this proceeding how best to improve local engagement in utility distribution planning?

- See also, Scoping Ruling at p. 13, "Energy Division will conduct a workshop on the scope and funding of a potential **community engagement needs assessment** during the third quarter of 2022 to inform Track 1, Phase 2 of this proceeding."

Track 1, Phase 2

#3. Leveraging the analysis identified in Track 1, Phase 1, are there ways in which utility distribution planning representatives could better engage with local and tribal governments, Environmental and Social Justice communities, and local developers to ensure new planned loads and developments are factored into Utility Distribution Planning Processes and local concerns regarding distribution planning are adequately addressed?

Note: The full list of scoping questions is provided in the proceeding's Scoping Ruling.

Track 2 Scoping Questions and Future Grid Study

#1. How do alternative DSO models compare in their ability to plan and operate a high DER grid, unlock economic opportunities for DERs to provide grid services, limit market power, reduce ratepayer costs, increase equity, support grid resiliency, and meet State policy objectives?

#2. Should the Utilities be incentivized to cost-effectively prepare for widespread DER deployments? If so, how?

- The Future Grid Study is the primary deliverable planned for Track 2. It is designed to address these two scoping questions. For further details, see: https://gridworks.org/initiatives/california-future-grid-study

Scope Of Work

Overview

- Format follows recent utility RFPs Verdant has received

- Introduction & Purpose
- Background
  - Document has more procedural info
  - Influence of Informal Community Outreach Meetings
- Project Objectives
- Budget & Schedule
- Project Scope (tasks)

Introduction and Objectives

- The purpose of the Study is to address two related questions:

1. What do communities want and need with respect to electric utility distribution planning?
2. Are there ways in which utility distribution planning representatives could better engage with local and tribal governments, environmental and social justice communities, and local developers to ensure new planned loads and developments are factored into utility distribution planning processes, and local concerns regarding distribution planning are adequately addressed?

Informal Outreach Meeting Influence

Community Needs

- Reliability & Resiliency
- Interconnection
- Affordability
- Enabling more Local Clean Energy
- Energy Access

