

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2024 General Rate Case
Application: A.22-05-_____
Exhibit: SDG&E-10

PREPARED DIRECT TESTIMONY OF
CHRISTOPHER A. SUMMERS
(ENERGY PROCUREMENT)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



May 2022

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	Summary of Energy Procurement Costs and Activities	1
B.	Support To and From Other Witnesses.....	2
C.	Organization of Testimony	3
II.	SUSTAINABILITY AND SAFETY CULTURE	3
III.	NON-SHARED COSTS	5
A.	Origination & Portfolio Design	6
1.	Description of Costs and Underlying Activities	6
2.	Forecast Method.....	10
3.	Cost Drivers	11
B.	Energy Supply & Dispatch	14
1.	Description of Costs and Underlying Activities	14
2.	Forecast Method.....	16
3.	Cost Drivers	17
C.	Settlements and Systems/Back-Office.....	18
1.	Description of Costs and Underlying Activities	18
2.	Forecast Method.....	20
3.	Cost Drivers	21
D.	Resource Planning	21
1.	Description of Costs and Underlying Activities	22
2.	Forecast Method.....	22
3.	Cost Drivers	23
4.	Avoided Cost Calculator Update Memorandum Account (ACCUMA)...	23
IV.	SUPPORT FOR IT CAPITAL COSTS	23
A.	Introduction.....	23
B.	2021 CAISO Mandates	24
C.	2022 CAISO Mandates.....	24

D.	2023 CAISO Mandates	25
E.	2024 CAISO Mandates	25
V.	CONCLUSION.....	25
VI.	WITNESS QUALIFICATIONS.....	26

Appendix A – Glossary of Terms

SUMMARY

SDG&E ENERGY PROCUREMENT (In 2021 \$)			
O&M	2021 Adjusted-Recorded (\$000)	Estimated TY 2024 (\$000)	Change (\$000)
Non-Shared	7,911	9,377	1,466
Shared	0	0	0
Total O&M	7,911	9,377	1,466

Summary of Requests

- San Diego Gas & Electric Company (SDG&E) requests that the California Public Utilities Commission (Commission or CPUC) approve recovery of \$9.4 million of operations and maintenance (O&M) expenses necessary to enable SDG&E’s Energy Procurement (EP) function to undertake procurement necessary to provide retail electric service to bundled service customers, as well as to support successful transition of customers who depart bundled service in a manner that ensures equitable cost allocation for all customers.
- The \$9.4 million overall request is consistent with O&M expenses recorded in prior years. The request includes an approximate \$1,466,000 increase in O&M expenses relative to the 2021 adjusted recorded amounts. This increase from 2021 adjusted recorded amounts is due primarily to the need to fill several vacancies that existed in 2021, as well as an expanded need for expertise given the complex technical and policy issues arising from the evolving technology and regulatory landscape and, among other things, rapid expansion of community choice aggregation (CCA) in SDG&E’s service territory.
- The methodology used to develop the labor portion of 2024 O&M cost forecast relies on: (i) base year (BY) 2021 expenses; and (ii) the anticipated cost of incremental regulatory and operational activities undertaken by EP. This incremental activity is necessitated by major structural changes in California’s retail energy services market and newly adopted Commission requirements. For example, the EP function must handle multiple new procurement mandates, new requirements related to prepayment and portfolio optimization arising from the

Commission’s Power Charge Indifference Adjustment (PCIA) proceeding,¹ implementation of new processes to allocate Renewables Portfolio Standard (RPS) attributes to CCA and Direct Access (DA) customers, development of a Provider of Last Resort (POLR) framework, and other issues arising from increased fragmentation of the market and competition among load-serving entities (LSEs) for limited capacity resources.

- The methodology used to develop the non-labor portion of 2024 O&M cost forecast is a five-year average forecast methodology with added expected incremental cost. The five-year average forecast methodology reduces variances by leveling costs attributable to yearly changes on how EP manages software subscriptions and leverages technology systems, and unusual operating conditions such as the COVID-19 pandemic that occurred in 2020.
- SDG&E’s EP function also requires upgraded technology to allow it to maintain its legal obligation to provide scheduling services within the California Independent System Operator (CAISO) market. The associated capital costs are requested in the Information Technology Testimony of William Exon (Exhibit SDG&E-25, Ch 2).

¹ See Rulemaking (R.) 17-06-026.

**PREPARED DIRECT TESTIMONY OF
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(ENERGY PROCUREMENT)**

I. INTRODUCTION

A. Summary of Energy Procurement Costs and Activities

My testimony supports the test year (TY) 2024 forecast of O&M costs for non-shared services for the forecast years 2022, 2023, and 2024 associated with SDG&E’s EP function. It also supports the request to recover capital costs associated with certain necessary CAISO-related technology upgrades. Table CS-1 summarizes forecasted O&M costs. Capital costs for CAISO-related technology upgrades are included in the Information Technology testimony of William Exon (Ex. SDG&E-25, Ch 2).

**TABLE CS-1
Test Year 2024 Summary of Total Costs**

SDG&E ENERGY PROCUREMENT (In 2021 \$)	2021 Adjusted- Recorded (000s)	TY2024 Estimated (000s)	Change (000s)
Total Non-Shared Services	7,911	9,377	1,466
Total Shared Services (Incurred)	0	0	0
Total O&M	7,911	9,377	1,466

This testimony requests Commission approval of approximately \$9.4 million of annual O&M costs to enable EP to fulfill its responsibilities related to planning, procuring, managing, and administering the energy supply resources needed for SDG&E to deliver clean, safe, and reliable electric service to bundled service customers,¹ compliance with procurement requirements and support successful transition of customers who depart bundled service to be served by a CCA or DA provider in a manner that achieves equitable cost allocation. As of 2021, the value of the supply resources in SDG&E’s resource portfolio is more than \$10 billion dollars.

The nature of the work performed by EP continues to increase in complexity, driven by factors such as grid modernization, expansion of distributed energy resources (DER) including

¹ The term “bundled service customer” refers to a customer that relies on SDG&E for its retail electric service in addition to distribution and transmission services. EP procures electricity and capacity to serve its bundled service customers. In certain circumstances, the Commission directs SDG&E to also procure on behalf of CCA and DA customers.

1 energy storage, increasingly specialized procurement of specific resources (renewables paired
2 with storage, geothermal, etc.), portfolio optimization requirements, greenhouse gas (GHG)
3 emissions reduction targets, cap-and-trade compliance and the evolving role of investor-owned
4 utilities (IOUs) in the energy market resulting from the state's policy in favor of customer
5 choice. With the introduction of each new procurement-related mandate, EP must interact with
6 stakeholders, develop new processes, execute new contracts, seek Commission approval,
7 dispatch approved resources and monitor/report on progress while minimizing increases to
8 staffing levels.

9 EP meets bundled service customer demand by procuring both long-term and short-term
10 resources, optimizing those resources in the wholesale energy and ancillary services markets,
11 prudently administering resource contracts, including utility-owned resources, and accurately
12 settling all energy procurement transactions. In addition, EP is actively involved in developing
13 state procurement policy through advocacy at the Legislature and engagement at the California
14 Public Utilities Commission (CPUC), CAISO, California Energy Commission (CEC), and the
15 California Air Resources Board (CARB). To meet state policy goals and comply with legislative
16 and regulatory requirements, EP also develops comprehensive procurement strategies and tools
17 to capture the benefits of clean and evolving technologies, such as energy storage, demand
18 response (DR), and DERs. While EP's commodity-related costs are recovered through
19 SDG&E's Energy Resource Recovery Account (ERRA), EP's O&M costs are generally
20 recovered through the General Rate Case (GRC).²

21 In addition to sponsoring EP's O&M costs, my testimony supports the need for
22 technology upgrades to enable SDG&E to maintain its legal obligation to provide scheduling
23 services within the CAISO market. Recovery of the associated capital costs is requested in the
24 Direct Testimony of William Exon, (Ex. SDG&E-25, Ch 2).

