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REVISED

PREPARED DIRECT TESTIMONY OF

BRUCE A. FOLKMANN

(POLICY OVERVIEW)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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REVISED PREPARED DIRECT TESTIMONY OF BRUCE A. FOLKMANN (POLICY OVERVIEW)

I. INTRODUCTION

My name is Bruce A. Folkmann, and I am the President and Chief Financial Officer of San Diego Gas & Electric Company (SDG&E or the Company). My testimony describes how SDG&E's Test Year (TY) 2024 General Rate Case (GRC) proposals reflect our strong commitment to delivering safe, reliable, and clean electric and gas service to customers through sustainable practices at reasonable rates.

SDG&E operates in a highly dynamic regulatory environment that requires innovation and technology to meet changes in governmental policy and regulatory requirements. SDG&E's plans for the TY 2024 GRC cycle are designed to meet California's and the California Public Utility Commission's (Commission or CPUC) ambitious policy objectives and expanding regulatory requirements, with a focus on providing safe, reliable and sustainable energy to our customers and the communities we are privileged to serve. SDG&E's mandates include mitigating wildfire risks, helping the State and our customers address climate change guided by the Path to Net-Zero roadmap SDG&E has developed, and promoting new programs and initiatives to reduce greenhouse gas (GHG) emissions affordably and responsibly. SDG&E's success in these endeavors is enabled by digitalization, which improves operational efficiency, safety, and system security and allow SDG&E to provide valued customer service that integrates real-time information and analysis.

SDG&E's TY 2024 GRC Application reflects an appropriate balance of the Company's foundational work and the urgent need to act on the State's imperatives, such as net-zero emissions goals. The business priorities and changes expected to occur over the course of this GRC require investments in safety, resiliency, and sustainability, facilitated through innovation and technology.

A. Safety

Safety is SDG&E's most fundamental value. This value is embedded in all that SDG&E does and serves as the foundation for whom SDG&E is – from employee training to the design, installation, operation, and maintenance of SDG&E's utility infrastructure, to providing safe and

reliable service to our customers. Keeping our employees, contractors, customers, the public, and Company systems safe is crucial, and we take great pride in our safety record.

No activity implicates safety more than wildfire prevention and mitigation. SDG&E has established itself as a leader in wildfire mitigation efforts for well over a decade. In the aftermath of the catastrophic October 2007 wildfires in SDG&E's service territory and the devastating wildfire events experienced elsewhere in California, SDG&E has developed a best-in-class wildfire prevention and mitigation program. Our innovative, successful wildfire mitigation program serves as a model for adoption by other utilities.

SDG&E has continued to meet evolving wildfire mitigation requirements brought on by longstanding California drought, changing climate conditions and new requirements set forth by the legislature, regulators, customers, and community stakeholders. SDG&E's efforts to reduce the risk of wildfire and mitigate the impacts of Public Safety Power Shutoff (PSPS) events have grown significantly since 2019 and are forecasted to continue to grow through 2024. SDG&E's current Wildfire Mitigation Plan provides for increased system hardening through 2024, including hardening approximately 590 miles of electric distribution using covered conductor and undergrounding to reduce the risk of wildfire and impacts of PSPS on customers. SDG&E's innovative vegetation management program will continue to maintain a tree inventory database, complete annual patrols and inspections of all inventory trees, prune and remove hazardous trees, and perform pole brushing activities. Several initiatives will further reduce the impacts of PSPS, including SDG&E's generator programs, which provide customers backup power during PSPS events, with a focus on Medical Baseline and Access and Functional Needs (AFN) customers.[1]

SDG&E's safety-first culture is embedded in every aspect of the Company's work. We invest in technology, system upgrades, our workforce, and community relationships to enhance the safety of our employees and the people and communities we serve. In 2020, SDG&E implemented a Safety Management System (SMS), which takes an enterprise-wide, holistic approach to continually manage and reduce risk, incorporating public safety, asset safety, system safety, cyber safety, and psychological safety for improved safety performance and culture.[2] The

[1] These programs and initiatives are described in greater detail in the testimony of Jonathan T. Woldemariam (Exhibit (Ex.) SDG&E-13) and Tyson Swetek (Ex. SDG&E-12).

[2] SDG&E's SMS is described in greater detail in the testimony of Kenneth J. Deremer (Ex. SDG&E-31).

SMS framework connects each of SDG&E's existing and future safety initiatives, better aligns our operating areas, and allows SDG&E to assess risk across the entire enterprise. Our unwavering commitment to safety is discussed throughout our GRC testimony.

SDG&E's cybersecurity activities are another foundational component of our safety program and protect against attacks on critical infrastructure, such as electric and gas delivery systems, and potential harm to customers, employees and public safety. Increasing sophistication of cybersecurity attacks, involving attempts by actors with different motivations including unfriendly country-supported actors, and criminals seeking economic advantage, require SDG&E to be proactive and vigilant in protecting and improving the Company's security posture. This Application contains the enhancements and updates to the Company's cybersecurity and technology infrastructure necessary to minimize the likelihood and impact of ever-changing security threats that would disrupt business operations and place customer and employee health and safety at risk, and to secure customer data to meet growing privacy regulations. The policy testimony of Ben W. Gordon (Ex. SDG&E-25, Chapter 1) describes the importance and security benefits achieved by investing in digital cybersecurity technologies and integration of those systems in a cloud environment, and these investments are described in the Cybersecurity testimony of Lance Mueller (Ex. SDG&E-26) and the Information Technology (IT) testimony of Tia L. Ballard and William J. Exon (Ex. SDG&E-25, Chapter 2).

B. Reliability and Resiliency

SDG&E has consistently received accolades for reliability by industry organizations. We are very proud of this recognition for the outstanding contributions and efforts by our workforce to provide our customers and the public with reliable electric and gas services and excellent customer service to meet their needs. Among the highlights in reliability:

- For 16 straight years, we have received the "Best in the West" award for electric reliability. A typical customer experiences only one unplanned power outage every 20 months.
- We have also received a national ReliabilityOne award multiple times, and last year, we were recognized for Outstanding Grid Sustainability.[3]

[3] PA Consulting, "In a tie, Florida Power & Light Company and San Diego Gas & Electric both win a National Reliability Award at PA Consulting's 21st Annual ReliabilityOne Awards" (November

- For five straight years, we have finished the year with zero recorded gas leaks.
- We are building lithium-ion battery storage facilities to enhance regional energy reliability while maximizing renewable energy use.
- We are enhancing the safety and reliability of energy distribution systems by replacing aging mobile home park-owned electric and natural gas distribution systems with new utility-owned systems.
- We utilize smart grid technology that uses real-time information about outages to dispatch crews to the location to correct problems quickly.
- We have expanded the use of supervisory control and data acquisition throughout the electric distribution system to restore service faster during an outage.
- The Borrego Springs Microgrid is the first of its kind in the area that uses Smart Grid technology, including local power generation, energy storage, and automated switching to create a more robust, resilient power grid.

SDG&E is always seeking ways to improve reliability, as it is the backbone to the services our customers rely upon. SDG&E must invest in innovation, digitalization, and cyber maturity to keep our systems operating safely, reliably, and securely.

Resiliency extends beyond the traditional concept of reliability, as it allows SDG&E to prevent, withstand, adapt to, and quickly recover from challenges.[4] This requires a solid foundation with an ability to be nimble when new situations require flexibility, as circumstances, policy, regulations, and customer needs change and evolve. SDG&E must maintain resiliency to meet challenges such as climate change, higher levels of renewable energy sources (and corresponding declines in dispatchable sources), the use of new technologies, and the COVID-19 pandemic – during which SDG&E's resiliency has allowed it to substantially meet strategic and operational objectives. Our systems must be resilient to meet these demands.

SDG&E's TY 2024 GRC testimony demonstrates innovative planning to maintain its current resiliency level and provide capacity for the future. As one example, SDG&E is

2021), *available at* https://www.paconsulting.com/newsroom/releases/florida-power-light-company-and-san-diego-gas-electric-both-win-a-reliabilityone-national-reliability-award-18-november-2021/.

