

Application No.: A.16-03-004  
Exhibit No.: SDGE-05  
Witnesses: Michael R. Woodruff  
Carina Coleman  
Norma G. Jasso  
Ragan G. Reeves

**PREPARED SUPPLEMENTAL TESTIMONY**

**ON BEHALF OF**

**SAN DIEGO GAS & ELECTRIC COMPANY**

**(SDG&E Nuclear Decommissioning Trust Fund;  
Unit 1 DCE Trust Fund Assumptions)**

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

**February 17, 2017**

**TABLE OF CONTENTS**

**I. INTRODUCTION (M. WOODRUFF) ..... 1**

**II. DECOMMISSIONING TRUST FUND CONTRIBUTIONS FOR UNIT 1  
(M. WOODRUFF) ..... 1**

**A. Present Funding Levels and Trust Liquidation Balances for SONGS 1  
(M. Woodruff) ..... 2**

**B. Unit 1 DCE (M. Woodruff) ..... 2**

**C. NDT Portfolio Management and Asset Allocations (C. Coleman)..... 2**

**D. Estimated NDT Rate of Return (C. Coleman) ..... 3**

**E. Proposed Funding Levels for SONGS 1 (M. Woodruff) ..... 4**

**III. REGULATORY TRUST MATTERS (N. JASSO)..... 4**

**A. SDG&E’s NDAM (N. Jasso) ..... 4**

**B. Requirements Regarding the Trust Fund Committee (C. Coleman)..... 5**

**IV. TAX Treatment of the NDTs (R. REEVES)..... 6**

**A. Qualified Trusts ..... 7**

**B. Nonqualified Trusts ..... 8**

**ATTACHMENT A**

**PREPARED SUPPLEMENTAL TESTIMONY  
ON BEHALF OF SDG&E**

**I. INTRODUCTION (M. WOODRUFF)**

This testimony concerns San Diego Gas & Electric Company’s (“SDG&E”) Nuclear Decommission Trusts (“NDTs”).<sup>1</sup> Specifically, it reviews SDG&E’s financial assumptions made in connection with SDG&E’s determination that no additional ratepayer contributions are needed for the SDG&E Unit 1 NDTs at this time for SONGS 1.<sup>2</sup> It also discusses NDT-specific regulatory compliance matters and the tax treatment of the NDTs, which pertain to the NDTs for all three SONGS units.

SDG&E previously submitted testimony on these subjects (Ex. SDGE-01) on March 1, 2016 in support of the Joint Application. This testimony supersedes Ex. SDGE-01. Note, however, that SDG&E’s financial assumptions, trust fund balances and determination that no additional ratepayer contributions are needed for the SDG&E Unit 1 NDTs described below have not changed from what appears in Ex. SDGE-01.

**II. DECOMMISSIONING TRUST FUND CONTRIBUTIONS FOR UNIT 1  
(M. WOODRUFF)**

The purpose of my testimony is to determine the annual ratepayer contributions necessary to adequately fund the NDTs for SONGS Unit 1. There are four key elements used in determining the annual ratepayer contribution amount: (1) trust fund liquidation values, (2) current-dollar decommissioning cost studies, (3) cost escalation rates,<sup>3</sup> and (4) after-tax rates of return. Based on the trust balances for SONGS 1 as of December 31, 2015, the SONGS 1 Decommissioning Cost Estimate (“DCE”), and the assumptions described by SDG&E witness

---

<sup>1</sup> California statute and the Commission require SDG&E to establish externally managed trust funds as the vehicles for accumulating funds for the decommissioning of SONGS. SDG&E established one trust as the vehicle to hold the decommissioning funds for contributions which qualify for an income tax deduction under Section 468A of the Internal Revenue Code (“Qualified Trust”). SDG&E also established one nonqualified trust, which does not qualify for an income tax deduction under Section 468A of the IRC (“Nonqualified Trust”).

<sup>2</sup> This determination only pertains to SONGS Unit 1. The issue of potential ratepayer contributions for SDG&E’s SONGS Units 2 and 3 NDTs – if any – will be addressed in a later phase of this proceeding in accordance with a scoping memo.

<sup>3</sup> SDG&E uses the same cost escalation rates that SCE uses in its Unit 1 NDT contribution analysis testimony.

1 Carina Coleman below, SDG&E forecasts that its Unit 1 NDTs contain sufficient funds to  
2 complete SDG&E's share of SONGS Unit 1 decommissioning and, as a result, SDG&E proposes  
3 that ratepayer contributions to the NDTs remain at zero (\$0.00) at this time.

4 **A. Present Funding Levels and Trust Liquidation Balances for SONGS 1**  
5 **(M. Woodruff)**

6 SDG&E does not currently contribute funds to its SONGS Unit 1 NDTs. As of  
7 December 31, 2015, the market value of SDG&E's NDTs for SONGS Unit 1 was \$151.54  
8 million.<sup>4</sup> This equates to a liquidation value, after fees and taxes, of \$132.66 million. The  
9 liquidation value of the NDTs represents the amount of funds available to fund decommissioning  
10 activities.

