

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: Wildfire Interim Rate Relief Mechanism
Application: A.21-07-XXX
Exhibit No.: SDG&E-01

**SAN DIEGO GAS & ELECTRIC COMPANY
PREPARED DIRECT TESTIMONY
OF JONATHAN T. WOLDEMARIAM
(WILDFIRE POLICY)**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



JULY 30, 2021

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1 fire science, and meteorology to develop and implement programs to enhance situational
2 awareness, increasing SDG&E's ability to monitor and understand the wildfire environment.
3 This level of understanding led to changes in operational procedures to reduce the potential for
4 ignitions associated with utility infrastructure during periods of elevated fire potential.

5 SDG&E also established customer and local agency outreach programs to educate
6 customers and stakeholders on the wildfire risk and maintain open lines of communication
7 during hazardous conditions. Additionally, SDG&E began hardening its electric transmission
8 system, particularly in rural areas where vegetation, weather conditions, and topography often
9 align to increase the potential for catastrophic wildfire growth. SDG&E developed a Highest
10 Risk Fire Area ("HRFA") and a Fire Threat Zone ("FTZ") to scope these transmission
11 infrastructure hardening projects, these areas later evolved into the High Fire Threat Districts
12 ("HFTD") California has today.

13 Over the past decade, SDG&E's business strategies have evolved to reflect a risk-
14 informed approach wherein wildfire is identified as the Company's top risk. As SDG&E
15 gathered more data, existing programs were refined as needed, and new mitigations were
16 developed, including fire hardening programs for distribution circuits. For instance, due to the
17 size and scope of SDG&E's distribution system, SDG&E developed more granular risk tools to
18 better understand risk at the asset and segment level so that fire hardening projects could be
19 prioritized within the HFTD. Such tools have included the Wildfire Risk Reduction Model
20 (WRRM) and, more recently, the Wildfire Next Generation System ("WiNGS"). SDG&E's core
21 wildfire mitigation strategy is risk-based and embodies a culture of continuous improvement.
22 SDG&E maximizes its situational awareness information to quantify wildfire risk and propose
23 mitigations to most effectively mitigate that risk. Specifically, these programs are designed to

1 mitigate risk by reducing the likelihood of faults occurring on the electric system that could lead
2 to ignitions (grid hardening and inspections), reducing the chance of a fault leading to an ignition
3 (reducing fault energy), and finally reducing the impact of fires once an ignition has occurred
4 (response mitigations). As external factors, such as climate change, have impacted SDG&E's
5 understanding of risk, SDG&E's plans and mitigations have evolved to reflect that
6 understanding.

7 Due to the heightened focus on wildfires in California in recent years, SDG&E, along
8 with the other electrical corporations in California, are required to submit Wildfire Mitigation
9 Plans to the newly created Wildfire Safety Division pursuant to Public Utilities ("P.U.") Code
10 Section 8386. SDG&E submitted its first Wildfire Mitigation Plans in 2019. Beginning in 2020,
11 the WMP process was revised so that utilities submit formal WMP filings every three years
12 along with annual WMP updates and the filing of quarterly reports notifying the Office of
13 Energy Infrastructure Safety (formerly the Wildfire Safety Division) on completed and planned
14 work. SDG&E's annual WMP updates also cover the actual cost of mitigation activities
15 compared to the previous forecast, the status of existing programs and future plans, as well as
16 any enhancements or new mitigations. SDG&E filed its formal, three-year WMP in February
17 2020 and filed a WMP update in February 2021 that provided updated wildfire mitigation
18 activities and associated cost forecasts for 2020 through 2022. The wildfire activities presented
19 in the 2021 WMP include system hardening, inspections, vegetation management, situational
20 awareness efforts, and more.

21 SDG&E does not, however, limit its wildfire mitigation efforts to current activities.
22 Rather, SDG&E looks for innovative ways to evolve and improve its wildfire mitigation
23 program. These may include employing new technologies, accelerating existing programs, and

1 changing the mix of wildfire programs. Such innovation results in additional costs. SDG&E's
2 2020 WMP was approved by the Wildfire Safety Division in Resolution WSD-005 (ratified by
3 the Commission on June 11, 2020).¹ Costs associated with implementing WMPs, including
4 those wildfire mitigation programs conditionally approved in SDG&E's 2020 WMP, are
5 recorded to the WMPMA. On July 15, 2021, the Commission approved SDG&E's 2021 WMP
6 update at its Business Meeting, as such, implementation-related costs will also be recorded to the
7 WMPMA.

