

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

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

### 6 **III. OL-1 CONVERSION PROCESS**

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

### 12 **IV. OL-1 LED CONVERSION COSTS**

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

20 For total maintenance costs, the following assumptions were made:

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

- 1           •       A worst-case scenario of 3 hours per crew maintenance trip at the labor rate  
2           of \$242.42 per hour.<sup>2</sup>
- 3           •       A labor loading factor of 128%. Once applied, this leads to total annual costs  
4           of \$124,776.

5           Dividing the total annual loaded cost by the total number of OL-1 streetlights results  
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  
9           the opportunity for savings of approximately \$77K per year.

10       **V.    SUMMARY AND CONCLUSION**

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

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<sup>2</sup> This is the standard labor rate paid by SDG&E.

1 **VI. STATEMENT OF QUALIFICATIONS**

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

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