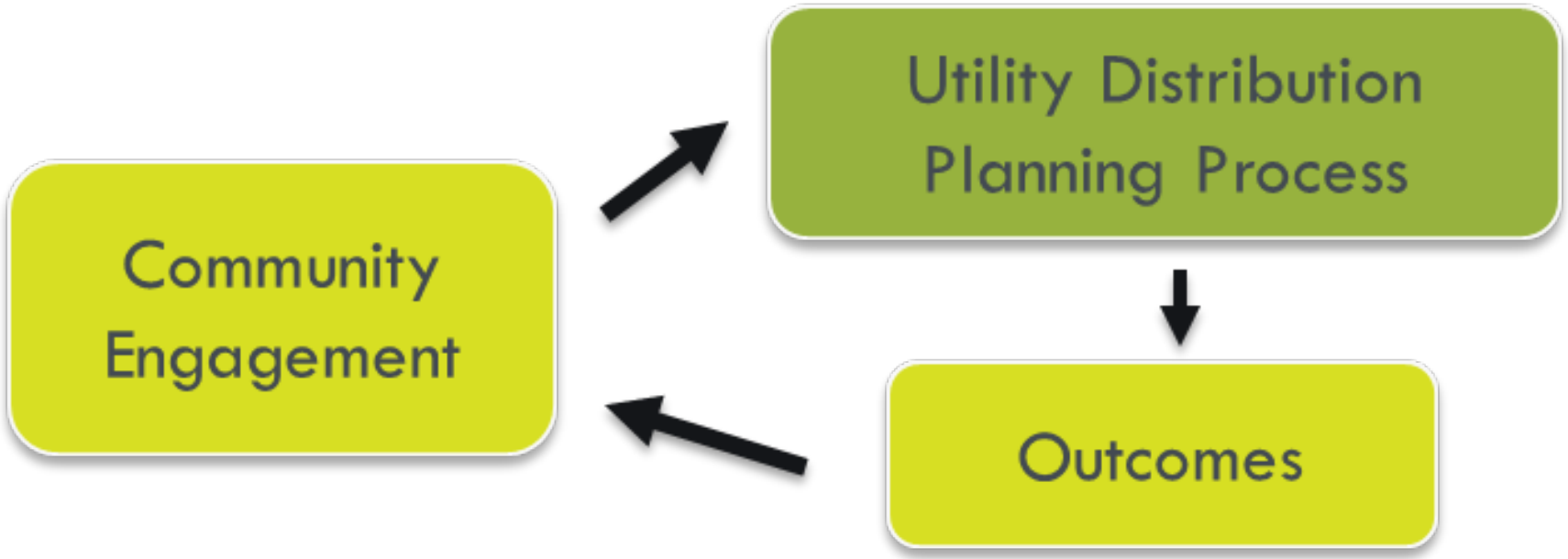
Utility Engagement

- Visibility
- Partnership
- Funding for Engagement
- Energy Literacy

Informal Outreach Meeting Feedback on Study Execution

- Leverage Trusted Groups
- Show Meaningful Change
- Coordinate with other efforts
  - e.g., CEC OIIIP On DERs in CAs Energy Future,
  - CPUC Microgrids and Resiliency
- Leverage Community Choice Aggregators (CCA)'s
- Meet Communities Where They Are
- Compensate Community Based Organizations (CBOs) and other Groups
- Use Working Groups
- Provide Technical Assistance
- Accessible
- Multilingual

Distribution Planning and Outcomes Framework



Objectives 1 & 2 – Documenting the Current Processes

1. Community Engagement for Distribution Planning

- Hear from both utilities and communities
- Who?
- How?
- When?
- What information?

Deliverable

- Memo in simple plain language describing current community engagement efforts

2. Distribution Planning for Community Needs

- Hear from both utilities and communities
- How do utilities prioritize and respond to needs?
- How do utilities promote equity?
- How does info from community engagement inform distribution planning?
- How do utilities match needs with current planning processes?

Deliverable

- Memo in simple plain language describing distribution planning in response to community needs

Objective 3: Develop Community Advisory Groups

Why?

- Fill in any gaps from Objectives 1 & 2 and engage non-traditional groups
- Provide feedback on:
  - Objective 4: Metrics
  - Objective 5: Future Grid Study
  - Objective 6: Report on Distribution Planning Community Needs and Develop Recommendations for Improvement

Who?

- Different by utility
- Coordinate w/ other efforts
- Community Based Organizations
- Tribal Groups
- Governments and Professional Planners

When?

- Form groups soon after the contract starts
- Run for ~6 months

Objective 4: Develop and Evaluate Metrics

Metrics to evaluate:

- How well utility community engagement is working?
- How well the distribution planning process translates needs from community engagement?
- How well do the distribution planning process outcomes meet community needs?

What might these metrics measure?

- Reliability and Resiliency
- Interconnection
- Affordability
- Equity
- Enabling Local Clean Energy

Deliverables

- List of metrics as part of Task 4
- Use to guide and inform reporting in Tasks 6 & 8

Objective 5: Future Grid Study Additional Outreach

Three Options for Stakeholder Feedback

Schedules are Approximate

Track 2 and Future Grid Study Development Overview

	2022				2023				2024			
	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
Track 2: Distribution System Operator Roles and Responsibilities	White Paper ~~and Workshop~~	May 3, 2022, Workshop	Aug 23, 2022 Workshop	Today's Workshop	Technical Workshop Series		Draft Future Grid Study and En Banc	**Proposed Decision**	Final Future Grid Study			

November 15, 2021, Scoping Ruling Work Plan with Track 2 Activities Updated

- A Future Grid Study is currently in scope for the High DER Consulting Team
  - Technical workshop series expected to start early 2023
  - See also https://gridworks.org/initiatives/california-future-grid-study
- The Draft Scope of Work presented today may include additional outreach support for the Future Grid Study
  - Three outreach options are presented in the Draft Scope of Work
  - Stakeholder feedback on the options is requested