8 **III. RECOVERY OF WILDFIRE MITIGATION PLAN EXPENSES**

9 The capital and operations and maintenance ("O&M") programs associated with
10 SDG&E's wildfire mitigation activities from the latest authorized test year 2019 GRC were
11 developed in the 2016-2017 timeframe.² These activities and levels represented SDG&E's
12 approach to mitigate wildfire risks based on what the Company knew or anticipated in 2016-
13 2017. But subsequently, in December 2017 and 2018, California experienced a series of
14 catastrophic wildfires, including some of the most destructive and devastating fires in the state's
15 history. Those fires provoked significant legal and regulatory reforms from the Legislature, the
16 Governor, and this Commission, including establishment of Wildfire Mitigation Plans and an
17 intensifying of wildfire mitigation and prevention statewide.

18 While none of the 2017 and 2018 wildfires were attributed to SDG&E, SDG&E has
19 sought to adapt to the new level of risk associated with climate change, drought, and other
20 factors leading to catastrophic wildfires in California with the aim of preventing such wildfires in

¹ The Commission similarly approved SDG&E's 2019 WMP. *See* D.19-05-039.

² SDG&E's Risk Assessment Mitigation Phase Report, Investigation ("I.") 16-10-015, was filed on November 30, 2016. SDG&E 2019 GRC Application ("A.") 17-10-007 was filed on October 6, 2017.

1 its service territory. Thus, in its 2019 Wildfire Mitigation Plan, SDG&E proposed an
2 acceleration of wildfire mitigation activities above and beyond what was authorized in the 2019
3 General Rate Case. While utilities typically fund activities at the levels authorized in the General
4 Rate Case, statutory provisions contained in Senate Bill (“SB”) 901 (2018) and Assembly Bill
5 1054 (2019) related to the Wildfire Mitigation Plans required utilities to undertake a variety of
6 wildfire mitigation investments and activities and to track those expenses through the Wildfire
7 Mitigation Plan Memorandum Account, with recovery to be authorized, subject to a
8 reasonableness review, in a subsequent General Rate Case or separate application.

9 In 2019, more lessons were learned across the state as a result of the customer impacts
10 that occurred due to the implementation of Public Safety Power Shutoffs (“PSPS”), as well as
11 continued assessment of the wildfire risk in California. SDG&E used that knowledge to further
12 enhance its wildfire mitigation strategies, and its 2020 WMP emphasized both reducing the risk
13 of wildfires and reducing the impacts to customers from PSPS events. To accomplish this,
14 SDG&E introduced new programs and activities beyond those included in its 2019 GRC –
15 including some mandated by the Commission – and SDG&E is tracking the expenditures in the
16 WMP memorandum account. New programs to mitigate PSPS customer impacts include
17 additional generator programs and microgrids to keep some communities energized during PSPS
18 events. Additional activities began in 2020 to meet new PSPS protocols and communication
19 requirements to improve outreach to customers and education on PSPS events and wildfire
20 safety. SDG&E also began work to integrate diverse datasets for improved quarterly geospatial
21 reporting showing incremental WMP program progress. This improved reporting will provide
22 greater transparency into SDG&E’s efforts to mitigate wildfire and PSPS risks within its service
23 territory.

1 Over time, as SDG&E gathers additional data and lessons learned related to the impacts
2 from climate change, community growth, new technologies, and other societal forces that will
3 emerge, SDG&E's wildfire risk mitigation strategy will need to continue to evolve based upon
4 the latest and best available information. In 2020, for instance, California set another record in
5 its wildfire risk history with nearly 10 thousand wildfires that burned over four million acres,
6 more than double the acreage of the previous record set during the 2018 wildfire season.³ Such
7 rapid changes in the level of wildfire risk require a commensurate level of effort to continue to
8 develop wildfire risk mitigation capabilities and invest in the system to maintain its safety for the
9 future. For instance, with the increasing need for enhanced data analytics to inform decisions,
10 SDG&E has increased its focus on building its wildfire mitigation data governance framework to
11 improve the quality of its data and centralize the information to enable ease of access for various
12 analytical efforts including its latest risk modeling approaches. Such developments lead to the
13 identification of areas where risk mitigations might need to evolve.

14 New facts and circumstances – including new regulatory requirements — have impacted
15 the Wildfire Mitigation Plans on an annual basis (i.e., more frequently than the current General
16 Rate Case cycles), which is why utilization of the WMP will continue to occur to continuously
17 improve SDG&E's wildfire mitigation program including enhancing public safety and meeting
18 the expectations of our customers and regulators. As discussed in Mr. Butler's testimony, given
19 the dollar magnitude of the risk mitigation programs that have or will utilize the Wildfire
20 Mitigation Plan memorandum account, an interim recovery mechanism is necessary to provide
21 the lowest financing costs to our customers and to smooth the customer rate impacts when

³ See CalFire 2020 Incident Archive, available at, <https://www.fire.ca.gov/incidents/2020/>.

