PREPARED PHASE 2 DIRECT TESTIMONY OF
SAN DIEGO GAS & ELECTRIC COMPANY
REGARDING PROPOSALS FOR INCREASING SUPPLY
DURING PEAK AND NET PEAK DEMAND HOURS
THROUGH ADDITION OF UTILITY-OWNED RESOURCES

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

September 1, 2021
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I. INTRODUCTION

The purpose of this testimony is to present the proposal of San Diego Gas & Electric Company (SDG&E) for increasing supply during peak and net peak demand hours through California Public Utilities Commission (Commission) approval of utility-owned energy storage resources, as well as to provide comments regarding the Energy Division Staff Concept Paper dated August 16, 2021 (Staff Paper).

II. NEED FOR EXPEDITIOUS COMMISSION ACTION AND A NEAR-TERM MARKET SIGNAL

California is in a state of emergency arising from the lack of adequate resources to ensure grid reliability. The California Energy Commission’s (CEC) 2022 Stack Analysis projects a shortfall of 600 megawatts (MW) to 5,200 MW of incremental resources needed to ensure electric system reliability for peak and net-peak hours during summer 2022 without the use of contingency resources. Additional resources are needed to provide electric system resilience against climate-induced drought and extreme heat events in California as well as wildfire-related outages and/or west-wide extreme weather events that compromise interstate energy transfers.

The Emergency Proclamation signed by Governor Newsom on July 30, 2021 (Emergency Proclamation) directs the Commission to develop solutions aimed at “accelerating plans for the

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construction, procurement, and rapid deployment of new clean energy and storage projects to
mitigate the risk of capacity shortages and increase the availability of carbon-free energy at all
times of day.” The Assigned Commissioner’s Amended Scoping Memo and Ruling For Phase 2
(Amended Scoping Memo) issued on August 10, 2021, recognizes the urgency of this moment
and the need for the Commission to take decisive action to secure new resources for the State to
protect grid reliability. The Amended Scoping Memo identifies as a primary issue to be
addressed in this proceeding the question of how to increase peak and net peak supply resources
in 2022 and 2023 through, among other things, “expedited generation and energy procurement,
including utility-owned generation and third-party generation, and expedited contracting and
other processes.”

It is beyond dispute that new clean energy and energy storage resources must be built as
quickly as possible and that the Commission and stakeholders must move beyond ‘business as
usual’ approaches to consider creative solutions for easing the State’s reliability challenges.
Indeed, the Staff Paper presents several novel concepts designed to address immediate concerns
related to grid reliability. In order to expedite the deployment of additional resources and ensure
that 2022 and 2023 online dates are feasible, projects must begin development as soon as
possible. Specifically, in certain cases, a Notice to Proceed (NTP) must be issued to developers
by November 1, 2021, to ensure that a 2022 commercial online date can be met. These resources
require engineering, design, ordering of long lead-time materials, securing of shipping, and
initiation of other pre-construction activities. It is necessary to have a Commission-approved
contract before taking on the risk associated with development of new resources – this is true

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3 Amended Scoping Memo, p. 2.
4 Id. at p. 4 (emphasis added).
whether it is a third-party contract at issue or a utility-owned resource. As a practical matter, the longer it takes to receive Commission approval for a project, the longer it takes to provide NTP to the project developer, and the longer the project takes to come online.

It is generally the case that development on sites owned or controlled by an investor-owned utility (IOU) allows for an expedited construction schedule for new resources as compared to non-IOU properties where additional time is required for land acquisition and permitting. Thus, broadly speaking, there is a comparatively higher likelihood that a project on IOU property or to-be owned IOU property will be able to deliver value within the expedited timeframe contemplated in this proceeding. Accordingly, as discussed in further detail below, SDG&E offers a proposal intended to bring new energy storage resources online in expedited fashion and that builds upon the recommendation in the Staff Paper to establish a new non-bypassable charge (NBC) for resources procured in response to the current emergency.\footnote{Staff Paper, pp. 23-24.}

Specifically, SDG&E proposes that in its traditional role of ‘reliability steward’ for its distribution service territory, SDG&E be authorized to request through its Utility Development Team (UDT) function (which is separate from its energy/capacity supply function) Commission approval of energy storage projects that could be brought online in the very near term, with costs to be recovered through a new NBC such as that proposed by Commission staff in the Staff Paper.\footnote{Id.} As discussed below, this expedited process is warranted given the current reliability emergency faced by the State.
SDG&E requests the following immediate actions from the Commission:

- Issue a ruling by September 15, 2021 directing SDG&E’s UDT function to immediately enter into negotiations with developers of new energy storage projects, including but not limited to those described in this testimony, with the objective of presenting new energy storage projects capable of meeting peak and net peak demand in 2022 and 2023 for Commission approval via a Tier 2 Advice Letter (AL). This direction should be confirmed in the Phase 2 Decision issued on November 18, 2021.

