

San Diego Gas & Electric Company

Exhibit No. SDG - 2

Prepared Direct Testimony of

J. Bret Ball

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

San Diego Gas & Electric Company) Docket No. ER12-____-000

**PREPARED DIRECT TESTIMONY OF
J. BRET BALL
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY**

I. INTRODUCTION

Q1. Please state your name and business address for the record.

A1. My name is J. Bret Ball, and my business address is 5488 Overland Ave, San Diego, CA 92123.

Q2. Briefly describe your present responsibilities at San Diego Gas and Electric Company (“SDG&E” or “Company”).

A2. I am the Manager of the Transmission Construction & Maintenance Department.

Q3. Briefly describe your professional background.

A3. I have 33 years utility operations experience as a Lineman, Supervisor, and Manager at Pacific Gas & Electric, City of Lodi, and SDG&E.

Q4. Have you previously testified before the Federal Energy Regulatory Commission (“FERC” or “Commission”)?

A4. No.

II. PURPOSE OF TESTIMONY

Q5. What is the purpose of your testimony?

A5. The purpose of my testimony is to explain the development of the Sunrise Powerlink 500/230 kV (Sunrise) estimated maintenance costs as well as how these costs will be allocated to Citizens Border East Line. The Border-East Line is identified as a 30 mile

500kV transmission line that extends from the Imperial Valley substation (but does not include the Imperial Valley Substation) to the San Diego County Line. Pursuant to the Development and Coordination Agreement (as amended, the DCA) signed May 11, 2009 in which Citizens agreed to lease from SDG&E the 500 kV Border-East Line in exchange for a 30 year entitlement of 50% of the transfer capability on this portion of the line. Under the DCA, SDG&E would be responsible for the operations and maintenance services associated with Citizens 30 mile line segment. SDG&E will charge Citizens for 50% the actual costs incurred for the maintenance associated with Citizens' proportionate share of the Border East Line, plus applicable overheads as indicated in the DCA.

Q6. Please explain the principal terminology you use in this testimony.

A6. When I refer to Sunrise estimated maintenance expenses and the portion directly assigned to the Border-East Line, I am referring to only maintenance expenses, exclusive of transmission operation expenses.

Q7. How is your testimony organized?

A7. My testimony is organized as follows:

I. Introduction

II. Purpose

III. Calculation of Sunrise Total Estimated Maintenance Expenses for 2012 and 2013

IV. Calculation of the Sunrise Maintenance Costs Directly Assigned to the Border-East Line

V. Addition of Overhead Expenses to Direct Maintenance Expenses

Q8. Please summarize how you arrived at the estimated maintenance expenses for the Border-East Line.

A8. To arrive at the estimated maintenance expenses for the Border-East Line, I generally relied on historical data and experience from SDG&E's system-wide transmission system, adjusted for certain costs components, and used an average cost per structure methodology to determine the portion of system-wide costs that could reasonably be expected to be experienced on the Border-East Line during a 12 month period. I will discuss these points more fully below. Any variance between estimated costs and actual costs will be subject to the true up mechanism in the rate formula that SDG&E is

proposing in this proceeding. Ms. Sanchez discusses the rate formula in her testimony (Exhibit No. SDG-1).

Q9. Why is it necessary to estimate total Sunrise maintenance expenses and those portions of maintenance expenses in FERC Account 571, Maintenance of Overhead Lines?

A9. In her testimony, Ms. Sanchez explains the rationale for forecasting total Sunrise maintenance expenses as well as the portion of maintenance expenses that will be directly assigned to Citizens. My testimony explains the methodology I followed to arrive at the maintenance costs for the Border-East Line.

III. CALCULATION OF TOTAL ESTIMATED SUNRISE MAINTENANCE COSTS FOR 2012 AND 2013

Q10. Please explain how you developed total estimated Sunrise maintenance costs to be incurred during the initial Rate Effective Period under the Citizens Formula that will be directly assigned to the Border-East Line.