1 | SDG&E seeks recovery for the actual expenses incurred in the next and subsequent General Rate
2 | Cases.

3 | **IV. WILDFIRE MITIGATION COST FORECASTS**

4 | In its 2020 WMP, SDG&E provided forecasts for its wildfire mitigation program
5 | organized in 10 categories consistent with the direction of the Wildfire Safety Division. These
6 | categories are briefly described as follows:

- 7 | 1. Risk Assessment and Mapping: analysis and tools used to inform both operational
8 | decision-making and system hardening priorities by providing a better
9 | understanding of ignition probability and estimates of wildfire consequences.
- 10 | 2. Situational Awareness and Forecasting: tools such as weather stations, cameras,
11 | wireless fault indicators, and the Fire Potential Index that provide information that
12 | could impact system planning, emergency operations, and the safe
13 | implementation of PSPS.
- 14 | 3. Grid Design and System Hardening: efforts to design SDG&E's system and
15 | replace high-risk electric equipment in such a manner to reduce the likelihood of
16 | ignitions.
- 17 | 4. Asset Management and Inspections: inspection and maintenance initiatives that
18 | reduce wildfire risk by identifying asset conditions that could lead to equipment
19 | failures if left unaddressed.
- 20 | 5. Vegetation Management and Inspections: programs designed to reduce the
21 | likelihood of vegetation-related impacts to the electric system.
- 22 | 6. Grid Operations and Protocols: operational strategies implemented to reduce the
23 | risk of wildfire based on real time risk conditions.

- 1 7. Data Governance: an asset data foundation and centralized repository for asset
- 2 data that will enable predictive asset health analyses and risk modeling on its
- 3 critical electric assets.
- 4 8. Resource Allocation Methodology: a centralized group to develop and implement
- 5 a holistic and sustainable asset management system for electric assets with an
- 6 integrated approach for governance, strategy, analytics, and continuous
- 7 improvement.
- 8 9. Emergency Planning and Preparedness: coordinated efforts related to planning,
- 9 preparing, and efficiently responding to emergencies, including wildfire.
- 10 10. Stakeholder Cooperation and Community Engagement: efforts undertaken by
- 11 SDG&E to work with customers, elected officials, non-profit support
- 12 organizations, and first responders to collaborate, share best practices, and
- 13 exchange lessons learned related to wildfire and PSPS response.

14 These ten categories are representative of the activities and associated costs recorded to
15 SDG&E’s Wildfire Mitigation Plan Memorandum Account. Table 1-1 below provides a
16 summary of capital and O&M expenses supporting SDG&E’s Wildfire Mitigation activities.
17 For purposes of this Application, SDG&E used WMP forecasts from the 2021 Risk Assessment
18 and Mitigation Phase (“RAMP”) Report Filing for forecasted 2023 costs to provide illustrative
19 expenditures that may be incurred before SDG&E’s test year 2024 GRC revenue requirement is
20 implemented.⁴

⁴ In the 2021 RAMP filing, IT and Facilities costs are shown in total dollars; however, only CPUC allocated costs are recovered in the WMPMA and reflected in Table 1-1. *See* SDG&E 2021 RAMP Report, *available at* <https://www.sdge.com/proceedings/2021-sdge-ramp-report>.

1 **Table 1-1**

Wildfire Mitigation Direct Costs (\$000)*					
	2019	2020	2021	2022	2023
Capital	\$ 225,973	\$ 383,972	\$ 459,301	\$ 486,077	\$ 635,661
O&M	\$ 40,219	\$ 117,239	\$ 137,399	\$ 134,027	\$ 100,542
Total	\$ 266,192	\$ 501,212	\$ 596,701	\$ 620,104	\$ 736,203

2 **Actuals through 2020; Forecasts 2021 – 2022 from 2021 WMP Update Filing, and 2023 from 2021*
3 *RAMP Filing*

4 Please note that while the vegetation management amounts are included in SDG&E’s
5 Wildfire Mitigation Plan, SDG&E is not providing forecasts in this Application for the balanced
6 portion of vegetation management because such costs are recovered through a separate balancing
7 account, the Tree Trimming Balancing Account. Accordingly, those costs will not be addressed
8 herein or subject to the interim mechanism requested in this Application.

