

Application: 17-11-XXX
Exhibit No.: SDGE-X
Witness: Amanda D. White

Application of San Diego Gas & Electric
Company (U 902 E) and Citizens Energy
Corporation for Authorization Pursuant to
Public Utilities Code Section 851 to Lease
Transfer Capability Rights to Citizens
Sycamore-Penasquitos Transmission LLC

DIRECT TESTIMONY OF
AMANDA D. WHITE
SAN DIEGO GAS & ELECTRIC COMPANY

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

November 13, 2017



1 **I. SUMMARY AND PURPOSE OF TESTIMONY**

2 The purpose of my direct testimony is to provide an illustrative model to compare annual
3 levelized revenue requirements, including both incremental capital and expense related costs,
4 pertaining to San Diego Gas & Electric (“SDG&E”) leasing a portion of the transfer capability
5 on a segment of the Sycamore-Penasquitos Transmission Line Project (“Project”) to a subsidiary
6 of Citizens Energy Corporation¹ pursuant to the Transfer Capability Lease between SDG&E and
7 Citizens (“Transfer Capability Lease”) substantially in the form attached as Exhibit A to the
8 Development, Coordination, and Option Agreement (“DCOA”).

9 The Project is located between SDG&E’s Sycamore Canyon and Penasquitos Substations
10 in San Diego County. The portion of the Project that is the subject of the Transfer Capability
11 Lease is the underground 230 kilovolt (“kV”) transmission line segment of the Project that
12 extends from the east cable riser pole located near Stonebridge Parkway and Stonecroft Terrace
13 to the west cable riser pole located near Carroll Canyon Road and Interstate 805 (“Underground
14 Segment B”).

15 The illustrative model discussed here presents a “base” case for both SDG&E and
16 Citizens, based on the assumptions that (1) Citizens finances its investment in the project at
17 capital costs that are fixed at current levels for the 30-year term of the Transfer Capability Lease
18 and (2) SDG&E’s authorized debt and equity cost recovery rates and capital structure remain at
19 their currently authorized levels for the life of the Project. For the SDG&E base case, the Model
20 was modified to reflect the Federal Energy Regulatory Commission (“FERC”) approved
21 SDG&E authorized capital structure in effect at the time this analysis was conducted. For the
22 Citizens base case, the Model was updated to reflect the most current five-day average Moody’s

¹ Citizens Energy Corporation and its subsidiary are collectively and individually referred to herein as “Citizens”.

1 Aa 30-year Utility Bond Index in effect at the time this analysis was conducted, which at that
2 time matched the FERC approved SDG&E authorized capital structure.

3 The SDG&E base case was prepared from the perspective that Citizens would not
4 exercise its option under the DCOA and therefore not participate in the Project. The Citizens
5 base case was prepared from the perspective that Citizens would exercise its option under the
6 DCOA and participate in the Project. The estimated annual levelized revenue requirements are
7 the sum of the annual levelized capital related costs plus the annual expense related costs. The
8 annual levelized capital related costs are produced from the SDG&E Representative Rate Model
9 (“Model”) attached to the Transfer Capability Lease. The annual expense related costs are
10 produced from estimated costs forecasted by SDG&E for its costs and Citizens for its costs. I
11 understand that Citizens’ witness, Dr. John W. Wilson, will use this model to depict alternative
12 levelized revenue requirements for SDG&E based on his assumptions regarding possible future
13 changes in SDG&E’s authorized return on equity (“ROE”) and debt cost recovery levels.

14 **II. THE REPRESENTATIVE RATE MODEL**

15 The Model produces a revenue requirement calculation that incorporates a ratemaking
16 cost of service methodology consistent with SDG&E’s current practices. As described in the
17 testimony of SDG&E witness John Jenkins, the Model was included as part of the Transfer
18 Capability Lease in an effort to establish a cost of capital cap (the “SDG&E Representative
19 Rate”) that would be substantially similar to the cost of capital SDG&E could recover at the time
20 the Underground Segment B went into commercial operation for the life of the project if
21 SDG&E held its interest in the Underground Segment B without Citizens’ participation.