11 **B. Unit 1 DCE (M. Woodruff)**

12 Annual cost escalation rates convert the DCE from current dollars to the dollars of the  
13 year when they will actually be incurred, and these future cost estimates are treated as  
14 withdrawals from the trust fund balances. Using its 20% share of the 2016 Unit 1 DCE<sup>5</sup> and its  
15 forecast of SDG&E-only costs,<sup>6</sup> SDG&E calculates that its Unit 1 liability is \$50.79 million  
16 (2014\$).

17 **C. NDT Portfolio Management and Asset Allocations (C. Coleman)**

18 SDG&E applies a relatively low portfolio turnover rate of approximately 15-20 percent  
19 per annum, which allows for a greater compound growth rate and greater returns because  
20 taxation of gains is deferred. SDG&E's Trust allocations are targeted to minimize downside risk  
21 while maintaining a margin of safety at the end of decommissioning to account for unexpected  
22 costs. SDG&E's Unit 1 Qualified Trust is currently allocated approximately 60 percent to  
23 equities and 40 percent to fixed income. SDG&E's Unit 1 Nonqualified Trust is allocated 100  
24 percent to fixed income.

---

<sup>4</sup> The total trust balance as of December 31, 2015 for all three units was publicly reported in SDG&E's 10-K, filed on February 26, 2016, and reported to the NRC pursuant to 10 C.F.R. 50.75 in SCE's funding assurance letter dated March 31, 2016, included in this filing as Attachment A, in compliance with D.14-12-082 at OP 10.

<sup>5</sup> 2016 Unit 1 DCE is \$239.44 million (100% share). See Ex. SCE-04 at 8. SDG&E's share is \$47.89M (20% share, 2014\$).

<sup>6</sup> Unit 1 SDG&E-only costs are estimated at \$2.90M.

1           SDG&E forecasts a five-year scale down out of equities from 2016 to 2020.<sup>7</sup> Beginning  
2 in 2016, the overall asset allocation will gradually shift, such that the allocation to equity will fall  
3 until reaching approximately 30 percent in 2020. By 2020, SDG&E's Qualified Trust is  
4 expected to be allocated approximately 30 percent to equities and 70 percent to fixed income.  
5 The purpose of SDG&E's equity scale down is to reduce equity market risk in the years  
6 immediately prior to and during the years in which substantial decommissioning costs are  
7 expected to be incurred.

8           SDG&E plans to continue to invest the equity portion of its Qualified Trust in domestic  
9 and international securities. The weighting to domestic equity and international equity should  
10 continue to be 70 percent and 30 percent, respectively.

11           SDG&E expects to invest its fixed income portion of its Qualified Trust in intermediate  
12 municipal bonds, intermediate credit, and high quality short duration securities. The weighting  
13 to intermediate municipal bonds and intermediate credit should be split evenly across the two  
14 asset classes. The weighting to high quality short duration securities will vary depending upon  
15 12-month rolling liquidity requirements.

16           The Nonqualified Trust will remain exclusively invested in municipal bonds.

17           **D.     Estimated NDT Rate of Return (C. Coleman)**

18           The estimated after-tax rates of return are used to calculate the expected growth in the  
19 decommissioning trust fund balances. Based on a simple weighted average of long-term capital  
20 market assumptions provided by five investment consulting firms (Mercer, Aon-Hewitt, Towers  
21 Watson, LCG Associates, and Russell Investments), SDG&E estimated projected returns for  
22 each asset class in the Qualified and Nonqualified Trust. From 2016 to 2047 the projected  
23 Qualified Trust pre-tax returns are 7.6 percent and 3.8 percent for equity and fixed income,  
24 respectively. From 2048 through 2051 the projected Qualified Trust fixed income pre-tax return  
25 is 3.3 percent.

---

<sup>7</sup> The SDG&E Nuclear Decommissioning Trust Fund Committee engaged an outside consulting firm to conduct an asset liability modeling study for Unit 2 and Unit 3 based on the expected costs from the 2014 DCE (see, *2014 Decommissioning Cost Analysis of [SONGS] Units 2&3* (September 5, 2014), attached as Appendix A-1 to Ex. SCE-01). At the conclusion of the study, the Committee adopted a de-risking glide path strategy for Unit 2 and Unit 3 in 2015. The Committee is anticipated to conduct an asset liability modeling study for Unit 1 using the 2016 Unit 1 DCE.

1 The Nonqualified Trust is 100 percent invested in municipal bonds; therefore, SDG&E  
2 does not have an equity return assumption for the Nonqualified Trust. The updated pre-tax  
3 return is 3.4 percent for the Nonqualified Trust.

4 **E. Proposed Funding Levels for SONGS 1 (M. Woodruff)**

5 Using the liquidation value of the NDTs, the 2016 Unit 1 DCE, projected escalation of  
6 decommissioning costs, and estimated trust returns, SDG&E forecasts that its Unit 1 NDTs  
7 contain sufficient funds to complete SDG&E's 20 percent share of SONGS Unit 1  
8 decommissioning and to cover SDG&E-only costs. Therefore, SDG&E proposes to maintain the  
9 annual ratepayer contribution rate at zero (\$0.00).

