

# Integrated Planning Workshop #1 / 2

October 10, 2025

High DER Proceeding (R.21-06-017)

D.24-10-030 Implementation



California Public  
Utilities Commission

# Ground Rules and Workshop Logistics

- **Ground Rules:**

- Raise your hand for questions, both in the room and online
- Identify yourself and your organization before speaking
- Do not repeat what another person has already said
- Stay on topic, be respectful and do not interrupt when others are speaking

- **Workshop Logistics:**

- Workshop is being recorded and will be posted on the CPUC's Distribution Planning webpage along with presentation slides
- WebEx and phone participants are muted until called on. Please remember to mute yourself when finished speaking.
- Webex participants type questions/comments in the "chat" and they will be read aloud. You may raise your hand to ask the question yourself or follow up on your question.

# Agenda Integrated Planning Workshop

Time (PST)	Agenda Item	Details
10:00-10:30am	<b>Welcome and Opening Remarks</b> <ul style="list-style-type: none"> <li>Opening remarks by Commissioner Houck</li> <li>Background</li> <li>Introduction to CPUC teams</li> <li>Remarks from Risk-based Decision-making Framework (RDF) and General Rate Case (GRC) teams</li> <li>Remarks from Cal Public Advocates Office</li> </ul>	<ul style="list-style-type: none"> <li>Workshop logistics</li> <li>Commissioner Darcie Houck to set the stage for the workshop and emphasize its purpose.</li> <li>Energy Division opens with context and frames the workshop objectives</li> <li>Introduction of CPUC teams involved in Integrated Planning</li> <li>Public Advocates Office remarks</li> </ul>
10:30-11:20am	<b>PG&amp;E Presentation on Integrated Planning</b>	PG&E will present their proposal on Integrated Planning
11:20-11:40am	<b>Q&amp;A for PG&amp;E</b>	Reactions and questions in response to PG&E's presentation
11:40-12:40pm	<b>Lunch</b>	Be back in 60 min!
12:40-1:10pm	<b>SCE Presentation on Integrated Planning</b>	SCE will present their proposal on Integrated Planning
1:10-1:30pm	<b>Q&amp;A for SCE</b>	Reactions and questions in response to SCE's presentation
1:30-1:40pm	<b>Break</b>	Be back in 10 mins!
1:40-2:00pm	<b>SDG&amp;E Presentation on Integrated Planning</b>	SDG&E will present their proposal on Integrated Planning
2:00-2:20pm	<b>Q&amp;A for SDG&amp;E</b>	Reactions and questions in response to SDG&E's presentations
2:20-3:00pm	<b>Stakeholder Panel, Open Discussion, and Next Steps</b>	Remarks from stakeholders, open discussion, closing remarks and next steps

# Workshop Objectives

- Learn purpose and benefits of Integrated Planning
- The workshops will help investor-owned utilities (IOUs) to refine their proposals for the Tier 3 Advice Letter due on December 15, 2025
  - Workshop #1 IOUs to present their initial proposals for Integrated Planning
    - Obtain feedback IOUs can use to adjust their proposals
  - Workshop #2 IOUs to present their updated proposals
    - Obtain additional feedback for further adjustments

# Opening Remarks

Office of Commissioner Darcie Houck

# Why Integrated Planning?

- Integrated Planning will explore how IOUs can bundle capacity upgrades of distribution infrastructure with other distribution grid workstreams to save costs.
  - For example, capacity upgrades can be performed while under-grounding for wildfire safety to save costs by avoiding doing work on the same asset twice in a short time span. (digging up the circuit to upgrade and under-grounding again)
- Consider multiple drivers for infrastructure upgrades and *potentially* address multiple needs with one solution to mitigate grid needs
- However, Integrated Planning should result in cost savings and not lead to cost increases.
- Nor should Integrated Planning hinder the development of the Distribution Planning Process (e.g. introduce delays in energization)

# Coordination with Various CPUC Teams

- 'Integrated' implies integration with other workstreams. Various CPUC teams are working together.
- Energy Division (ED)
  - John Cortez, Regulatory Analyst at the Grid Planning, Energy Storage & Non-Wires Alternatives Team
  - Chris Lopez, Senior Utilities Engineer at the Electric General Rate Case (GRC) Team
- Safety Policy Division (SPD)
  - Emily Chen, Regulatory Analyst at the Risk Assessment and Safety Analytics Team

# Background

- On October 23, 2024, The CPUC issued Decision (D.)24-10-030. This decision included various orders for Integrated Planning
  - Ordering Paragraph 16: which required IOUs to **consider distribution planning results in other distribution work** and **two workshops** to present their proposals for integrated planning and solicit feedback from stakeholders on issues presented, including cost containment considerations. Workshop #2 must be within 8 weeks after Workshop #1
  - Ordering Paragraph 17: requires the IOUs to submit **a Tier 3 advice letter on December 15, 2025** proposing a method(s) that calculates and considers whether the increased project costs from the increased sizing of any related assets are less than or equal to the risk-adjusted benefit from avoiding future projects to upgrade grid capacity. Utilities may propose other factors to be considered towards calculating costs and risk-adjusted benefits. Utilities' proposal shall allow for future evolution of the Distribution Planning and Execution Process and should not become a barrier to future changes in that process

# Background

The advice letter shall also answer the following questions:

- (1) How does the proposed method maintain the flexibility of the distribution planning process, and allow for that process to develop over time;
- (2) How does the proposed method estimate the increased costs for current projects, and how can this estimate change or improve over time? Include increased costs for wildfire mitigation and associated Rulemaking (R.) 20-07-013 Risk-based Decision-making Framework (RDF) cost benefit ratio data;
- (3) How does the proposed method incorporate cost effectiveness and cost efficiencies?
- (4) How does the proposed method adjust for risk and potential risk reduction when considering potential future capacity projects, and how can this adjustment change or improve over time;
- (5) How does the proposed method estimate cost of future distribution capacity projects, (including increased costs for wildfire mitigation and associated R.20-07-013 RDF cost benefit ratio data) and how can this estimate change or improve over time; and
- (6) How does the proposed plan address projects planned in the high fire threat districts or in areas of wildfire risk, or projects that will require new lines to be built that cross into the high fire threat districts?

# Risk-based Decision-making Framework (RDF)

- IOUs use the RDF to assess, manage, mitigate, and minimize safety risks.
  - Risks and proposed mitigation plans are presented in a Risk Assessment Mitigation Phase (RAMP) filing.
- The purpose of R. 20-07-013 was to further refine and revise the RDF established by the Settlement Agreement in D. 18-12-014.
- Central element of the Settlement Agreement was the use of a decision analysis tool called the Multi-Attribute Value Function (MAVF).
- D. 22-12-027 superseded the Settlement Agreement, with requiring a Cost Benefit Approach and monetization of safety and reliability attributes.
- D. 25-08-032 refined the RDF further and closed R. 20-07-013.

# General Rate Case (GRC)

- Work identified through Integrated Planning ultimately will be included as requests in GRCs.
- Past GRC requests have included programs that combine multiple workstreams and/or solutions that address multiple needs.
- The Rate Case Plan (D.07-07-004, D.20-01-002) provides requirements and guidance for how IOUs can support GRC requests.
  - ...Where judgment is involved in setting an estimate level, explain why that particular level was adopted
  - ...State management's review criteria including the factors considered by the utility's management in approving various expenditures levels
  - ...Justification for the methodology used to develop each estimate shall be included