1 To determine the SDG&E Representative Rate or cap that applies to Citizens, certain
 2 variable parameters must be entered in the Model at the time of execution of the Transfer
 3 Capability Lease:

- 4 (1) five-day average Moody’s Aa 30-year Utility Bond Index as set forth in the
 5 Bloomberg LLC system, mnemonic MOODUAA,
- 6 (2) the actual Costs of Transfer Capability (defined above), and
- 7 (3) the portion of the actual Costs of Transfer Capability that is actual SDG&E
 8 Allowance for Funds Used During Construction (“AFUDC”).

9 When populated with these variable parameters, the Model will produce a discounted annual
 10 levelized revenue requirement derived from capital related costs, including the Cost of Transfer
 11 Capability as defined in the Transfer Capability Lease over the 30-year contract period. The
 12 Model produces annual revenue requirements using typical ratemaking formulas that are then
 13 added together over a 58-year period (the average service life of the Underground Segment B)
 14 and discounted at SDG&E’s weighted average cost of capital (“WACC”) presented in the Model.
 15 SDG&E’s WACC shown in the current Model (which will be rerun with the three variable
 16 parameters described above updated at the time of execution of the Transfer Capability Lease) is
 17 7.43% and is shown in Table ADW-1 below. The discounted sum of the capital cost related
 18 revenue requirements is then levelized over the 30-year lease period to produce a single annual
 19 capital cost related revenue requirement.

20 **Table ADW-1**

San Diego Gas & Electric Current Model Capital Structure				
Calculation of WACC		Capital Ratio	Cost	WACC
Debt		44.77%	4.19%	1.87%
Preferred Equity				
Common Equity		55.23%	10.05%	5.55%
		100.00%		7.43%

1 The current Model also assumes a 44.77% debt, 55.23% equity capital structure for
2 SDG&E as shown in Table ADW-1, and currently sets the cost of debt financing at 4.19%,
3 which represents SDG&E's current estimated debt rate. This estimated debt rate is calculated by
4 taking the five-day average Moody's Aa 30-year Utility Bond Index plus 48 basis points, which
5 debt rate equates to SDG&E's FERC approved debt rate at the time the analysis was done.

6 The detailed components of the revenue requirement that are calculated by the Model
7 include depreciation, interest expense on debt financing, taxes, and return on common equity.
8 Federal and state income taxes are fixed at 35% and 8.84% respectively. The Model produces a
9 detailed calculation of rate base adopted from the FERC perspective, which takes into
10 consideration the normalization of both federal and state deferred taxes. The Model also
11 incorporates a calculation for working cash. Working cash is computed by multiplying total
12 estimated annual O&M expenses by one-eighth. The resulting amount represents 45 days of
13 O&M expenses. This method, which is accepted by FERC, is used in the Model because a
14 traditional working cash study based on historical data related to the Underground Segment B
15 operations is not yet available.

16 **III. COSTS UNDER THE TRANSFER CAPABILITY LEASE**

17 **Capital Related Costs**

18 The cost components used in the model are defined under the Transfer Capability Lease.
19 Section 4.3.2 of the Transfer Capability Lease describes the capital related costs with the single
20 largest capital component being defined as the "Costs of Transfer Capability." The phrase
21 "Costs of Transfer Capability" means 101% of the sum of the prepaid rent of Citizens' Transfer
22 Capability, as determined in the Transfer Capability Lease, plus all reasonably incurred project
23 costs, development costs, regulatory costs, transactional costs, sales costs, use or excise tax costs,

1 and Financing Costs (defined below) incurred by Citizens and associated with this transaction.
2 The phrase “Financing Costs” means (a) with respect to any bridge financing that Citizens may
3 consummate prior to the term financing that Citizens will consummate for the final acquisition of
4 the Citizens Transfer Capability, all reasonable and customary financing costs, including without
5 limitation, lenders’ fees, consultants’ fees (for Citizens and its lenders), lawyers’ fees (for
6 Citizens and its lenders), and interest associated with such bridge financing, and (b) with respect
7 to the term financing that Citizens will consummate for the final acquisition of its Transfer
8 Capability, all reasonable and customary consultants’ fees (for Citizens and its lenders), lawyers’
9 fees (for Citizens and its lenders), and capitalized interest charged prior to commencement of
10 rate recovery, and excluding any lenders’ fees and any amounts set aside for reserve accounts.
11 For purposes of clarity, the extra one percent is intended to account for, among other costs, the
12 ordinary and customary lenders’ fees that SDG&E would have incurred if it held the Citizens
13 Transfer Capability.

