

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

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Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future.

R.21-06-017

<u>SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E)</u> <u>PLAN AND COMPLIANCE REPORT ON</u> <u>BRIDGING STRATEGIES AND SOLUTIONS</u>

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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future

R.21-06-017

<u>SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E)</u> <u>PLAN AND COMPLIANCE REPORT ON</u> <u>BRIDGING STRATEGIES AND SOLUTIONS</u>

Pursuant to the October 17, 2024 *Decision Adopting Improvements to Distribution Planning and Project Execution Process, Distribution Resource Planning Data Portals, and Integration Capacity Analysis Maps* in R.21-06-017,¹ Southern California Edison Company ("SCE") respectfully submits the attached Plan and Compliance Report on Bridging Strategies and Solutions.

R.21-06-017, Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future, October 17, 2024 Decision Adopting Improvements to Distribution Planning and Project Execution Process, Distribution Resource Planning Data Portals, and Integration Capacity Analysis Maps (D.24-10-030, OP 18).

Respectfully submitted,

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Attachment

SCE's Bridging Solutions Strategies Compliance Report

Southern California Edison Company's Plan and Compliance Report on Bridging Strategies and Solutions

December 16, 2024

I. Executive Summary

In this plan and compliance report on bridging strategies and solutions, Southern California Edison Company (SCE) provides a vision for employing a comprehensive suite of technologies and methodologies to provide timely energization to customers in areas of the service area where there are capacity constraints. The goal is to provide customers the benefit of expeditious energization as well as grid reliability and resiliency, while remaining focused on affordability.

This plan reviews SCE's current customer energization processes to provide context for the future state SCE envisions. While proactive buildout is the most effective tool to meet electrification needs, bridging strategies will also play a crucial role in areas where needs far outstrip the speed at which infrastructure can be built. Bridging strategies broadly refers to temporary load flexibility or the application of distributed energy resources (DERs) to provide earlier energization of full or partial load that requires distribution capacity upgrades. These include no-cost and low-cost load limiting solutions, short-term solutions utilizing mobile storage and substations, and finally solutions with multiple applications, thus providing durable grid benefits. The durable grid benefits solutions, which include stationary storage and off-grid generation, can be utilized to respond to other grid needs (e.g., back up for planned outages) once customer capacity requests are met.

SCE also identifies several issues that remain to be fully resolved, which will almost certainly require action by the California Public Utilities Commission (CPUC or the Commission), namely, how to effectively balance customer choice and equity, and how to properly account for cost recovery of new investments that have not previously been included in funding requests. Finally, SCE notes that while demand flexibility may utilize some of the same technologies as

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the bridging strategies reviewed in this plan, it is a wholly different construct and should not be viewed as a simple extension of bridging approaches.

II. SCE's Vision for Bridging Strategies

SCE currently employs bridging strategies and envisions expanding the suite of options to provide greater flexibility for customers and grid operations. As SCE has discussed in the context of the Energization OIR (R. 24-01-018), the current delays faced due to upstream capacity constraints have the potential to create significant customer impacts.

Providing timely load interconnections that meet customer needs will require a combination of many discrete approaches. SCE reiterates that the ideal solution is to ensure that, to the greatest extent possible, grid upgrades are planned and constructed ahead of a customer needing to energize load. This is core to effective proactive planning, a significant topic within the High DER Track 1 Decision, D.24-10-030 (the Decision)¹, and the focus of several other workstreams (in particular, pending loads and scenario planning, both of which will drive new forecasting and planning approaches to ensure the grid is built out and ready for future load growth). SCE's Transportation Electrification Readiness Studies (TEGR) as filed in the 2025 GRC filing was a step towards this ideal solution, which is in close alignment with the Decision.

It will, however, take time to operationalize proactive planning and buildout, and even the best proactive planning may occasionally underestimate future customer needs. Therefore, having a portfolio of bridging strategies is imperative: it will allow SCE to address hyper-localized needs that exist today, as proactive planning is being developed and implemented, as well as to address occasional longer-term needs.