[4] *See* characterization of resilience in discussing energy systems in American Gas Foundation, Building a Resilient Energy Future: How the Gas System Contributes to US Energy System Resilience (January 2021) at 2, *available at* https://gasfoundation.org/wp-content/uploads/2021/01/Building-a-Resilient-Energy-Future-Full-Report_FINAL_1.13.21.pdf.

modernizing its IT organization to a digital-focused operating model, which will enable faster, more resilient, and innovative technology solutions for the Company and its customers. SDG&E's requires digitalization to integrate real-time information and cutting-edge analytics and meet its decarbonization and Net Zero goals, by improving operational efficiency, safety, and service, thereby reducing risks and vulnerabilities and benefiting customers.[5] With technology advancing towards cloud-based solutions, modernizing our technology platforms with cloud computing will enable faster, more resilient, and innovative technology solutions today, with the flexibility to meet business requirements and customer needs more seamlessly in the future.

SDG&E's new Customer Relationship and Billing (CR&B) system provides another example of the resiliency benefits of a modernized and agile IT platform.[6] The new CR&B system provides a technological platform that will enable additional operational improvements to enhance and simplify the customer and employee experience, as well as support compliance with regulatory and legislative requirements, including new programs and rate offerings. Future enhancements include upgrades to support the transition of most of SDG&E's customer base to a Community Choice Aggregation (CCA) provider, which will require significant system support to accommodate transferring large amounts of daily usage data and customer data between SDG&E and the CCAs; new features to improve the customer self-service experience on SDG&E's MyAccount system; and continued security enhancements to protect customer information against cybersecurity threats.

C. Sustainability

California's energy policy continues to lead the nation on clean energy, GHG emissions, and other environmental issues, as the impacts of climate change have become increasingly apparent throughout our State and the world. SDG&E has been a leader in clean energy, advancing electric vehicles, and developing and operating low-carbon energy infrastructure. We deliver clean, safe, and reliable electric and natural gas service in a manner that supports California's climate policy, adaptation, and mitigation efforts.

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[5] *See* Mr. Gordon's IT Policy testimony (Ex. SDG&E-25, Chapter 1).

[6] *See* the Customer Services – Office Operations testimony of Sandra Baule (Ex. SDG&E-18).

SDG&E's sustainability strategy focuses on three major categories: mitigating climate change, adapting to climate change, and transforming the grid to be the resilient catalyst for clean energy. These categories also offer a framework to integrate environmental and social justice, as well as climate equity considerations in SDG&E's operations and investment decisions. SDG&E's goal is to contribute to the decarbonization of the economy by diversifying energy resources, collaborating with regional partners, and providing customer choice that enables an affordable, flexible, and resilient grid.

Guided by the State's policy objectives and established regulatory framework, SDG&E has set a goal to reach net-zero GHG emissions by 2045. We have developed a sustainability strategy that reduces GHG emissions in SDG&E's day-to-day operations and is incorporated into our long-term planning. As part of this strategy, we recently published our "Path to Net Zero" economy-wide GHG Study,[7] which recommends a diverse approach to achieve California's 2045 decarbonization goals by leveraging clean electricity, clean fuels, and carbon removal through the lens of reliability, affordability, and equity. This sustainability strategy was designed to serve as a "living" strategy that SDG&E will continue to evolve as technologies, policies, and stakeholder preferences change. The Sustainability Policy testimony of Estela de Llanos (Ex. SDG&E-02) describes our approach in detail.

SDG&E's Path to Net Zero roadmap highlighted that achieving net-zero emissions by 2045 will require transitioning to zero-emission vehicles (ZEV) as soon as possible, as the transportation sector is the largest source of GHG emissions in California.[8] Accelerating the transition to ZEVs is not simply a matter of meeting State policy goals. Particulate emissions from vehicles—in particular diesel and medium-duty and heavy-duty vehicles—directly impact public health.[9] The California Air Resources Board has determined that these pollution burdens are not equally shared among Californians because pollution from diesel vehicles is concentrated along transit corridors and industrial areas, neighborhoods the State refers to as "disadvantaged

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[7] SDG&E, "The Path to Net Zero: A Decarbonization Roadmap for California" (April 2022), *available at* https://www.sdge.com/sites/default/files/documents/path_to_net_zero.pdf?nid=21961.

[8] California Air Resources Board, "California Greenhouse Gas Emissions for 2000 to 2019" (July 28, 2021) at 7 (Figure 3), *available at* https://ww2.arb.ca.gov/sites/default/files/classic/cc/ca_ghg_inventory_trends_2000-2019.pdf.

[9] California Air Resources Board, "Overview: Diesel Exhaust & Health" (*available at* https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health).

communities."[10] Furthermore, Senate Bill (SB) 350 and the CPUC require that transportation electrification in California be equitable. SDG&E's base business activities to accelerate the transition to ZEVs support this equity goal by reducing barriers to electric vehicle (EV) adoption and may improve community health by reducing pollution emissions from fossil fuel vehicles. Among other things:

- SDG&E is making clean driving more accessible with Power Your Drive, expanding access to EV charging at businesses, multi-family communities, and disadvantaged neighborhoods. We have installed over 3,000 charging stations at 255 locations. Since the program began in 2017, our Power Your Drive participants have reduced 225 million tons of GHG emissions, which is equal to adding 7,714 trees, eliminating 80,132 gallons of gasoline, and enabling 1,979,261 electric vehicle miles. Yet this is insufficient. The State's policy goal is 250,000 EV chargers in California by 2025. The California Energy Commission (CEC) has found that, as of 2021, the State was 57,000 chargers short of that goal.[11] Without aggressive action, this gap will widen by 2030. In this GRC, SDG&E seeks to help customers overcome this challenge, by offering programs that provide equitable solutions that allow increased access to transportation electrification with a focus on underserved communities.
- Power Your Drive has expanded to reach additional drivers with programs such as Power Your Drive for Fleets and Power Your Drive for Schools, Parks & Beaches.
- Clean Transportation Pilot Projects include installations to support electric medium-duty/heavy-duty vehicles and forklifts within the Port of San Diego's waterfront properties; fleet delivery vehicles; public Caltrans Park & Ride locations; and shuttles running on fixed routes.
- To further enable clean driving, the CPUC approved an optional new service for

[10] *See, e.g.*, California Health and Safety Code Sections 39711, 39713, 39715, 39721, and 39723; *See also e.g.,* California Public Resources Code, Section 75200. A map of disadvantaged communities as identified by the State of California can be found at https://www.arcgis.com/apps/View/index.html?appid=c3e4e4e1d115468390cf61d9db83efc4.

[11] California Energy Commission, "Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment" (July 2021) at ii *available at* https://efiling.energy.ca.gov/getdocument.aspx?tn=238853.

separately metered EV charging sites.[12] For customers that elect this service, SDG&E will install, operate, and maintain the electrical distribution infrastructure up to the utility meter, with the customer or site host responsible only for costs beyond the utility meter and the cost of the charging station equipment. Additional details on SDG&E's sustainable clean transportation programs and advances are included in Jennifer L. Reynolds' Clean Transportation testimony (Ex. SDG&E-21).

The production, storage, transportation, and use of hydrogen is a relatively new but critical area of interest for SDG&E to support California's and the Company's climate and sustainability goals to both decarbonize its customer's energy and to help decarbonize SDG&E's own internal operations. These initiatives include:

- Technical analyses to better understand the challenges and associated costs of implementing various hydrogen-based solutions, such as converting SDG&E's natural gas-fueled generation facilities to hydrogen fuel or hydrogen fuel blends, and a study to better understand our customers' perception of hydrogen and acceptance of this fuel source.
- Creating a Research, Development, and Demonstration group to identify and support new technologies and research activities that benefit SDG&E's customers and are consistent with California's and the Company's climate and sustainability goals.
- Expanding the Company's Advanced Energy Storage systems to provide resilient services to customers through the delivery of clean energy that leverages excess renewable energy.