25 **B. Support To and From Other Witnesses**

26 My testimony references the testimony and workpapers of several other witnesses, either
27 in support of their testimony or as referential support for mine. These include the following:

- 28 • Sustainability Policy testimony of Estela de Llanos (Exhibit SDG&E-02)

² The costs of certain software and/or subscriptions that are used exclusively to meet energy procurement-related requirements may be recovered through ERRA (*e.g.*, Tullett Prebon pricing subscriptions used exclusively for short run avoided cost price indices).

- 1 • Information Technology testimony of William Exon (Ex. SDG&E-25, Ch 2)
- 2 • Safety, Risk and Asset Management testimony of Ken Deremer (Ex. SDG&E-31)
- 3 • Regulatory Accounts testimony of Jason Kupfersmid (Ex. SDG&E-43)

4 **C. Organization of Testimony**

5 My testimony is organized as follows:

- 6 • Introduction;
- 7 • Sustainability and Safety Culture
- 8 • Description of the activities, non-shared cost forecast and cost drivers for:
 - 9 ○ Origination and Portfolio Design
 - 10 ○ Energy Supply & Dispatch
 - 11 ○ Settlements & Systems / “Back Office”
 - 12 ○ Resource Planning
- 13 • Description of required technology upgrades to support capital costs referenced in
- 14 the Direct Testimony of Mr. Exon, (Ex. SDG&E-25, Ch 2).

15 **II. SUSTAINABILITY AND SAFETY CULTURE**

16 As detailed in the Sustainability Policy testimony of Estela de Llanos (Ex. SDG&E-02);
17 sustainability, safety and reliability are the cornerstones of SDG&E’s core business operations
18 and are central to SDG&E’s GRC presentation. SDG&E is committed to not only deliver clean,
19 safe, and reliable electric service, but to do so in a manner that supports California’s climate
20 policy, adaptation, and mitigation efforts. In support of the legal and regulatory framework set
21 by the state, SDG&E has taken actions to promote the state’s vision of a clean energy future.
22 The Sustainability Strategy outlined by Ms. de Llanos serves as SDG&E’s guide to enable a
23 more just and equitable energy future in SDG&E’s service territory and beyond. It recommends
24 a diverse approach for California leveraging clean electricity, clean fuels, and carbon removal to
25 achieve the 2045 goals through the lens of reliability, affordability, and equity. SDG&E's goal is
26 to contribute to the decarbonization of the economy by diversifying energy resources,
27 collaborating with regional partners, and enabling customer choice that supports an affordable,
28 flexible, and resilient grid. As a “living” strategy, the goals and objectives of the Sustainability
29 Strategy will continue to be updated as technologies, policies, and stakeholder preferences
30 change.

1 A major focus of the Sustainability Strategy described by Ms. de Llanos is advancement
2 of the state's climate and clean energy goals. California's Senate Bill (SB) 100 establishes a
3 landmark policy requiring renewable energy and zero-carbon resources to supply 100 percent of
4 electric retail sales to end-use customers and 100 percent of electricity procured to serve state
5 agencies by December 31, 2045. SDG&E's recently released "Path to Net Zero: A
6 Decarbonization Roadmap for California" describes, among other topics, SDG&E's commitment
7 to meeting California's SB 100 goals. EP is actively engaged in promoting this effort and, more
8 broadly, in supporting California's push towards sustainability and increased reliance on clean
9 energy resources. The EP function is responsible for procuring a diverse portfolio of clean
10 resources to serve load and meet mandates. This requires EP to engage in forward-looking
11 resource planning activities and to procure resources needed to comply with regulatory
12 requirements such as those established in the context of the Commission's RPS and Integrated
13 Resource Plan (IRP) proceedings. In addition, EP manages SDG&E's GHG compliance
14 activities, including procurement of compliance instruments. EP must also handle contract
15 administration, resource scheduling, and myriad other tasks related to providing customers clean
16 and reliable electric service.

17 Safety is also a core value for SDG&E and it is committed to providing safe and reliable
18 service. SDG&E's safety-first culture is embedded in every aspect of the Company's work. EP is
19 committed to ensuring the safety of its employees by establishing an environment of compliance
20 with applicable federal, state, and local safety laws, rules, and regulations, as well as SDG&E's
21 internal safety standards.

22 SDG&E remains focused on identifying and implementing the most cost-effective
23 solutions with the potential to make the greatest impact on reducing GHG emissions, while
24 meeting compliance requirements and maintaining a safe and reliable energy system. SDG&E
25 believes that safety, reliability, and sustainability are inextricably linked and are fundamental to
26 the Company's ability to continue to successfully operate. Please see the Sustainability Policy
27 testimony of Estela de Llanos (Ex. SDG&E-02) for additional detail on SDG&E's Sustainability
28 Strategy and the Safety, Risk and Asset Management testimony of Ken Deremer (Ex. SDG&E-
29 31) for additional detail of SDG&E's Safety Policy.

1 **III. NON-SHARED COSTS**

2 “Non-shared services” are activities that a utility performs solely for its own benefit.

3 Table CS-2 summarizes the total non-shared O&M forecasts for the listed cost categories.

4 **TABLE CS-2**
5 **Non-Shared O&M Summary of Costs**

SDG&E ENERGY PROCUREMENT (In 2021 \$)			
Categories of Management	2021 Adjusted- Recorded (000s)	TY2024 Estimated (000s)	Change (000s)
A. Origination & Portfolio Design	1,594	2,479	885
B. Energy Supply & Dispatch	1,727	2,159	432
C. Back-Office	3,625	3,536	-89
D. Resource Planning	965	1,203	238
Total Non-Shared Services	7,911	9,377	1,466

6 The EP function generally involves purchase of products including electricity, fuel used
7 in electric generation, resource capacity and ancillary services necessary to satisfy applicable
8 procurement requirements and to provide retail electric service to SDG&E’s bundled service
9 customers (and, in some instances, CCA and DA customers). This function is overseen by
10 SDG&E’s Vice President of Energy Procurement and Sustainability, who provides direction and
11 officer oversight to 43 employees involved in multiple procurement-related functions including
12 resource planning, contracting activity, resource scheduling, settlements, compliance/reporting,
13 etc.³ More broadly, the Vice President of Energy Procurement and Sustainability is responsible
14 for providing strategic direction consistent with SDG&E’s wider mission, developing policies to
15 strengthen and enhance energy supply functions and performance, and ensuring that all energy
16 procurement is conducted in a manner consistent with applicable federal and state requirements.
17 As discussed below, the energy procurement function includes: (1) Origination and Portfolio
18 Design; (2) Energy Supply and Dispatch; (3) Settlements and Systems/Back Office; and (4)
19 Resource Planning.

³ The Vice President of Energy Procurement and Sustainability also oversees the Environmental Services function and the Decommissioning/San Onofre Nuclear Generating Station (SONGS) function, both of which are discussed in the testimony of Brittany Syz (SDG&E-02).