10 SDG&E concludes that the SONGS Unit 1 NDTs are adequately funded and no  
11 contributions are required. However, this situation could change based on many factors  
12 including, but not limited to, changes in economic conditions, changes in timing of and/or  
13 amount of decommissioning costs, changes in interest rates, and changes in escalation rates. In  
14 addition, SDG&E's request for zero (\$0.00) contributions at this time is not a waiver of any  
15 future requests by SDG&E for ratepayer contributions to the NDTs.

16 **III. REGULATORY TRUST MATTERS (N. JASSO)**

17 As part of its NDCTP Application, SDG&E is required to demonstrate compliance with  
18 previous Commission decisions. This testimony provides testimony in support of SDG&E's  
19 compliance with two NDT-related matters.

20 **A. SDG&E's NDAM (N. Jasso)**

21 SDG&E has complied with the 2012 NDCTP decision (D.14-12-082) concerning its  
22 Nuclear Decommissioning Adjustment Account ("NDAM"). The purpose of the NDAM is to  
23 track recovery of the authorized revenue requirement for SDG&E's contributions to the NDTs,  
24 plus authorized revenue requirement for costs relating to SONGS Unit 1 Offsite Spent Fuel  
25 Storage in Morris, Illinois. This is done by comparing the authorized revenue requirement with  
26 revenues billed to ratepayers through the Nuclear Decommissioning ("ND") component of  
27 SDG&E's rates.

28 In D.14-12-082,<sup>8</sup> Ordering Paragraph No. 2, the Commission issued the following order:

---

<sup>8</sup> Approved by the Commission on December 18, 2014.

1 Within ten (10) days of the effective date of this Decision, San  
2 Diego Gas & Electric Company (SDG&E) shall file a compliance  
3 advice letter with the Commission's Energy Division, which shall  
4 include the calculated revenue requirement as described and  
5 adjusted in the Decision. SDG&E will clearly identify the  
6 overcollections in its Nuclear Decommissioning Adjustment  
7 Mechanism (NDAM) and other balancing accounts and regulatory  
8 accounts which it will use to offset the revenue requirement,  
9 subject to Energy Division determining that the offsets are in  
10 compliance with this order. The compliance advice letter shall be  
11 served on the service list for the consolidated proceedings and shall  
12 describe how [SDG&E] will implement the terms adopted in this  
13 Decision, including updating the revenue requirements to  
14 incorporate the December 31, 2013 nuclear decommissioning trust  
15 fund balances. The updated information shall serve as the basis for  
16 the Internal Revenue Service Schedule of Ruling Amounts for  
17 years 2014 and 2015. An adjustment to the NDAM balancing  
18 account shall be made to address any difference in the revenue  
19 collected in rates and the annual revenue requirements, as  
20 described and updated in the compliance advice letter.

21 SDG&E filed Advice Letter ("AL") 2685-E on December 30, 2014<sup>9</sup> including the  
22 continuation of \$8.07 million authorized revenue requirement for contributions to SONGS Units  
23 2&3 and amortization of the 2013 year-end NDAM overcollected balance of (\$0.7) million as  
24 approved in D.14-12-082.

25 **B. Requirements Regarding the Trust Fund Committee (C. Coleman)**

26 SDG&E has complied with the 2012 NDCTP decision concerning its Nuclear Trust Fund  
27 Committee. Ordering Paragraph No. 13 of D.14-12-082 states:

28 Southern California Edison Company, San Diego Gas & Electric  
29 Company, and Pacific Gas and Electric Company shall ensure that their  
30 respective Nuclear Decommissioning Trust Fund Committee members  
31 timely receive the following information:

- 32 • Audited financial statements for the decommissioning trust
- 33 funds;
- 34 • Initiation of investment fund manager searches;
- 35 • Decommissioning cost schedules, including acceleration or any
- 36 other significant changes;
- 37 • Approval of nuclear facility license extension; and

---

<sup>9</sup> Consolidated Filing to Implement January 1, 2015 Electric Rates. Filed December 30, 2014 and approved March 2, 2015 with an effective date of January 1, 2015.

- Withdrawals of Trust Funds for decommissioning expenses.

SDG&E has been in continuous compliance with these requirements to keep its Committee informed. Specifically:

- 1) Audited financial statements for the decommissioning trust funds are sent to Committee members as statements are available. Audited statements for 2012 and 2013 were sent in March 2015 and audited 2014 statements will be submitted in the first half of 2016.
- 2) The Committee approves of the initiation of all investment manager searches. This typically occurs when the Committee changes the overall asset allocation or terminates a manager(s). Manager performance reports are sent to the Committee members on a quarterly basis which cover performance, performance attribution, firm/organizational updates, and changes in assets under management, among other relevant topics.
- 3) SDG&E provides periodic updates to the Committee on decommissioning cost schedules, including acceleration or any other significant changes.
- 4) License extension for SONGS is not applicable.
- 5) SDG&E has informed the Committee of withdrawals of trust funds for decommissioning expenses on a periodic basis. SDG&E also has presented detailed cost estimates, as appropriate, to the Committee when conducting asset liability modeling studies.