# Public Advocates Office Remarks



# High DER Workshop 1

Review of PG&E's Distribution Capacity Planning  
Process



# PG&E is one of the largest combo utilities in the US



## By The Numbers

**16M**  
PEOPLE SERVED

**5.5M** electric accounts

**4.5M** gas accounts

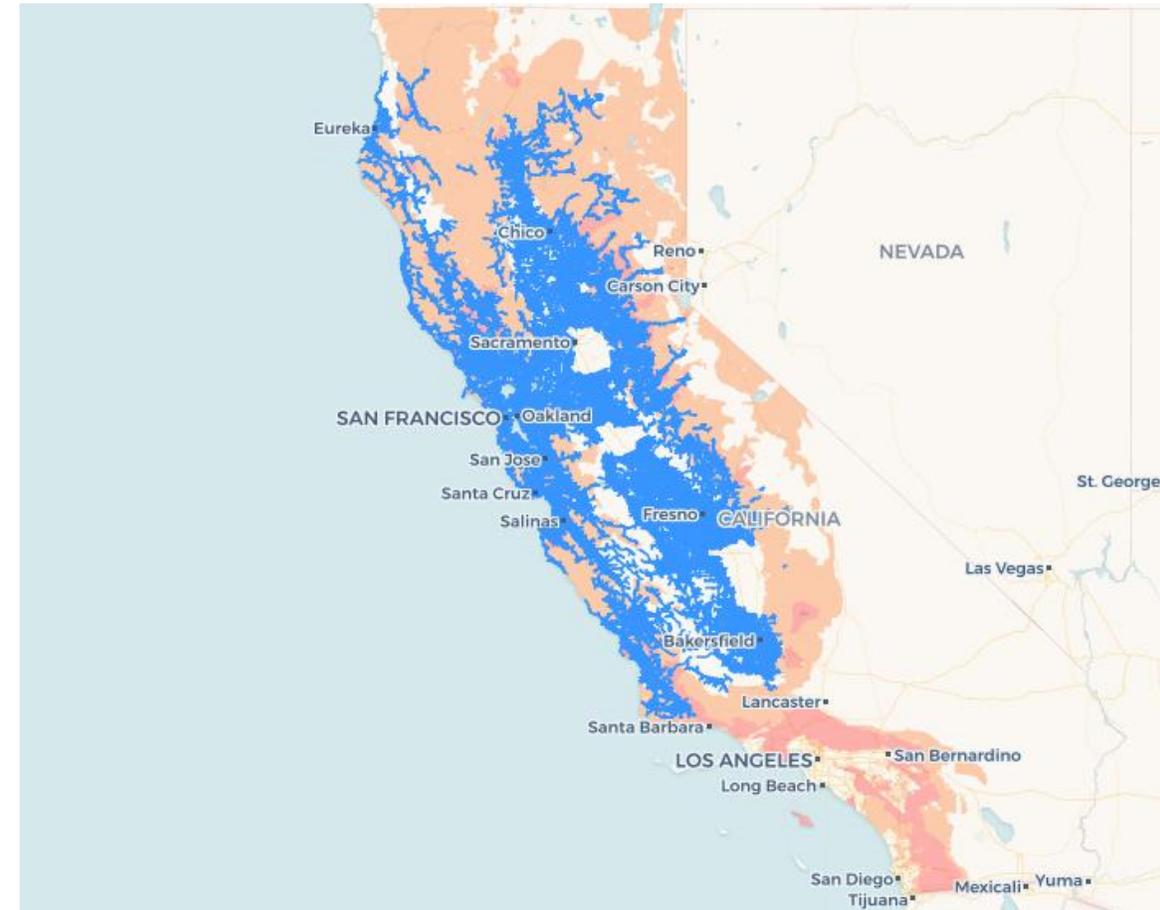
**70,000**  
SQUARE MILE  
SERVICE AREA

**108,800** circuit miles of electric distribution lines

**18,100** circuit miles of electric transmission lines

**42,000** miles of natural gas distribution pipeline

**6,700** miles of natural gas transmission pipeline



# Current Distribution Planning Process (DPP) Overview



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

Dynamic Inputs (e.g., Load Requests, Project Developments, Customer Input)

Investment Planning



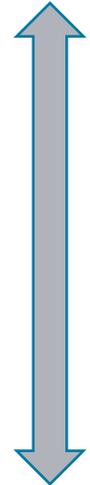
Forecast Development

Determine Grid Requirements

Evaluate Mitigation Options

Publish Distribution Plan

General Rate Case



Establish baseline assumptions

- Historical load data
- Known load applications
- Spatial growth up to IEPR cap
  - Future load growth and loading profiles
  - Distributed Energy Resources

Assess forecasted distribution grid deficiencies

- Overload
- Undervoltage
- Overvoltage

Find cost-optimal solution to address grid need

- Transfer load
- Asset replacement(s)
- New asset(s)
- Flexible service connection
- Non-wires alternatives

Dynamic Inputs (e.g., Load Requests, Project Developments, Customer Input)



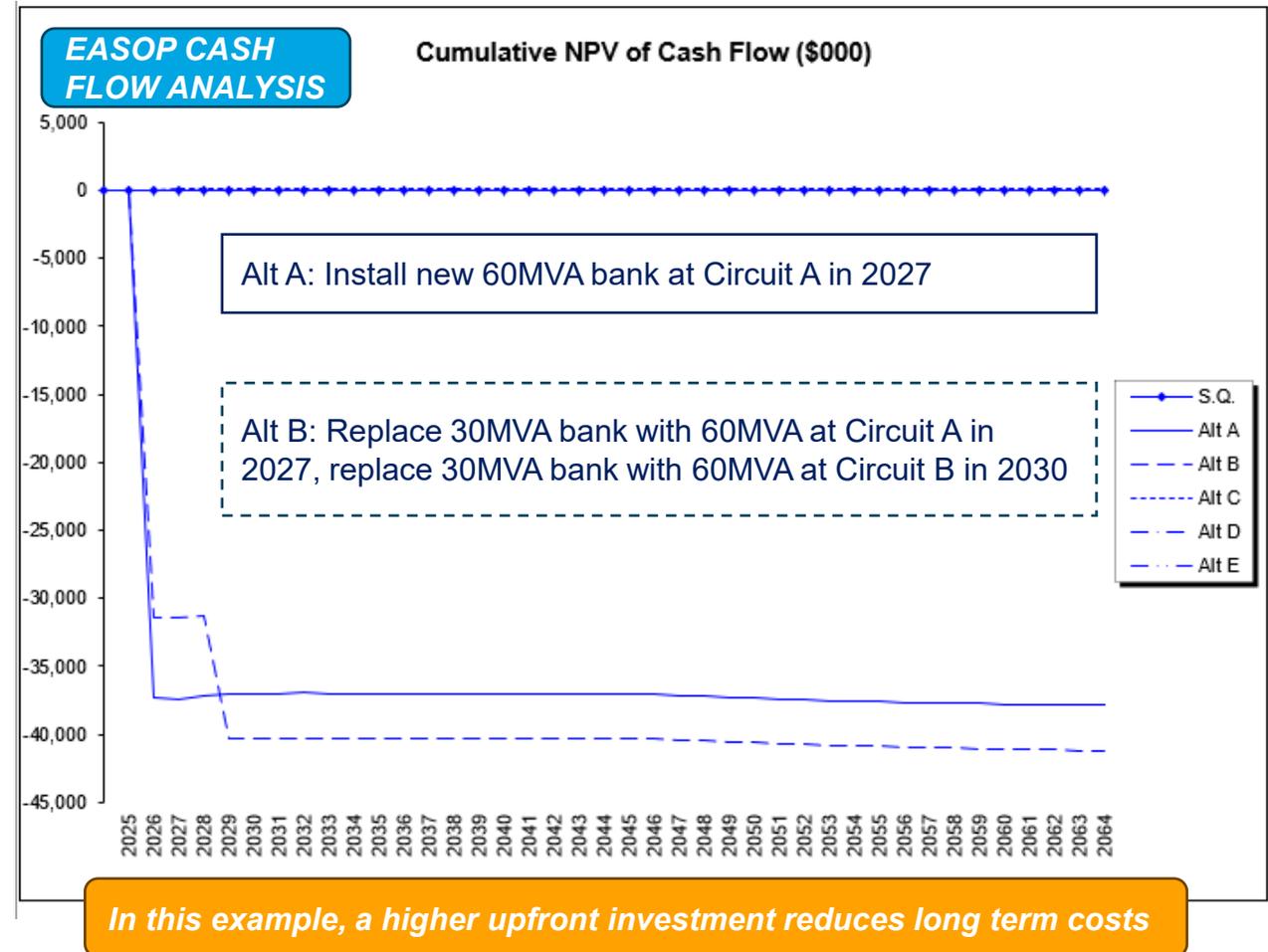
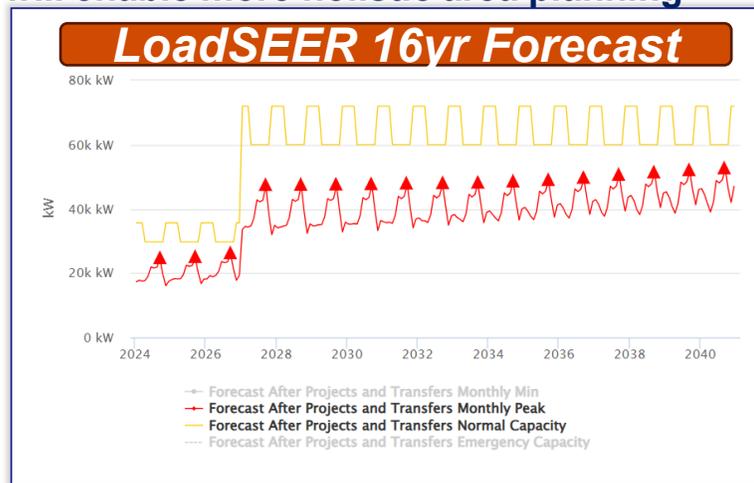
*Revisit and adjust plans annually and as needed*

# Asset sizing for capacity needs



Load forecasting, area planning, and comparison of project alternatives ensure that capacity projects size assets to address the risk of future overloads

- Area Planning team evaluates long term area needs
- Engineers propose multiple designs & recommend least cost alternative
- LoadSEER (forecasting) and EASOP (cash flow modeling) tools ensure that lowest Net Present Cost option is selected
- If best option does not meet customer timelines, PG&E investigates bridging solutions
- If approved, Pending Loads & Scenario Planning will enable more holistic area planning



*In this example, a higher upfront investment reduces long term costs*

# To-Be Distribution Planning Process (DPP) Overview



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

Dynamic Inputs (e.g., Load Requests, Project Developments, Customer Input)

## Forecast Development

Establish baseline assumptions

- Historical load data
- Known load applications
- Spatial growth up to IEPR cap
  - Future load growth and loading profiles
  - Distributed Energy Resources

## Determine Grid Requirements

Assess forecasted distribution grid deficiencies

- Overload
- Undervoltage
- Overvoltage

## Evaluate Mitigation Options

Find cost-optimal solution to address grid need

- Transfer load
- Asset replacement(s)
- New asset(s)
- Flexible service connection
- Non-wires alternatives

## Integrated Grid Planning Process

- Aggregate Sys Needs
- Identify Solution
- Assign Solution
- Develop Multi-year plan