1 **A. Origination & Portfolio Design**

2 **TABLE CS-3**
3 **Summary of Origination & Portfolio Design Costs**

A. Origination & Portfolio Design	2021 Adjusted-Recorded (000s)	TY2024 Estimated (000s)	Change (000s)
1. Long-Term Procurement	1,594	2,479	885
Total	1,594	2,479	885

4 **1. Description of Costs and Underlying Activities**

5 The Origination & Portfolio Design (O&PD) function is responsible for developing and
6 implementing the regulatory and commercial strategies needed to support the company’s goals of
7 becoming the cleanest, safest, most reliable energy company in America, while creating an
8 optimal energy resource portfolio that furthers California’s energy policy objectives. O&PD
9 leads SDG&E’s strategy for identifying and contracting with the resources needed to meet
10 SDG&E’s retail commodity service obligations, comply with mandated procurement
11 requirements and help the state achieve its clean energy goals.

12 To achieve its procurement-related objectives, O&PD negotiates and executes contracts
13 with various market participants. At the end of 2021, SDG&E’s energy resource portfolio
14 included over 60 contracts comprising more than 4,000 Megawatts (MW) of energy and capacity
15 under contract terms ranging from 1 year to 25 years.⁴ Given recent additional CPUC
16 procurement mandates,⁵ the number of contracts in SDG&E’s resource portfolio is expected to
17 increase in the near-term. Contract counterparties include, among others, large independent
18 power suppliers, Diverse Business Enterprises (DBEs), load-serving entities (LSEs), energy
19 storage developers, power marketers, and municipalities. Long-term resources include solar,
20 wind, biomass, small hydro, combined heat and power, conventional generation, energy storage
21 and resource adequacy (RA)-only contracts. In response to several Commission directives,
22 SDG&E’s procurement of new resources has increased significantly in recent years, which
23 requires additional time spent crafting solicitations, reviewing bids, negotiating contracts and
24 submitting executed transactions to the CPUC for approval.

⁴ Figures include projects both in construction and operation and reflects data as of December 31, 2021.

⁵ See, e.g., procurement directives issued in Rulemaking (R.) 16-02-007/R.20-05-003 (IRP) and R.20-11-003 (Electric Reliability).

1 Competitive solicitations are conducted by issuing a Request for Offers (RFO) or similar
2 communication to the market, developing a valuation model and methodology, conducting
3 bidders' conferences, evaluating bids submitted, and selecting the most cost-effective resources
4 to meet the RFO objectives and/or Commission requirements. Common to all RFOs, O&PD
5 requests and reviews information on cost, project viability and performance guarantees. Given
6 the evolving nature of the energy industry, and SDG&E's position in the industry, the number of
7 official solicitations has grown exponentially from 8 solicitations in 2019 to 20 in 2021. An
8 expanded number of solicitations and market inquires will be the norm going forward. For
9 example, SDG&E currently estimates that it will hold nearly 20 solicitations in 2022, which
10 includes procurement of new resources in response to regulatory mandates, as well as various
11 portfolio optimization activities aimed at right-sizing its portfolio. This increase in activity is
12 indicative of the need for additional capacity within the state, California's zero-emission goals
13 and portfolio optimization activities to account for load departure.

14 Following the activities directly related to a procurement solicitation, O&PD negotiates
15 with winning bidders to execute final contracts. Given the evolving nature of procurement and
16 the state's focus on new resources, each new negotiation requires a review and update to
17 contractual language to ensure the contracted resources meet Commission requirements. Once a
18 resource contract is executed, O&PD is responsible for drafting the request for Commission
19 approval (typically through an application or Tier 2 or 3 advice letter). O&PD is responsible for
20 any associated data requests, advocacy and/or litigation related to such filings. An approved
21 Independent Evaluator (IE) is included throughout the procurement process to monitor
22 SDG&E's actions, provide guidance and report on the overall solicitation/negotiation process.
23 To conduct procurement of utility-owned resources, O&PD follows a strict code of conduct that
24 governs communications and defines roles within and outside of the team to ensure utility-owned
25 resources are not afforded preferential treatment during the solicitation process.⁶

26 In addition to solicitations for procurement of new resources, SDG&E expects increased
27 activity related to allocation and sale of portfolio resource attributes as required under the PCIA
28 framework.⁷ Over the coming years SDG&E will allocate its RPS portfolio to applicable LSEs,

⁶ See D.07-12-052, D.13-10-040.

⁷ R.17-06-026.

1 attempt to sell excess RPS through a market offer process, solicit market interest for various
2 contractual arrangements that might reduce the overall size of the energy portfolio and offer
3 LSEs the opportunity to prepay their customers' PCIA obligation. These are all new processes
4 that require incremental planning, additional due diligence by EP staff, and regulatory approval
5 and reporting.

6 In addition to holding solicitations, it may be necessary for SDG&E to transact directly
7 with counterparties under certain circumstances, including but not limited to when there exists a
8 lack of liquidity, a need for expediency, a favorable pricing opportunity, opportunity for selling
9 excess resources, etc. In the case of bilateral negotiations, the contract negotiation process is
10 very similar to that used for contracts arising from an RFO. While there is no formal solicitation
11 process, SDG&E does perform analysis to ensure that prices are competitive and seeks CPUC
12 approval, as appropriate, consistent with its approved Bundled Procurement Plan (BPP)
13 requirements.

14 Approved resources become a part of the SDG&E portfolio and are ultimately dispatched
15 by Energy Supply & Dispatch (ES&D) function, discussed in Section III. B. While ES&D
16 dispatches the resources, those contracts are administered by the Settlements and Systems/Back-
17 Office function, discussed in Section III. C. below, which is responsible for oversight and
18 contract administration of a project through construction and development. These
19 responsibilities include exercising contractual options in a prudent manner, verifying that
20 conditions precedent to the agreement have been satisfied, monitoring project designs, schedules,
21 and milestones so that the project being constructed meets the stated performance requirements
22 in the contract, and coordinating internal SDG&E functions necessary to meet all the terms and
23 conditions of the agreement. These contract administration activities continue through operation
24 until expiration of the contract term. While the Back-Office function has primary responsibility
25 for these activities, O&PD assists with interpretation of contract provisions and renegotiation of
26 terms as necessary due to changed circumstances or conditions, as well as resolving disputes as
27 required.

28 O&PD, together with the other EP functions, meets monthly with SDG&E's Procurement
29 Review Group (PRG) to provide updates and respond to questions regarding a variety of
30 SDG&E procurement-related issues and transactions. The PRG includes staff of the CPUC's
31 Energy Division, the Public Advocates Office (PAO), and The Utility Reform Network (TURN),

1 as well as other “non-market participants” interested in SDG&E’s procurement activities. The
2 main purpose of SDG&E’s involvement with the PRG is to provide details of SDG&E’s overall
3 procurement strategy, proposed procurement contracts and processes prior to submission for
4 CPUC approval and to establish a forum for offering input and perspectives on SDG&E’s
5 procurement activities.⁸

6 In addition to transactional activities, O&PD is responsible for developing and
7 implementing regulatory and commercial strategies related to the energy portfolio in
8 coordination with the Resource Planning function, discussed below in Section III. D. O&PD is
9 actively involved in providing analysis and recommendations on matters related to public policy
10 in California. O&PD subject matter experts (SMEs) regularly participate in regulatory
11 proceedings related to energy procurement issues and interface with numerous government
12 agencies, including the CPUC, the CEC, CARB and the California Legislature. For example,
13 O&PD SMEs are involved in active CPUC proceedings including, but not limited to, the IRP
14 proceeding,⁹ the RPS proceeding,¹⁰ the Resource Adequacy (RA) proceeding,¹¹ the Power
15 Charge Indifference Adjustment (PCIA) proceeding,¹² the Integrated Distributed Energy
16 Resources (IDER) Program proceeding,¹³ the Green Tariff Shared Renewables (GTSR) Program
17 proceeding, the Provider of Last Resort (POLR) proceeding,¹⁴ and various other procurement-
18 related proceedings targeting energy storage, demand response, biogas, and small-scale
19 renewables. O&PD provides analysis, written testimony, comments and other materials to
20 support SDG&E’s positions and proposals in these regulatory proceedings and performs similar
21 functions at CAISO, the CEC, CARB and the Legislature, as applicable. O&PD also provides
22 input into long-range resource planning models and regularly addresses data requests pertaining
23 to EP’s resource valuation approach, RPS position, and a variety of other topics.