Option 1: Energy Division Staff Coordinates Community Feedback During Draft Future Grid Study Preparation and After Issuance

	2022				2023				2024			
	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
					Energy Division Conducts Outreach with Non-Traditional Stakeholders							
Track 2: Distribution System Operator Roles and Responsibilities	White Paper ~~and Workshop~~	May 3, 2022, Workshop	Aug 23, 2022 Workshop	Today's Workshop	Technical Workshop Series		Draft Future Grid Study En Banc	**Proposed Decision**	Final Future Grid Study			

- Staff engagement occurs in parallel to the technical workshop series
- New consultant not scoped to work on Future Grid Study outreach
- Comparison:
  - Schedule
  - Engagement
  - Budget

Option 2: New Consultant Presents Community Feedback at Track 2 En Banc and Documents Feedback in Appendix to Distribution Planning Community Engagement Needs Assessment Study

	2022				2023				2024			
	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
							New Consultant Hired, Outreach Conducted					
					Energy Division Conducts Outreach with Non-Traditional Stakeholders							
Track 2: Distribution System Operator Roles and Responsibilities	White Paper ~~and Workshop~~	May 3, 2022, Workshop	Aug 23, 2022 Workshop	Today's Workshop	Technical Workshop Series		Draft Future Grid Study →					
							En Banc →					
								Proposed Decision →				
									Final Future Grid Study →			

Option 1 as above plus:

- En banc is held after the new consulting team collects *initial* community feedback.
- After the en banc, the new consultant continues to seek community feedback.
- Final outreach results are documented in an **appendix** to the Distribution Planning Community Engagement Needs Assessment Study.

Comparison: schedule, engagement, budget

Option 3: New Consultant Prepares Future Grid Study Community Feedback Report and Presents the Draft Report at the Track 2 En Banc

	2022				2023				2024			
	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
							New Consultant Hired, Outreach Conducted					
					Energy Division Conducts Outreach with Non-Traditional Stakeholders							
Track 2: Distribution System Operator Roles and Responsibilities	White Paper ~~and Workshop~~	May 3, 2022, Workshop	Aug 23, 2022 Workshop	Today's Workshop	Technical Workshop Series		Draft Future Grid Study →					
							En Banc →					
								Proposed Decision →				
									Final Future Grid Study →			

Option 1 as above plus:

- En Banc held after the new consulting team develops a Draft **Future Grid Study Community Feedback Report**
- After en banc, new consultant completes outreach and issues a Final Future Grid Study Community Feedback Report

Comparison: schedule, engagement, budget

Objective 6 and Beyond

Objective 6: Report on Distribution Planning Community Needs and Develop Recommendations for Improvement

Recommendations based on Study findings may include, but not be limited to, those to:

- Improve the current Distribution Planning and Outcomes Framework
- Improve utility distribution planning processes to better respond to community needs.
- Conduct ongoing evaluation of the metrics to assess Distribution Planning and Outcomes Framework improvements.
- Establish approaches for long-term partnership building with local communities and ongoing use of the data gathered during the Study and data collection platform

Deliverables:

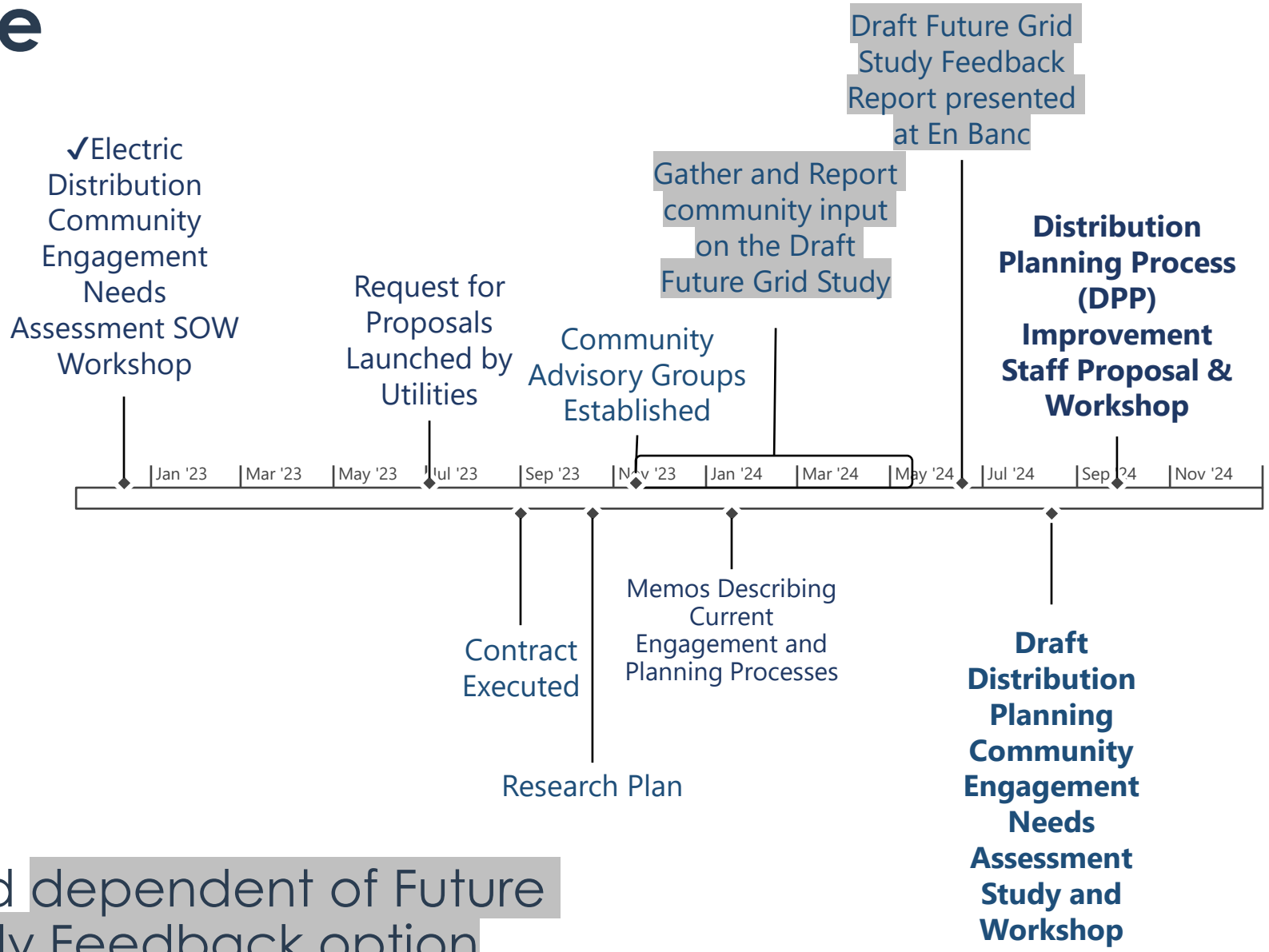
- Distribution Planning Community Engagement Needs Assessment Study
- **Assist with Track 1 Phase 2 Staff proposal**

Overall Schedule and Budget

- Focused on
  - Track 1 Phase 2 Staff Proposal and Decision
    - 'Capstone' of this proceeding
    - Staff Proposal in 2024 Q3
    - **Proposed Decision in 2024 Q4**
  - Future Grid Study – Track 2

- Proposed Budget
  - $2M
  - $600,000 (of the $2M) allocated to compensate community group for outreach and direct community engagement

Timeline



- Draft and dependent of Future Grid Study Feedback option

Tasks

- Task 1: Project Management
- Task 2: Conduct Research Material Review & Interviews
- Task 3: Develop a Detailed Research Plan
- Task 4: Recruit and Work with Advisory Groups, Develop Metrics
- Task 5: Future Grid Study Community Feedback Report
- Task 6: Distribution Planning Community Engagement Needs Assessment
- Task 7: Comprehensive Database of all Community Outreach Feedback
- Task 8: Support Staff Proposal for Distribution Planning Process Guidelines and Associated High DER Tasks