Dynamic Inputs (e.g., Load Requests, Project Developments, Customer Input)

# Our collective electric system faces accelerating, multi-dimensional needs that we must address



**Wildfire Risk**



**Overloading**



**Asset Health**



**Reliability**



**Financial**



**Safety**



We have **multi-dimensional system needs**

Our stakeholders **want more clarity, consistency, and transparency** in how we invest in our grid for our customers

We need to ensure that the work is performed with **customer affordability** in mind

**PG&E is evolving our approach to grid planning to efficiently address our complex needs**

# Integrated Grid Planning builds on our current approach to planning to maximize impact on our system



## Integrated Grid Planning allows us to...

**Solve for multiple needs:** Pursue wildfire risk mitigation alongside other important objectives to deliver on our communities' needs

**Transparently track impact:** Clearly understand how work on the system will impact system need

**Build stable plans:** Create long-term visibility into what work will be done when

**Efficiently use resources:** Maximize the impact of every dollar spent on the system

## Resulting in...

**Risk-informed** capital plans that **integrate other objectives**, delivering on our multi-faceted goals for the system

Make informed decisions about **tradeoffs** and prioritize work that will deliver on our **shared objectives**

**Multi-year capital plans** that enable advanced resource and operational planning and respond to our communities' needs

To maximize efficiency, consider a **range of possible solutions** to address multiple needs and **bundle work** at the circuit and Circuit level



# Integrated Grid Planning considers all circuit, Circuit, or T-line needs to efficiently bundle work



## 1 Collectively evaluate the multi-dimensional needs of every circuit



### Wildfire Risk

Assess the wildfire risk for circuits



### Asset Health

Evaluate asset specifics, such as age and material type, to identify where poor health exists on each circuit



### Capacity

Determine current and forecasted overloading across the system



### Reliability

Evaluate reliability performance and the root cause of past outages

## 2 Identify all potential solutions to address the needs identified on the system

### Potential project types

Pole replacement

Conductor replacement

Cable replacement

Circuit rebuild

Undergrounding

Remote grid

Overhead hardening

New circuit construction

Non-Wire Alternatives

...

Internal

## 3 Select solutions that efficiently deliver on our objectives by addressing multiple needs

Undergrounding

### Circuit 1101



Pole replacement

### Circuit 1102



Circuit rebuild

Undergrounding

### Circuit 1103



Circuit rebuild

Hardening

### Circuit 1104



# Integrated Grid Plans are developed and executed via a 5-step process

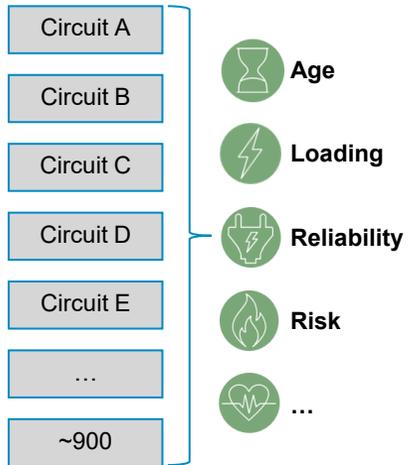


ILLUSTRATIVE

1

## Determine system need

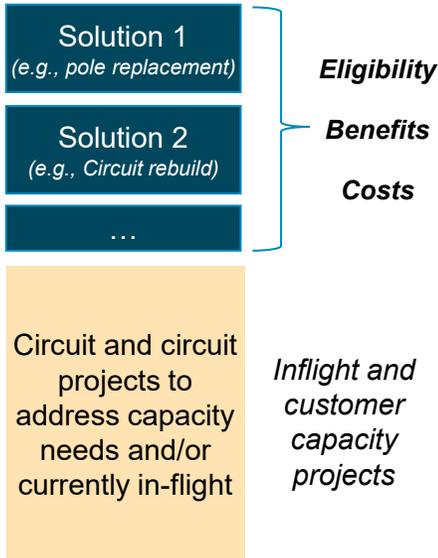
Assess health and risk of assets by consolidating relevant data into single database



2

## Identify potential solutions

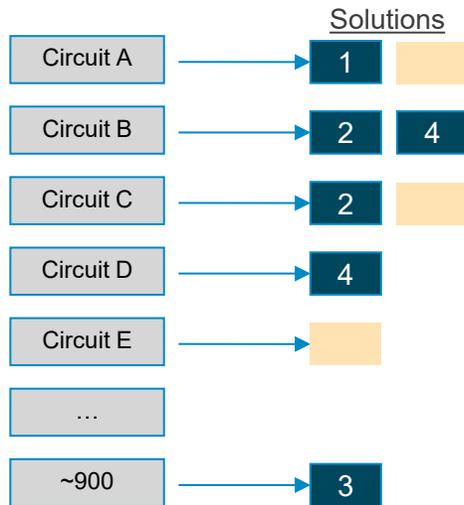
Develop a standard set of solutions, with clear eligibility, benefits to objectives, and costs; intake existing planned projects



3

## Assign solutions to resolve need

Calculate the 'unconstrained investment need' of the system by assigning solutions to resolve all system needs

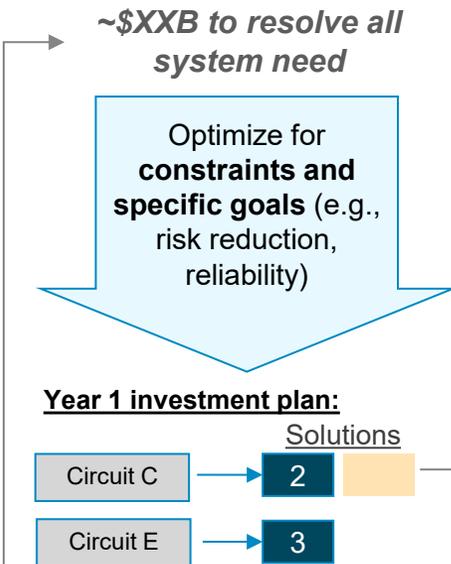


~Totals to \$XXB to resolve all system need

4

## Prioritize to develop multi-year plans

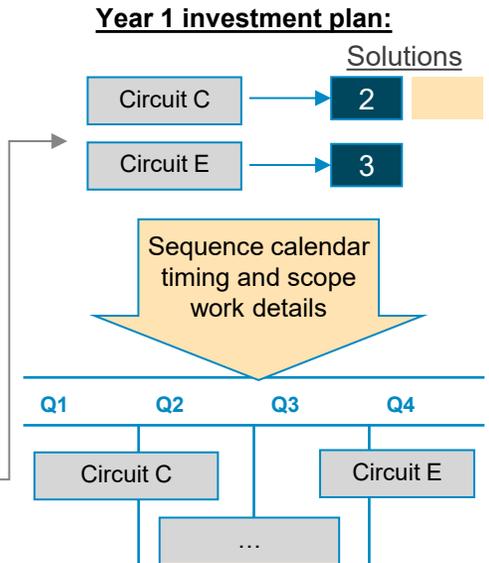
Apply capital and resource constraints to prioritize investments