⁸ See D.02-08-071 at 24-26.

⁹ R.20-05-003.

¹⁰ R.18-07-003.

¹¹ R.21-10-002.

¹² R.17-06-026; R.20-05-003.

¹³ R.14-10-003.

¹⁴ R.21-03-011.

1 In addition to regular engagement with governmental agencies, O&PD, along with
2 Energy Supply & Dispatch, actively participates in initiatives at the CAISO to shape California’s
3 wholesale energy markets. O&PD monitors developments within the larger California and
4 western energy markets, participates in policymaking activities at the CAISO, and monitors
5 CAISO market outcomes to identify and mitigate any market failure or anomalies. O&PD and
6 the Energy Supply & Dispatch function (discussed in Section III. B. below) work together very
7 closely to ensure that the policy initiatives at the CAISO, Legislature and CPUC can be properly
8 implemented into the CAISO commercial market. For example, as the CAISO seeks to expand
9 through its extended day ahead market (EDAM) initiative, O&PD will play a key role in shaping
10 those policies and ultimately integrating them into its trading and scheduling functions.

11 **2. Forecast Method**

12 The forecast method developed for this cost category relies on BY 2021. The base year
13 recorded data with incremental adjustments forecast methodology was utilized as the forecasting
14 method to best represent the structure of the organization, while adding incremental adjustments
15 to account for the anticipated cost of incremental regulatory and operational activities. This
16 incremental activity is necessitated by major structural changes in California’s retail energy
17 services market and newly adopted Commission requirements. For example, the O&PD function
18 must handle multiple new procurement mandates, new requirements related to PCIA prepayment
19 and portfolio optimization,¹⁵ implementation of new processes to allocate RPS attributes to CCA
20 and DA customers, development of a POLR framework, and other issues arising from increased
21 fragmentation of the market and competition among LSEs for limited capacity resource

22 This approach is appropriate because, while requirements and processes can vary and
23 increase from year to year, the types of activities and skills related to the procurement function
24 remain fairly constant. Thus, existing open positions must be filled and additional necessary
25 expertise must be added to support the O&PD function. Given the increasing complexity of the
26 energy market and regulatory landscape, emergence of new resource types that require
27 development of new approaches for valuing and negotiating contracts, imposition of new
28 procurement mandates to improve grid reliability, establishment of new portfolio optimization
29 requirements, and other regulatory imperatives, vacancies in 2021 must be backfilled and

¹⁵ See R.17-06-026; See also R.20-05-003; Description of “Cost Drivers” in Section III.A.

1 additional expertise must be secured to meet these changing needs. Using base year 2021 with
2 incremental adjustments allows EP to reflect evolving long-term procurement priorities and
3 yields a TY 2024 forecast that includes labor costs of \$2,187,000, with 15.4 full-time equivalent
4 employees (FTEs).¹⁶

5 A five-year average forecast methodology with added expected incremental cost was
6 used to forecast O&PD non-labor costs. The five-year average forecast methodology reduces
7 variances by leveling costs attributable to unusual operating conditions such as the COVID-19
8 pandemic that occurred in 2020. The COVID-19 pandemic significantly impaired employee
9 normal course of business travel for industry-related activities. This impact continued into 2021
10 which is why base year forecast method is not an appropriate method to forecast O&PD non-
11 labor costs. Using a five-year average, O&PD's 2024 forecast includes non-labor costs of
12 \$292,000.

13 3. Cost Drivers

14 O&PD is charged with designing and implementing procurement processes that support
15 maturation of developing technologies in the marketplace while ensuring that risks are mitigated
16 and that customers receive a reliable product that complies with all applicable regulatory
17 requirements. Cost drivers behind this forecast are related to changes in the electric procurement
18 market and regulatory environment. While annual procurement levels may vary, activities
19 requiring procurement expertise are growing in number and complexity as California moves to a
20 60 percent RPS goal by 2030 and the CPUC implements procurement mandates related to clean
21 energy, reliability as well as new requirements necessitated by increasing fragmentation of the
22 electric procurement market. Currently, EP must comply with a myriad of procurement
23 mandates, including the following:

- 24 • D.18-12-003 - Bioenergy Renewable Auction Mechanism (BioRAM)
- 25 • D.10-12-035; D.15-06-028; E-5163 - Combined Heat and Power (CHP)
- 26 • D.19-07-009 - Demand Response Auction Mechanism (DRAM)
- 27 • D.16-12-036 - Distribution Investment Deferral Framework (DIDF)

¹⁶ O&PD's labor, non-labor costs and FTEs include the Vice President of Energy Procurement and Sustainability.

- 1 • D.18-06-027; D18-10-007; E-4999 - Disadvantaged Community GTSR (DAC-
- 2 GT) program
- 3 • D.16-05-006; D.15-01-051; D.17-07-007 - EcoShare GTSR program
- 4 • D.18-06-027; D18-10-007; E-4999 - Community Solar GTSR (CSGT) program
- 5 • D.07-12-052 - Independent Evaluators (IE) pool
- 6 • D.12-07-014; D.21-06-029; D.20-12-006; D.20-06-031 - Resource Adequacy (RA)
- 7 • D.21-12-032 - Renewable Market Adjusting Tariff (ReMAT)
- 8 • D.12-11-016; D-17-06-026 - Renewables Portfolio Standard (RPS)
- 9 • D.13-10-040 - AB 2514 (Energy Storage)
- 10 • D.19-11-016 – IRP “Near-Term” Reliability Procurement (2021-2023)
- 11 • D.21-06-035 – IRP “Mid-Term” Reliability Procurement (2023-2026)
- 12 • D.21-03-056; D.21-12-015 - Summer Reliability Procurement (2021-2023)

13 Procurement ordered through IRP and Summary Reliability proceedings is new and
14 involves a high degree of complexity as the Commission increasingly focuses on integration of
15 new battery storage, hybrid resources and other evolving technologies. D.21-06-035 provides an
16 added layer of complexity as evolving technologies are required to come online in specific years,
17 which requires additional due diligence and analysis to attempt to select new technologies from a
18 smaller pool of eligible projects. Each new procurement mandate necessarily requires a review
19 of the portfolio, analysis of new resources, outreach to suppliers in the form of bilateral
20 negotiations and/or solicitations, updates to contracts or new contracting, work with the PRG and
21 Independent Evaluator, engaging in regulatory process to secure Commission approval,
22 monitoring construction progress and ultimately managing the contractual obligations.