Much of the work to develop and implement bridging strategies is currently in flight and delivering customer benefits, including load control and mobile storage, both described in detail

¹ R.21-06-017, Decision Adopting Improvements to Distribution Planning and Project Execution Process, Distribution Resource Planning Data Portals, and Integration Capacity Analysis Maps, D.24-10-030, Oct. 23, 2024.

later in this document, while some work requires further development. SCE looks forward to working with the Commission to fully implement this vision.

III. Regulatory Background

Section 3.10 of the Decision requires utilities to develop bridging strategies to better accommodate energization requests that require distribution capacity work. The goal of bridging solutions is to accelerate the energization of customers while the required capacity upgrades are being constructed.

Ordering Paragraph 18 of the Decision specifies that the utilities provide a plan and report discussing: (1) improvements to utilities' reactive process upon receiving an energization request that requires a distribution capacity upgrade; (2) temporary constraints on the power the customer is allowed to draw; (3) acquiring and deploying mobile distributed energy resources capable of managing and preventing grid deviation during the construction of a distribution capacity project and (4) customer-owned distributed energy resources. Finally, the plan must indicate where in the Distribution Planning and Execution Process (DPEP) a customer will be notified of their bridging options.

SCE has reported previously that it has processes in place to address energization requests that require a distribution upgrade in the current Distribution Planning Process (DPP) cycle. Thus, the implementation of bridging strategies into the DPP aligns with SCE's vision and ongoing plans.

IV. SCE's Bridging Strategy Plan

SCE emphasizes, through this plan, the necessity for changes in how investor-owned utilities (IOUs) prepare the grid due to the increasing scale and pace of load growth. It highlights the importance of bridging solutions to meet customer needs before permanent grid upgrades are deployed. The plan builds on existing solutions like onsite load management, leverages technologies already being used in other applications, like mobile storage, and aims to advance

new solutions such as mobile substations, all falling into two main categories: (1) temporary solutions; and (2) solutions with durable grid benefits.

The plan further outlines SCE's strategy for procuring assets necessary to provide bridging solutions. It discusses the lead time for procurement, the need for annual reviews of procurement strategy, and the importance of having a fleet of relocatable storage and rental agreements to manage uncertainty in customer needs. It also highlights the need for incremental funding to fully implement these strategies.

A. Overview and Context of the Plan

As recognized in the Decision, the scale and pace of load growth far exceeds historical demand, and necessitates changes to IOUs' planning processes to better prepare for customer load growth.² The planning process changes envisioned in the Decision should lead to a ready and reliable grid, but as acknowledged in both the Energization and High DER Proceedings the role of new solutions to temporarily meet customer needs prior to the deployment of permanent grid upgrades, i.e., bridging solutions, will be crucial.

The plan builds on solutions SCE has already implemented, including onsite load management and utility-owned DERs. While these are key bridging solutions, we need to advance additional solutions, such as mobile energy storage and mobile substations, which SCE has included in its 2025 GRC request. SCE looks forward to CPUC and stakeholder support in advancing these solutions to meet customer demands.

SCE previously developed a playbook (left hand side of Figure 1 below) of traditional methods to address grid constraints. These traditional solutions include short-term, low-cost approaches such as reconfiguring the system to shift available capacity to the area where it is needed. When short-term solutions are not feasible, longer-term, more comprehensive solutions are employed, including distribution circuit upgrades, substation capacity upgrades, new distribution circuits,

² D.24-10-030, p. 25.

and new substations. SCE's plan augments this playbook to include a range of newer technologies.

Figure 1 - SCE's Interconnection Playbook

Expanding the current interconnection playbook will be required to support increased electrification and volume of load requests

Traditional Interconnection Playbook

SCE has developed a playbook over time to address grid constraints

Short-term solutions:

- **Phase balancing** to mitigate circuit overloads caused by phase imbalances
- Circuit load rolls (load transfers)
- Interim Rating facility temporary PLLs for substations (assessed on case-by-case basis)

Durable Grid Benefits:

- Distribution circuit upgrade
- New substation capacity addition
- New distribution circuit
- New substations

Expanded Interconnection Playbook (2023+)

SCE will expand the interconnection playbook to address new electrification challenges by leveraging advances in technologies. **These solutions will be presented in the bridging strategies plan.**

Temporary solutions:

- Flexible interconnections to provide partial capacity while longer-term capacity is being built
- Mobile energy storage to temporarily increase circuit utilization
- Mobile substations to temporarily expand capacity at existing substations and provide substations to remote loads