5

## Develop execution plan

Bundle, scope, and sequence investment plan into executable short-term work



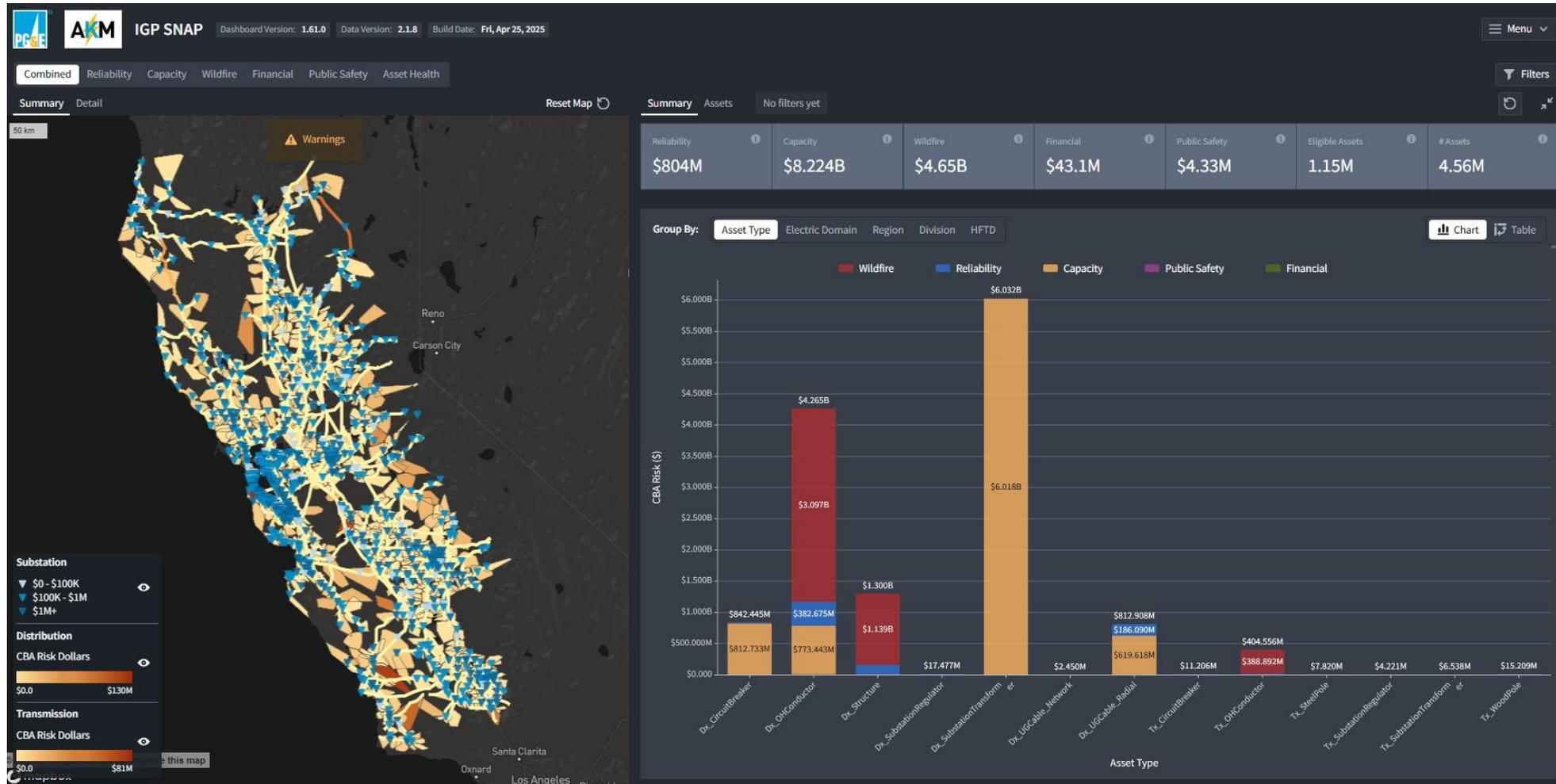
# Enabling Integrated Planning

## Application Landscape of In-House and Vendor Applications



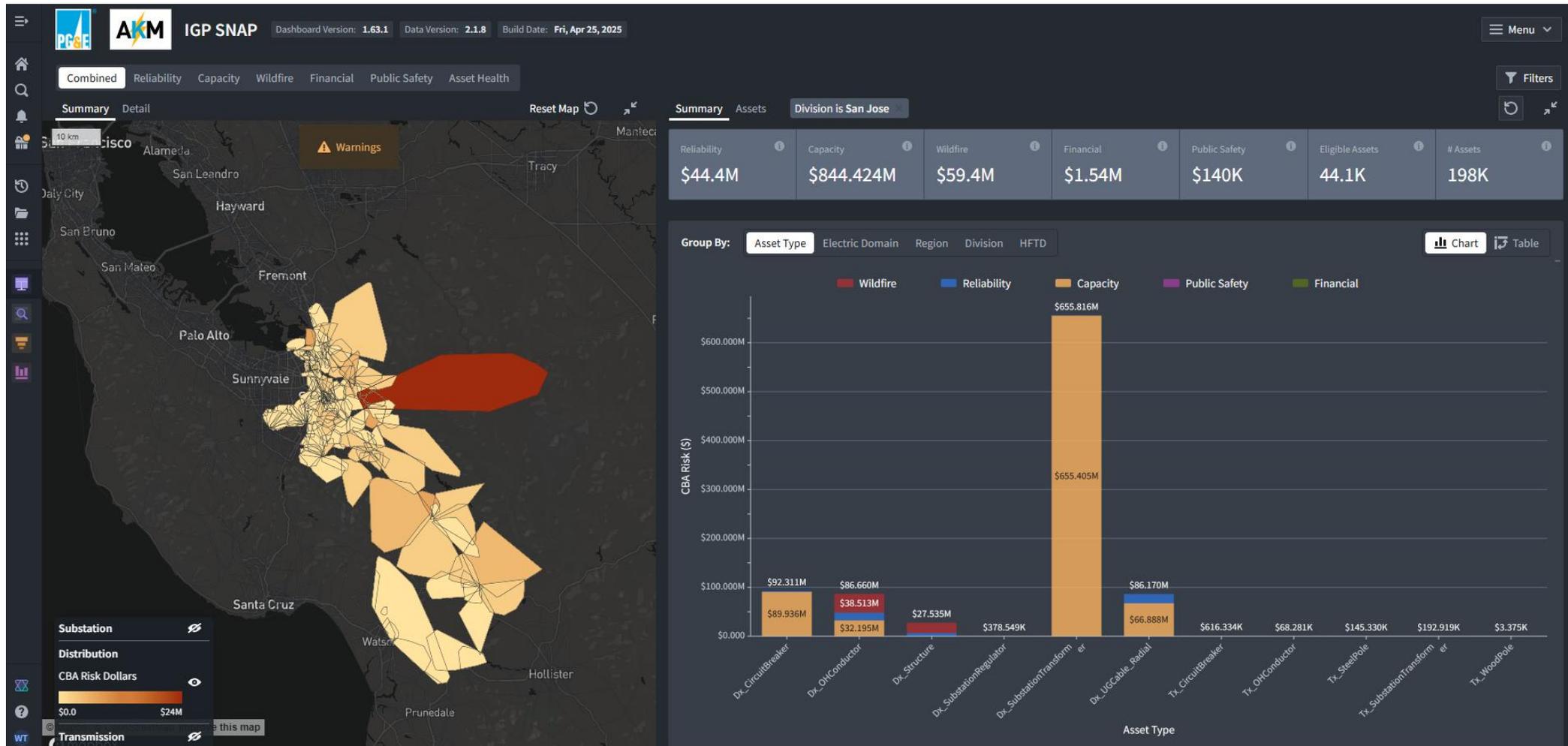
# Example Walkthrough on Next Slides

# System Needs Aggregation in SNAP based on Asset Risk



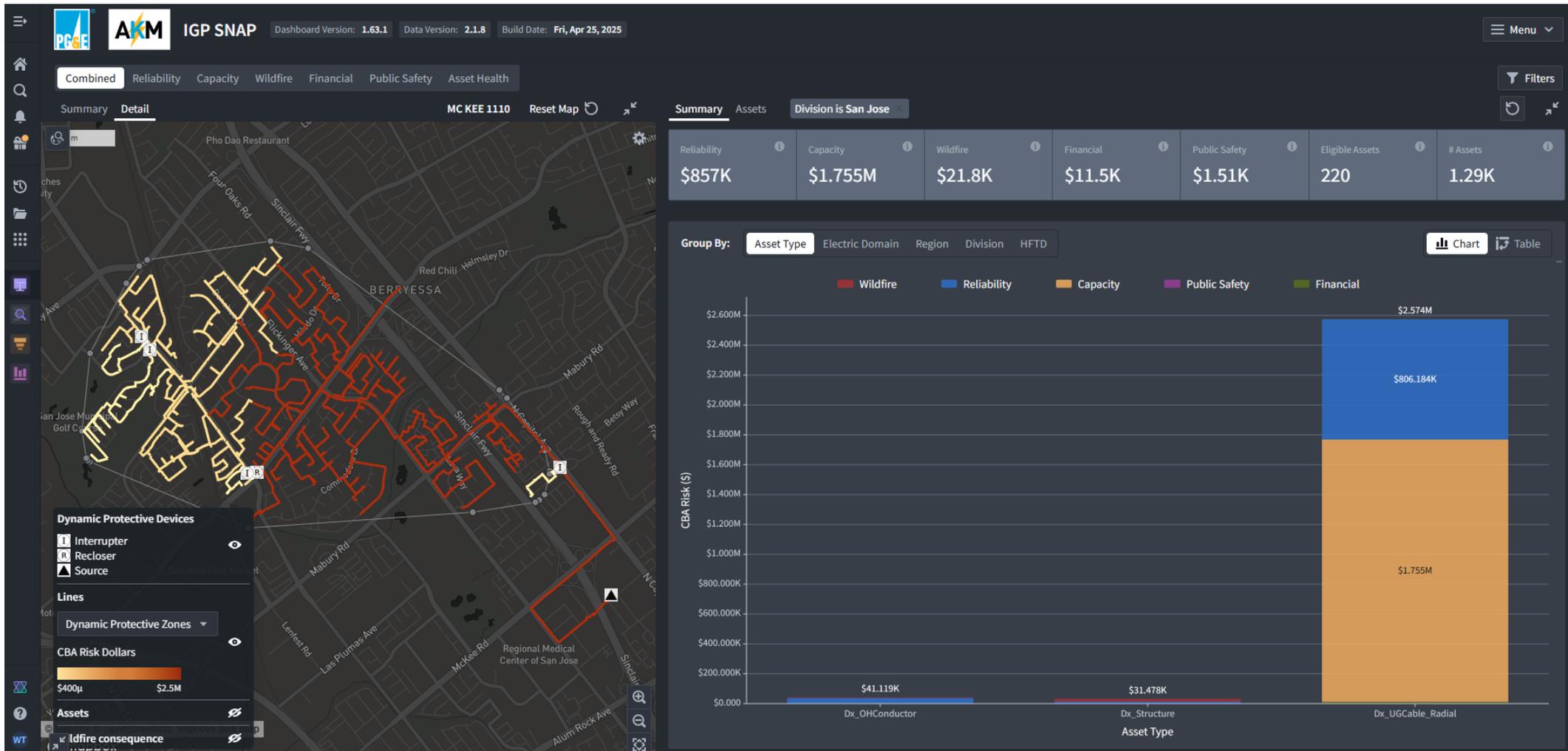
Risk data shown are illustrative and not real numbers for decision-making