23 While SDG&E is engaged in significant procurement activity to comply with
24 Commission directives to contract with new, incremental resources to ensure adequate capacity,
25 it is also obligated to comply with “portfolio optimization” activities aimed at right-sizing its
26 portfolio given the high level of load departure experienced in its distribution service territory.
27 For example, the Commission adopted a Voluntary Auction/Market Offer (VAMO) process for
28 RPS resources, as well as other portfolio optimization requirements, in the PCIA proceeding
29 (R.17-06-026):

- 1 • Annual Allocation of SDG&E’s RPS Portfolio¹⁷ – On an annual basis SDG&E
2 must offer all LSEs in its service territory their proportional load share of
3 SDG&E’s RPS portfolio. This process requires contract negotiation, Commission
4 approval and annual monitoring to ensure that proper volumes are transferred.
- 5 • Market Offer Process¹⁸- In addition to the annual allocation of SDG&E’s RPS
6 portfolio, SDG&E must offer unallocated RPS energy to the market through a
7 sales solicitation.
- 8 • Request for Information to Reduce RPS Portfolio Costs¹⁹ – SDG&E must engage
9 the market to see if entities are interesting in contract modifications to lower
10 overall cost of portfolio. This will require launching the process and any
11 commercial negotiations/commission approvals that might result from the
12 process.
- 13 • Prepayment of PCIA Obligations²⁰ – Annual process whereby a select number of
14 LSEs may negotiate a prepayment of their customers’ PCIA obligation. This will
15 require an annual open season, contract negotiation, CPUC approval and
16 administration of the prepayment.

17 It is important to note that while the San Diego region is experiencing a mass migration
18 of customers from utility bundled service to CCA service, this circumstance does not operate to
19 reduce the level of SDG&E’s procurement-related transactional activity. Indeed, the number of
20 SDG&E’s transactions is likely to *increase* as the result of load migration. SDG&E is still
21 required to comply with procurement requirements related to IRP, RA, RPS, etc. (and in some
22 instances, to conduct backstop procurement on behalf of CCAs and DA providers), as noted
23 above, and must at the same time comply with VAMO obligations and engage in continuous
24 review of its resource portfolio in order to identify excess resources and potentially offer those
25 products to the market which would necessarily require negotiations, contracting, etc. – in short,
26 load departure adds complexity and increases workload.

¹⁷ D.21-05-030, OP 2.

¹⁸ D.21-05-030, OP 3.

¹⁹ D.21-05-030, OP 6.

²⁰ D.20-08-004.

In order to execute its procurement priorities, O&PD must fill existing vacancies and additional necessary expertise must be added to support the O&PD function. SDG&E is requesting an incremental \$702,000 to account for partial vacancies that occurred in 2021 and expected incremental staff position to support increasing demands and workload. The request includes the following expected incremental staff positions:

- Energy Procurement Advisor: Position will provide policy and commercial analysis, and handle solicitations, contract negotiations and regulatory approval associated with mandated procurement and portfolio optimization activities.
- Market & Policy Analyst: Position will focus on policy and compliance matters, supporting activities in procurement-related Commission proceedings (e.g., RA, RPS, ERRA, etc.) and CAISO initiatives, and other regulatory issues
- Senior Origination Analyst: Position will focus on resource solicitations, bid analysis, regulatory requests, RPS compliance activities, BPP activity and other procurement-related regulatory and transactional matters.

B. Energy Supply & Dispatch

The Energy Supply & Dispatch function includes: (a) Electric Procurement & Trading; (b) Market Analysis; and (c) Market Operations.

**TABLE CS-4
Summary of Trading and Scheduling Costs**

B. Energy Supply & Dispatch	2021 Adjusted-Recorded (000s)	TY2024 Estimated (000s)	Change (000s)
1. Trading and Scheduling	1,727	2,159	432
Total	1,727	2,159	432

1. Description of Costs and Underlying Activities

The ES&D department optimizes SDG&E’s generation and contracted resources within the CAISO markets to serve bundled customers in a least-cost dispatch manner and consistent with SDG&E’s Commission-approved BPP. To support these activities, ES&D personnel have CAISO market expertise and leverage several information management systems across functions, including Power Costs System Inc. (PCI), Yes Energy, Morningstar, Wood Mackenzie, S&P Global Platts & Intercontinental Exchange (ICE) and Natural Gas Intelligence.

1 As noted above, ES&D is broken down into three discrete areas: (a) Electric Procurement &
2 Trading; (b) Market Analysis and (c) Market Operations

3 **a. Electric Procurement & Trading**

4 Within ES&D, the Electric Procurement & Trading function performs short-term
5 planning, procurement, and trading functions for transactions inside of a five-year time horizon.
6 Planning activities include developing short-term forecasting methodologies, performing short-
7 term power planning studies and regulatory analysis, and assessing changes in tariffs and
8 regulations governing least-cost dispatch of electric and gas portfolios. Electric Procurement &
9 Trading is also responsible for all short-term electricity transactions related to dispatchable
10 generation, including executing all trades, purchases, hedges and sales to manage the electricity
11 supply portfolio consistent with SDG&E's BPP.²¹

12 In addition, Electric Procurement & Trading is responsible for procuring gas needed for
13 dispatchable generation and for performing gas scheduling on the electronic bulletin boards of
14 the interstate and intrastate pipelines it uses to deliver fuel to its gas-fired resources, including
15 SDG&E-owned resources and contracts for tolling resources.

16 Finally, Electric Procurement & Trading is responsible for the purchase and/or sale of
17 various environmental products like Low Carbon Fuel Standard Credits and Cap-and-Trade
18 compliance instruments. In particular, Electric Procurement & Trading is the lead for SDG&E's
19 GHG compliance activities including development and implementation of policies for procuring
20 GHG allowances and offsets in compliance with the limits established in SDG&E's BPP and
21 conducts necessary reporting related to those activities.

22 **b. Market Operations**

23 The Market Operations function performs day-ahead demand forecasting, conducts
24 analysis of daily portfolio performance, conducts generation outage planning, and seeks to
25 optimize ES&D's scheduling and bidding strategies. The Market Operations group oversees the
26 scheduling and dispatch functions including day-ahead and real-time operations to ensure
27 adequate energy supply. This area is the point of contact with CAISO for all generation dispatch
28 and is staffed 24 hours a day/7 days a week. This area has responsibility for scheduling

²¹ Hedging is a risk management strategy used to limit the probability of loss from fluctuations in the prices of commodities. Generally, this involves taking market positions that maintain the price risk exposure associated with EP's portfolio within the customer risk tolerance limits set by the CPUC.

1 resources into the CAISO's day-ahead, hour-ahead, and 15-minute markets while managing
2 portfolio outages and day-ahead RA obligations. This group is tasked with least-cost dispatch
3 and makes use of models and forecasts to optimize the portfolio and submit bids to CAISO. The
4 group communicates with CAISO on a real-time basis to provide dispatch instructions, manages
5 outages and coordinates with CAISO as needed during times when energy supply is tight.

6 In addition to scheduling SDG&E's own generating capacity, the Market Operations
7 function schedules and dispatches most resources contracted under EP's approximately 60 PPAs
8 and serves as the point of contact for daily operational administration of those resources. As
9 described above, SDG&E is required to procure an extensive amount of new resources over the
10 coming years. As those resource come online, the workload for Market Operations will increase
11 as it is responsible for complying with CAISO dispatch requirements and for ensuring that all
12 scheduling and market dispatch functions comply with all applicable rules and regulations.

