Application of San Diego Gas & Electric Company (U 902 E) For Authority to Update Marginal Costs, Cost Allocation, And Electric Rate Design.

Application: 23-01-XXX Exhibit No.:

CHAPTER 7

PREPARED DIRECT TESTIMONY

OF JEFF NIGHTINGALE

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

JANUARY 17, 2023



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1 PREPARED DIRECT TESTIMONY OF 2 JEFF NIGHTINGALE 3 (CHAPTER 7) 4 I. PURPOSE AND OVERVIEW 5 The purpose of my testimony is to provide San Diego Gas & Electric Company's (SDG&E) proposed process for converting Schedule OL-1 lamps to Light Emitting Diode 6 7 (LED) technology, including the costs for completing these conversions. 8 My testimony is organized as follows: **Section II** — **Background:** Describes the proposal for converting OL-1 lamps to LED technology as required in the 2019 General Rate Case (GRC) 10 Phase 2 Settlement agreement adopted by Decision (D.) 21-07-010. 11 Section III — OL-1 LED Conversions Process: Describes the process 12 SDG&E proposes for converting existing OL-1 lamps to LED technology. 13 14 Section IV — OL-1 LED Conversions Costs: Describes the forecasted costs proposed to convert Schedule OL-1 lamps to LED technology. 15 Section IV — Summary and Conclusion. 16 17 Section VI — Statement of Qualifications. **BACKGROUND** 18 II. 19 SDG&E's current Schedule OL-1 (Lighting-Utility-Owned Installations) tariff 20 includes traditional lighting technologies such as High-Pressure Sodium Vapor and Low-2.1 Pressure Sodium Vapor. In SDG&E's 2019 GRC Phase 2 Settlement Agreement adopted in 22 D. 21-07-010, SDG&E agreed to propose the conversion of OL-1 lamps to LED technology 23 in this GRC Phase 2 proceeding.¹ Converting these lamps to energy efficient LED 24 technology will reduce the energy consumption on these lamps, which should provide ¹ See D.21-07-010, Appendix B, Section 2.2.15 LED Lamp Conversion, at 16.

customers with the opportunity to lower their electric bills. As discussed below in Sections III and IV of my prepared direct testimony, SDG&E is proposing a process for converting existing OL-1 lamps to LED technology. This includes the costs associated with the LED conversions. With approval of the forecasted costs associated with converting OL-1 lamps to LED technology, SDG&E will add LED technology to the Schedule OL-1 tariff.

III. OL-1 CONVERSION PROCESS

There are currently 7,525 active OL-1 lamps within SDG&E's service territory. SDG&E proposes that once the Commission issues a decision adopting the conversion of OL-1 lamps to LED technology, SDG&E will begin converting OL-1 lamps to LED technology upon burnout of the existing lamps and any additional OL-1 lamps at the location.

IV. OL-1 LED CONVERSION COSTS

Total installation costs, which are presented in my workpapers, include the cost of the LED luminaire plus the cost of the photocell. In developing installation cost estimates, material costs are adjusted to include overhead allocations per changeout is applied for total installation labor time. This labor time assumption is multiplied by the labor rate of \$242.42 per hour, adjusted to include the overhead allocations, to determine a fully loaded labor rate. The fully loaded labor rate is then added to the fully loaded costs of the LEDs to determine the total fully loaded installed labor and material costs, as seen in my work paper.

For total maintenance costs, the following assumptions were made:

• An industry standard failure rate for LEDs of 1% per year. Based on the September 2022 population of 7,525 streetlights, the number of annual maintenance trips required by an SDG&E crew to repair a nonfunctioning light would be 75.

A worst-case scenario of 3 hours per crew maintenance trip at the labor rate 1 2 of \$242.42 per hour.² 3 A labor loading factor of 128%. Once applied, this leads to total annual costs 4 of \$124,776. Dividing the total annual loaded cost by the total number of OL-1 streetlights results 5 6 in the annual maintenance costs for LEDs of \$16.58 per light (\$124,7776 / 7,525 = \$16.58). 7 When compared to \$26.84 per light for traditional technologies, as addressed in the prepared 8 direct testimony of SDG&E witness William G. Saxe (Chapter 4, LED conversion presents

V. SUMMARY AND CONCLUSION

the opportunity for savings of approximately \$77K per year.

In sum, SDG&E recommends that the Commission adopt the proposed OL-1 LED conversion process, including the costs associated with the OL-1 LED conversions.

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² This is the standard labor rate paid by SDG&E.

VI. STATEMENT OF QUALIFICATIONS

My name is Jeffrey S. Nightingale. My business address is 8330 Century Park Court,
San Diego California 92123. I started my career at SDG&E in March 2000 as a Laborer and
held various positions in construction management. Prior to my employment at SDG&E, I
was employed by Volvo Cars of North America for 7 years as a master technician and have
an Automotive Service Excellence (ASE) certification in suspension.

Since December 2016, I have been employed as a Construction Manager in Construction & Vegetation Management. During this period, I worked as a manager under Clean Transportation while also managing various civil projects. This is my first time testifying for the California Public Utilities Commission (CPUC).