SDG&E's generation solutions are also focused on sustainable ways to provide clean energy, some of which also incorporate hydrogen usage. SDG&E's current Electric Generation Distributed Energy Facilities (DEF) fleet consists of five battery energy storage systems, which provide distributed energy solutions. SDG&E describes 11 additional planned DEF projects, which will drive progress in the areas of Climate Adaptation, Climate Mitigation, and Grid

[12] *See* SDG&E Electric Rule 45, *available at* https://tariff.sdge.com/tm2/pdf/ELEC_ELEC-RULES_ERULE_45.pdf.

Transformation. In particular, SDG&E's Borrego Microgrid uses a combination of technologies to support the microgrid: a lithium-ion battery energy storage system and a hydrogen electrolyzer to support the desert community of Borrego Springs. In addition, the Palomar Energy Center will support a hydrogen fueling pump for hydrogen-powered vehicles. Sustainability and innovation also underscore our building of a state-of-the-art hydrogen-based generator at the Palomar Energy Center and our Hybrid project that will utilize advanced technology to optimize generation with new battery storage and reduce emissions at our Miramar Energy Facility.[13]

These projects build on SDG&E's long track record of stewardship in sustainability. Our Desert Star Energy Center uses dry cooling for equipment cooling and steam condensing. Typically, dry-cooled power plants require only 5% of the water used by similar traditional wet-cooled power plants. SDG&E uses reclaimed water in the Palomar Energy Center's wet-cooled electric generation process, saving over 500 million gallons of fresh water in 2021.

In summary, we are very proud of what we have achieved and the goals we have set, while at the same time recognizing that there will be challenges in reaching these goals. In the remainder of this testimony, I first describe in more detail the efforts SDG&E is making to build a strong safety culture and how these efforts fit into the broader context of the Commission's new risk informed GRC process (Section II). I then provide an overview of SDG&E's GRC request (Section III), followed by more details on some of the key issues we focus on from an operational perspective (Section IV).

II. THE RISK-INFORMED GRC PROCESS AND SDG&E'S SAFETY CULTURE

D. The Risk-Informed GRC Process

SDG&E has invested in safety projects throughout its history. We see safety investments as offering a better return for customers than ever because we anticipate greater reliance on the electric grid as we electrify more end uses to decarbonize. Safety investments in our gas system also remain critically important as we continue to depend on this service. Safety and risk mitigation projects and activities comprise major components of the TY 2024 GRC. SDG&E has long performed many of the safety-driven activities described throughout its 2021 RAMP Report, including wood pole replacements and vegetation management to support our electric

[13] These projects are discussed in more detail in Fernando Valero's Clean Energy Innovation testimony (Ex. SDG&E-15) and Daniel S. Baerman's Electric Generation testimony (Ex. SDG&E-14).

business, along with inspections, pipeline patrol, cathodic protection, pipeline integrity programs, security projects, and records management to support our gas business.

In recent years, SDG&E has engaged with Commission stakeholders in developing new methodologies for quantifying and assessing risk mitigation activities, consistent with new CPUC processes, to incorporate risk-informed information into the utilities' GRCs – as reflected throughout SDG&E's TY 2024 GRC presentation.[14] While these risk assessment methodologies are more recent, SDG&E's innovative approach to developing new risk mitigations is well established, as evidenced by SDG&E's robust weather network and situational awareness tools that are leveraged to enhance operational decision-making during high fire weather conditions. Additionally, SDG&E developed risk models to determine areas of highest risk and the most appropriate mitigation to employ in these areas. Specifically, the Wildfire Next Generation System (WiNGS) tool assesses the risk at a sub-circuit level, providing insight necessary to plan efficient grid hardening initiatives for wildfire risk and PSPS impact reduction. SDG&E has also made leading-edge enhancements to its strong safety culture (as further described below), which include investments in asset management systems, safety management systems, wildfire management systems, and emergency management systems.

SDG&E is committed to continue building upon its risk assessment methodologies, risk mitigation activities, and safety culture, consistent with Commission processes, to further enhance the provision of safe and reliable service to customers.

E. SDG&E's Safety Culture

SDG&E is committed to a culture where leadership sets the example and demonstrates the safe behaviors expected of its employees and contractors. SDG&E's leadership team is committed to championing people, doing the right thing, and shaping the future. We believe building on these values results in operational excellence, especially safety. SDG&E's safety efforts include developing a trained workforce, safely operating and maintaining its electric and gas infrastructure, and providing safe and reliable gas and electric service. Safety is never

[14] The Risk Management Policy testimony of Michael M. Schneider (Ex. SDG&E-03, Chapter 1) and the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2), discusses how SDG&E continues its longstanding efforts to enhance safety and further develop its risk management processes, now through the Commission's new risk-informed GRC framework and RAMP reporting process.

compromised for production, customer satisfaction, or any other goal, and no activity is so important that it should jeopardize safety. Among other examples:

- Our safety focus starts at the top at SDG&E. The first agenda item at every utility board meeting, senior management meeting, and weekly operating council meeting is a safety discussion led by one of our operating officers.
- SDG&E's Executive Safety Council comprises top leadership and meets quarterly with front-line employees and supervisors, to have an open dialogue on safety issues, performance, and culture and reinforce key safety tenets. Encouraging two-way formal and informal communication extends to all employees, contractors and the public to identify and manage safety risks before incidents occur.
- SDG&E's Environmental & Safety Compliance Management Program (ESCMP), plans, sets priorities, inspects, educates, trains, and monitors the effectiveness of environmental and safety activities.
- SDG&E promotes safe and healthy workforce behaviors for an incident-free workplace. Sixty local safety committees within Company departments and throughout our districts provide leadership in maintaining our safety culture. These committees comprise represented workforce and management and meet monthly to engage in and address potential safety issues and solutions.
- For the last 20 years, we have hosted an Annual Safety Congress to provide a forum for safety committee members and safety leaders to share and exchange information and ideas. Safety stand-outs who demonstrate safety leadership are recognized with individual and team safety awards.
- SDG&E employees, regardless of rank or title, are given the authority to "stop a job" at any time if they spot a safety hazard and are encouraged to raise a red flag whenever they feel it is needed.
- SDG&E proactively employs Behavior Based Safety (BBS) programs to promote safety and health management, recognizing that at-risk behaviors are a frequent cause of both minor and serious injuries. BBS promotes reducing the occurrence of at-risk behaviors by modifying an individual's behaviors through observation, feedback, and positive interventions, aimed at developing safe work habits.

- We are partnering on safety initiatives with our contractors. Since 2012, we have held an annual Contractor Safety Summit to provide a forum for safety leaders from the contractor workforce to share and exchange information, ideas, and safety best practices with our leadership team. This is in addition to the quarterly meetings with contractor leadership.
- SDG&E works with a Third-Party Administrator to thoroughly screen, vet, and evaluate contractors. Contractor performance is closely monitored, with the goal of using the safest contractors who meet SDG&E standards.
- We are members of the Gold Shovel Standard (GSS), a nonprofit organization committed to public safety by driving consistent contractor participation in preventing excavation dig-ins. Any contractor doing excavation work for SDG&E is required to register for the GSS program to be eligible for SDG&E contracts. We believe that this program has made a positive impact by encouraging contractors to adopt safe excavation processes.

SDG&E's strong safety culture is further described in the testimony of Mr. Deremer (Ex. SDG&E-31).

III. OVERVIEW OF GRC REQUEST

This GRC request reflects SDG&E's forecast of revenues needed to continue delivering safe and reliable gas and electric service at reasonable rates and enhance the integrity of our system, while meeting the new challenges we expect to face in the test and post-test years and meeting State and federally mandated policies and programs.

In this section of my testimony, I summarize our test year 2024 revenue requirement request and bill impacts, and our post-test year ratemaking proposal.

A. Test Year 2024 Revenue Requirement

SDG&E requests that the Commission authorize a combined $3.007 billion revenue requirement ($664 million gas and $2.344 billion electric) to be effective January 1, 2024. If approved, this revenue requirement would be an increase of $460 million over the expected authorized 2023 revenue requirement. These increases result in a 2024 system average electric rate revenue increase of $279 million (+6.6%) and a system average gas rate revenue increase of $150 million (or +16.1%) when compared to the expected authorized revenue requirement for 2023. The 2024 revenue requirement is discussed in the Summary of Earnings testimony of Ryan

Hom (Ex. SDG&E-44); gas and electric rates are addressed in the testimony of Sharim B. Chaudhury (Ex. SDG&E-47) and Jeff P. Stein (Ex. SDG&E-48), respectively.