- Establish a new NBC along the lines of the new NBC proposed in the Staff Paper for utility-owned energy storage procured on an emergency basis through SDG&E’s UDT function to meet peak and net peak demand in 2022 and 2023.

III. SUMMARY OF PROPOSAL

A. IOUs’ Role as Regional Reliability Steward

Historically, the investor-owned utilities (IOUs) have each played the role of ‘reliability steward’ in their respective distribution service territories; the Commission has exercised its broad jurisdiction over the IOUs to direct them to procure new resources when needed to support regional reliability and has allocated the costs of such procurement through the Section 365.1

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7 See Phase 1 Decision, D.21-02-028, p. 11 (establishing a Tier 2 AL approval process for utility-owned resources).

8 This process is similar to the approach taken in Phase 1 of the instant proceeding where the Commission issued its Assigned Commissioner’s Ruling Directing the State’s Three Large Electric Investor-Owned Utilities to Seek Contracts for Additional Power Capacity to be Available by the Summer of 2021 and 2022 (Procurement Ruling) on December 28, 2020, setting parameters for procurement of new resources and providing guidance on the Commission approval process, and then followed up with a formal decision, D.21-02-028, confirming the direction set forth in the Procurement Ruling.
cost allocation mechanism (CAM). Commission-ordered CAM procurement confers upon IOUs an obligation that is different from that of a load-serving entity (LSE) procuring solely on behalf of its customers. When IOUs undertake CAM procurement, they act “‘not as LSEs for their bundled customers, but as stewards for system reliability on behalf of all customers.’”10 In the past, when the Commission has perceived a need for the IOU to step in as reliability steward for its distribution service territory, it has generally ordered the IOU to conduct a solicitation through its retail service provider energy/capacity supply function and to procure new reliability resources through long-term contracts or utility ownership. This more typical approach can work well and SDG&E proposes no modification to this approach here.

In certain cases, however, in response to exigent circumstances threatening reliability similar to those faced by the State now, the Commission has established a separate more expedited pathway for approval of new resources, directing an IOU’s UDT to bring projects directly to the Commission for approval (upon a showing of public interest benefits and cost-competitiveness) through a parallel track outside of an IOU capacity solicitation.11 This approach makes sense in an emergency circumstance such as that presented here since the IOU energy/capacity solicitation process can be beset by delays that block new project from coming online as quickly as they otherwise could. When time is of the essence, a parallel and direct route for Commission approval of new utility-owned reliability resources can be more effective.

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9 All statutory references herein are to the Public Utilities Code unless otherwise noted.

10 Id. (Emphasis in original).

11 See, e.g., Resolution E-4798.
B. Given the Current Emergency and the Need for Expedited Action, the Commission Should Direct SDG&E’s UDT Function to Seek Approval Through a Tier 2 Advice Letter of Utility-Owned Energy Storage Resources that Can Meet Peak and Net Peak Demand in 2022 and 2023

In the current emergency situation, establishing a parallel track for expedited project approval that is not tied to SDG&E’s (diminishing) role as retail service provider gives the Commission another tool in its toolbox for exercising its jurisdiction to ensure that new reliability resources are available to meet demand at the earliest possible date. Given the current market conditions, with reduced supply for materials and more challenging shipping logistics, developers must make commitments to procure materials and finalize shipping details with greater advanced notice. In addition, materials and shipping costs have increased, which means that project developers require a greater degree of certainty before they make financial outlays for expensive, long lead-time equipment. To provide the market certainty developers require and to incent them to take on the risk to invest in additional supply resources for 2022 and 2023, Commission approval of new projects is required as soon as possible.

As discussed in more detail below, SDG&E’s UDT function has identified high-viability energy storage projects through a recent UDT request for offers (RFO) that are capable of meeting online dates in late 2022 and early 2023 if immediate action is taken by the Commission. Accordingly, SDG&E requests that the Commission issue a ruling by September 15, 2021, directing SDG&E’s UDT function to seek Commission approval through a Tier 2 AL of energy storage projects capable of meeting peak and net peak need in 2022 and/or 2023.