#### **IV. TAX TREATMENT OF THE NDTs (R. REEVES)**

In this testimony, I address the tax treatment of the NDTs. SDG&E maintains external funds for the sole purpose of satisfying SDG&E's obligation to fully decommission its portion of the SONGS units. These external funds are maintained in trusts that are subject to a Qualified Master Trust Agreement or a Nonqualified Master Trust Agreement that govern separate trust accounts for each of the nuclear power plant units.<sup>10</sup> The Qualified Master Trust Agreement applies to tax-advantaged trusts that satisfy the requirements of Internal Revenue Code ("IRC") Section 468A. The Nonqualified Master Trust Agreement applies to trusts that do not have to satisfy the requirements of IRC Section 468A.

---

<sup>10</sup> SDG&E, the CPUC and the Trustee (currently BNY Mellon Bank) are the signatories to the SDG&E Qualified and Nonqualified Master Trust Agreements.



1           **A.     Qualified Trusts**

2           Approximately 97% of SDG&E’s trust funds are held in Qualified Trusts.<sup>11</sup> Qualified  
3 Trusts are tax-advantaged trusts that must meet the requirements of IRC Section 468A and its  
4 related Treasury Regulations. The tax-advantaged attributes include the ability of SDG&E to  
5 deduct amounts contributed into Qualified Trusts. In addition, the Federal income tax rate for  
6 Qualified Trusts when investment gains are realized is 20% instead of the maximum Federal  
7 corporate tax rate of 35%.

8           Regulations promulgated under IRC Section 468A by the IRS provide that taxpayers  
9 electing to establish a qualified nuclear decommissioning fund may maintain only one fund for  
10 each nuclear power plant (or unit thereof),<sup>12</sup> and the assets maintained in each fund may be used  
11 solely to satisfy the nuclear decommissioning liability of the nuclear power plant (or unit thereof)  
12 to which the nuclear decommissioning fund relates.<sup>13</sup> Each of the SONGS Units 1 through 3  
13 maintains Qualified Trusts for the sole purpose of decommissioning that particular unit. Thus,  
14 for example, funds held in trust to decommission Unit 2 cannot be redirected to decommission  
15 Unit 3 without violating the regulations. Once the funds are placed into a Qualified Trust, such  
16 funds can only be used for purposes of: (1) satisfying any of SDG&E’s liability for the  
17 decommissioning of the SONGS unit, (2) paying administrative and other incidental expenses of  
18 the trust in connection with the operation of the trust, (3) making investments, and (4) paying  
19 income taxes on investment returns. For purposes of satisfying SDG&E’s decommissioning  
20 liability, amounts extracted from the Qualified Trusts must only be for “nuclear  
21 decommissioning costs” as defined in Treasury Regulations Section 1.468A-1(b)(6) and related  
22 guidance, such as IRS responses to requests for private letter rulings. In addition, as amounts are  
23 extracted from the Qualified Trusts, SDG&E is required to recognize such amounts as taxable  
24 income in its tax returns. The Qualified Trusts also are required to comply with the terms of the  
25 SDG&E Qualified Master Trust Agreement.

26           If SDG&E were to use Qualified Trust funds contrary to the IRC or Treasury  
27 Regulations, it would jeopardize the beneficial tax status of the entire Qualified Trust and could

---

<sup>11</sup> This calculation is based on trust fund balances as of December 31, 2015.

<sup>12</sup> Treasury Regulations Section 1.468A-5(a)(1)(iii).

<sup>13</sup> Treasury Regulations Section 1.468A-5(a)(3)(i)(A).

1 cause the trust to be treated as having distributed all of its funds in a taxable transaction to  
2 SDG&E on the date of such disqualification.<sup>14</sup>

3 **B. Nonqualified Trusts**

4 SDG&E's remaining trust funds (approximately 3%) are held in Nonqualified Trusts.<sup>15</sup>  
5 Nonqualified Trusts are trusts that do not need to meet the requirements of IRC Section 468A  
6 and its related Treasury Regulations. SDG&E's Nonqualified Trusts are treated as grantor trusts  
7 of SDG&E, and any contributions paid into these Nonqualified Trusts were not deductible by  
8 SDG&E. In addition, any realized investment gains are taxed at the same Federal corporate tax  
9 rate as SDG&E (i.e., typically 35%).

10 Funds that are placed into the Nonqualified Trusts are not subject to the "use limitations"  
11 of IRC Section 468A, but are required to comply with the terms of the SDG&E Nonqualified  
12 Master Trust Agreement. As amounts are extracted from the Nonqualified Trusts to reimburse  
13 the Company for its share of decommissioning expenditures, SDG&E is not required to  
14 recognize such amounts as taxable income in its tax returns.