A10. I followed the average cost per structure methodology. Parts A of Exhibit SDG2-1 and Exhibit SDG2-2 demonstrate how this works. More specifically, these exhibits reflect the total estimated Sunrise maintenance expenses for June through December during 2012 and 2013.

The costs shown in Part A of both Exhibit Nos. SDG2-1 and Exhibit SDG2-2 were developed by using 2009 transmission maintenance costs divided by the total number of transmission structures in the system. These average costs were then multiplied by the number of total structures on all the miles of the Sunrise 500 kV line to develop the total labor and non-labor costs shown in column 2 and 3 of Exhibit SDG2-1 and Exhibit SDG2-2. In developing the 2012 and 2013 costs, I applied an annual 3% escalation factor to the 2009 costs to bring them to 2012 and 2013 costs.

Q11. What are the primary cost components that make up the total estimated Sunrise Maintenance Costs?

A11. As shown in Part A of Exhibit Nos. SDG2-1 and SDG2-2, the four primary cost components used to develop total estimated Sunrise maintenance costs are:

- 1) Transmission Maintenance costs;
- 2) Staging/Fly Yards Maintenance costs;
- 3) Substation Maintenance costs; and
- 4) Vegetation costs.

While all four primary cost components were utilized to develop total estimated Sunrise maintenance costs, not all of the components, as explained in Section V below, are applicable to the Border-East Line. Below is a description of each cost component. The maintenance activities costs are broken into two categories: labor (column 2) and Non-Labor (column 3). Labor costs represent SDG&E internal labor only. The non-labor costs represent contractors' labor costs, materials and supplies, equipment and other miscellaneous costs. SDG&E's company overheads (indirect costs) are not included as part of the costs shown in Exhibit Nos. SDG2-1 and SDG2-2. The calculation and addition of indirect costs are discussed in Ms. Sanchez's testimony (Exhibit No. SDG1-4).

The Transmission Maintenance Costs consists of eleven activities directly associated with the maintenance of transmission lines as identified by the Transmission Construction & Maintenance Department. A list of these activities and the number of structures associated with each activity is shown in lines 1 through 11 of Exhibit No. SDG2-1. Each line item within the Transmission Maintenance cost component was developed using the average cost per structure methodology. Workpaper ("WP") 2-1 and WP2-2 to my exhibits show the labor and non-labor amounts for 2012 and 2013 in Part A of Exhibits Nos. SDG2-1 and SDG2-2 for Transmission Maintenance Activities.

Staging/Fly Yards Maintenance Costs consist of contractor's all-inclusive cost to maintain 12, 1 acre staging/fly yards. This includes maintenance grading, mowing and weed abatement, maintenance of access road to the yard, and inspecting the sites on a regular basis to make sure they are available and safe for temporary helicopter use. WP2-1 and WP2-2 shows the labor and non-labor amounts for 2012 and 2013 in Part A of Exhibits Nos. SDG2-1 and SDG2-2 for the Staging/Fly Yards Maintenance Costs.

Substation Maintenance Costs consist of substation equipment maintenance, general weeding, inspections (battery and series capacitor inspections), security camera

1 maintenance, and major and minor overhauls of gas circuit breakers and transformers.
2 The prescribed maintenance is based on SDG&E's Transmission Substation Maintenance
3 Practices currently on file and adopted by the California Independent System Operator.
4 These costs reflect the maintenance associated with the new Suncrest substation and the
5 seven substations upgraded as part of Sunrise. Although substation maintenance costs
6 are included in the overall maintenance costs of Sunrise, this cost will not be allocated to
7 Citizens, as explained in Ms. Sanchez's testimony.

8 Vegetation Costs consist of clearing and brushing around towers, and pruning
9 around temporary staging access pads ("TSAP"). The structures designated as TSAPs
10 require the use of a helicopter, which is included in these costs. WP2-1 and WP2-2
11 shows the calculation for labor and non-labor costs for 2012 and 2013 in Part A of
12 Exhibits No. SDG2-1 and SDG2-2.

13 These four primary cost components were used to develop total Sunrise estimated
14 maintenance costs and were used to allocate cost to the Border-East Line as explained
15 below.