A ruling in September will provide a signal to the market to drive toward timelines necessary to negotiate and execute contracts. The current procedural schedule contemplates a final decision in mid-November (November 18, 2021), which means a final, non-appealable decision in December at the earliest, and negotiation and filing of a contract for Commission
approval thereafter. This likely pushes any Commission approval of projects to late December 2021 or January 2022 at best, jeopardizing the ability to provide timely NTP to developers to permit them to begin ordering materials and spending money and resources on engineering and design. A September ruling will help to ensure that contracts are ready for filing shortly after issuance of the Phase 2 Decision on November 18, 2021, which would allow for NTPs to be issued by early December and would improve the possibility of 2022 online dates being achieved.

To this end, SDG&E recommends the following additions to the procedural schedule included in the Amended Scoping Memo\textsuperscript{12} to ensure a timely contract approval process:

<table>
<thead>
<tr>
<th>R.20-11-003 Phase 2 Activity</th>
<th>Proposed Expedited Approval Activity</th>
<th>Date</th>
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<tbody>
<tr>
<td>Testimony with proposals seeking Commission Approval</td>
<td></td>
<td>September 1, 2021</td>
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<tr>
<td>Reply testimony</td>
<td></td>
<td>September 10, 2021</td>
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<td></td>
<td>Ruling Directing LSEs to File Contracts</td>
<td>September 15, 2021</td>
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<tr>
<td>Opening Briefs</td>
<td></td>
<td>September 20, 2021</td>
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<tr>
<td>Reply Briefs</td>
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<td>September 27, 2021</td>
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<tr>
<td>Proposed Decision</td>
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<td>October 29, 2021</td>
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<td>Final Decision approving proposals</td>
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<td>November 18, 2021</td>
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<td></td>
<td>Advice Letter Request Contract Approval Filing Due Date</td>
<td>November 19, 2021</td>
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<tr>
<td></td>
<td>Commission Disposition of Advice Letter(s)</td>
<td>December 9, 2021</td>
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\textbf{C. The Commission Should Adopt the Staff Proposal’s Recommendation for a New NBC for Emergency Procurement}

In the Staff Paper, Commission staff suggest adoption of a new, limited NBC that is specific to emergency procurement of resources that “can provide both mutual benefit to all

\textsuperscript{12} Amended Scoping Memo, p. 6.
ratepayers and additional reserve margin” above resource adequacy (RA) and Integrated Resource Plan (IRP) requirements. SDG&E supports development of a new NBC to recover the costs of emergency procurement of utility-owned energy storage resources for reliability purposes. New energy storage resources procured by SDG&E’s UDT function will provide reliability benefits for all customers in its distribution service territory, regardless of bundled or unbundled status. Consistent with its role as reliability steward for the region, SDG&E’s costs incurred should be recovered from all benefitting customers in a manner similar to the CAM.

Accordingly, the Commission should direct that the Tier 2 AL submitted by SDG&E’s UDT function include specific details regarding the benefits and costs of the project(s), as well as details regarding the proposed regulatory accounting treatment. The proposed accounting treatment should utilize a balancing account that tracks the approved revenue requirement reduced by California Independent System Operator (CAISO) revenues received. Any RA capacity credits should be allocated on a pro rata basis amongst the LSEs in SDG&E’s distribution service territory by share of coincident peak, adjusted monthly.

IV. OPPORTUNITIES TO INCREASE PEAK AND NET PEAK SUPPLY IN 2022 AND 2023 TO BE APPROVED IN PROPOSED EXPEDITED CONTRACT APPROVAL PROCESS

SDG&E’s UDT has identified high-viability energy storage projects through its recent RFO process that are capable of meeting online dates in late 2022 and early 2023 if immediate action is taken by the Commission. These projects would provide the full complement of

\[\text{Staff Paper, pp. 22-23.}\]
services – *i.e.*, capacity, energy, ancillary services,\(^{14}\) and would be dispatched in a least cost fashion. The projects range in size from 10 MW to 30 MW (40 MWh to 120 MWh), with a larger project exceeding 100 MW (400 MWh) in size. A high-level summary of these projects is provided below:

- The first project is a 20 MW/80 MWh 4-hour duration battery energy storage project located on SDG&E substation property. The project has full capacity deliverability status (FCDS) and can provide 20 MW of RA capacity. The contract associated with this project has previously been submitted for Commission approval but was denied due to the project’s inability to compress its schedule sufficiently to meet an August 2021 online date. Nevertheless, it is possible for this previously negotiated and submitted contract to be brought back with relevant updates (*e.g.*, revised schedule, execution date, etc.) to meet a December 2022 online date. In order for a December 2022 online date to be achieved however, a notice to proceed must be issued to the developer by November 2021. If the NTP is issued any later than November 2021, the online date of December 2022 is at risk.