14 **Expense Related Costs**

15 Section 4.3.1 of the Transfer Capability Lease states that Citizens shall seek recovery of
16 its share of the operating and maintenance (“O&M”) costs imposed on Citizens by SDG&E
17 under the Transfer Capability Lease and all other reasonably and prudently incurred costs for
18 operation and maintenance on an annual formulaic basis, including administrative and general
19 (“A&G”) activities (and any sales, use, and excise tax) and its share of property taxes, directly
20 attributable to the Citizens Transfer Capability as recorded in FERC accounts, including but not
21 limited to the following accounts: 408.1, 560-573, 908, and 920-935 under the FERC Uniform
22 System of Accounts.

1 As described in Section 4.1.2 of the Transfer Capability Lease, the O&M costs imposed
2 on Citizens by SDG&E described above will include a monthly charge to Citizens from SDG&E
3 equal to the sum of (i) the O&M costs incurred by SDG&E that are reasonably attributable to the
4 Citizens Transfer Capability and SDG&E's O&M services, including a reasonable allocation of
5 A&G activities, general and common plant, the amortized cost of removing the Underground
6 Segment B, sales, use and excise taxes, and other costs, plus (ii) Citizens' share of property tax
7 paid by SDG&E. The applicable overheads include an allocated portion of General and
8 Common plant costs used to support the Underground Segment B. The General and Common
9 plant costs include, but are not limited to, capital costs for office building, furniture, computer
10 equipment, communication equipment, and tools. Thus, whether Citizens were to exercise its
11 option under the DCOA and participate in the Project or not, these O&M, A&G, and overhead
12 costs would be considered pass through costs from either SDG&E's or Citizens' perspective and
13 from a comparative view point have zero incremental financial impact on this analysis.

14 Lastly, if Citizens were to exercise its option under the DCOA, then it would likely incur
15 its own incremental A&G costs above those billed by SDG&E. These annual incremental costs
16 reflect those that are required for Citizens to carry out its responsibilities under the Transfer
17 Capability Lease to perform the role of a Participating Transmission Owner ("PTO") in the
18 CAISO, including representing Citizens' interest in the Underground Segment B as a PTO and
19 addressing changes which will be required over time to the CAISO Tariff, the Transmission
20 Control Agreement and other key CAISO arrangements, and to participate in the CAISO's
21 ongoing billing and settlements processes, which are further addressed in Section IV of this
22 testimony.

Table ADW- 2 shows a summary side by side comparison of base case capital and expense related costs applicable under the Transfer Capability Lease as they pertain to SDG&E and Citizens respectively. As set forth in the direct testimony of Citizens witness Dr. John W. Wilson, Citizens estimates its reasonably incurred project costs, development costs, regulatory costs, transactional costs, sales costs, use or excise tax costs, and Financing Costs to be \$2 million as shown in the Development & Other Cost row of Table ADW-2 below. Citizens could incur more or less development costs than what is shown in the summary below.

Table ADW-2

TABLE ADW - 2		
San Diego Gas & Electric Comparison of Capital and Expense Related Costs SDG&E and Citizens Base Cases		
CAPITAL RELATED COSTS	SDG&E Base Case	Citizens Base Case
Cost of Transfer Capability:		
Transmission Line Costs	\$ 27,000,000	\$ 27,000,000
Development & Other Costs	--	\$ 2,000,000
Subtotal	\$ 27,000,000	\$ 29,000,000
Debt Financing Fees (1%)	\$ 120,879	\$ 290,000
Total Transfer Capability	\$ 27,120,879	\$ 29,290,000
EXPENSE RELATED COSTS		
O&M Expenses - SDG&E	\$ 3,834,152	\$ 3,834,152
A&G & Other Expenses - SDG&E	\$ 183,329	\$ 183,329
General & Common Plant - SDG&E	\$ 58,834	\$ 58,834
A&G Citizen's	--	\$ 150,000
Total Expense Related Costs	\$ 4,076,314	\$ 4,226,314