Durable Grid Benefits:

- Stationary distribution storage
- Off grid / local generation solution to serve load where limited or no grid connection

To accelerate energization requests, SCE's portfolio of solutions is already expanding to include bridging solutions that leverage advances in available technology. For example, load control (alternatively referred to as flexible interconnection) allows a portion of the customer's energization request to be served while awaiting the completion of capacity upgrades needed to serve the full request. Mobile energy storage provides a temporary increase to the grid's loadserving capacity to accommodate energization. Mobile substations temporarily expand capacity at existing substations and provide service to remote loads. Additionally, the expanded playbook will include solutions that offer durable grid benefits, such as stationary storage and the ability to serve load off-grid where it is determined to be the most economical solution. Fundamentally, a utility's ability to meet a customer's request for energization comes down to matching grid capacity with customer energy needs at the time of the customer demand, which is a highly dynamic process. Traditionally, the distribution planning process attempted to forecast the need to build the grid in advance, often without specific customer demand growth or project information. As we shift from just-in-time, reactive planning to a robust proactive planning framework, there will be an expanded level of customer engagement and information that facilitates the use of bridging strategies. Much like the DPP, the process around bridging solutions can be described in four key steps: initial engagement, solution identification, solution deployment, and ongoing operations. It is important to note that solution deployment and ongoing operations are often done in parallel with traditional infrastructure construction to ensure that a customer's ultimate desired level of energy consumption can be supported. Those parallel steps of traditional infrastructure deployment are not described in this plan, but are summarized in the Decision and discussed in detail in the Staff Proposal³.

B. Detail of Specific Solutions

1. Temporary Solutions

These temporary solutions will primarily serve energization needs for a limited time duration while a more permanent solution is built out. The focus is on solutions that minimize the incremental cost and deployment time.

a. Flexible Interconnection

SCE has developed a load control management system (LCMS) that allows customers to be energized sooner by agreeing to a pre-established limit on their consumption. This allows the customer to use the available capacity on the grid while awaiting the completion of upstream capacity project(s). SCE filed Advice Letter 5138-E on November 9, 2023, to initiate this pilot and has enrolled about a half-dozen customers thus far with positive results. Based on the initial

³ Decision, pp.11-13; R.21-06-017, Staff Proposal for the High DER Proceeding (corrected), Apr. 5, 2024, p. 17-22, available at: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M529/K078/529078850.PDF.

engagement, SCE may offer the LCMS solution to an energization customer, and the customer will determine if they are willing to accept the modified usage pattern for a temporary period. While the LCMS Pilot is currently based on static limits programmed onsite, it will eventually evolve to use two-way communication, leveraging the standards discussed in Track 3 of the High DER proceeding.

SCE is also actively working on the development and deployment of our Distributed Energy Resource Management System (DERMS), which will enable an advanced load control management approach. The expectation is, much like with the concept of Operational Flexibility generation interconnection, that a more dynamic understanding of grid constraints can be translated into a more dynamic set of requirements for customers' load management systems to follow. This will follow the same general process as the current LCMS approach but will adjust customer consumption limits on an ongoing basis based on real-time conditions, utilizing dynamic pricing, updated day ahead, or possibly rolling 24 hours ahead. It is expected to go live in the 2026-2027 timeframe, and a related subtransmission-focused control management system may be deployed post-2027.

b. Mobile Storage

Relocatable energy storage resources will be deployed to resolve locational grid capacity constraints in front of the meter. Modular, scalable storage units located on circuit / interconnection service will provide an energy buffer and increase circuit utilization. This would provide interim capacity support and extend and expand use of utility-owned storage (UOS). SCE has requested funding in its 2025 GRC to procure energy storage to meet load growth needs, including the procurement of 36 mobile storage units to meet emergent load growth needs.⁴ These units would allow for the early energization of up to 36 customers at any given time. If timing, location, and the incremental capacity needs are aligned, there is a potential for these 36 units to provide early energization to *more than* 36 customers. SCE is in the process of

⁴ A.23-05-10, Exhibit SCE-02 Vol 07: Load Growth, Transmission Projects, and Engineering, Section II.D.2.b., pg. 47-49.