---

<sup>14</sup> IRC Section 468A(e)(6).

<sup>15</sup> This calculation is based on trust fund balances as of December 31, 2015.

1                                   **WITNESS QUALIFICATIONS FOR MICHAEL R. WOODRUFF**

2                   My name is Michael R. Woodruff. My business address is 8330 Century Park Court, San  
3 Diego, California 92123. I am employed by SDG&E as a Manager in Financial & Strategic  
4 Analysis. I am responsible for overseeing the financial analysis and development of revenue  
5 requirements for SDG&E projects.

6                   I joined SDG&E in 2011. Prior to SDG&E, I was employed by Wells Fargo & Co. for  
7 twelve years, six years as a Financial Analyst and six years as a Finance Manager. I received a  
8 Bachelor of Science degree in Liberal Arts and Sciences from Iowa State University in 1994. I  
9 received a Master's of Business Administration degree with an emphasis in Finance from the  
10 University of Iowa in 1999.

11







1  
2  
3  
4  
5  
6  
7  
8

**ATTACHMENT A**

**SCE's NRC Funding Assurance Letter of March 31, 2016**

March 31, 2016

10 CFR 50.75  
10 CFR 50.82

ATTN: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555-0001

Subject: **Docket Nos. 50-206, 50-361 and 50-362**  
**10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v-vii)**  
**Decommissioning Funding Status Report**  
**San Onofre Nuclear Generating Station Units 1, 2 and 3**

Dear Sir or Madam:

As required by 10 CFR 50.75(f)(1), and 10 CFR 50.82(a)(8)(v)-(vii), this letter provides the status of the decommissioning funding for San Onofre Nuclear Generating Station (SONGS) Units 1, 2, and 3 as of December 31, 2015 (Enclosure 1). The required information is provided in Enclosure 1 for Southern California Edison and San Diego Gas & Electric for SONGS Unit 1 and for Southern California Edison, San Diego Gas & Electric, the City of Anaheim, and the City of Riverside for SONGS Units 2 and 3.

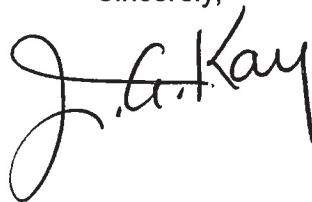
Based on the requirements in 10 CFR 50.75(f)(1), this information is reported on an annual basis for SONGS Units 1, 2 and 3 because the plants were permanently shut down before the end of their licensed life and SONGS Units 1, 2 and 3 are currently being decommissioned.

Additionally, in accordance with 10 CFR 50.75(f)(1), enclosed is the City of Anaheim First Amendment to Decommissioning Trust Fund Agreement (Enclosure 2).

There are no commitments contained in this letter or its enclosures.

If you have any questions regarding this matter, please contact me at (949) 368-7418.

Sincerely,



Enclosures: 1. SONGS Units 1, 2 and 3 Decommissioning Funding Status Report For  
Calendar Year 2015  
2. City of Anaheim First Amendment to Decommissioning Trust Fund Agreement

cc: M. Dapas, Regional Administrator, NRC Region IV  
J. E. Whitten, Region IV, Branch Chief, Fuel Cycle and Decommissioning Branch  
M. G. Vaaler, NRC Project Manager, San Onofre Units 1, 2 and 3



**Enclosure 1**

**San Onofre Nuclear Generating Station Units 1, 2 and 3  
Decommissioning Funding Status Report  
For Calendar Year 2015**

**San Onofre Nuclear Generating Station Units 1, 2 and 3  
Decommissioning Funding Status Report  
For Calendar Year 2015**

San Onofre Unit 1 was a pressurized water reactor (PWR) rated at 1347 MWt. San Onofre Units 2 and 3 were pressurized water reactors (PWR) rated at 3438 MWt. Provided below is the information required by 10 CFR 50.75(f)(1) and 10 CFR 50.82(v)(8)(v-vii) for San Onofre Units 1, 2, and 3. This information is reported every year for San Onofre Units 1, 2, and 3 because they closed before the end of their licensed lives and are currently being decommissioned.

The SONGS Unit 1 co-owners are reported as follows:

Southern California Edison (SCE)	80.00 %
San Diego Gas & Electric (SDG&E)	<u>20.00 %</u>
	100.00 %

The San Onofre Units 2 and 3 owners are reported as follows:

Southern California Edison (SCE)	78.21 %
San Diego Gas & Electric (SDG&E)	20.00 %
City of Anaheim (Anaheim)	0.00 %
City of Riverside (Riverside)	1.79 %

The decommissioning liability is shared between the current owners and former owner, Anaheim, as set forth below for each unit:

Owner	Unit 1 Decommissioning Liability	Unit 2 Decommissioning Liability	Unit 3 Decommissioning Liability
SCE	80.00%	75.7363%	75.7475%
SDG&E	20.00%	20.00%	20.00%
Anaheim	0.00%	2.4737%	2.4625%
Riverside	0.00%	1.7900%	1.7900%

All dollar amounts are in 100% share, nominal dollars.