IV. ASSUMPTIONS AND RESULTS

The Model described in Section II was modified for the SDG&E base case and the Citizens base case to produce the comparative analysis in Table ADW-3. The Model was modified to produce what the discounted annual levelized revenue requirements would look like

1 today for all base case capital-related costs presented Table ADW-2. For the SDG&E base case,
2 SDG&E modified the capital structure in the Model to include its actual capital structure as of
3 the date of the analysis, consistent with the methodology adopted in SDG&E's currently-
4 effective FERC-approved Transmission Owner Formula ("TO4") and reflected in SDG&E's
5 TO4, Cycle 4 filing proposing rates to become effective January 1, 2017. Specifically, the
6 Model includes SDG&E's capital structure of 44.77% Debt with a debt rate of 4.19%, and
7 common equity of 55.23% with an ROE of 10.05%, yielding a WACC of 7.43% currently in
8 effect. For the Citizens base case, the Model was simply updated for the five-day average
9 Moody's Aa 30-year Utility Bond Index of 3.71% at the time of the analysis plus 48 basis points,
10 resulting in a capital structure of 44.77% debt with a debt rate of 4.19%, and a common equity of
11 55.23% with a ROE of 10.05%, yielding the same WACC of 7.43%.

12 If Citizens were not to participate in the Project by not exercising its option under the
13 DCOA, then SDG&E would retain the \$27 million of "all in" construction costs as shown in
14 Table ADW-2. The \$27 million was entered in the modified Model which included AFUDC of
15 \$1.94 million producing annual revenue requirements with a WACC of 7.43% over the 58-year
16 average service life period of the Underground Segment B, assuming no capital cost changes for
17 SDG&E over this service life. These annual revenue requirements were then discounted at the
18 same WACC of 7.43%, summed, and levelized over a 30-year period to produce a single annual
19 revenue requirement for the base case of \$2.78 million as shown in Table ADW-3.

20 Likewise, if Citizens were to exercise its option under the DCOA, its Cost of Transfer
21 Capability for the base case is estimated to be \$29.3 million as shown in Table ADW-2. The
22 \$29.3 million was entered in the updated Model, which included the same AFUDC of \$1.94
23 million, producing annual revenue requirements with a WACC of 7.43% over the 58-year

1 average service life period of the Underground Segment B. These annual revenue requirements
2 were then discounted at the current SDG&E WACC of 7.43%, summed and levelized over a 30-
3 year period to produce a single annual revenue requirement for the base case of the SDG&E
4 Representative Rate or capital cost recovery cap for Citizens of \$3.0 million, as shown in Table
5 ADW-3.

6 First year amounts for O&M expenses, A&G expenses and General and Common plant
7 overheads were estimated and then escalated annually over the 58-year period using the Global
8 Insight 1st Quarter 2017 O&M Non-Labor Electric Transmission Cost Escalators. Since the
9 Transfer Capability Lease period is for 30 years, Citizens would not incur any of these costs after
10 year 30, but SDG&E would incur costs for years 31-58. Therefore, to show meaningful
11 comparative results, the O&M, A&G, and General and Common plant overhead costs for
12 SDG&E were summed and then discounted back and levelized over 30 years using the current
13 SDG&E WACC discount rate of 7.43%. The annual levelized amounts for O&M expenses,
14 A&G expenses and General and Common plant overheads are \$59.8 thousand, \$2.9 thousand,
15 and \$0.9 thousand, respectively, for both SDG&E and Citizens. The comparison resulted in no
16 variance in the sum of O&M, A&G and General & Common Plant between SDG&E base case
17 and Citizens base case as shown in Table ADW-3.

18 Under the Transfer Capability Lease and as described in Section III of this testimony,
19 Citizens can also seek recovery of incremental A&G costs that would be solely incurred by
20 Citizens because of its participation in the Project. As set forth in the Direct Testimony of
21 Citizens witness Dr. John W. Wilson, Citizens estimates these A&G costs to be \$150 thousand
22 annually for the Citizens base case.