procuring an initial set of these mobile units by Q3 2025 to resolve grid capacity constraints in a given area of need. As the traditional infrastructure is built, these units can be redeployed to the next area of need. Significant expansion beyond the initial pilot is planned over the next several years to meet customer needs; as discussed in Section V, incremental funding will be required to do so.

c. Mobile Substations

Mobile substations allow for an expansion of the existing distribution system's capacity by making a localized connection directly to a subtransmission line. The mobile substation is a fully functional trailer-mounted substation with a capacity of 28 MVA. This can help resolve larger scale grid constraints which cannot be resolved by LCMS or mobile energy storage. The first pilot unit is in procurement and is expected to be received in 2026, with a likely deployment in Q2 of 2027.

2. Solutions with Durable Grid Benefits

The following solutions will accelerate energization while also providing long-term customer benefits.

a. Stationary Storage

Stationary storage is permanently installed storage to address short- and long-term constraints on existing distribution circuits by providing a scalable storage system deployed at primary circuit mainline, community level, or substation to address locational constraints that are driven by one or more interconnections/capacity requests. SCE has gained experience in deploying and operating energy storage devices on the distribution system to meet local needs in its Energy Storage Integration Program (ESIP). Stationary storage can provide short-term benefits of accelerated energization and be a dependable resource for long-term load modification and therefore reduce required levels of grid upgrades. Stationary storage will also provide reliability and resiliency services during outages.

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b. Stationary Generation

Stationary generation refers to stand-alone utility-owned DERs serving large new loads where there is limited or no grid service available and where utilization of energy storage is not sufficient to meet the customer's demand. These alternative interconnection solutions will be semi-permanent/permanent low- or zero-emissions local generation⁵ deployed at customer locations that meet partial or full load requirements. As with stationary storage, stationary generation will provide short-term benefits of accelerated energization, but also long-term grid benefits through reduced need for grid buildout and improved reliability and resiliency. SCE is in the process of developing a timeline for this solution.

3. Integration of Customer DERs with Bridging Strategies

Customer-owned DERs are not a utility "bridging strategy" per se, as they are implemented by the customer, not SCE. However, they are an important potential solution that may serve to accelerate energization by reducing load needs, in addition to providing other customer benefits to manage usage and provide backup power during outages.

When customers approach SCE with their energization requests, to the extent that on-site resources are part of their projects, these other technologies can be factored into the assessment of capacity availability. While the customer is responsible for the design, procurement, and installation of the DER system, SCE can provide advice on various system attributes (e.g., size, performance characteristics) that will best enable the customer DER to support accelerated energization. Depending on the specific situation, the appropriate solution could combine flexible load interconnection with customer-owned DERs to ensure the grid is protected in the event the customer DER is unavailable or does not perform to the level needed.

⁵ These may include ultra-low emissions linear generators or small modular reactors.

C. SCE's Strategy to Procure Assets to Enable Bridging Solutions

To effectively leverage storage, generation, and mobile substations to accelerate energization, SCE will need to have these resources ready and available to begin the deployment process as soon as possible following the energization request. Because these are long lead-time resources, SCE is implementing a strategy to procure sufficient resources in advance, in anticipation of future bridging needs. In this section, SCE discusses how it will evaluate customer requests to inform a reasonable strategy to procure these assets.

As with any procurement approach, the strategy begins with analysis of need. SCE plans to review the need for procuring bridging capacity assets on an annual basis and determine/update the procurement targets based on the need assessment for the appropriate type of assets to meet the need.

Based on completed energization requests (also known as "full submittal" requests) received as of Dec 9, 2024, SCE was unable to meet the requested energization timelines due to needed grid capacity upgrades for approximately 20 projects that met the full submittal requirements, which represents 1% of total SCE requested projects. In addition, there were over 600 customer projects at "partial submittal", i.e., projects that have provided sufficient information to begin to incorporate these projects into SCE's capacity planning process. If those projects were to move forward (i.e., customer completes the application process), the bridging solution needs could grow from 20 projects to close to 200.