9 **V. SDG&E’S WILDFIRE MITIGATION COSTS ARE SIMILAR TO PSEP COSTS**

10 In this proceeding, SDG&E is proposing an interim rate relief mechanism based on the
11 interim rate relief mechanism developed and approved by the Commission in SDG&E’s PSEP
12 proceeding in 2016. SDG&E used the PSEP mechanism as a model because the circumstances
13 giving rise to it are similar to those pertaining to the Wildfire Mitigation Plan. For example, both
14 the Wildfire Mitigation Plan and PSEP resulted from legislation following catastrophic events,
15 specifically, the wildfires in the fall of 2017 and 2018, and the San Bruno gas pipeline explosion
16 in September of 2010, respectively. SB 901 required electrical corporations to prepare and
17 submit a Wildfire Mitigation Plan describing the strategies to minimize the risk of its electrical
18 lines and equipment causing catastrophic wildfires. Decision (“D.”) 11-06-017 required gas
19 corporations to prepare and submit an Implementation Plan for testing and replacing natural gas

1 transmission pipelines.⁵ Both of these legislative actions encouraged the utilities to immediately
2 address potential issues with their systems to safeguard customers from risk.

3 Both the WMP and PSEP associated costs are to be tracked within regulatory accounts,
4 subject to reasonableness reviews, and addressed through separate proceedings, such as future
5 general rate cases. Given the lengthy and complex regulatory process of reasonableness reviews
6 and multiple regulatory proceedings, the balances in the PSEP regulatory accounts continued to
7 grow. SDG&E and SoCalGas recognized the need for an interim mechanism to address the lag
8 in regulatory cost recovery and to decrease the potential rate shock to customers. Commission
9 staff, parties, and the Commission agreed and adopted in D.16-08-003 an interim rate relief
10 mechanism for SDG&E and SoCalGas of certain PSEP regulatory accounts, subject to refund.

11 Based on SDG&E's current general rate case timeline, with the next test year occurring
12 in 2024, a similar situation is now expected to impact the WMPMA as balances are forecasted to
13 increase due to SDG&E undertaking wildfire mitigation efforts beyond the levels authorized by
14 the Commission in SDG&E's 2019 General Rate Case. While the Legislation permits SDG&E
15 to file a separate application for recovery of the costs of implementing its Wildfire Mitigation
16 Plan,⁶ such an application cannot be filed until the end of the time period covered by the current
17 Wildfire Mitigation Plan (which spans 2020-2022), and the balances will continue to accumulate
18 through that time.

19 As mentioned above, SDG&E is experienced with implementing wildfire mitigation
20 measures and has been lauded for such work. But, given the catastrophic nature of the wildfire
21 risk, SDG&E is accelerating some of its existing programs and implementing new wildfire

⁵ The requirements of D.11-06-017 were later codified at P.U. Code Sections 957 and 958.

⁶ P.U. Code Section 8386.4(b)(2).

1 mitigations, as presented in its Wildfire Mitigation Plans. By design, utilities are encouraged to
2 innovate within the WMP process which regularly leads to the development of new programs at
3 additional costs. Programs newly implemented in the WMP are forecasted to significantly
4 increase the balances within the WMPMA over the next several years. Although SDG&E has
5 received regulatory approval to begin this work, the associated costs were not previously
6 addressed in the 2019 General Rate Case. Such accumulation of under-collected balances, if not
7 recovered until the next General Rate Case, will have the potential to create rate pressures for
8 customers and would continue to be subject to a reasonableness review and potential refund.

9 **VI. CONCLUSION**

10 While SDG&E has completed significant work to address wildfire risk in the past,
11 SDG&E expects costs associated with wildfire mitigation to increase in the future. SDG&E's
12 proposed interim rate relief mechanism allows the Company to begin recovering wildfire
13 mitigation costs, subject to refund and a reasonableness review, in smaller, annual amounts
14 rather than waiting for approval in a future General Rate Case when the balances will be larger
15 and have the potential to cause rate pressures for customers. As such, this is beneficial for
16 customers and the Company alike.

17 This concludes my prepared direct testimony.

1 **VII. STATEMENT OF QUALIFICATIONS**

2 My name is Jonathan T. Woldemariam. My business address is 8330 Century Park
3 Court, San Diego, California, 92123. I am employed by SDG&E as the Director of Wildfire
4 Mitigation. I am responsible for developing and overseeing the execution of the Company's
5 Wildfire Mitigation Plan. I work to optimize a portfolio of initiatives to help decrease wildfire
6 risk.

7 I joined SDG&E in 1994 and have served as a director for Transmission and Substation
8 Operations, Electric Transmission and Distribution Engineering, and Construction Services. I
9 have over 26 years of experience in the electric utility industry. I am currently serving on the
10 Board of Directors 2-1-1 San Diego, a local non-profit which is the region's trusted source for
11 access to community, health, social, and disaster services.

12 I have a bachelor's degree in electrical engineering, with a major field of study in
13 Electrical Power and am a licensed Professional Engineer in California.

14 I have previously testified before this Commission.