# Example Distribution Division



Risk data shown are illustrative and not real numbers for decision-making

# Example Circuit (McKee 1110) with 3 Dynamic Protection Zones



Risk data shown are illustrative and not real numbers for decision-making

# Unconstrained Investment List to Address All System Needs



IFS Copperleaf Portfolio | Investments ▾ Portfolios ▾ Reports ▾ Map PGE\_TEST 🔍 🔔 🗨️ ? 👤

Portfolio: PG&E IGP Distribution ▾

Portfolios / PG&E IGP Distribution

## Scenario Planning

✕ Copy Forecasts 📄 Submit (15129) 📊 Optimize 📈 Sensitivity Analysis 🔄 Initiate Workflow 💬 1 🧪 Scenario 📄 Reports

⚙️ Planning 📄 PG&E IGP Distribution ▾ Scenario 🔒 IGP Dx - Apr2025 ELT - 20... ⓘ Auto Update On 🔄 Generate 16463 ⚠️ 3056 📄 Data Download  ↔ Compare to 🔒 IGP Dx - A

🔺 Wildfire Risk ▾ Post-Mitigation ▾ Show Investments Only ▾ No filters applied 🔍 Value Comparison 📄

Investment	Investment C...	🔧 Safety Risk (Value)	🔧 Reliability Risk (Value)	🔧 Capacity Risk (Value)	🔧 Wildfire Risk (Value)	🔧 Total Value
182191102-7030-D...	IGP118372	2.74	243.63		90,724.53	80,060.30
253481103-CB-Brea...	IGP119936	1.77	681.74	36,268.26	738.85	33,010.30
252381105-690258-...	IGP120927	0.47	96.83		55,685.02	50,506.88
043361102-628-DPD	IGP124725	0.12	3.42		42,777.18	40,259.89
SUISUN SUB DX	IGP115565	9.38	1,032.48	302,755.14	1.58	272,517.64
024011102-CB-Brea...	IGP119524	9.22	6,665.19	23,903.49	1,468.93	27,823.89
182631102-CB-Brea...	IGP125948	7.57	4,414.47	55,250.84	1,698.43	56,531.27
254561104-CB-Brea...	IGP116072	2.94	11,210.34	37,537.91	2,314.57	43,218.50
SYCAMORE CREEK S...	IGP115615	3.50	619.39	274,958.86	2.91	248,483.55
DOLAN RD SUB DX	IGP115206			22,977.53		19,326.55
152851104-CB-Brea...	IGP116317	9.85	4,711.10	29,745.78	1,298.37	29,746.46
253141103-622728-...	IGP120164	7.09	1,030.62		241,476.49	222,761.91

🏠 1 2 3 4 5 ... 100 items per page 1 - 100 of 16536

# Example Bundled Project for DPZ



IFS Copperleaf Portfolio | Investments | Portfolios | Reports | Map

Investment / 083531110-CB-Breaker

## Investment Summary

Initiate Workflow | Submit | Reports | Follow Investment

Investment

083531110-CB-Breaker  
IGP119917

Investment Summary

Investment Details

Investment Group Details

Investment Forecast History

Investment Workflow History

Create Alternative

Investment Value Models

Value Comparison

Optimize Ready

Investment Map

Investment Alternatives

Repair & Replacement & Capacity

Forecast

Alternative Details

Milestones

Alternative Value

### Overview

083531110-CB-Breaker

Owner: Chun, Hong (H3C0)

Planning Portfolio: IGP Distribution Circuits

Stage: Initial

Alternatives	Name	Value	Draft Forecast	Spend Date Range
Repair & Replacement & C...		17,911.96	\$24,761,544	Jan FY26 to Dec FY27

Assets	Name	Asset Unique ID	In-Service Date
1-2A & 1-2A XLP (PN) QPX 12kV		[0192C2D7-76D5-4E36-829B-285102E4B5FC]	
1-2A & 1-2A XLP (PN) QPX 12kV		[041B8AEF-EDEE-4CF4-AD04-DC121E81D366]	

### Cumulative Forecast

083531110-CB-Breaker

Edit Draft Forecast for Recommended Alternative

### Annualized Post-Mitigation Risks by Risk Level

083531110-CB-Breaker

Edit Value for Recommended Alternative

### Draft Investment Value

083531110-CB-Breaker

Value Measure	Value
Capacity Risk	22,201.76
Reliability Risk	16,379.78
Financial Risk	228.04
Safety Risk	26.64
Wildfire Risk	9.75
Total Investment C...	-20,934.01
<b>Total</b>	<b>17,911.96</b>

Edit Value for Recommended Alternative

project data shown are illustrative and not real numbers for decision-making

Internal

# Project High Level Scope to be handed to Project Engineers to develop Detailed Scope



Investments / 083531110-CB-Breaker / \* Repair & Replacement & Capacity

## Forecast

Save Draft Revert Initiate Workflow Submit Reports

View Settings		+	-	↕	↕	↕	Clear	Resource Units	Inflated \$	Current FY \$	All Account Types	View All Spend	Loaded	2026	To	2033	3 frozen columns
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1			Name	Unit	Actuals Equivalent (FY26-FY33)	Forecasts without (FY26-FY33)	Total (FY26-FY33)	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33		
2			Draft	\$		\$24,761,544	\$24,761,544	\$2,476,154	\$22,285,390								
3			Submitted	\$		\$24,761,544	\$24,761,544	\$2,476,154	\$22,285,390								
4			2026 Allocated Funding	\$													
5			2026 Flex-in	\$													
6			SAP - DET (Company Baseline Budget)	\$													
7			SAP - ACT (Actuals)	\$													
8			2025 Investment Plan	\$													
9																	
10			Draft Forecast														
11	1		Dx_UGCable_Radial - ReplacementRadialCable	\$		\$5,102,837	\$5,102,837	\$510,284	\$4,592,553								
12	2		Dx_UGCable_Radial - ReplacementRadialCable	\$		\$237,262	\$237,262	\$23,726	\$213,536								
13	3		Dx_UGCable_Radial - ReplacementRadialCable	\$		\$19,332,108	\$19,332,108	\$1,933,211	\$17,398,897								
14	4		Dx_OHConductor - ReconductoringCapacity	\$		\$73,624	\$73,624	\$7,362	\$66,262								
15	5		Dx_OHConductor - Reconductoring	\$		\$15,713	\$15,713	\$1,571	\$14,142								
16																	
17			Actuals Equivalent														
18																	
19			Commitment Equivalent														
20	Scratch pad for ad hoc calculations - this area below will not be saved. -----																
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project data shown are illustrative and not real numbers for decision-making

Internal

# Lunch

11:40 AM – 12:40 PM

# SCE's Integrated Planning Proposal

Christina Tan, Michael Barigian

Integrated Planning Workshop #1

October 10, 2025

Energy for What's Ahead<sup>SM</sup>



# Agenda

- Drivers for Integrated Planning
- Integration Framework
- Integrated Planning Process with Example
- Current State of SCE's Integrated Planning

# Drivers for Integrated Planning

# SCE initiated integrated planning to increase operational efficiency while enhancing customer experience

As demand for electricity grows along with requirements for increased safety, reliability and resilience, the volume of work needed to upgrade the grid is increasing significantly. Integrated planning is one of many levers that SCE is using to make the necessary work feasible and affordable given resource and other constraints.



**Customer experience:** Visit a customer premise or location fewer times reducing disruption and outages



**Affordability:** Combining multiple mitigations in a location reduces design and construction costs



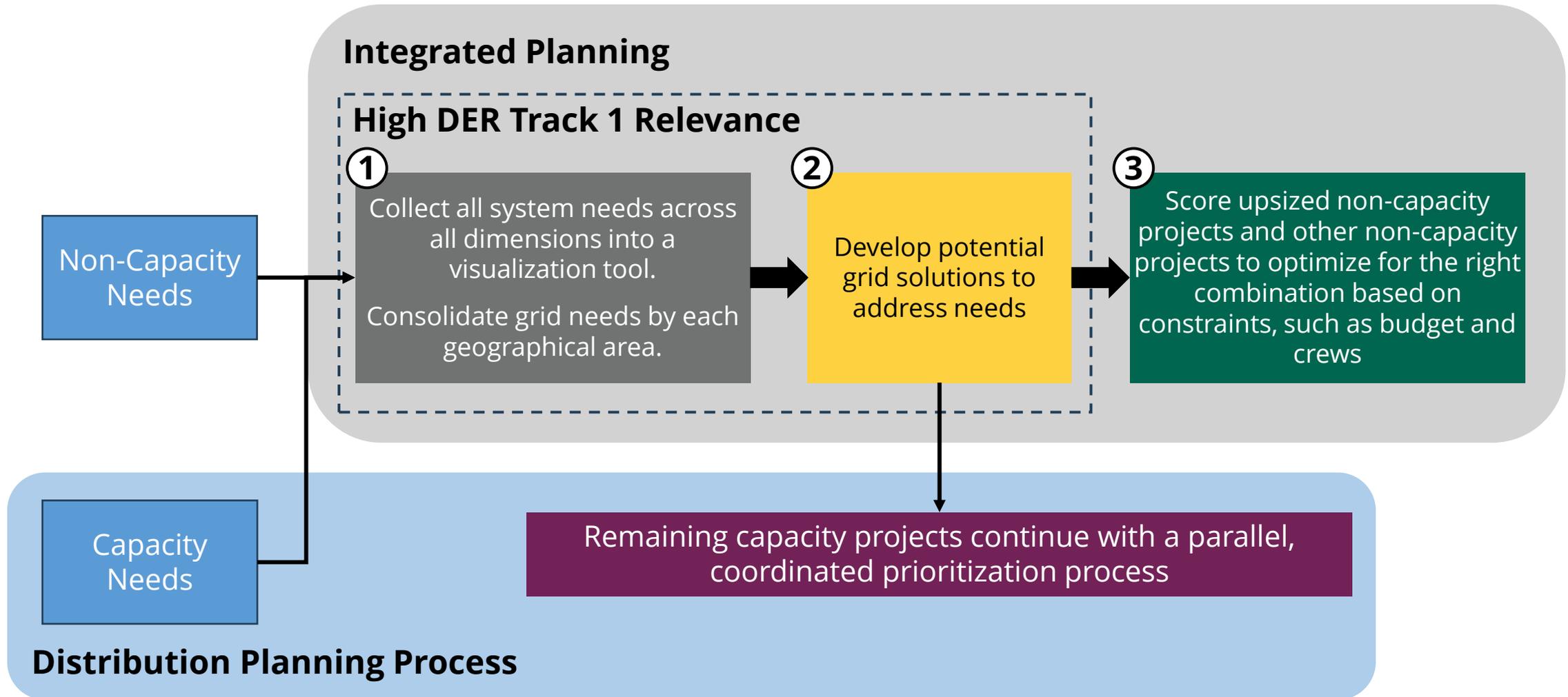
**Scoping and execution efficiency:** Relieves persistent resource constraints by reducing the volume of disparate activities by engineering and field personnel