For relocatable storage, SCE included 36 units in our currently pending GRC for 2025-2028. SCE plans to revisit the sizing needs of relocatable storage in Q1 2025 given the continuing growth in energization requests since the GRC was filed. The updated information will be used to inform SCE's procurement strategy. SCE plans to both own a fleet of relocatable storage and have rental agreements in place to utilize additional storage devices on a temporary basis. SCE intends to use this strategy to manage uncertainty in customer needs. SCE-owned relocatable storage will be used for other purposes when not deployed as a bridging solution. For example,

the storage could be dispatched to meet reliability needs during emergency events. SCE plans to go through similar analysis to develop its procurement strategy for mobile substations.

For stationary batteries, SCE plans to review deployment needs annually. Priority will be given to substations and circuits with the highest utilization (>95%), high PV penetration, low load factor, and likely customer load growth beyond the forecasted load assumptions, to fully maximize existing asset utilization and ready the grid for the next customer(s).

Plans for procurement of stationary generation are ongoing, as SCE refines the specific scenarios where stationary generation is the appropriate solution.

D. Future State Process to Deploy Bridging Strategies to Customers

SCE is updating its process for deploying bridging solutions to accelerate energization timelines. Upon receiving an energization request that requires a distribution capacity upgrade (Customer Intake), SCE plans to partner with customers to better understand project capacity needs, timelines and flexibility to evaluate the applicability of bridging solutions to expedite energization of partial or full requests.

1. Early Insights

SCE is planning to continue engagement with local jurisdictions and large customers in advance of formal energization requests with the intent of gaining additional information about capacity needs and timing in an effort identify potential capacity shortfalls sooner. Earlier identification of such constraints can help with prioritizing deployment of bridging solutions, potentially accelerating upstream capacity upgrades, and identifying the need for new system upgrades sooner, all of which are focused on ensuring customers are able to interconnect partially or fully.

2. Initial Engagement (Customer Intake)

Once an energization request has been received, SCE engages directly with the customer to understand the capacity needs, timing for capacity and potential for that to evolve, as well as customer willingness to modify their energy usage (e.g., temporary vs. permanent basis). Based on that information, SCE conducts the appropriate studies to determine if there is sufficient capacity to serve the customer in accordance with their timelines. In the event there is insufficient capacity, SCE will determine if there are planned upstream capacity upgrades that will provide additional capacity in the area of the customer energization request and when that capacity will be available. That helps SCE understand how much of a capacity shortfall there may be and how long it may last, helping determine the applicable bridging solutions (near term) and how SCE will serve the customer in the future (long term). The increased customer engagement with early insights and during customer intake is intended to provide the customer with a better experience through educating them about how the utility plans for larger system upgrades, how we can use bridging options as a temporary solution when there are capacity shortfalls and overall SCE's commitment to timely energization.

3. Solution Identification

As noted above, solutions for bridging, or temporary relief, can also extend into a more permanent modification of the electric system depending on how needs evolve over time and customer willingness to make more permanent behavioral changes. Conversely, some of the solutions that can be used to provide temporary energization benefits can transition to other uses over time as the original need is resolved (i.e., DERs can become resiliency tools once grid capacity is created through infrastructure build). Lastly, it is also important to note that although these solutions are described individually, SCE sees these as a portfolio of solutions that can be combined to more fully address the needs of customers, and as such explores all applicable solutions when seeking to energize a customer.

While bridging strategy selection has primarily been on an ad hoc basis up to this point, SCE is developing a process and decision tree to identify the bridging solutions that are best fit based on the specific details of a customer's energization request. This process would be initiated with the customer's request for energization. An engineering review will then be performed, considering the overall demand, load shape, load schedule, and timeline compared to the available capacity at the circuit, substation, subtransmission and transmission systems, as applicable. The load profiles of the grid infrastructure will be considered to determine whether storage solutions would have

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adequate charging capacity to offset customer demand. Next, solutions and solution sets will be identified, considering not only the electrical characteristics, but also the physical ability to place assets where needed. Where possible, SCE intends to identify one or more bridging solutions that may include varying levels of capacity and cost. These options would then be presented to the customer, and in consultation with SCE on required and optional services to offer the early connection, the customer would make a decision and execute all necessary agreements to proceed. At this point, deployment of the selected bridging solution and upstream capacity upgrade(s) would be initiated.