16 **IV. CALCULATION OF SUNRISE MAINTENANCE COSTS DIRECTLY**
17 **ASSIGNED TO BORDER-EAST LINE**

18 **Q12. Please explain why only Account 571 Sunrise overhead maintenance costs will be**
19 **directly assigned to Border-East Line?**

20 A12. The Border-East Line only includes the 500kV transmission line. It does not include any
21 transmission facilities that may operate at a lower voltage, or any substation facilities.
22 Accordingly, SDG&E will charge Citizens for only 50% of its proportionate share of
23 actual maintenance costs, plus applicable overheads, associated with this 30 mile line
24 segment through an internal order accounting process.

25 **Q13. Please explain the internal order accounting process.**

26 A13. When Sunrise goes into service, internal accounting work orders within FERC Account
27 571, Maintenance of Overhead Lines, will be opened for the Border-East Line so that
28 maintenance personnel can charge their actual time and cost of materials.

29 **Q14. Please explain how you calculated Sunrise 2012 and 2013 direct maintenance**
30 **expenses for the Border-East Line?**

1 A14. Part B, of Exhibit No. SDG2-1 and SDG2-2, shows estimated Citizens Border East Line
2 expenses for June through December 2012 and for January through December 2013.
3 Based upon the unit cost per structure methodology discussed above, WP2-1 and WP2-2
4 to my exhibits derives the cost shown in Part B of Exhibits No. SDG2-1 and SDG2-2,
5 respectively, for the Citizens Border East Line.

6 Transmission Maintenance Costs: Part B shows how the Transmission
7 Maintenance Costs in lines 1 through 11 of Exhibit Nos. SDG2-1 and SDG2-2 were
8 derived. For 2012 and 2013 these amounts as shown on line 11 of both exhibits and are
9 \$53,520 and \$274,232, respectively. As discussed earlier, the 2013 amounts are for the
10 full year and must be multiplied by the ratio of 7 months divided by 12 months to reflect
11 the costs from January through May 2013. Given that Sunrise is a new transmission line
12 with an in-service date of June 1, 2012, actual transmission line maintenance other than
13 aerial light maintenance, light monitoring system, vegetation, and staging/fly yard
14 maintenance, are not anticipated until the latter part of 2012.

15 Aerial Light Maintenance: SDG&E will install and maintain solar powered, self
16 contained, remote monitored, infrared aircraft warning lights on selected structures.
17 There are 51 aerial lights located within the Border-East Line. WP2-1 and WP2-2 show
18 how Aerial Lights Maintenance on line 7 of Exhibit Nos. SDG2-1 and SDG2-2 were
19 derived. For 2012 and 2013, the total amounts are equal to \$16,637 and \$29,760,
20 respectively.

21 Light Monitoring System is an aviation warning light monitoring system that
22 monitors the performance of the aerial lights by signaling when an aerial light goes out.
23 WP2-1 and WP2-2 show how the Light Monitoring System (support lights and aerial
24 lights) on line 8 of Exhibit Nos. SDG2-1 and SDG2-2 were derived. For 2012 and 2013,
25 the total amounts are equal to \$36,883 and \$65,124, respectively.

26 Staging/Fly Yards Maintenance cost entails the maintenance of 12 additional, 1-
27 acre yards needed for helicopter. There are two staging/fly yards located within the
28 Border-East Line. WP 2-1 and WP2-2 show how the Staging/Fly Yards Maintenance
29 costs on line 13 of Exhibit Nos. SDG2-1 and SDG2-2 were derived. For 2012 and 2013,
30 the total amounts are equal to \$21,573 and \$38,092, respectively.

1 Vegetation Costs consist of clearing and brushing around towers, inspections,
2 audits, and pruning around TSAPs. Maintenance around TSAPs requires the use of a
3 helicopter and crew. For 2012, SDG&E anticipates that most of the towers and TSAPs
4 will remain clear for the remainder of the year. As indicated on line 15 of Exhibit No.
5 SDG2-1, the 2012 estimated vegetation costs consisting of inspection and vegetation
6 audit costs equal to \$42,132. Sunrise consists of 440 towers of which 99 towers are
7 located within the Border-East Line. WP2-1 and WP2-2 show how the 2012 and 2013
8 Vegetation costs were derived.