B. Post-Test Year Ratemaking

SDG&E proposes a post-test year (PTY) ratemaking mechanism to adjust the authorized revenue requirement for years 2025-2027 by applying separate attrition adjustments for O&M expenses (including a separate attrition adjustment for medical expenses), capital-related costs, and exogenous cost changes. This proposal is designed to account for unique cost escalation issues, such as the expected higher growth medical costs, and to account for SDG&E's capital investments that mitigate risk and improve safety and reliability of the utility infrastructure, and to capture the lower rate associated with O&M.

SDG&E also proposes critical additions to the capital adjustment component of the PTY mechanism for projects that are expected to be in-service in 2025, 2026, and 2027, and therefore the associated capital-related costs will not be fully reflected in the TY 2024 revenue requirement. These additional capital projects are designed to provide SDG&E adequate revenue to execute projects and initiatives in the post-test years that are largely needed for safety and reliability. As explained in more detail in the Post-Test Year Ratemaking testimony of Melanie E. Hancock (Ex. SDG&E-45), it is reasonable to apply separate attrition adjustments for O&M and capital costs because they have different drivers, as the Commission found in approving the similar PTY mechanism that is currently authorized for SDG&E.

C. Bill Impacts

If the 2024 revenue requirement identified above is approved by the Commission, a typical electric residential customer will see a monthly bill increase of $8.79 (+5.5%),[15] as compared to estimated rates for 2023. For gas customers, a typical residential non-CARE[16] customer will see a monthly bill increase of $9.07 (or +17.5%),[17] as compared to estimated rates

[15] A typical electrical residential customer is based upon an average of Coastal/Inland non-CARE bundled customers on basic service using 400 kWh of electricity per month.

[16] California Alternate Rates for Energy.

[17] A typical gas residential customer is based upon an average of residential non-CARE customers on basic service using 24 therms of gas per month. The average does not include California greenhouse gas climate credit distribution to residential customers.

for 2023. On a combined electric and gas bill, a typical residential customer will see a monthly bill increase of $17.86 (+8.4%), as compared to estimated rates for 2023.

D. RAMP GRC Request[18]

As discussed in the testimony of the RAMP to GRC Integration witnesses Gregory S. Flores and R. Scott Pearson (Ex. SCG-03/SDG&E-03, Chapter 2), SDG&E identified its key safety risks and additional safety-related initiatives in its 2021 RAMP Report. The risk mitigation projects and programs put forth in the 2021 RAMP Report were integrated into the individual GRC witness areas where such activities are now included in SDG&E's revenue requirement request. As part of the transition from SDG&E's 2021 RAMP Report to GRC testimony chapters, SDG&E identified approximately 230 different risk mitigating activities spread across 16 different GRC witness testimonies equating to over $3.2 billion in capital ($2021 dollars in 2022-2024) and just under $300 million in O&M ($2021 dollars in 2024). Approximately 85% of capital expenditures and 47% of O&M requested in this GRC support safety, reliability, and/or maintenance and may be subject to future Risk Spending Accountability Reporting.

IV. SDG&E'S INVESTMENT IN THE FUTURE

A. Effective Business Management

At SDG&E, we believe that one of the most significant contributions we can make to prudently manage our costs is the safety and quality of our operations. We seek to inspire in employees a mindset of continuous improvement in which they constantly are seeking out new and better ways of doing business to promote safety and reliability and increase the efficiency of operations and customer service.

For example, SDG&E established a business optimization group to maximize efficiency, improve processes, and enhance system initiatives company-wide.[19] One such initiative, Build a Better Business, was launched to identify and implement efficient operations improvements.

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[18] SDG&E is not requesting 2022 and 2023 wildfire-related capital costs in this instant application as SDG&E is proposing a "track" approach to address cost recovery and reasonableness review of such costs. 2022 and 2023 cost forecasts are presented for illustrative purposes only in the prepared direct testimony and workpapers of Mr. Woldemariam (Ex. SDG&E-13), to demonstrate the progression of costs and better inform the Commission regarding reasonableness of such costs beginning in 2024. The 2022 and 2023 wildfire costs forecasts are included in the RAMP-related figures.

[19] The People and Culture Department testimony of Alexandra Taylor (Ex. SDG&E-32) describes the Business Optimization group's activities.

Creating additional capacity in workforce has allowed us to comply with new State policy and the growing requirements initiated by our regulators, and lead in implementation of State policy goals, such as planning and activities to meet net-zero emissions targets for 2045.

Another recent initiative focused on improving SDG&E's customer experience by limiting the number of cancelled electric service outages, an inconvenience to our customers that also increases costs. Structured continuous improvement focus encourages transparency, drives accountability, and fosters an environment for increased productivity and change management.

Prudent management through continuous improvement also benefits customers as business partners recognize the strength of the Company's safety and risk management programs. As one example, our wildfire mitigation programs have contributed to our ability to procure liability insurance at a relatively reasonable cost, in the face of a changing climate and sustained drought conditions that have increased the risk of severe wildfires.[20] While there is an increase in the amount we are requesting relative to prior GRCs, it remains at a reduced level relative to the current market for insurance in California.

B. Evolving Regulatory Requirements and Other Pressures

SDG&E believes efficiency measures, including those above, help increase our capacity to meet the challenges of the future. Those challenges include increasing costs from new regulatory requirements that need to be met. For example, anticipated requirements include changes to the Gas Transmission Safety Rules (GTSR), which will require modifications to SDG&E's integrity management programs in areas such as corrosion management, remediation measures and the repair criteria for non-High Consequence Area (HCA) pipelines, among other compliance obligations. SDG&E continues to proactively mitigate risks associated with uncertain cost, scope, and mechanics related to compliance requirements for new, proposed, or evolving environmental legislation and regulatory requirements. These mandatory compliance requirements can have a significant impact on the Company's resources as they require inspections, surveys, monitoring or repairs to reduce and or eliminate leaks and fugitive emissions and the discharge of pollutants from our natural gas and electric generation, transmission and distribution systems. Similarly, changes to requirements that will impact SDG&E as a whole are expected in Rulemaking (R.) 20-07-013, *Rulemaking to Further Develop*

[20] The Corporate Center - Insurance testimony of Dennis J. Gaughan (Ex. SCG-24/Ex. SDG&E-28) describes the management of SDG&E's insurance costs.

a Risk-Based Decision-Making Framework for Electric and Gas Utilities (RDF Rulemaking). These anticipated changes will include clarifying risk-informed decision making technical requirements, revisions to SDG&E's existing Safety Performance Metrics, and implementation of additional metrics, as well as refinements to RAMP and related procedural requirements, and will require SDG&E resources to perform a quality review process to assess whether these requirements are operationally achievable and then ultimately implement processes to comply with adopted rule changes and other requirements.

Since 2019, SDG&E has also increasingly expanded its wildfire mitigation efforts to address public safety needs and respond to legislative requirements.[21] The significant increases in system hardening through covered conductor and undergrounding, enhanced vegetation management, and improvements in situational awareness and technology—including SDG&E's first-of-its-kind utility weather network—aim to lower the risk of utility-caused wildfire in SDG&E's service territory. And many of these enhancements, such as smoke-identifying cameras, the use of satellite imagery to assess vegetation health, and the development of comprehensive weather data, also identify and mitigate risks associated with non-utility catastrophic wildfires to promote community safety.

But, as anticipated by AB 1054, these investments also come at a cost.[22] While there are numerous ways to approach reducing the risk of utility-caused wildfire and PSPS events, some of those options can lead to exponential cost increases. SDG&E carefully assessed where more costly system hardening efforts, such as covered conductor and strategic undergrounding, could be best targeted to achieve the highest risk reduction and achieve the maximal value for ratepayers. Using its risk modeling system and subject matter expertise, SDG&E selected a course of action that reasonably balances the need to mitigate the risk of utility-caused wildfire and reduce the impacts of PSPS events with the cost impact on customers. SDG&E selected its system hardening strategy because it provided the best value approach—achieving the most risk

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[21] *See*, Assembly Bill (AB) 1054, Section 2(b) ("The state's electrical corporations must invest in hardening of the state's electrical infrastructure and vegetation management to reduce the risk of catastrophic wildfire.").