- 1) The decommissioning fund estimated to be required pursuant to 10 CFR 50.75(b) and (c) is the following:
  - a) The minimum amount calculated by the method prescribed by 10 CFR 50.75(c).

<u>San Onofre Unit 1<sup>(1)</sup></u>	<u>San Onofre Unit 2</u>	<u>San Onofre Unit 3</u>
\$ 430.9 million	\$ 520.9 million	\$ 520.9 million

- b) The San Onofre Unit 1 site-specific estimate for decommissioning includes the following radiological decommissioning costs associated with terminating the site license, non-radiological site restoration costs, and spent fuel storage costs:<sup>(2)</sup>

	<u>San Onofre Unit 1</u>
"To Go" Radiological Costs	\$ 118.8 million
"To Go" Site Restoration Costs	\$ 92.4 million
"To Go" Fuel Storage Costs	<u>\$ 30.9 million</u>
Total Unit 1 "To Go" Costs as of 1/1/2016	\$ 242.1 million

- c) The San Onofre Unit 2 site-specific estimate for decommissioning includes the following radiological decommissioning costs associated with terminating the site license, non-radiological site restoration costs, and spent fuel storage costs:<sup>(3)</sup>

	<u>San Onofre Unit 2</u>
Estimate of Radiological Costs	\$1,052.2 million
Less: Radiological Costs through 12/31/2015	<u>\$ 160.4 million</u>
"To Go" Radiological Costs	\$ 891.8 million
Estimate of Site Restoration Costs	\$ 430.6 million
Less: Site Restor. Costs through 12/31/2015	<u>\$ 79.2 million</u>
"To Go" Site Restoration Costs	\$ 351.4 million
Estimate of Fuel Storage Costs	\$ 634.0 million
Less: Fuel Storage Costs through 12/31/2015	<u>\$ 135.3 million</u>
"To Go" Fuel Storage Costs	\$ 498.7 million
Total Unit 2 "To Go" Costs as of 1/1/2016	\$1,741.9 million

- d) The San Onofre Unit 3 site-specific estimate for decommissioning includes the following radiological decommissioning costs associated with terminating the site license, non-radiological site restoration costs, and spent fuel storage costs:<sup>(3)</sup>

	<u>San Onofre Unit 3</u>
Estimate of Radiological Costs	\$1,096.7 million
Less: Radiological Costs through 12/31/2015	<u>\$ 160.3 million</u>
"To Go" Radiological Costs	\$ 936.4 million
Estimate of Site Restoration Costs	\$ 609.9 million
Less: Site Restor. Costs through 12/31/2015	<u>\$ 80.9 million</u>
"To Go" Site Restoration Costs	\$ 529.0 million

Estimate of Fuel Storage Costs	\$ 664.3 million
Less: Fuel Storage Costs through 12/31/2015	<u>\$ 127.4 million</u>
“To Go” Fuel Storage Costs	\$ 536.9 million

Total SONGS Unit 3 “To Go” Costs as of 1/1/2016 \$2,002.4 million

- 2) The Decommissioning Trust Fund amounts remaining at the end of calendar year 2015 (net of pending Trust Fund withdrawals and estimated capital gains taxes) are:<sup>(4)</sup>

<u>Owner</u>	<u>San Onofre Unit 1</u>	<u>San Onofre Unit 2</u>	<u>San Onofre Unit 3</u>
SCE	\$ 271.2 million	\$ 1,208.5 million	\$ 1,380.5 million
SDG&E <sup>(5)</sup>	\$ 132.7 million	\$ 352.0 million	\$ 401.1 million
Anaheim <sup>(5)</sup>	N/A	\$ 57.8 million	\$ 57.8 million
Riverside <sup>(5)</sup>	<u>N/A</u>	<u>\$ 31.4 million</u>	<u>\$ 34.5 million</u>
TOTAL	\$ 403.9 million	\$ 1,649.7 million	\$ 1,873.9 million

- 3) The annual amounts projected to be collected in 2016 are:

<u>Owner</u>	<u>San Onofre Unit 1</u>	<u>San Onofre Unit 2</u>	<u>San Onofre Unit 3</u>
SCE	\$ 0.0 million	\$ 0.0 million	\$ 0.0 million
SDG&E <sup>(5)</sup>	\$ 0.0 million	\$ 0.0 million	\$ 0.0 million
Anaheim <sup>(5)</sup>	N/A	\$ 0.0 million	\$ 0.0 million
Riverside <sup>(5)</sup>	<u>N/A</u>	<u>\$ 0.0 million</u>	<u>\$ 0.0 million</u>
TOTAL	\$ 0.0 million	\$ 0.0 million	\$ 0.0 million

- 4) The amounts spent on San Onofre Units 1, 2, and 3 decommissioning work performed during 2015 are summarized below:

<u>Cost Category</u>	<u>San Onofre Unit 1</u>	<u>San Onofre Unit 2</u>	<u>San Onofre Unit 3</u>
License Term.	\$ 0.88 million	\$ 63.6 million	\$ 63.6 million
Site Restoration	\$ 0.05 million	\$ 25.5 million	\$ 27.2 million
Spent Fuel Storage	<u>\$ 0.22 million</u>	<u>\$ 55.1 million</u>	<u>\$ 47.8 million</u>
TOTAL	\$ 1.15 million	\$ 144.2 million	\$ 138.6 million

- 5) The composite escalation rate and after tax investment rates of return for San Onofre Units 1, 2, and 3 Decommissioning are summarized below:

<u>Composite Rate</u>	<u>San Onofre Unit 1</u>	<u>San Onofre Unit 2</u>	<u>San Onofre Unit 3</u>
Rate of Return	3.25%	3.39%	3.39%
Escalation	3.88%	3.41%	3.41%

The composite investment rates of return less the composite escalation rates yield composite real earnings rates less than the 2% real rate of return allowed under 10 CFR 50.75(e)(1)(ii).

- 6) None of the owners of San Onofre Units 2 and 3 are relying on any contracts for the purposes of providing decommissioning funding pursuant to 10 CFR 50.75(e)(1)(v). There have been no modifications to the method of providing financial assurance.
- 7) The amounts of decommissioning funds available as of December 31, 2015 for the costs to manage San Onofre Units 2 and 3 irradiated fuel, are shown in the table below:<sup>(4)</sup>

SONGS 1	Estimated "To Go" Decommissioning Cost	Cost Ratios	12/31/2015 Net Trust Balance
License Termination Costs	\$ 118.8 million	49.1%	\$ 198.2 million
Site Restoration Costs	\$ 92.4 million	38.2%	\$ 154.1 million
Spent Fuel Management Costs	<u>\$ 30.9 million</u>	<u>12.7%</u>	<u>\$ 51.5 million</u>
TOTAL	\$ 242.1 million	100.0%	\$ 403.8 million

SONGS 2	Estimated "To Go" Decommissioning Cost	Cost Ratios	12/31/2015 Net Trust Balance
License Termination Costs	\$ 891.8 million	51.2%	\$ 844.6 million
Site Restoration Costs	\$ 351.4 million	20.2%	\$ 332.8 million
Spent Fuel Management Costs	<u>\$ 498.7 million</u>	<u>28.6%</u>	<u>\$ 472.3 million</u>
TOTAL	\$ 1,741.9 million	100.0%	\$ 1,649.7 million

SONGS 3	Estimated "To Go" Decommissioning Cost	Cost Ratios	12/31/2015 Net Trust Balance
License Termination Costs	\$ 936.5 million	46.8%	\$ 876.4 million
Site Restoration Costs	\$ 529.0 million	26.4%	\$ 495.1 million
Spent Fuel Management Costs	<u>\$ 536.9 million</u>	<u>26.8%</u>	<u>\$ 502.5 million</u>
TOTAL	\$ 2,002.4 million	100.0%	\$ 1,874.0 million

Notes:

- (1) The minimum amount required for the radiological decommissioning costs of San Onofre Unit 1 is provided per the 10 CFR 50.75 formula. This minimum amount is no longer relevant, however, because much of the radiological decommissioning of San Onofre Unit 1 has already been completed.

- (2) The site-specific decommissioning cost estimate (DCE) for San Onofre Unit 1 that was submitted to the California Public Utilities Commission (CPUC) on March 1, 2016, includes the radiological costs associated with terminating the site license, non-radiological costs, and fuel storage costs. This estimate increased by \$69.5 million (2014\$, 100% share) from previous DCE, which SCE submitted to the CPUC on December 21, 2012. The DCE increased for two primary reasons. First, the updated DCE includes unavoidable undistributed (time-dependent) expenses that were underestimated or omitted in the prior estimate. Second, the updated DCE includes the cost for full removal of the San Onofre Unit 1 offshore intake and discharge conduits because, although SCE abandoned the conduits in place in accordance with the 2005 amendment to its easement with the California State Lands Commission, SCE retains the liability for any required future removal of the conduits.
- (3) The site-specific decommissioning cost estimate for San Onofre Units 2 and 3 that was submitted to the NRC on September 23, 2014 and to the California Public Utilities Commission (CPUC) on December 10, 2014, includes the radiological costs associated with terminating the site license, non-radiological costs, and fuel storage costs.
- (4) During the period between June 7, 2013 and December 31, 2015, SCE incurred costs of \$374.9 million for San Onofre Unit 2 and \$368.5 million for San Onofre Unit 3 (100% share, Nominal\$). Some of the San Onofre decommissioning co-participants have not yet withdrawn funds for all or part of these costs from their Decommissioning Trusts. Therefore, the Net Balances are the differences between the December 31, 2015 Decommissioning Trust Balances and the 2013-2015 incurred costs.
- (5) SCE is submitting information with respect to its current co-owners, SDG&E and Riverside, and its former co-owner, Anaheim, on their behalf, and they are responsible for the completeness and accuracy of their respective information.