- The second project is a potential 30 MW/120 MWh 4-hour duration battery energy storage project located adjacent to an SDG&E substation located in the northwest portion of SDG&E’s service territory. This project would be adjacent to an existing battery energy storage of 40 MW/160 MWh project approved by

\(^{14}\) To date, most large-scale energy storage resources deployed have offered ‘RA-Only’ contracts where the IOU purchases RA capacity, and the counterparty retains all other attributes including energy and ancillary services. See Slide 16 Lumen Study: https://lumenenergystrategy.com/uploads/1/3/6/3/136375767/2021-05-29_lumen_energy-storage-procurement-study-workshop01.pdf
the Commission and currently under construction. Upon completion of the existing project, SDG&E will take ownership of the 40MW/160 MWh asset, including the associated interconnection rights via the interconnection agreement which has a capacity up to 70 MW. The remaining interconnection capacity leaves the ability for SDG&E to develop an additional 30 MW/120 MWh battery energy storage project on an adjacent parcel of land. This expansion project has FCDS and can provide 30 MW of RA capacity. If Commission approval is achieved in short order, SDG&E could utilize efficiencies with construction already commencing and utilize existing contracts in place to begin mobilization and construction of a subsequent 30 MW/120 MWh project to be online by late 2022 or early 2023.

- The third project is a 132 MW/528 MWh project located in eastern San Diego being developed by a third-party that SDG&E would acquire (i.e., build transfer). The developer has the ability to execute a contract to obtain the interconnection rights for 132 MW of FCDS via a transfer and acquisition process. In order for this project to meet a December 2022 online date, a NTP is required to be issued by January 1, 2022. If an NTP is not able to be issued by January 1, 2022, the December 2022 online date is at risk. Alternatively, if the NTP is issued prior to January 1, 2022, the project may be able to accelerate the December 2022 online date.

- Finally, a selection of 10 MW/40 MWh and one 10 MW/60 MWh projects are available at various SDG&E-owned property locations adjacent to SDG&E substations. These projects could leverage existing contracts to accelerate
contract negotiations. Additionally, these projects are able to meet a second half of 2023 online date if NTP is issued by December 2021. If an NTP is unable to be issued by December 2021, then the online date pushes farther into 2023.

V. COMMENTS ON STAFF CONCEPT PAPER

A. New Non-bypassable Charge for Emergency Procurement

The Staff Concepts Paper proposes the establishment of a new NBC for recovery of the costs associated with emergency procurement ordered in the instant proceeding. SDG&E generally supports this recommendation in the Staff Paper. The emergency situation faced by the State that led to initiation of this proceeding is analogous to the tree mortality crisis in California, which prompted the Governor to issue an emergency proclamation citing the record drought and bark beetle infestation that caused widespread tree mortality resulting in elevated wildfire risk. In response to the Governor’s emergency proclamation, the Commission required the IOUs to contract with bioenergy facilities that received feedstock from high hazard zones (i.e., areas with significant tree mortality). Because all LSE customers benefited from the actions the IOUs undertook to mitigate the wildfire risk presented by the vast tree mortality, the Commission authorized allocation of the cost associated with contracting for the energy from these bioenergy facilities through a NBC. Here, the Governor has issued a similar emergency proclamation due to severe drought and extreme weather leading to a shortage of hydroelectric energy and projected a 5,000 MW capacity shortfall in 2022. Comparably, all LSE customers will benefit from actions

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15 Staff Paper, pp. 22-24.
16 Resolution E-4770.
17 Resolution E-4805.
Commission orders the IOUs to undertake to address reliability concerns, which justifies IOU recovery of associated costs through an NBC. SDG&E also supports the suggestion that the eligibility be limited to “approved projects via Advice Letter.”

**B. New Energy Storage Resources at IOU Properties or Soon-to-Be IOU Properties**

As discussed above, SDG&E offers a proposal for expedited procurement of utility-owned energy storage resources that will help the State to address the currently grid reliability emergency. SDG&E’s proposal includes a new NBC very similar to the NBC concept described in the Staff Paper for “new storage at IOU properties.” While SDG&E urges the Commission to adopt its utility-owned energy storage proposal, it also offers these separate comments outlining its concerns with the concept included in the Staff Paper.

First, the Staff Paper proposal appears to limit new energy storage at IOU properties to those projects that can come online by June of 2022. A June of 2022 online date imposes a significant limitation that would preclude the ability of resources to provide an increase to supply when it is needed, 2022 and 2023. Limiting projects to only June of 2022 fails to recognize the significant needs that exist not only through the remainder of 2022, but through 2023 as well. SDG&E suggests that at minimum, the June of 2022 deadline be pushed back to at least June of 2023.