13 c. Market Analysis

14 The Market Analysis function works closely with Market Operations and Electric
15 Procurement & Trading function to analyze the market, provide analysis of daily portfolio
16 performance, and optimization of resources and bidding strategies. Market Analysis manages
17 compliance with annual and monthly RA requirements, including purchases of short-term
18 resources as needed. To fulfill this responsibility, Market Analysis supports RA solicitations,
19 prepares system and local RA filings at the CPUC, and demonstrates that it has procured
20 sufficient capacity resources, including reserves, needed to serve aggregate monthly system load.
21 Market Analysis also participates in CAISO-related meetings and working groups to monitor
22 changes at the CAISO and to anticipate associated impacts on SDG&E's operations and portfolio
23 costs. Finally, Market Analysis provides analytical support and analysis for various CAISO
24 policy initiatives.

25 All areas within ES&D must also comply with various reporting requirements related to
26 its least-cost dispatch operations, including ERRAs-related regulatory filings and the CPUC
27 quarterly compliance report (QCR).

28 2. Forecast Method

29 The forecast method developed for the labor costs in this cost category is BY 2021. This
30 approach is most appropriate because it represents the most recent recorded ES&D labor costs at
31 a full staffing level. Using baseline 2021 reduces variability between years and is consistent with

1 the forecast methodology selected for the other cost categories in my testimony and throughout
2 most of this GRC application. Using this approach, ES&D's 2024 forecast includes labor costs
3 of \$2,101,000, with 15.8 FTEs.

4 Non-labor costs consist primarily of telecommunication and supplies expenses needed to
5 support ES&D's labor in fulfilling their responsibilities. A five-year average forecast
6 methodology was used to forecast ES&D's non-labor costs. This method was selected because it
7 represents a reasonable foundation for forecasting the future needs of the organization. The five-
8 year average forecast methodology reduces variances by leveling costs attributable to unusual
9 operating conditions such as the COVID-19 pandemic that occurred in 2020. The COVID-19
10 pandemic significantly impaired employee normal course of industry-related activities. This
11 impact continued into 2021 which is why base year forecast method is not an appropriate method
12 to forecast ES&D's non-labor costs. Using a five-year average methodology, ES&D's 2024
13 forecast includes non-labor costs of \$58,000.

14 **3. Cost Drivers**

15 ES&D must on a daily basis buy all the electricity SDG&E needs from the CAISO
16 markets to serve SDG&E's customers and bid SDG&E-owned generation and SDG&E
17 contracted resources to the CAISO markets. This daily process of buying and selling must be
18 conducted in accordance with least-cost dispatch requirements established by the CPUC and
19 consists of complex energy transactions with large dollar values. In 2021, ES&D leveraged its
20 existing expertise and systems to absorb the demand for additional scheduling and analysis that
21 resulted from SDG&E's procurement of new resources in response to new procurement
22 obligations established by the Commission in the IRP and Summer Reliability proceedings.
23 However, the number of new resources in SDG&E's portfolio, and corresponding workload
24 demands, will continue to increase as SDG&E seeks to comply with additional procurement
25 requirements imposed in the IRP and Summer Reliability proceedings. Finally, ES&D must
26 further develop expertise related to management of a portfolio with increasingly intermittent
27 resources, energy storage and new resources such as hybrid (solar + energy storage), long
28 duration storage and hydrogen. Looking ahead, the scope, complexity, and importance of
29 E&SD's work will continue to require skilled and competent personnel, accurate and efficient
30 information management systems, and regular training.

To maintain and execute ES&D priorities, ES&D must fill existing vacancies and additional necessary expertise must be added to support the department function. SDG&E is requesting an incremental \$421,000 to account for positions that incurred in 2021 as a result of vacancies. One remaining vacancy is expected to be filled in 2022. The request includes the following expected incremental staff positions to support increasing demands and workload:

- Scheduling Supervisor: Position will provide operational supervision and guidance to day-ahead and real-time scheduling desk, manage long/short term outages and RA replacement, and coordinate operational testing and new resource implementation process with the CAISO.
- Market Trading Analyst: Position will provide analytical support to assist ES&D development of its CAISO bidding strategies, value trading products and evaluate the performance of positions, assist in the compliance filings including QCR, ERRA and other reports as required.
- Environmental Products Trader/Electric Fuels Trader: Position will analyze the power, gas and environmental products markets and execute trades as needed to manage the electric supply consistent with SDG&E’s BPP and ensure sufficient environmental products are procured for compliance.

C. Settlements and Systems/Back-Office

Back-Office functions refers to various activities conducted by the Settlements and Systems (S&S) department, which includes Settlement and Administration and Settlement Validation.

**TABLE CS-5
Summary of Back-Office Costs**

C. Back-Office	2021 Adjusted-Recorded (000s)	TY2024 Estimated (000s)	Change (000s)
1. Back-Office	3,625	3,536	-89
Total	3,625	3,536	-89

1. Description of Costs and Underlying Activities

S&S is responsible for Back-Office financial and accounting activities required to reconcile all energy contracts for EP’s power procurement, verify CAISO charges and support

1 the primary operational systems (PCI, Allegro and Versify)²² used in EP's operations. In the
2 reconciliation process, S&S validates that all contract and market payments and receipts are in
3 accordance with the terms of the contract or tariff provisions associated with the underlying
4 transactions. This process requires annually verifying and processing over 1,600 invoices and
5 billing requests, filing disputes of questionable charges when appropriate, and preparing journal
6 entries for recording expenses and revenues. S&S is also responsible for financial accounting
7 and payment of the commodity, transportation, hedging, and other related transactions associated
8 with the gas burned at the power plants with EP tolling agreements and at the SDG&E-owned
9 power plants.²³

10 In addition, S&S must review daily CAISO charges and invoices for accuracy and will
11 enter into disputes with the CAISO as required to correct billing discrepancies. S&S provides
12 guidance and expertise in technical analyses for Market Operations and O&PD using the CAISO
13 meter data, and tariff and power contract data to support regulatory and legislative policy
14 positions.

15 Other S&S responsibilities include aggregation, tracking, and reporting of energy
16 procurement data, including meter data to regulatory agencies and the CAISO, reviewing,
17 testing, and commenting on proposed CAISO changes to the reconciliation process, and other
18 related tasks. S&S is responsible for the energy supply costs for the ERRRA compliance
19 proceeding and for providing corresponding testimony and responses to data requests from
20 stakeholders and regulators.

21 S&S contract administrators are responsible for approximately 60 PPAs associated with
22 the resources in EP's portfolio. Contract administration activities include interactions with
23 counterparties, coordinating and resolving disputes, monitoring counterparties safety plans,
24 invoice verifications, contract interpretations and serving as points of contact. Contract
25 administrators work to manage proper distribution of settlement payments and charges and,
26 when discrepancies are found, the two functions work together to resolve them. Contract
27 administrators also monitor and verify various contract terms, including scheduled maintenance,

²² These systems are primarily used to schedule and bid power to the CAISO, record gas and power transactions, and manage RA.

²³ Miramar Energy Facility, Palomar Energy Center, Cuyamaca Peak Energy Center and Desert Star Energy Center, are further described in Daniel Baerman's Electric Generation testimony (Ex. SDG&E-14).

1 curtailments, insurance and efficiency monitoring. Within EP, contract administrators also
2 develop and maintain functional and process flow diagrams for energy procurement, support
3 process improvement initiatives, and develop and document business requirements and processes
4 for quality control.

5 S&S is further responsible for administration of vendor contracts associated with
6 software subscriptions and key software systems, including PCI, Allegro, and Versify, which EP
7 uses to record gas and power transactions, manage RA and to schedule and bid power to the
8 CAISO. S&S works closely with internal Information Technology personnel and external
9 contractors to manage the implementation of system upgrades and enhancements providing
10 overall leadership, strategic planning, guidance, and management to meet objectives, milestones,
11 and budgets associated with capital projects and system changes to support EP department
12 functions.