Mapping Objectives to Tasks

Objective	Tasks
Objective 1: Understand Current Distribution Planning Community Engagement	Task 2: Conduct Research Material Review & Interviews
Objective 2: Document Distribution Planning Responsiveness to Community Needs	
Objective 3: Develop Community Advisory Groups	Task 3: Develop a Detailed Research Plan Task 4: Recruit and Work with Advisory Groups
Objective 4: Develop and Evaluate Metrics	Task 4: Recruit and Work with Advisory Groups
Objective 5: Gather and Report Community Feedback on Future Grid Study	Task 5: Future Grid Study Community Feedback Report Task 7: Comprehensive Database
Objective 6: Report on Distribution Planning Community Needs and Develop Recommendations for Improvement	Task 6: Distribution Planning Community Engagement Needs Assessment Task 7: Comprehensive Database Task 8: Support Staff Proposal for Distribution Planning Process Guidelines and Associated High DER Tasks

Questions?

Stephan Barsun: stephan@verdantassoc.com
Robert Peterson: robert.peterson@cpuc.ca.gov

Workshop Agenda

9:00 – 9:15	Welcome by Commissioner Houck	Introduction to the workshop
9:15 – 9:45	Intro and Overview of High DER Proceeding and Distribution Planning Community Engagement Needs Assessment	Energy Division team presents on purpose of outreach and how it will be used in the proceeding. Summary of initial outreach meetings.
9:45 – 11:15	Distribution Planning and Community Engagement Primer by Utilities	Utilities present Distribution Planning 101 and their distribution planning community engagement pathways.
11:15 – 11:30	Break	
11:30 – 12:30	Presentation of draft Scope of Work	Consultants + Energy Division present draft Distribution Planning Community Engagement Needs Assessment Scope of Work.
12:30 – 1:00	Lunch	
1:00 – 2:00	**Community Panel**	**A diverse panel of community leaders offer perspectives on utility presentation and Draft Scope of Work.**
2:00 – 2:50	Questions and Comments on Draft Scope of Work	Feedback from community members.
2:50 – 3:00	Next steps	Inform audience of upcoming deliverables and workshops, and how they can stay involved.

Panelists

- **John Kennedy**, Policy Advocate, Rural County Representatives of California
- **Karen Nelson**, Co-Chair and Founder, Climate Reality Project: Silicon Valley Chapter
- **Karen Woodard**, Tribal Administrator, Morongo Band of Mission Indians
- **Marc Costa**, Director of Policy and Planning, The Energy Coalition and Board Chair, Local Government Sustainable Energy Coalition
- **Michael Gerace**, Director, Department of Planning and Community Development, Yurok Tribe
- **Melissa W. Kasnitz**, Legal Director, Center for Accessible Technology

Discussion Topics and Questions

Part 1

- Presentation 1: Distribution Planning and Community Engagement Primer by Utilities
- Panel Question 1: *Are there ways in which utility distribution planning representatives could better engage with local and tribal governments, environmental and social justice communities, and local developers to ensure new planned loads and developments are factored into Utility Distribution Planning Processes and local concerns regarding distribution planning are adequately addressed?*

Part 2

- Presentation 2: Draft Scope of Work
- Panel Question 2: *What initial analysis is needed for the Commission to determine how best to improve local engagement in utility distribution planning?*

Discussion Facilitation

Part 1 (25 minutes)

- Opening comments (3 minutes each)
- Reply comments or additional thoughts (about 1 minute each)

Part 2 (25 minutes)

- Opening comments (3 minutes each)
- Reply comments or additional thoughts (about 1 minute each)

Closing Remarks (1 min each, if desired/time)

Part 1

Distribution Planning and Community Engagement Primer by Utilities

- *Are there ways in which utility distribution planning representatives could better engage with local and tribal governments, environmental and social justice communities, and local developers to ensure new planned loads and developments are factored into Utility Distribution Planning Processes and local concerns regarding distribution planning are adequately addressed?*

Part 2

Draft Scope of Work

- *What initial analysis is needed for the Commission to determine how best to improve local engagement in utility distribution planning?*