[22] *Id.* at Section 1(a)(4). ("Electrical corporation need capital to fund ongoing operations and make new investments to promote safety, reliability, and California's clean energy mandates and ratepayers benefit from low utility capital costs in the form of reduced rates.")

reduction possible at the most reasonable cost to customers. This approach is further described in the testimony of Jonathan Woldemariam (Ex. SDG&E-13).

Additionally, as SDG&E has developed additional experience in its wildfire mitigation efforts, it has identified areas where it can perform work at lower costs. For instance, SDG&E has realized material cost savings through finding efficiencies in strategic undergrounding, such as the use of shallower trenches where appropriate. And it has been able to better streamline programs like drone inspections of infrastructure as increased experience with this new technology highlights its best uses.

New CPUC programs, such as the Arrearage Management Payment (AMP) program and Percentage of Income Payment Plan (PIPP) pilot established in the Disconnection Rulemaking,[23] also require additional capacity and resources due to their complexity. The Commission designed these programs in response to legislative mandates to reduce statewide disconnections and to address the needs of customers facing hardship. SDG&E is committed to its customers and continuously looking for ways to serve them more efficiently. To provide the best customer experience in the face of an ever-increasing number of State and federal mandates, additional resources are necessary.

This GRC also comes at a time of increased inflationary pressures. For example, the costs associated with supplies and materials, internal and contractor labor, and benefits, such as medical, have increased. We have responded to these pressures and the compelling need for additional safety and resiliency measures, at the same time, with a hard look at ways to decrease the burden on our customers. These measures include reducing our revenue requirement request through Company-wide efforts to create efficiencies in the ways we do business (highlighted throughout witness testimony).

SDG&E must meet these challenges while at the same time prudently managing our costs. We also believe our energy network will become increasingly valuable to our customers, particularly as electricity plays a larger role in transportation fuel and residential heating needs. Nonetheless, we are voluntarily electing to remove from consideration in this GRC long-term incentive compensation, which serves as a powerful employee retention tool. We have also voluntarily excluded Sempra Energy executive officer compensation costs from this GRC. In

[23] D.21-10-012 at 89 (Ordering Paragraph 1).

addition, as I describe below, we believe the circumstances of today pose a unique opportunity with regard to depreciation of our electric and common assets.

C. Voluntary Removal of Depreciation Proposal

SDG&E supports the findings of the Depreciation testimony of Dane A. Watson (Ex. SDG&E-36) regarding the appropriate depreciation rates for SDG&E's common, electric and gas depreciable property. We believe that Mr. Watson's recommendations are reasonable and necessary to appropriately recover plant and equipment costs. And SDG&E proposes the adoption Mr. Watson's recommendations regarding the applicable depreciable rates for SDG&E's natural gas property.

Yet for policy considerations, SDG&E proposes a one-time, non-precedential proposal to hold the Company's electric and common depreciation rates constant. Although SDG&E would not normally suggest overriding the reasonable depreciation rates necessary to ensure the appropriate recovery of the Company's assets, SDG&E considers this such a unique period that a one-time approach of holding these depreciation rates constant is warranted.

Specifically, SDG&E believes that, given the significant, critical, investments in wildfire mitigation (in the context of our broader need for critical investments requested in this application) that SDG&E is currently undertaking and will undertake during this rate case period, holding electric and common depreciation rates constant now is appropriate for today's circumstances. These crucial efforts now will pay dividends in the future—such that wildfire mitigation may constitute a less significant portion of future SDG&E costs. At the same time, we believe the path to decarbonization will lead to expanded electric end uses. As a result, electric volumes sold and electric revenues will increase. This unique combination of circumstances, among others, provides us with a future opportunity to recover depreciating assets when they are providing even more benefits than they do today.

SDG&E thus proposes to hold electric and common depreciation rates constant due to this unique confluence of circumstances. This results in an estimated overall saving for ratepayers of about $43 million based on 2021 accumulated reserve balances. The overall electric depreciation rate will remain 4.08 percent compared to 4.44 percent. The overall common depreciation rate will remain 7.04 percent compared to 7.19 percent.

SDG&E believes the proper setting of depreciation rates is fundamentally important and will propose updating depreciation rates in the future to ensure appropriate recovery. And as the

factors leading SDG&E to propose keeping electric depreciation rates constant—namely significant wildfire mitigation and other expenditures and increased electrification—apply only to SDG&E's electric business, SDG&E strongly recommends updating the Company's gas depreciation rates as proposed by Mr. Watson. The resulting depreciation and amortization expense of SDG&E's proposals are reflected below.

Table BF-1
Electric Depreciation & Amortization Expense
(Thousands of Dollars)

Line No.	Description	2021 Recorded (In 2021 $)	2024 Test Year (in 2024 $)
Depreciation Expense			
1	Generation	52,024	59,553
2	Distribution	290,867	360,559
3	General Plant relating to Electric Distribution	17,322	20,993
4	**Total Depreciation**	**360,213**	**441,105**
Amortization Expense			
5	Land Rights	2,069	2,293
6	Software	14,760	19,930
7	**Total Amortization**	**16,829**	**22,223**
8	**Total Elec. Depr & Amort. (Excluding Common)**	**377,042**	**463,328**

Table BF-2
Common Depreciation & Amortization Expense
(Thousands of Dollars)

Line No.	Description	2021 Recorded (In 2021 $)	2024 Test Year (in 2024 $)
Depreciation Expense			
1	Depr. of Common Plant related to Electric Distribution	45,119	60,950
2	Depr. of Common Plant related to Gas	18,852	25,468
3	**Total Depreciation**	**63,971**	**86,418**
Amortization Expense			
4	Software amortization of common plant related to Electric Distribution	52,639	81,621
5	Software amortization of common plant related to Gas	21,913	34,105
6	**Total Amortization**	**74,552**	**115,726**
7	**Total Common Depr & Amort.**	**138,523**	**202,144**

V. OPERATIONAL FOCUS

SDG&E operates and maintains an electric and gas distribution system that provides safe and reliable energy to approximately 3.7 million customers, over a service territory that spans over 4,100 square miles from the California-Mexico border to Southern Orange County. A high-level description from a policy perspective of SDG&E's operational focus in key areas of our business is provided below. More details are provided in the testimony and work papers of individual witnesses in this GRC.

A. Electric Operations

SDG&E has a "safety first" value that is embraced through all parts of our organization. A key driver of this value is our commitment to public safety, which is demonstrated in the Company's strong track record in electric operations. As noted above, fire risk has intensified in recent years due to drought and climate change and is heightened in the approximately 64% of SDG&E's service territory that is included in high fire threat districts (HFTDs). SDG&E continues to aggressively seek ways to improve the operations and maintenance of the electric distribution system in HFTDs, and is proposing to make additional significant capital

investments to further reduce wildfire risk and enhance safety by continuing efforts to harden overhead distribution infrastructure in the backcountry, continuing our wood-to-steel pole replacement program, enhancing tree and drone-based inspections, modifying our operations during high-risk periods, and undergrounding overhead lines in strategic locations, as described in Mr. Woldemariam's Wildfire Mitigation and Vegetation Management testimony (Ex. SDG&E-13). SDG&E will harden approximately 590 miles of electric distribution between 2022 and 2023 using covered conductor and strategic undergrounding to reduce the risk of wildfire. SDG&E is further improving our knowledge and situational awareness of the wind and weather conditions in our service territory.

SDG&E's Distribution Overhead System Hardening program combines SDG&E's overhead hardening programs (formerly known as Fire Risk Mitigation, Pole Risk Mitigation Engineering, and Wire Safety Enhancement) into one program. The consolidation of these hardening programs will result in the execution of projects based on a circuit-by-circuit approach that weighs risk inputs alongside the need to reduce PSPS impacts, rather than scoping projects based on specific wire or at-risk poles. Combining overhead distribution hardening programs into one program will increase engineering, design, construction and management efficiencies and minimize impacts on customers. The overhead scope will include replacement of wood to steel poles, replacement of conductor with uncovered (traditional hardening) or covered conductor based on the WiNGS model, and some permanent removal of overhead facilities.