13 The Back-Office function protects SDG&E's customers so that customers incur correct
14 costs and receive correct revenues from the bidding, purchase, and sale of energy and ancillary
15 services into the CAISO markets.

16 **2. Forecast Method**

17 The forecast method developed for the labor costs in this category is BY 2021. This is
18 most appropriate because the method is indicative of how SDG&E expects Back Office
19 functions to operate going forward. Base year recorded cost forecasting methodology adjusted
20 for vacancies that occurred primarily in 2021 and incremental expertise is appropriate as it
21 represents the most recent recorded back-office labor costs at a full staffing level. Using this
22 approach, the TY 2024 forecast for Back Office includes labor costs of \$2,049,000 with 17.1
23 FTEs.

24 Because Back Office may change from year to year on how it manages software
25 subscriptions and leverages technology systems and new offerings to EP operations, reporting
26 and compliance, a five-year average forecast methodology was used to forecast Back-Office
27 non-labor costs. The methodology better reflects what will be needed in the test year compared
28 to base year forecast methodology. Using this approach, the TY 2024 forecast for Back Office
29 includes non-labor costs of \$1,487,000.

1 **3. Cost Drivers**

2 S&S annually validates and processes over \$1 billion in annual transactions related to
3 electricity procurement. The S&S function process requires the collection, validation, and
4 analysis of large amounts of price, quantity and operational data. Given the large amount of data
5 involved and the complexity of the underlying transactions, S&S relies on experienced staff,
6 advanced computer systems and vendor software solutions to accurately complete the overall
7 settlement process.

8 Similar to ES&D, S&S has already leveraged existing labor and non-labor resources to
9 absorb the increased settlement activities associated with the early phase of new resources
10 ordered in the IRP proceeding. However, the number of resources will continue to increase in
11 order to meet SDG&E’s IRP procurement requirements through 2026. As noted above, S&S also
12 tracks projects under development to ensure that they are meeting required deadlines. This
13 includes regular meetings with developers, coordination with O&SD and providing status reports
14 to regulatory bodies. Looking ahead, S&S will need to manage settlement activities associated
15 with additional resources, as well as numerous additional economic curtailment amendments,
16 and must ensure that it continues to have the capacity to perform its functions successfully.

17 To fulfill Back-Office responsibilities and priorities, Back-Office must fill existing
18 vacancies and additional necessary expertise must be added to support the department function.
19 SDG&E is requesting an incremental \$242,000 to account for partial vacancies that occurred in
20 2021 and expected incremental staff position to support increasing demands and workload:

- 21 • Energy Administrator: Position will work on contract management from contract
22 execution to commercial operation and administration over the specified term of
23 the contract, manage the counterparty relationships, provide support for contract
24 disputes, assist in the briefing of senior management on contract-related issues
25 and prepare testimony to support procurement-relate proceedings.

26 **D. Resource Planning**

27 SDG&E’s resource planning function is led by its Integrated Resource Planning
28 (Resource Planning) group. Resource planning involves an iterative process designed to identify
29 the appropriate resources to meet GHG reduction and other policy objectives while continuing to
30 provide safe and reliable service to customers at the lowest possible cost.

TABLE CS-6
Summary of Resource Planning Costs

D. Resource Planning	2021 Adjusted-Recorded (000s)	TY2024 Estimated (000s)	Change (000s)
1. Resource Planning	965	1,203	238
Total	965	1,203	238

1. Description of Costs and Underlying Activities

The Resource Planning function involves consideration of studies, forecasts, regulatory requirements, and information exchanged through stakeholder engagement processes, combined with historical data, existing and potential resource capability, and costs associated with alternative portfolio solutions to identify an optimal resource plan. As part of this effort, the Resource Planning function utilizes a software package that enables modeling of the electric system commonly referred to as production cost models. This model is used to develop CPUC-required filings in proceedings including the IRP proceeding, the ERRRA proceeding, etc., and to evaluate resources bid into RFOs and to forecast GHG emissions. Resource Planning supports the company's goal of safely delivering reliable power at the lowest possible cost while meeting the State's policy goals of reducing GHG emissions. This is accomplished through ensuring the availability of the tools required to evaluate resource needs and prudently maintaining required infrastructure for the resources needed to meet all reliability requirements. Resource Planning is actively engaged in all long-term resource planning policy discussions at the CPUC, CARB, CEC, and the Legislature that will ultimately identify the resource mix needed by the state to ensure satisfaction of reliability and clean energy goals. This includes work with CARB's SB 100 initiative, as well as Commission proceedings such as the RPS and IRP proceedings. In those arenas, Resource Planning is actively engaged the policy discussions both internally and externally and develops the resource plans necessary to meet the targets identified in those proceedings.

2. Forecast Method

Forecasting for labor costs is based on the BY 2021 plus incremental activities. This method was selected because it represents a reasonable foundation for forecasting the future needs of the organization. Using this approach, the TY 2024 forecast for Resource Planning includes labor costs of \$938,000 with 6.9 FTEs.

1 Non-labor costs consist primarily of consulting services and technology expenses needed
2 to support Resource Planning's labor in fulfilling their responsibilities. A five-year average
3 forecast methodology was used to forecast Resource Planning's non-labor costs. This method
4 was selected because it represents a reasonable foundation for forecasting the future needs of the
5 organization. The five-year average forecast methodology reduces variances by leveling costs
6 attributable to unusual operating conditions such as the COVID-19 pandemic that occurred in
7 2020. The COVID-19 pandemic significantly impaired employee normal course of business for
8 industry-related activities. This impact continued into 2021 which is why base year forecast
9 method is not an appropriate method to forecast non-labor costs. Using a five-year average,
10 Resource Planning's 2024 forecast includes non-labor costs of \$264,000.

11 **3. Cost Drivers**

12 The level of labor spend for this is area is expected to remain consistent with base year
13 2021. To maintain and pursue Resource Planning priorities described in the description of costs
14 and underlying activities above, Resource Planning must fill existing vacancies to support the
15 department function. SDG&E is requesting an incremental \$96,000 to account for positions that
16 incurred partial year recorded expenses in 2021 as a result of vacancies.

17 **4. Avoided Cost Calculator Update Memorandum Account (ACCUMA)**

18 Resource Planning oversees costs in ACCUMA. ACCUMA is an interest-bearing
19 memorandum account recorded on SDG&E's financial statements. Pursuant to D.16-06-007, the
20 purpose of this account is to track the costs allocated to the utilities for contractors hired by the
21 Commission to perform annual Avoided Cost Calculator updates and to provide technical
22 assistance or research for the purpose of the advancing future refinement of cost-effective
23 methods. Details of the ACCUMA costs are discussed in the Regulatory Accounts testimony of
24 Jason Kupfersmid (Ex. SDG&E-43).

25 **IV. SUPPORT FOR IT CAPITAL COSTS**

26 **A. Introduction**

27 To support EP activities, SDG&E seeks to recover capital costs for certain technology
28 upgrades required to maintain its obligation to provide scheduling services within the CAISO

1 market.²⁴ The associated capital costs are requested in the Direct Testimony of Mr. Exon (Ex.
2 SDG&E-25, Ch 2). A description of the required CAISO-related technology upgrades is
3 provided below.