# Integrating planning, design, and construction across multiple dimensions facilitates more robust solutions

- SCE defines **integrated planning** as developing a consolidated engineering solution before work order is created for field design and construction.
- It is distinct from SCE’s traditional practice of **integrated execution** where work orders are bundled after creation for scheduling and execution.

Dimension	Description	Example
<b>Drivers</b>	Developing a cohesive solution to address multiple needs in a geographical location instead of separate solutions to address each need	Eliminate 4 kV circuitry while performing wildfire mitigation grid hardening to address expected increase in load growth and improve reliability
<b>Voltage Level</b>	Stronger coordination between distribution and transmission upgrades	Identifying capacity constraint for a 115 kV line feeding 12/16 kV distribution circuits with sufficient lead time to implement all necessary upgrades in a timely manner to meet need dates
<b>Time</b>	Evaluating long-term needs and technology solutions while developing near-term scope to identify potential opportunities for avoiding future upgrades	Developing foundational models and analytical capabilities, distribution automation and communication networks to address near term DER-hosting needs while preparing for longer-term electrification needs
<b>Asset Type</b>	Address asset interdependencies into decision-making	Integrate underground structure and switch upgrades with the IR cable installation

# SCE's integrated planning process considers upsizing certain non-capacity projects to increase scoping and execution efficiency

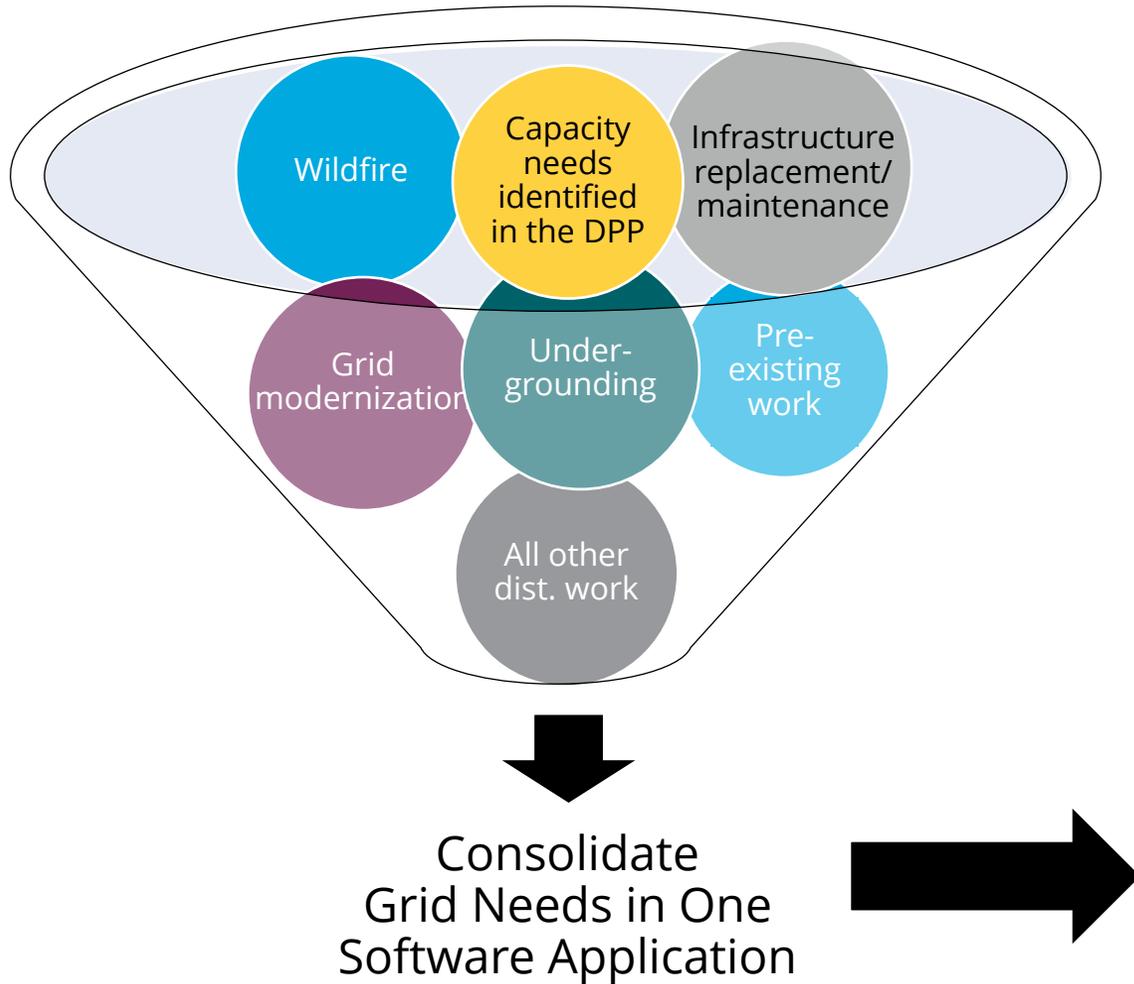


# Integration Framework

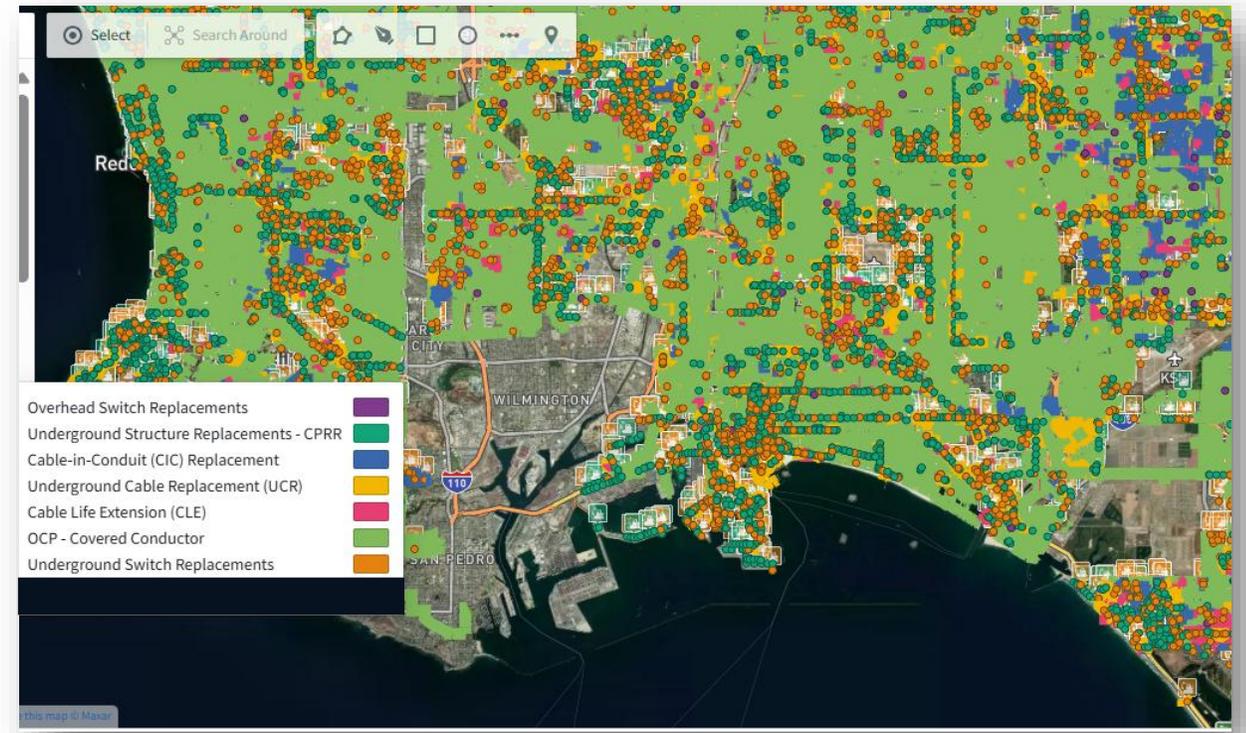
Energy for What's Ahead<sup>SM</sup>

# Integrated Planning Process

## Step 1: Consolidate grid needs in a geographical area



*New tools will be needed to consolidate and visualize all system needs and information. This example image shows a sample of grid needs mapped on a visual application.*