The Company is also initiating programs to minimize the impacts of PSPS on customers. These programs include investing in infrastructure (such as establishing microgrids that provide continued electric service to communities during a PSPS event), a Resiliency Grant Program focused on enhancing resiliency among vulnerable customer segments, Standby Power Programs to provide alternative energy solutions to customers, and Resiliency Assistance Programs that provide customers with point-of-sale rebates for generators. In order to continue enhancing the safety of the community and to maintain the integrity of the electric distribution system, SDG&E seeks the resources necessary to meet these fire-related and PSPS challenges and to implement steps that will result in further progress toward achieving a more fire-safe system, which is a common goal shared by employees, regulators, customers and the public at large.

Maintaining strong and consistent reliability is also a top priority for us. SDG&E has long been recognized as an industry leader for its very reliable electric system. In order to fulfill

our firm commitment to delivering safe and reliable power to our customers, SDG&E must continue to adapt to California's changing energy landscape. The electric industry continues to undergo changes unlike any period in its history, including the ongoing integration of distributed generation, the growth in the use of electric vehicles, and the use of clean fuels and clean fuel producing technologies. SDG&E is striving to meet this challenge by investing in technologies that advance clean energy for our customers and the environment.

SDG&E's TY 2024 GRC includes for the first time the Company's grid modernization plan (GMP), which includes the Company's 10-year grid modernization vision to innovate and optimize a grid that is safe and reliable and accelerates decarbonization – all while delivering value and choice for all customers. This vision reinforces SDG&E as the operator, planner, and integrator for the distribution system, while being supportive of State goals regarding distributed energy resource (DER) adoption, transportation electrification, and decarbonization as well as delivering value and choice for all customers. The GMP also identifies projects with funding requests in various witness testimony that help integrate DER into the electric system. As of April 2022, SDG&E had over 240,000 DER installations throughout its system, with over 2,000 megawatts (MW) in aggregated nameplate capacity. Those 240,000 installations represent approximately one in every six households in SDG&E's service territory, and an installation rate of over 2,000 each month.[24] SDG&E is seeking funding for the necessary assets, infrastructure, instrumentation and control systems, and cybersecurity technology that aligns with the Company's vision for the distribution system while being supportive of State goals regarding DER adoption, transportation electrification, and decarbonization.

SDG&E will also reliably serve its customers, at the lowest reasonable cost, while meeting the State's goals. Importantly, the customers we supply with electricity is generally declining at the time of this filing. Customers are increasingly able to choose who will fill their electricity commodity supply needs. Although we may no longer be the primary purchaser of electricity for customers that elect a different supplier, such as a CCA or Direct Access (DA)

[24] More than 210,000 customers in SDG&E's service territory have solar – a penetration rate of 16%, which is the highest per capita in the continental United States. *See* Desert Sun, *California Begins Debate on New Rooftop Solar Rules: How might they affect you?* (March 16, 2021), *available at* https://www.desertsun.com/story/news/environment/2021/03/16/california-begins-debate-new-rooftop-solar-rules-how-might-they-affect-you/4717953001/.

provider, SDG&E will continue to serve its customers' energy needs through its transmission and distribution systems. Meeting our reliable service commitments will still require SDG&E's Energy Procurement to secure adequate capacity and resources to meet the reliability needs of its customers. As explained in the Energy Procurement testimony of Christopher Summers (Ex. SDG&E-10), the energy market and regulatory landscape has become increasingly complex, with the emergence of new resource types that require development of new approaches for valuing and negotiating contracts and the imposition of new procurement mandates to improve grid reliability and establish new portfolio optimization requirements. As a result, additional resources are required.

B. Gas Operations

SDG&E's commitment to safety, resiliency and sustainability applies to our gas distribution system. To maintain our strong track record, SDG&E proposes O&M and Capital spending consistent with historic trends to help mitigate the risk of customer outages or loss of service. As with the other areas of our business, SDG&E continuously drives process improvements throughout our pipeline system and operations, supports California's climate policy adaptation and mitigation efforts, meets or exceeds state and federal safety regulations, and stays abreast of industry leading practices.

In this GRC, we seek authorized funding for the maintenance, operation, and replacement of gas infrastructure necessary to maintain our commitment in these areas and for several important upgrades and enhancements to the system and operating practices. For example, as discussed in the Gas Distribution testimony of L. Patrick Kinsella (Ex. SDG&E-04), we propose funding that continues to focus on increased public awareness to locate and mark facilities to avoid third-party damage. Locating and marking gas facilities is necessary to mitigate third-party dig-ins that may interrupt gas service to our customers and pose risk of injury to the public and our employees. The RAMP process has identified third-party dig-ins as one of the top risks to the gas system. Recent legislation created liability for third parties that excavate without first having the gas company locate and mark its subsurface facilities.[25] These new laws indicate the importance placed on preventing avoidable contact with our underground facilities. SDG&E is dedicated to mitigating the risk and associated hazards of excavation damages through expansion

[25] Cal. Gov't. Code § 4216 *et seq*.

of its Damage Prevention program to proactively identify specific threats to its pipelines and through its public awareness program, which focuses on compliance and overall public awareness through media campaigns, and relationships with organizations that provide outreach designed to prevent excavation contact with SDG&E's buried pipelines. We anticipate increased Underground Service Alert (USA) ticket volume in response to these new laws and increased public awareness campaigns and are requesting funding to meet that heightened demand.

Other new laws have also required funding requests for increased activities such as leak repairs resulting from compliance with SB 1371-related leak surveys and Aerial Methane Mapping initiatives. In addition, Company efforts continue and strengthen our Gas Emergency Department through 24/7 staffing, greatly reducing our response times; continued maintenance of pipeline regulator stations, valves and meter sets; continued maintenance and enhancement of cathodic protection for corrosion prevention of steel pipelines; and continued proactive replacement of underperforming steel pipelines and early vintage pipeline components.

These activities relate not only to the safety and reliability of our gas system, but also provide significant sustainability benefits as well, by reducing fugitive emissions associated with leaks on the system, including the significant emissions resulting from potential excavation damage (Dig-In) as described in Mr. Kinsella's testimony (Ex. SDG&E-04) and the Gas System Staff and Technology testimony of Wallace Rawls (Ex. SDG&E-05).

Benefits, meeting our safety, sustainability, and reliability goals, will be achieved by employing new technology in SDG&E's gas operations. These include SDG&E's Control Center Modernization project, which will provide a comprehensive real-time view of our infrastructure with enhanced remote pressure monitoring, control, automation and analytic capabilities. Replacement of HCA methane sensors will also enable 24/7 control room monitoring to accelerate identification, response, and remediation of potential leaks on the transmission system within high consequence and evacuation challenged areas. In addition, another major project being executed that will enhance the safety, resiliency, and sustainability of the gas system is the Moreno Compressor Station Modernization project (MCM). The Moreno Compressor Station boosts pressure into the SDG&E and SoCalGas natural gas transmission lines serving Riverside and San Diego Counties and is a critical facility to provide safe and reliable natural gas to the customers and residents in this region. Once completed, the new replacement compressors for this project will benefit customers by incorporating modern safety

features and allow SDG&E to maintain compliance with the new emissions rules, while improving the operational reliability of the Moreno Compressor Station. Further details about these projects are discussed in the Gas Transmission Operations & Construction testimony of Rick Chiapa and Steve Hruby (Ex. SDG&E-06).

Integrity programs also further SDG&E's goals. As discussed in the Gas Integrity Management Programs testimony of Amy Kitson and Travis Sera (Ex. SDG&E-09), SDG&E continues to advance its safety objectives and invest in the safety of its system through its Distribution Integrity Management Program (DIMP). Under this program, SDG&E monitors and assesses its approximately 15,330 miles of interconnected gas mains and services. DIMP focuses on the entire distribution system since distribution pipelines are largely in developed, more-populated areas. Through the DIMP, SDG&E meets all mandated measures designed to reduce the risks from failure of its gas distribution pipeline and goes beyond the mandated measures to bolster system safety through programs and tools it has developed to prioritize risk mitigation on early vintage pipeline segments, focusing on non-state-of-the-art plastic pipe installed prior to 1986.