1 Lastly, if Citizen were not to exercise its option under the DCOA, SDG&E would incur
2 debt financing fees of 1% on the \$27 million construction cost of the applicable portion of the
3 transmission line. This amount has been identified in Table ADW- 2 as \$121 thousand, and is
4 amortized annually over the 58-year period consistent with how debt service fees are currently
5 treated for accounting and ratemaking purposes by SDG&E. These annual amortized amounts
6 were discounted over 58 years at 7.43%, summed, and levelized over 30 years at the current
7 SDG&E WACC of 7.43%.

8 In summary, Table ADW-3 shows the comparative results of the sum of annual revenue
9 requirements discounted and levelized over 30 years for both capital and expense related costs
10 for Citizens and SDG&E. The SDG&E base case incorporates a WACC of 7.43%, and when
11 discounted at the same WACC of 7.43%, the annual levelized revenue requirement over 30 years
12 is \$2.84 million. The Citizens base case incorporates the same WACC of 7.43% when
13 calculating the annual revenue requirements, somewhat higher capital-related costs, and an
14 increase in expense related costs associated with Citizens' own incremental A&G costs when
15 compared to SDG&E. The annual levelized revenue requirement over 30 years for the Citizens
16 base case is \$3.2 million. When comparing the SDG&E base case (assuming no SDG&E capital
17 cost changes for 58years) to that of Citizens, the net result is that Citizens is higher than SDG&E
18 by \$377,347 annually or 13.3%.

19 While the capital cost recovery in the rates that Citizens will charge will be fixed at
20 current levels for the term of 30 years (see Section III), the rates that SDG&E will charge will be
21 subject to change as money costs change. In addition, as set forth in the testimony of Citizens
22 witness Peter F. Smith, Citizens estimates that its contribution of profits to low income programs
23 benefitting ratepayers in San Diego County will amount to about \$400,000 annually for the life

1 of Citizens' Project participation. This is a ratepayer benefit that would not be achieved without
 2 Citizens' project participation.

3

Table ADW-3

San Diego Gas & Electric SDG&E vs. Citizens Revenue Requirement Summary				
	BASE CASE			
	SDG&E NPV 58 Years	CITIZENS NPV 58 Years	VARIANCE	
Cost Category	Annual Levelized 30 Years	Annual Levelized 30 Years	Higher / (Lower)	%
Capital Related Costs				
Cost of Transfer Capability	\$ 2,777,840	\$ 3,007,074	\$ 229,234	
Subtotal Capital Related Revenue Requirement	\$ 2,777,840	\$ 3,007,074	\$ 229,234	
Expense Related Costs				
O&M, A&G, & General & Common Plant	\$ 63,626	\$ 63,626	\$ -	
Incremental A&G Costs - Citizens		\$ 150,000	\$ 150,000	
Debt Service Costs - SDG&E	\$ 1,887		\$ (1,887)	
Subtotal Expense Related Costs	\$ 65,512	\$ 213,626	\$ 148,113	
Total Revenue Requirement on All Costs	\$ 2,843,352	\$ 3,220,699	\$ 377,347	13.3%
Discount Rates	7.43%	7.43%		

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1 **V. QUALIFICATIONS**

2 My name is Amanda D. White. I am employed with San Diego Gas & Electric
3 (SDG&E). My business address is 8315 Century Park Court, San Diego, CA 92123-1576. I am
4 currently Principal Business Analyst – Financial and Strategic Analysis Department and I am
5 responsible for the calculation of revenue requirements for specific cases or projects filed before
6 the CPUC. In addition, I am also responsible for conducting financial analysis and project
7 evaluations requiring the use of and the development of various revenue requirement models. I
8 have held this position since March 2015.

9 I received a Bachelor of Science degree in Management from Virginia Tech, Blacksburg,
10 in 2000 and a Masters of Business Administration from Purdue University, West Lafayette, in
11 2010. In 2011, I joined San Diego Gas & Electric, and have held various positions including
12 Energy Advisor and Senior Business Analyst in the Electric & Fuel Procurement Department.

13 This concludes my direct testimony.