# Integrated Planning Process

## Step 2: Develop potential grid solutions to address needs

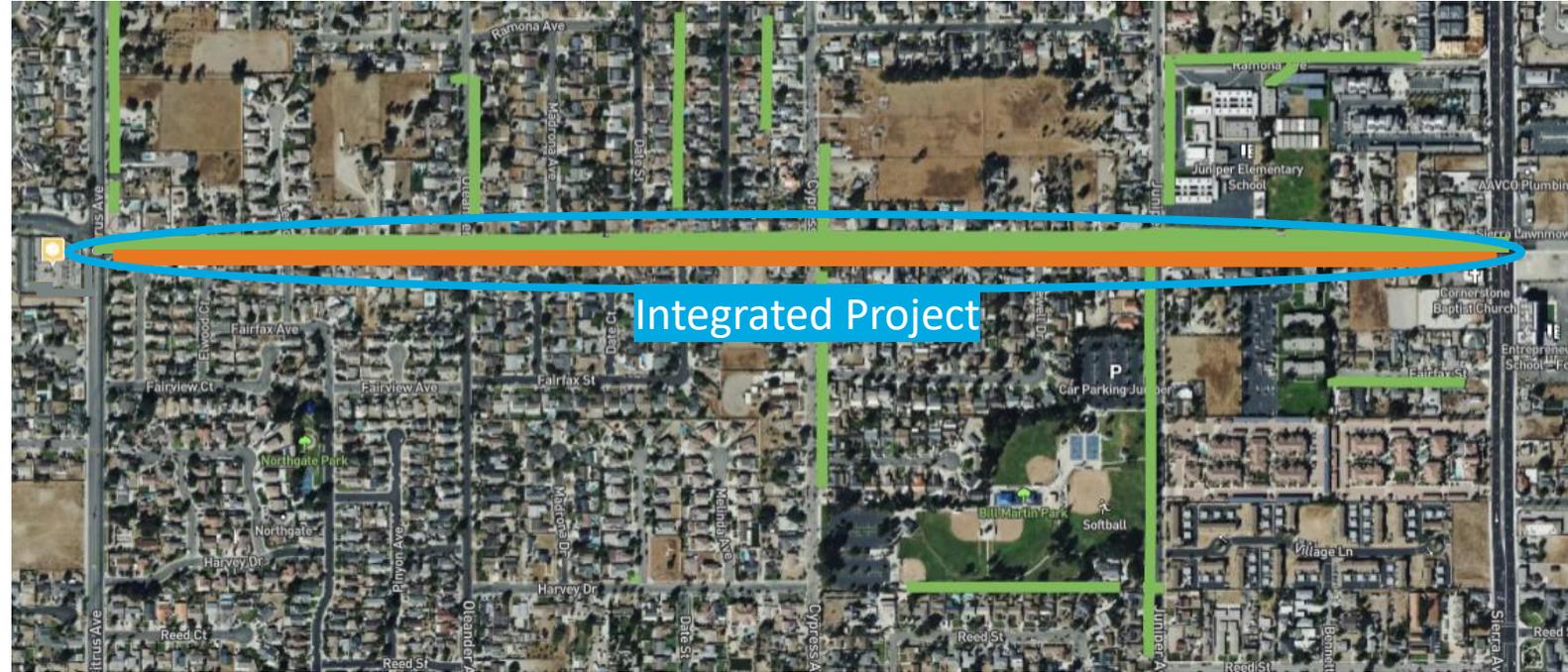
- After all needs for a geographical area are consolidated, potential grid solutions are developed considering the following:
  - Evaluating for most optimal solution and comparing cost with alternate solutions
  - Guidelines and standards when scoping for overlapping system needs
  - Project feasibility (constructability, operability, timeline)
- SCE plans to leverage automation to identify preferred and alternative solutions that address multiple needs
- The table below represents a sample menu of grid solutions utilized individually or in combination to address various grid needs

Wildfire Mitigation	Distribution Capacity	Dist. Overhead (OH) Infrastructure Replacement	Dist. Underground (UG) Infrastructure Replacement	Grid Modernization
<ul style="list-style-type: none"> <li>• Convert OH lines to UG cable</li> <li>• Replace bare conductor with covered conductor</li> </ul>	<ul style="list-style-type: none"> <li>• New Substation</li> <li>• Increase Substation Capacity</li> <li>• Install new circuit(s)</li> <li>• Install new conductor/cable to extend service</li> <li>• Upsize conductor or cable</li> <li>• Balance load across circuit phases</li> <li>• Transfer load across circuits</li> </ul>	<ul style="list-style-type: none"> <li>• Convert 4 kV feeder(s) to higher voltage               <ul style="list-style-type: none"> <li>• Replace conductor and transformers</li> </ul> </li> <li>• Install/replace               <ul style="list-style-type: none"> <li>• Bare conductor with covered conductor</li> <li>• Switches</li> </ul> </li> <li>• Install Fuses</li> </ul>	<ul style="list-style-type: none"> <li>• Convert 4 kV feeder(s) to higher voltage               <ul style="list-style-type: none"> <li>• Replace cable and transformers</li> </ul> </li> <li>• Install/replace               <ul style="list-style-type: none"> <li>• Structures</li> <li>• Transformers</li> <li>• Switches</li> <li>• Cable</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Install/upgrade/replace dist. automation with sensing (telemetry)</li> </ul>

# Integrated Planning Process with Example

# Integrated Planning Example for Time and Drivers (Step 1 and Step 2)

*For illustrative purposes only*



### Legend

- Safety and reliability need in Year 3
- Capacity need in Year 6
- ⚡ Substation
- Integrated Project

Method	Project	Driver	Need Year	Scope Description	Impact
Non-Integrated	A	Reduce frequency of wire down to address public safety and reliability risks	Year 3	Upsize conductor from 1/0 bare to 1/0 covered	<ul style="list-style-type: none"> <li>Twice amount of material, labor, and planned outages</li> <li>Assets (wire) not utilized to their full useful lifespan</li> </ul>
	B	Increase capacity to meet demand growth	Year 6	Upsize conductor from 1/0 covered to 336 covered	
Integrated (Future)	C	Integration of the above drivers	Year 3	Upsize conductor from 1/0 bare to 336 covered	<ul style="list-style-type: none"> <li>Accelerate capacity mitigation to support timely customer energization</li> <li>Single amount of material, labor, and planned outages</li> </ul>

Guidelines are currently being developed to determine whether to integrate projects or not. This will save time and effort by preventing engineering teams from duplicate scoping and cost estimating (once for non-integrated and again for integrated).

# Current State of SCE's Integrated Planning

# Current Status of Integrated Planning

- Conducting an integrated planning pilot this year to deliver integrated scope, with more than 400 circuit segments released for execution, and another 40 circuit segments currently being evaluated for integration.
  - Majority of the circuit segments are capacity projects with infrastructure replacement projects
  - Integration performed across all four dimensions: drivers, voltage, time, and assets
- Developing and enhancing a technology roadmap for data integration, solution optimization, and project visualization
- Developing processes to establish a long-term repeatable and scalable integrated grid planning process
- Training efforts are underway to foster a culture of proactive problem-solving to achieve integrated planning goals

Thank you – Questions?

Energy for What's Ahead®



# Break

1:30pm – 1:40 PM



## Integrated Grid Planning Workshop



October 10, 2025



**4,100**

Square Miles

**3.7**

Million Residents

**2**

Counties (San Diego & Orange)

**25**

Communities

**18**

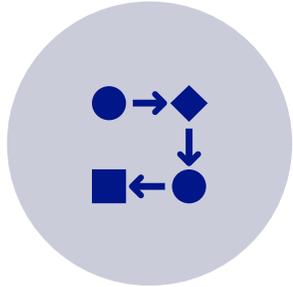
Federally recognized Tribes



Coastal, mesa, valley, mountain & desert terrain

# Overview

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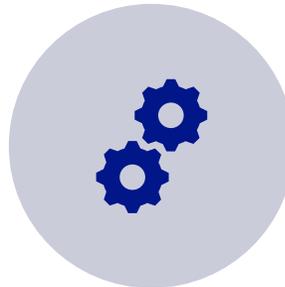
Distribution Planning  
Results are Integrated  
into Key Workstreams  
and Vice Versa



Embedded in Core  
Business Processes  
and Cross-Functional  
Collaboration



Drives Operational  
Efficiency and Cost  
Effectiveness



Allows Adaptation to  
Unique Customer and  
Project Requirements,  
Local Constraints, and  
Evolving Demands

# Distribution Planning Process and Coordination



Integration of Project /  
Workstream Developments

- ✓ Reliability
- ✂ Corrective Maintenance
- 📈 Customers and Cities
- ☁️ Generation Interconnection
- 🚚 Underbuilds / Attachments
- 🚒 Wildfire Mitigation

# Distribution Planning Integration Scenarios



Distribution Planning Process (DPP) results can inform the scoping and design of other workstreams and vice versa.