SDG&E is proposing a new program, the Gas Safety Enhancement Program, which will provide integrity management activities incremental to its existing programs, to comply with federal pipeline safety and valve regulations. Finally, SDG&E is proposing a new safety, integrity and risk management initiative, Facilities Integrity Management Program (FIMP), for SDG&E-owned facilities including transmission compressor stations, natural gas vehicle (NGV) fueling stations, and pressure limiting stations. The FIMP allows for the early identification of potential safety-related risks. As facilities continue to age, SDG&E is seeking to exceed regularly required maintenance to manage the safety and integrity of its system. The FIMP would include additional inspections and expand the scope to equipment beyond what is currently required. These efforts demonstrate our strong commitment to continuous improvement and our emphasis on proactive measures to enhance the safety of our natural gas transmission and distribution systems for our customers and the communities we serve. As described in the Gas Engineering testimony of Maria T. Martinez (Ex. SCG-07), proactive management of our gas system permeates throughout our gas operations to help verify that safe pipeline quality natural gas is delivered and detected. These types of system maintenance and integrity activities

are essential to providing the safe, reliable, and sustainable operations of our gas distribution and transmission facilities.

C. Customer Service

Providing value-added services to our customers is our goal. SDG&E understands that for customers to make wise decisions regarding their energy use, they must have access to information about their energy consumption, energy prices, and tools to manage and control their energy use. We serve a wide range of customers with varying needs. We make it a priority to actively engage customers by listening to them, gathering and incorporating their feedback, modifying processes, and delivering services, innovative solutions, and tools to meet those needs. As reflected in the Customer Service - Information testimony of Sandra F. Baule (Ex. SDG&E-19), our customers today are increasingly connected, data-driven, and have come to expect personalized service and real-time information. They expect to be able to interact over the channel, device, or platform of their choice, at any time, and receive a speedy response. In response, SDG&E uses a customer-centric, technology-based approach to deliver an experience that offers customers more choice, convenience, and control over how they interact with us and manage their energy use, making it simple and seamless for a customer to transact with us, whether through mobile applications (apps), social media and web-based technology, such as MyAccount, or through a more personalized experience with SDG&E's Customer Care Center or Account Executives for business customers with more complex needs. As SDG&E experienced during the COVID-19 pandemic, there was an exponential increase in the use of our digital channels by our customers to interact with SDG&E, and we are continuously improving these channels to enhance the experience and available offerings.

With the rapid and frequent advancements of innovative technology, customer service in the energy industry continues to be transformed. The ability to leverage innovative technology extends to our deployment of Smart Meters. Smart Meter technology allows SDG&E customers to have easy access to information about how and when they use energy, what contributes to their energy bill, and, most importantly, how they can better manage and control their energy use to meet their needs. As explained in the Customer Service-Field Operations testimony of David H. Thai (Exhibit SDG&E-17), SDG&E is improving and streamlining its field operations through the upgrade of its Smart Meters (SM) 2.0 and Field Service Delivery (FSD). Initially deployed in 2009, our current meter system is nearing the end of its useful life. These projects

will proactively avoid expected failures occurring at the end of that useful life, which can result in estimated or delayed customer bills and a poor customer experience. The timing of these projects creates new opportunities to leverage advances in AMI technology with Smart Meter 2.0 to, among other things, enhance grid capabilities, facilitate the Company's Grid Modernization Plan objectives, enable continued growth for DERs, enhance and protect the capture and accurate relay of customer meter data information. Similarly, FSD will modernize implementing scheduling, dispatch, mobility, and analytics tools to improve field operations and customer satisfaction.

SDG&E also is dedicated to providing customers with more choices in their energy pricing plans and program options that will allow them to select the best rate that meets their lifestyle or business needs. SDG&E's business customers are now on time-varying pricing plans, and residential customers have transitioned to default time-of-use (TOU) pricing plans. Our overarching goal is to increase residential customers' awareness, understanding, and engagement with rate options and the energy management tools and behaviors that can help better manage their electricity use.

SDG&E is also supporting customers in the transition to CCA. SDG&E expects to transition more than 800,000 customers to CCA providers by the end of 2022, and an additional 300,000 plus customers are forecasted to transition in 2023.[26] SDG&E was able to leverage its new CIS to successfully transition the majority of its customers to CCA. The new CIS includes an enhanced online digital customer experience to enable more self-service capabilities and improve operational efficiency.

SDG&E also takes customer privacy very seriously and has established an Office of Customer Privacy and designated the Sr. Vice President of Customer Services and External Affairs to be SDG&E's Chief Customer Privacy Officer. The California Consumer Privacy Act (CCPA), and subsequent California Privacy Rights Act (CPRA) established new privacy control and compliance requirements.[27] These laws provide California consumers specific rights

[26] The forecast is based on revised implementation plans filed by San Diego Community Power and Clean Energy Alliance in December 2021, to expand their service to three new cities and the county of San Diego in 2023.

[27] California Privacy Rights Act of 2020, Cal. Civ. Code § 1798, *et seq*.

regarding the collection, use, storage, and sale of personal data by businesses.[28] To meet the requirements of these new laws, combined with an increase in existing privacy-related work, SDG&E has added resources and well-trained personnel to fully implement and comply with them, engraining customer privacy into our system designs, relationships with third parties, business controls, and day-to-day work habits. In addition, we are enhancing our systems and processes to make it easier for customers to securely share their energy data with third parties.

D. Sustainability and Environmental Stewardship

Investing in technologies and services that help advance the use of clean energy by our customers is also one of SDG&E's primary goals. To meet the State's ambitious 2045 net-zero requirements, our customers will need to embrace this change. SDG&E supports State policy goals to reduce GHG emissions through clean transportation initiatives. These initiatives are critically important because, in San Diego, over 50% of GHG emissions are attributable to the transportation sector. Our Clean Transportation team provides customers with electric transportation information on metering, rates, demand response programs, charging equipment, installation, safety, reliability, and the benefits of off-peak charging. In addition, this team evaluates all aspects and activities of transportation electrification, from identifying value and potential, developing business processes to facilitate transportation electrification, to supporting enabling technology development.

As described in the Fleet Services testimony of Arthur Alvarez (Ex. SDG&E-22), SDG&E's leading efforts to achieve California's climate goals while maintaining safety and efficiency includes:

- Replacing fleet service vehicles with light-duty electrified and zero-emission vehicles (ZEVs), and increasing its population of ZEVs;
- Piloting two different XL Hybrid systems designed to reduce emissions and increase miles per gallon;
- Piloting an idle mitigation system that shuts off engines but allows auxiliary functions to run on 23 late model medium-duty work trucks; and
- Planning to purchase a total of six commercially available hydrogen (H2) fuel-cell vehicles to better understand the technology and determine future application of

[28] *Id.*

this emerging and promising technology.

SDG&E is also committed to being a responsible environmental steward and operating in compliance with all applicable environmental laws and regulations. According to the U.S. Forest Service, the San Diego region is a "hotspot" for biodiversity and threatened and endangered species management, and the region has more rare, threatened, and endangered species than any comparable land area in the continental United States. As such, SDG&E complies with more than 400 federal, state, and local environmental laws protecting natural resources (such as threatened or endangered animals and plants), air quality, water quality, cultural resources, waste and hazardous materials. As described in the Environmental Services and San Onofre Nuclear Generating Station (SONGS) testimony of Brittany Applestein Syz (Ex. SDG&E-24), SDG&E subjects its construction, business activities and projects that may impact the environment to a multi-disciplinary environmental review to ensure compliance.

Additionally, SDG&E remains committed to cost-efficient initiatives and efforts that avoid or minimize our environmental impacts, including in such areas as GHG emissions, water usage reduction, greening the supply chain, and promoting the use of alternative fuel vehicles, including electric vehicles, through our support of grid-integrated charging. SDG&E purchased renewable energy credits and carbon offsets last year to offset our own facilities GHG emissions, facilitating our net zero goals. Our conservation efforts also extend to SDG&E's physical footprint. As a result of the COVID-19 pandemic, SDG&E is moving to a more flexible workforce to accommodate the needs of our employees. This may allow us to reduce the number of leased facilities in SDG&E's portfolio, as the workplace model changes as described in the Real Estate, Land Services, & Facility Operations testimony of Dale Tattersall (Ex. SDG&E-23).