4 **B. 2021 CAISO Mandates**

5 These forecasted capital expenditures support the company's goals of remaining a
6 CAISO Scheduling Coordinator (SC), complying with CAISO mandated changes, achieving
7 operational efficiencies, and ensuring that current software capital assets are kept under
8 maintenance levels and fully supported. The CAISO publishes a roadmap of planned initiatives
9 which are implemented and released twice a year; SDG&E must comply with the CAISO's
10 direction to remain a SC. There are also many regulatory requirements that coincide with the
11 2021 CAISO mandates that necessitate configuration changes or enhancements in several major
12 software applications utilized to meet these requirements, including: (i) PCI, which is an EP
13 system for communication with the CAISO for bidding and scheduling; (ii) Allegro, which is a
14 Sarbanes-Oxley (SOX) system of record for community trading, risk management and
15 accounting; (iii) Versify, which is an EP RA planning, operations, and analytics system; and (iv)
16 Meter Data Processing System (MDPS), which is a meter data management and reporting
17 system. Noncompliance with these required updates would cause SDG&E to lose its ability to
18 be an SC and could also result in potential fines and disallowances in ERRA proceedings. It is
19 critical that EP comply with CAISO requirements by making the necessary updates to its PCI,
20 Allegro, Versify, and MDPS systems.

21 **C. 2022 CAISO Mandates**

22 These forecasted capital expenditures support imperatives similar to those described
23 above under 2021 CAISO mandates – *i.e.*, remaining a CAISO SC, complying with CAISO
24 mandated changes and other regulatory requirements, achieving market and operational
25 efficiencies, and ensuring that current software capital assets are kept under maintenance levels
26 and fully supported. Compliance with the 2022 CAISO mandates will require further new and
27 updated software components and configuration changes to PCI, Versify, MDPS and Allegro.
28 Allegro will be replaced with a new Energy Trading and Risk Management (ETRM) System.

²⁴ Many of SDG&E's procurement contracts require SDG&E to provide scheduling services for the counterparties.

1 This will include database migration onto a hosted cloud solution with network monitoring to
2 address Disaster Recovery virtual infrastructure environment and meet security (cyber & SOX)
3 and adhere to drug screening requirements.

4 **D. 2023 CAISO Mandates**

5 These forecasted capital expenditures support imperatives similar to those described
6 above under 2021 CAISO mandates – *i.e.*, remaining a CAISO SC, complying with CAISO
7 mandated changes and CPUC requirements, achieving market and operational efficiencies, and
8 ensuring that current software capital assets are kept under maintenance levels and fully
9 supported. Compliance with the 2023 CAISO mandates will require further new and updated
10 software components and configuration changes to PCI, Versify, ETRM System and MDPS.
11 Projects to comply with the 2023 CAISO initiatives require meeting the CAISO published
12 schedule timeline and the use of IT Project Management Office, Vendor, and EP resources.

13 **E. 2024 CAISO Mandates**

14 These forecasted capital expenditures support imperatives similar to those described
15 above under 2021 CAISO mandates – *i.e.*, remaining a CAISO SC, complying with CAISO
16 mandated changes and CPUC requirements, achieving market and operational efficiencies, and
17 ensuring that current software capital assets are kept under maintenance levels and fully
18 supported. Compliance with the 2024 CAISO mandates will require further new and updated
19 software components and configuration changes to PCI, Versify, ETRM System and MDPS.
20 Projects to comply with the 2024 CAISO initiatives require meeting the CAISO published
21 schedule timeline and the use of IT Project Management Office, Vendor, and EP resources.

22 **V. CONCLUSION**

23 The EP functions described above will support SDG&E’s effort to ensure that clean, safe,
24 reliable, and affordable energy is available to serve SDG&E’s customers. Associated O&M
25 responsibilities require expertise, as well as advanced technology systems, that are broadly
26 consistent with prior year costs. As such, SDG&E requests that the Commission adopt its
27 proposal for \$9.4 million of O&M expenses in TY 2024 for EP in order to allow SDG&E to
28 meet all of its electric commodity procurement-related responsibilities through the 2022-2024
29 rate case cycle.

30 This concludes my prepared direct testimony.

1 **VI. WITNESS QUALIFICATIONS**

2 My name is Christopher A. Summers. My business address is 8315 Century Park Court,
3 San Diego, California 92123. I am currently employed by San Diego Gas & Electric Company
4 (SDG&E) as the Director of Origination, Energy Supply & Dispatch in the Energy Procurement
5 Department. In this role I oversee all commercial and policy matters related to SDG&E's
6 Energy Procurement functions including oversight of solicitations, contract negotiation,
7 compliance with procurement mandates and scheduling resources into the CAISO.

8 I began working at SDG&E in 2012 as a Case Administrator in the Regulatory Affairs
9 organization with a focus on energy storage and customer privacy issues. I worked as a
10 Commercial Advisor for a power marketer from 2015-2018 negotiating gas, power and
11 environmental product transactions. I rejoined SDG&E in 2018 and have been continuously
12 employed with SDG&E since that time in roles of increasing responsibility. Prior to my current
13 position, I was a Development Manager with SDG&E's Advanced Clean Technology group and
14 a Business Manager in Regulatory Affairs with a focus on all procurement proceedings before
15 the Commission. Before joining SDG&E in 2012, I was a practicing attorney.

16 I hold a bachelor's degree in politics and accounting from Saint Mary's College of
17 California and a juris doctor degree from California Western School of Law.

18 I have not previously testified before the California Public Utilities Commission.

APPENDIX A
GLOSSARY OF TERMS

APPENDIX A – GLOSSARY OF TERMS

ACRONYM	DEFINITION
ACCUMA	Avoided Cost Calculator Update Memorandum Account
BioRAM	Bioenergy Renewable Auction Mechanism
BPP	Bundled Procurement Plan
BY	Base Year
CAISO	California Independent System Operator
CARB	California Air Resources Board
CCA	Community Choice Aggregation
CEC	California Energy Commission
CHP	Combined Heat and Power
CPUC	California Public Utilities Commission
CSGT	Community Solar Green Tariff
DA	Direct Access
DAC-GT	Disadvantaged Community Green Tariff
DBE	Diverse Business Enterprises
DER	Distributed Energy Resource
DIDF	Distribution Investment Deferral Framework
DR	Demand Response
DRAM	Demand Response Auction Mechanism
EDAM	Extended Day Ahead Market
EP	Energy Procurement
ERRA	Energy Resource Recovery Account
ES&D	Energy Supply & Dispatch
ESG	Environmental, Social and Governance
FERC	Federal Energy Regulatory Commission
FTE	Full-Time Equivalent
GHG	Greenhouse Gas
GRC	General Rate Case
GTSR	Green Tariff Shared Renewables
ICE	Intercontinental Exchange
IDER	Integrated Distributed Energy Resources
IE	Independent Evaluator
IOU	Investor-Owned Utility
IRP	Integrated Resource Plan
LSE	Load-Serving Entity
MDPS	Meter Data Processing System
MRI-S	Meter Reporting Interface – Settlement
MW	Megawatts
O&M	Operations and Maintenance
O&PD	Origination & Procurement Design
PAO	Public Advocates Office
PCI	Power Costs System Inc.

PCIA	Power Charge Indifference Adjustment
POLR	Provider of Last Resort
PRG	Procurement Review Group
QCR	Quarterly Compliance Report
RA	Resource Adequacy
ReMAT	Renewable Market Adjusting Tariff
RFO	Request for Offers
RPS	Renewables Portfolio Standard
S&S	Settlements and Systems
SB	Senate Bill
SC	Scheduling Coordinator
SDG&E	San Diego Gas & Electric Company
SME	Subject Matter Expert
SOX	Sarbanes-Oxley
TURN	The Utility Reform Network
TY	Test Year