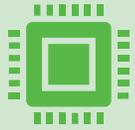


For example, forecasts from DPP and material standards might guide de minimis sizing / configuration scope in workstreams that target the same infrastructure.



Very infrequently at SDG&E, other workstream scope may overlap DPP projects (e.g., covered conductor), and the workstreams qualitatively collaborate to synchronize timing in an inconsequential manner (e.g., shift a year or two).

# Distribution Planning Integration Scenarios – Cont.



Also infrequent at SDG&E, a specific DPP-identified project, such as reconductoring an overhead circuit, may have scope overlap with another active workstream.

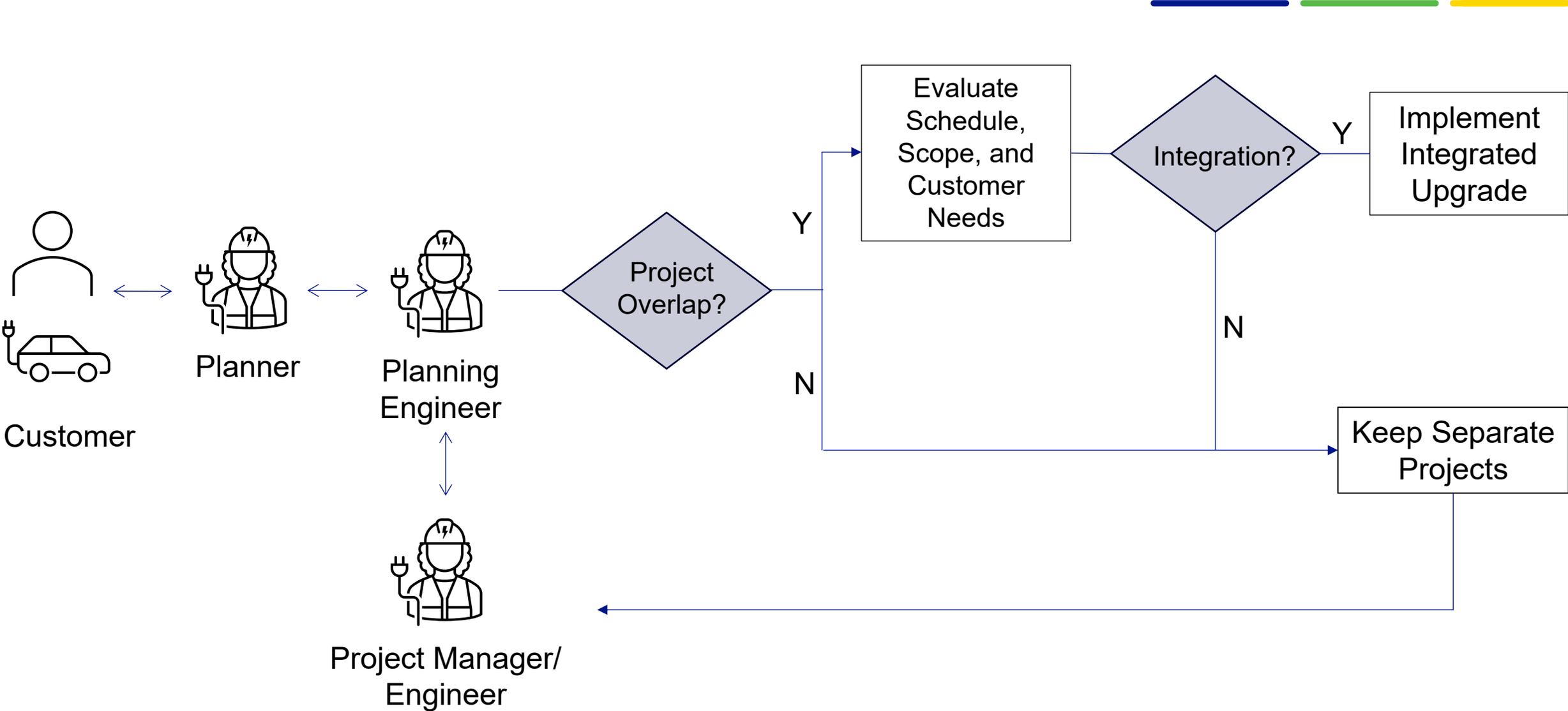


This may occur when both efforts target the same infrastructure, and again coordination can enhance the scope. In the reconductoring example, there might be an aging pole identified through another workstream as needing replacement, and if the timing can align there may be efficiencies gained.

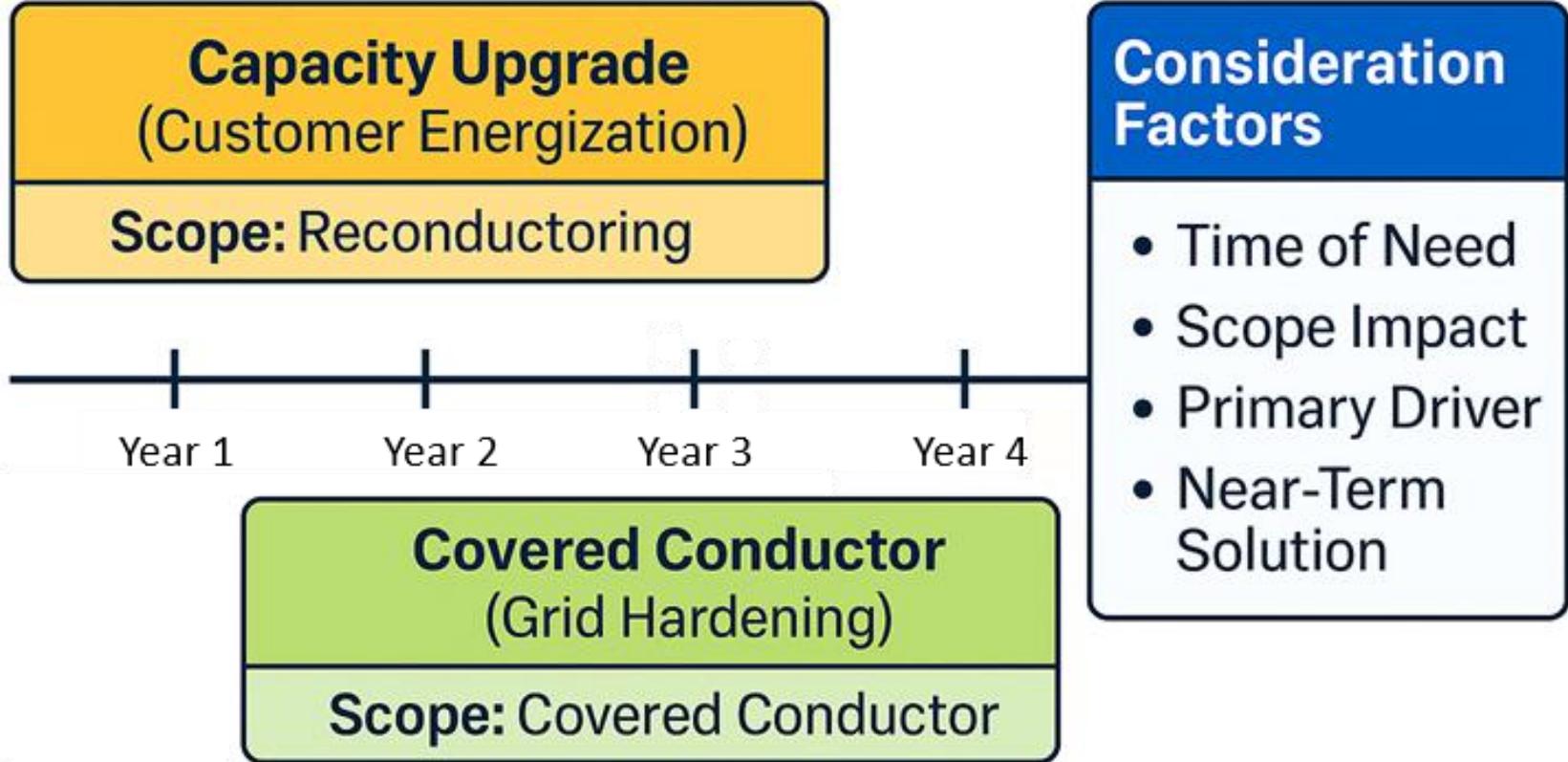


This scenario typically results in the other workstream aligning to the DPP project timing with negligible impacts, and may enhance overall workflow.

# Coordination Workflow



# Project Example



# Recap

## Acknowledgement

- SDG&E recognizes and has long experienced that planning in an integrated manner can help optimize workflow over time
- In certain situations, aligning scope and timing can reduce overall costs and improve efficiency

## Current State

- SDG&E's portfolio is modest and closely managed
- Energization and associated capacity needs remain critical and must not be materially hampered
- Existing practices already include checks for overlaps and efficiencies

## Key Considerations

- Additional complex processes may offer limited benefit at SDG&E's current scale, and may introduce higher overall costs
- There is a risk of diverting emphasis away from urgent energization efforts, affecting service to customers

## Commitment

- SDG&E's priority is timely execution and delivery for our customers
- We remain open to learning from utility-led pilots where real net efficiencies and savings are demonstrated



**Q&A**

# Stakeholder Panel and Open Discussion

# Next Steps

- Submit questions to the [High DER Proceeding \(R.21-06-017\) Service List](#) by October 24
- CPUC and IOUs will answer select questions by November 7
- Workshop #2 TBD ~Week of November 17
- Tier 3 Advice Letters on December 15, 2025