Second, the Staff Paper suggests a Tier 3 Advice Letter process for filing utility-owned projects. This approach is unduly limiting. As discussed above, timely notice to counterparties (i.e., NTP) to solidify purchase orders and pre-construction activities is critical to timely project

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18 Staff Paper, p. 23.
19 Id.
20 Amended Scoping Memo, p. 4.
deployments, and timely NTP is predicated on timely Commission approval. Providing timely notice is even more critical in light of current market conditions. As seen in the past year, there have been and continue to be extensive supply chain issues as a result of the COVID-19 pandemic, reduced amounts of available shipping vessels or containers, and impacts to shipping routes that have resulted in delays in obtaining materials to complete projects in a timely fashion. Utilizing a significantly lengthier Tier 3 Advice Letter process likely pushes Commission approval of contracts into the first quarter of 2022 or later. For a counterparty trying to meet a 2022 in-service date, a delay in Commission approval diminishes the ability to provide NTP in a timely fashion, making achieving an in-service date for resources in 2022 very unlikely. As discussed above, SDG&E instead suggests a Tier 2 AL process similar to that previously approved in Phase 1 of this proceeding. Again, an expeditious regulatory approval process helps to ensure that approved projects can meet their intended online dates and provide necessary reliability to the State.

Finally, the Staff Concept Paper appears to limit utility-owned projects to only those projects that are on IOU-owned or controlled properties. Such a limitation diminishes the available pool of resources that may be available to the region to ensure reliability. SDG&E notes that there are other viable, potential utility-owned projects that exist on properties that may not be currently owned or controlled by an IOU but may be acquired through the transaction (e.g., through a “Build/Transfer” agreement). These projects should also be eligible for cost recovery through the proposed NBC.

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21 See D.21-02-028, p. 11.
Accordingly, SDG&E suggests the following revisions to the staff concept, if adopted:
c. (edited) New storage at IOU **and/or to-be-controlled-by IOU** properties. Staff expects that there will be significant challenges associated with LSEs successfully accelerating the online dates of significant quantities of IRP resources by summer 2022. Given that IOU properties – and in particular IOU substations -- can often avoid or expedite many of the challenges associated with bringing new projects online (e.g., site control, interconnection, deliverability, permitting, etc.), this concept would be for IOUs to be directed to submit project proposals via Tier 3 Advice Letters for Utility owned storage on utility-owned (**or-controlled or to-be-controlled**) properties that could demonstrated to be brought online by June 2022.

VI. CONCLUSION

This concludes SDG&E’s prepared direct testimony.
STATEMENT OF QUALIFICATIONS

My name is Jenell McKay. My business address is 8690 Balboa Avenue, San Diego, California 92123. I am employed as the Development Manager in the Advanced Clean Technology Department of SDG&E. My primary responsibilities include leading SDG&E’s Development Team which oversees SDG&E’s clean technology programs, policy and projects. Specific activities include, but not limited to, leading solicitations for utility-owned resources, performing bid evaluations, and leading commercial negotiations of contracts. My prior roles at SDG&E have included Policy and Strategy Manager in Advanced Clean Technology, Principal Analyst in Business and Financial Planning, and Senior Advisor in Electric Rate Design.

Prior to joining SDG&E, I was employed by Midcontinent Independent System Operator, Inc. (MISO) as a Senior Policy Analyst from July 2010 and August 2016 working on transmission planning studies focusing on economic projects and system-wide GHG reduction strategies, interregional planning with neighboring RTOs, and FERC tariff compliance. In addition, I was employed by the Electric Reliability Council of Texas (ERCOT) as an Economist from 2010 until 2013 focused on long-term transmission planning integrating renewables.

I received a Bachelor of Science degree in Economics from Tulane University in 2009. I received a Master of Finance degree, with a concentration in Energy, from the AB Freeman School of Business at Tulane University in 2010.

I have previously submitted testimony before the California Public Utilities Commission.
VERIFICATION

In accordance with Rules 1.11 and 13.7 of the Rules of Practice and Procedure of the California Public Utilities Commission, I hereby declare under penalty of perjury that factual statements in my testimony are true and correct of my own knowledge, except as to matters that are stated on information or belief, and as to those matters I believe them to be true. Insofar as statements in my testimony are in the nature of opinion or judgment, such statements represent my best professional judgment. I adopt this testimony as my sworn testimony in this proceeding.

Executed this 1st day of September, 2021, at San Diego, California

/s/ Jenell McKay
Jenell McKay
SDG&E Advanced Clean Technology Department
Development Manager