9 **V. THE ADDITION OF OVERHEAD EXPENSES TO DIRECT MAINTENANCE**
10 **EXPENSES**

11 **Q15. Please explain the need of having to add overhead expenses to your estimated direct**
12 **expenses.**

13 A15. As mentioned in Section IV, the estimated Sunrise maintenance costs shown in Exhibits
14 No. SDG2-1 and SDG2-2 do not include any overhead maintenance expenses. In
15 general, expenses booked to any FERC maintenance account include both direct as well
16 as overhead expenses. Ms. Sanchez has provided overhead maintenance expense
17 percentages that I could apply to the above direct expenses to derive total transmission
18 maintenance expenses. In her testimony, Ms Sanchez explains how she developed the
19 overhead Maintenance percentages shown on lines 22 through 24 of my Exhibit No.
20 SDG2-3.

21 **Q16. Please explain how the Overhead Maintenance Percentages will be applied to Total**
22 **Sunrise Maintenance Costs?**

23 A16. Exhibit No.SDG2-3 illustrates the application of the overhead maintenance percentages
24 to Total Sunrise maintenance costs from for 2012 and 2013 as reflected in Part A of
25 Exhibits No. SDG2-1 and SDG2-2. Exhibit SDG2-3 Part A, columns 1 and 2, contain
26 Total Sunrise Estimated Maintenance Costs of \$946,000 (2012) and \$2,783,000 (2013)
27 segregated into Direct Labor and Direct Non-Labor. Part B, calculates the amount of
28 overhead expenses for labor, non-labor, and Transportation, shown on lines 28 to 30,
29 which are added to Total Sunrise maintenance costs shown in columns 1 and 2, line 15.

1 Part C, shows the sum of the 2012 and 2013 direct and indirect expenses equal to \$1.111
2 M and \$3.151 M respectively.

3 **Q17. Please explain how the Overhead Maintenance Percentages will be applied to**
4 **Border-East Line Estimated Maintenance Costs?**

5 A17. Exhibit No. SDG2-4 applies the overhead maintenance percentages to the Border-East
6 Line estimated maintenance costs in the same manner as discussed above with the
7 following exception. Up to this point in my deriving the Border-East Line expenses, I
8 have derived the total costs applicable to the 30 mile section of the Border-East Line.
9 Because Citizens is leasing 50% of the transfer capacity of this line, I multiply the total
10 costs by 50% to derive the costs attributable to the Border-East Line. I undertake this
11 calculation on line 35 to yield the 2012 and 2013 annual Border-East line cost of \$67 K
12 and \$266K, respectively. As indicated on line 38, column 2, 2013 costs are multiplied by
13 the ratio of 7 months divided by 12 months to reflect January through May 2013 costs.


14 **Q18. Does this conclude your testimony?**

15 A18. Yes.

VERIFICATION

STATE OF CALIFORNIA)
)
COUNTY OF SAN DIEGO) ss.

J. Bret Ball, being duly sworn, on oath, says that he is the J. Bret Ball identified in the foregoing prepared direct testimony; that he caused to be prepared such testimony on behalf of San Diego Gas & Electric Company; that the answers appearing therein are true to the best of his knowledge and belief; and that if asked the questions appearing therein, his answers would, under oath, be the same.

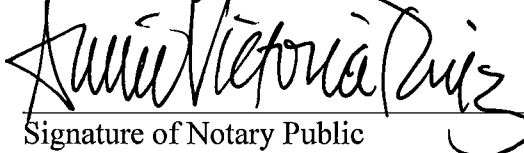


J. Bret Ball

STATE OF CALIFORNIA)
)
COUNTY OF SAN DIEGO)

Subscribed and sworn before me, a notary public of the state of CALIFORNIA, this 30th day of March, 2012, by J. BRET BALL, proved to me on the basis of satisfactory evidence to be the person who appeared before me.

WITNESS my hand and official seal.



Signature of Notary Public