4. Solution Deployment

Once a solution has been identified and is determined to be viable, the next step is to deploy that solution. The deployment process for different solutions is described below.

a. Customer DERs

Deployment of customer DERs follows the existing process. The deployment is primarily a customer responsibility; however, as discussed above (in section B.3), SCE can provide information as the customer is considering DER system installation option(s) to help inform the customer of system attributes that will enable the customer to meet the objective of accelerating energization. Once the customer has selected a system, SCE's primary role is to engage with the customer in the interconnection process to ensure safe installation of the technology.

b. Flexible Interconnection

In the case of behavioral changes, SCE's current approach is to work with a customer to deploy the requisite LCMS system and enter into a contractual agreement for performance obligations. The customer is responsible for installing the system and working with SCE to validate its performance. It is anticipated that any advanced LCMS approach would follow a similar path, but layer on two-way communications for more granular limits, providing customers more capability and ultimately more capacity.

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c. Mobile Storage, Mobile Substations, Stationary Storage, Stationary DERs

These are utility-owned and operated resources that would be deployed consistent with other utility asset deployment, such as conductors and capacitor banks, that follows utility installation, commissioning, operation, and maintenance procedures for reliability and safety. In certain scenarios, it is possible that the solution would be located on the customer's premise though on the utility side of the customer meter. In such scenarios, SCE would naturally have ongoing communication and collaboration regarding the deployment.

5. Ongoing Operation and Maintenance

All of the solutions described herein require ongoing operational and maintenance activities to deliver on the benefit of their deployment. For LCMS, customer load management devices will need to be programmed to follow schedules (in the current state), or will be programmed to respond to signals from SCE (in the future). The grid capacity solutions (mobile and stationary storage, stationary DERs) similarly will need ongoing operation and maintenance to deliver the benefits of the various technologies. These ongoing operations play a key role in the dependability and certainty of any bridging solution.

E. SCE's Approach Will Address Customer Choice, Fairness, and Cost Allocation

As SCE implements its bridging strategies described herein, a key concern will be that customers are offered fair and equitable choices. In the sections above SCE described a number of different solutions to support interim needs, but not all solutions are suitable for all energization requests. It is SCE's goal to present customers with one or more options for bridging strategies that are appropriate to their situation, such that while not every customer is offered every solution, each customer will find a solution that works well for them. Given the huge variation across customer needs and capacity availability, customer offerings will inherently require tailoring. The objective across all scenarios is to implement solutions that allow for energization of projects in a manner that creates broad fairness across customers. Relatedly, there is variation in the utility cost of implementing these solutions, from de minimis incremental cost (e.g., flexible interconnection) to substantial costs for DER solutions and mobile substations. Generally, the cost allocation principles present in SCE's existing interconnection rules (e.g., Rules 2, 15, and 16) are such that costs to support investments that benefit multiple customers are allocated to all ratepayers, whereas costs of investments that benefit a single customer are allocated to that benefitting customer.⁶ SCE plans to follow these principles for the allocation of costs for bridging solutions where feasible. For example, if a mobile substation is deployed to enable several customers to energize in a grid-constrained location, no costs would be allocated solely to the energizing customers. Conversely, if a mobile battery is deployed solely to benefit a single customer, the cost of that battery (i.e., the cost for their time of deployment of the battery, calculated based on the total capital cost) would be allocated to that customer.

There are, however, many potential scenarios that may not fit neatly into buckets, and some exceptions may be appropriate. SCE plans to implement cost allocation via existing energization rules, contracts with the customer, or, if necessary, a proposal to modify energization rules to enable an appropriate and fair cost allocation approach.

In developing solution options to present to customers, SCE plans to offer solutions at different levels of customer cost. For example, a customer may be offered flexible interconnection at little to no cost, which would require a substantial reduction in peak load, or a small mobile battery system, which would have some cost but also minimize the load reduction required, or a larger battery system, which would have larger cost but potentially avoid the need for load reduction. This scenario is hypothetical and real-world opportunities may vary, but is indicative of the type of choices SCE would like to provide.

⁶ Notably, Rule 29 (the Electric Vehicle Infrastructure Rule) follows a different cost allocation approach, in which most infrastructure costs are not allocated to the individual customer.