E. Investing in Our Workforce

Our Company and its ability to serve our customers' energy needs safely, sustainably, and reliably depends on the skill and support of our employees. The ability to attract and retain skilled and dedicated workforce requires adequate funding for employee training, compensation and benefits, and human resources.

Safety is rooted in all phases of electric and gas operations training. Maintaining a skilled, qualified, dedicated and diverse workforce is critical to SDG&E's continued success. It is through the efforts of these employees that SDG&E can continue to deliver safe and reliable service to customers, comply with governmental mandates for our regulated business, and

maintain the integrity of its infrastructure at a reasonable cost. As described in the testimony of Corporate Center - Compensation and Benefits witness Debbie S. Robinson (Ex. SCG-25/SDG&E-29), SDG&E must attract and retain the best possible talent by offering a competitive total compensation package, including pension and post-retirement health benefits,[29] and other programs to support our employees, such as the employee assistance program (EAP). Compensation programs are designed to focus employees on the Company's key priorities, the most important of which is safety.

The recent COVID-19 pandemic and other societal challenges have resulted in increased pressures associated with maintaining a highly trained and qualified workforce. Increased turnover, due primarily to retirements and employee movement as a result of promotions and transfers, and hiring difficulties, continue to pose challenges to SDG&E, particularly in the areas of knowledge transfer, skills development, and overall proficiency of the replacement workforce.

The Company is taking appropriate measures to maintain its highly skilled workforce, recognizing that safety and system reliability cannot be sacrificed during times of employee transition. As new and less experienced employees step in to replace highly skilled employees, SDG&E is conscientiously training and mentoring them, giving them on-the-job experiences, and providing greater levels of supervision and quality assurance to instill a continued focus on proficiency and safety. We have also focused on the mental health and wellbeing of our workforce. The COVID-19 pandemic and related uncertainty, social isolation, disruptions in daily routines and financial pressures have led to a public mental health crisis. To address this, in 2022, SDG&E launched an expanded EAP program to provide employees and their dependents with additional mental health resources, including unlimited 24/7 access to a dedicated hub for self-care and mindfulness content. In addition, employees have access to referrals to many services that allow them to take care of issues in their personal lives so they may present their best selves at work.

VI. CONCLUSION

SDG&E remains firmly committed to delivering safe, resilient, and sustainable energy. We recognize this pivotal time in our industry: decarbonization benefits and increasing need for our infrastructure is intersecting with the changing climate and increased risks associated with

[29] Pension and post-retirement benefits other than pension are discussed further in the testimony of Peter H. Andersen (Ex. SCG-26/SDG&E-30).

our infrastructure. Accordingly, we are dedicated to taking steps to more systemically demonstrate our improving focus on risk management and investing in technologies that advance clean energy for our customers and the environment. These circumstances increase the value of the resources invested in meeting the needs of the communities we serve, including increasing government mandates and goals. With the proper resources, we will continue to take steps to enhance our customer service, including using technology to bring greater choice and empowerment to our customers and greater operational efficiency to our business. We will also continue to take the steps necessary to successfully integrate renewable energy from a wide variety of resources, many of which are intermittent resources, into our grid in a manner that maintains safety and reliability. We will also continue our efforts to be good stewards of the environment by reducing environmental impacts and fully complying with all environmental laws and regulations.

This concludes my prepared direct testimony.

VII. WITNESS QUALIFICATIONS

My name is Bruce A. Folkmann. I am President and Chief Financial Officer (CFO) for SDG&E. My business address is 8330 Century Park Court, San Diego, California 92123.

In my current position, I am responsible for overseeing the SDG&E's regulatory and legislative functions, information technology and innovation initiatives, financial planning, budgeting, and reporting, treasury management and energy risk management.

I graduated summa cum laude from the University of Houston College, receiving degrees in Accounting and Finance. I am a certified Public Accountant. I began my career with Arthur Andersen and a large multinational company. In 2005, I joined Sempra Energy and have held positions of increasing responsibility in Sempra Energy businesses since that time.

I have previously testified before the California Public Utilities Commission.

APPENDIX A

Glossary of Terms

APPENDIX A - GLOSSARY OF TERMS

AB	Assembly Bill
AFN	Access and Functional Needs
AMP	Arrearage Management Payment
BBS	Behavior Based Safety
CARE	California Alternate Rates for Energy
CCA	Community Choice Aggregator/Aggregation
CCPA	California Consumer Privacy Act
CEC	California Energy Commission
CPRA	California Privacy Rights Act
CPUC	California Public Utilities Commission
CR&B	Customer Relationship and Billing
DA	Direct Access
DEF	Distributed Energy Facilities
DER	Distributed Energy Resources
DIMP	Distribution Integrity Management Program
EAP	Employee Assistance Program
ESCMP	Environmental & Safety Compliance Management Program
EV	Electric Vehicle
FIMP	Facilities Integrity Management Program
FOF	Fueling Our Future
FSD	Field Service Delivery
GHG	Greenhouse Gas
GMP	Grid Modernization Plan
GRC	General Rate Case
GSS	Gold Shovel Standard
GTSR	Gas Transmission Safety Rules
HCA	High Consequence Area
HFTD	High Fire Threat Districts
ILI	In-Line Inspection

IT	Information Technology
MCM	Moreno Compressor Station Modernization
NGV	Natural Gas Vehicle
MW	Megawatt
O&M	Operations and Maintenance
PIPP	Percentage of Income Payment Plan
PSPS	Public Safety Power Shutoff
PTY	Post-Test Year
RAMP	Risk Assessment Mitigation Phase
SB	Senate Bill
SDG&E	San Diego Gas & Electric Company
SMS	Safety Management System
SM	Smart Meters
SoCalGas	Southern California Gas Company
TOU	Time-Of-Use
USA	Underground Service Alert
WiNGS	Wildfire Next Generation System
ZEV	Zero-Emission Vehicle

SDG&E 2024 GRC Testimony Revision Log –August 2022

Exhibit	Witness	Page	Line or Table	Revision Detail
SDG&E-01	Bruce A. Folkmann	BAF-12	Line 25	Removed "'s GRC Application" and changed "$3.022" to "$3.007"
SDG&E-01	Bruce A. Folkmann	BAF-12	Line 26	Changed "$674" to "$664" and "$2.348" to "$2.344"
SDG&E-01	Bruce A. Folkmann	BAF-12	Line 27	Changed "$475" to "$460"
SDG&E-01	Bruce A. Folkmann	BAF-12	Line 29	Changed "$286" to $279" and "6.7%" to "6.6%"
SDG&E-01	Bruce A. Folkmann	BAF-12	Line 30	Changed "$160" to "$150" and "16.5%" to "16.1%"
SDG&E-01	Bruce A. Folkmann	BAF-13	Line 23	Changed "$9.00" to "$8.79" and "5.6%" to "5.5%"
SDG&E-01	Bruce A. Folkmann	BAF-13	Line 25	Changed "$9.57" to "$9.07" and "18.1%" to "17.5"
SDG&E-01	Bruce A. Folkmann	BAF-14	Line 2	Changed "$18.57" to "$17.86" and "8.7%" to "8.4%"
SDG&E-01	Bruce A. Folkmann	BAF-18	Line 26	Added "estimated"
SDG&E-01	Bruce A. Folkmann	BAF-18	Line 27	Revised "$42.9" to "about $43"
SDG&E-01	Bruce A. Folkmann	BAF-19	Table BF-1	Revised 2024 Test Year values
SDG&E-01	Bruce A. Folkmann	BAF-20	Table BF-2	Added to Table BF-2 (Total Depreciation values, Line 3; Amortization Expense values and Total Common Depr. & Amort values Lines 4-7).
SDG&E-01	Bruce A. Folkmann	BAF-A-1	O&M	Changed "Operating" to "Operations"