V. Timely Cost Recovery Authorization is Critical

The majority of bridging solutions described in this plan require substantial capital costs to implement. This section discusses how current and future cost recovery authorizations interact with SCE's bridging strategy plan.

A. While its GRC is Pending, SCE has Limited Funding Available to Procure DERs to Support Bridging Strategies.

Currently, SCE is awaiting resolution of its pending 2025 GRC Application. Until the GRC Decision is adopted, SCE will be limited in its ability to acquire additional DERs to implement bridging strategies. SCE's current budgets are based on the previous GRC Application, which did not anticipate costs relating to bridging strategies.

In the 2025 GRC, SCE included an initial funding request to procure mobile and stationary batteries. Should this request be approved, SCE will be well positioned to begin *initial* deployment of these strategies. However, given the growing customer energization need, further funding beyond this initial amount may be necessary prior to SCE's 2029 GRC to fully deploy storage to meet bridging strategy needs.

B. CPUC Should Modify the SB 410 Funding Mechanism to Create a Durable Solution that Best Serves Customers' Needs

SCE did not include a funding request for mobile substations or non-battery stationary DERs in its 2025 GRC request; therefore, incremental funding will likely be required for these technologies. It may be possible to re-allocate other authorized funds for load growth to support these bridging strategies, but this is unlikely given the upward trajectory of load, so these funds would need to be approved through an incremental request. Some deployment of stationary storage and DERs may defer other anticipated grid infrastructure investments, but overall, incremental funding will likely be necessary to fully implement these strategies prior to SCE's next GRC application. In previous comments in this proceeding,⁷ SCE has argued that the SB 410 mechanism functions poorly as an incremental funding approach and that the CPUC should modify the approach or create a new funding mechanism. SCE renews that recommendation here: At minimum, incremental funding mechanisms should be developed to approximate the attributes of a conventional GRC, in terms of the reasonable regulatory process, forecast ratemaking, and upfront determination of reasonableness. It should be possible to accomplish this on an accelerated (~6 month) timeline due to the narrow focus of the incremental request. Conversely, the SB410 mechanism creates substantial additional regulatory burden for all parties due to after-the-fact reasonableness determination and (at least as implemented thus far) its preference to cap funding at essentially the minimum annual requirement, thus requiring yet another regulatory process to update the funding cap in the next year. Compared to a single GRC determination, the SB410 mechanism quadruples the regulatory process and dramatically increases uncertainty for all parties, including elongating the timeframe by which solutions would be deployable for customers.

VI. Conclusions and Next Steps

Bridging solutions will play a critical role in addressing the immediate and future needs of customers as proactive planning ramps up, ensuring expeditious energization, grid reliability, and resiliency.

Thus, SCE identifies the following next steps:

Continued Focus on Development of Proactive Planning
 As the best solution to meeting accelerating grid need, proactive planning will continue to
 be a key focus area for SCE, even as it develops a backstop in the form of the bridging
 strategies. This is critical to achieve the right cost-effective balance for customers.

⁷ SCE's Opening Comments on Track 1 Phase 1 Staff Proposal, May 28, 2024, pp. 8-11; SCE's Opening Comments on Proposed Decision Adopting Improvements to Distribution Planning and Project Execution Process, Distribution Resources Planning Data Portals, and Integration Capacity Analysis Maps, Oct. 3, 2024, p. 1-3.

2. Implementation of Bridging Plan

SCE will continue to develop and deploy innovative bridging solutions, some of which are already in progress and delivering customer benefits. This includes mobile and stationary storage, mobile substations, and other DERs. SCE will develop and refine the details for the solution identification process, as well as develop and clarify approaches to ensure equity, customer choice, and fair cost allocation. SCE will review its procurement strategy annually to update the needs for bridging solutions based on customer demand and grid capacity constraints.

3. Regulatory Considerations

As described in the plan, SCE will seek additional authorization as needed from the CPUC to fully implement the plan. This involves most critically addressing cost allocation and recovery for new investments to support bridging strategies.

4. Customer Engagement

SCE plans to enhance the customer experience by improving the energization process, ensuring that customer needs are met promptly and efficiently, with bridging options fully and fairly delineated.

SCE looks forward to deploying and refining the strategies discussed in this plan, and to continued collaboration with CPUC, customers, and stakeholders.