**Enclosure 2**

**City of Anaheim**

**First Amendment to Decommissioning Trust  
Fund Agreement**

**ORIGINAL**  
AGR-1694. III. 1

FIRST AMENDMENT TO DECOMMISSIONING TRUST FUND AGREEMENT

THIS FIRST AMENDMENT TO DECOMMISSIONING TRUST FUND AGREEMENT (“First Amendment”), dated for purposes of identification only this 17<sup>th</sup> day of November, 2015, is made and entered into by and between the CITY OF ANAHEIM (“Anaheim”), a charter city and municipal corporation of the State of California, also referred to herein as “Grantor,” and U.S. Bank National Association (“USBNA”), also referred to herein as “Trustee.”

RECITALS

WHEREAS, Anaheim, as grantor, and The Bank of California, as trustee, previously entered into the Decommissioning Trust Fund Agreement dated November 6, 1990 (“Agreement”), incorporated herein by this reference, in order to comply with regulations in Title 10, Chapter I of the Code of Federal Regulations, Part 50 that require a licensee to provide assurance that funds will be available when needed for required decommissioning activities; and

WHEREAS, the term “Trustee,” as defined in Section 1.B of the Agreement, means “the Trustee who enters into this Agreement and any successor Trustee”; and

WHEREAS, in 1996, The Bank of California and Union Bank, N.A. consolidated and continued operations following that consolidation, through several different financing arrangements, as “Union Bank”; and

WHEREAS, on February 1, 2012, USBNA succeeded Union Bank, N.A. as trustee on certain accounts pursuant to a Purchase and Assumption Agreement between USBNA and Union Bank dated January 27, 2012, and pursuant to Section 4879.14 of the California Financial Code.



As such, USBNA (as Union Bank's successor) is a party to the Agreement, as such Agreement may be amended from time to time; and

WHEREAS, the Agreement reflects Federal regulations in effect at the time it was signed in 1990, including regulations that required the Nuclear Regulatory Commission ("NRC") to approve a decommissioning plan prior to the initial trust fund withdrawal request under the Agreement. As part of a 1996 rulemaking proceeding, the NRC amended its regulations to eliminate this plan approval requirement for certain trust fund withdrawals for decommissioning activities; and

WHEREAS, the NRC modified its regulations again as part of a 2002 rulemaking to require that licensees provide a 30-working-day written notice to the NRC of trust fund withdrawals, except for withdrawals made under 10 C.F.R. § 50.82(a)(8) (including expenses for legitimate decommissioning activities) and withdrawals made for payments of ordinary administrative costs and other incidental expenses of the trust fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the trust fund; and

WHEREAS, the NRC issued Exemptions for San Onofre Nuclear Generating Station ("SONGS"), Units 2 and 3, on September 5, 2014 (NRC Document ID No. NRC 2014 0170, 79 Fed. Reg. 55,019 (Sept. 15, 2014)), allowing withdrawals from the SONGS decommissioning trust funds for irradiated fuel management and site restoration activities, without prior notification to the NRC; and

WHEREAS, these regulatory changes made by the NRC, together with the Exemptions issued by the NRC specifically for SONGS Units 2 and 3, create a situation in which, after decommissioning has begun, trust fund withdrawals for expenses for legitimate

decommissioning activities, irradiated fuel management, and site restoration activities will not require further prior notice to the NRC; and

WHEREAS, with this First Amendment the Grantor and the Trustee wish to conform the Agreement to these NRC changes and resulting changed requirements for decommissioning trust agreements.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

1. That "SCHEDULE C – SPECIMEN CERTIFICATE OF EVENTS," referenced in Section 5.A. and attached to the Agreement, is hereby amended in its entirety and replaced with "SCHEDULE C – FIRST AMENDED SPECIMEN CERTIFICATE OF EVENTS," as shown on Attachment 1 hereto.

2. That Section 5 of the Agreement ("Payment for Required Activities Specified in the Plan") is hereby amended in its entirety and replaced with the following:

**Section 5: Payment for Required Activities Specified in the Plan**

"A. The Trustee shall make payments from the Fund to the Grantor upon presentation to the Trustee of the following:

1. A certificate duly executed by the City Clerk of the Grantor attesting to the occurrence of the events, and in the form set forth in the Specimen Certificate of Events attached as Schedule C; and
2. A certificate duly executed by the Public Utilities General Manager or a Public Utilities Assistant General Manager in the form set forth in the attached Schedule C-1 – Form of Disbursement Certificate attesting to the following conditions:

- a. That decommissioning is proceeding pursuant to an NRC-noticed Post-Shutdown Decommissioning Activities Report, Irradiated Fuel Management Plan and Site-Specific Decommissioning Cost Estimate, including any amendments or revisions (collectively, "Plan");
- b. That the funds withdrawn will be expended for activities undertaken pursuant to that Plan; and
- c. That all conditions precedent to the making of this withdrawal and disbursement set forth in any agreement between the City of Anaheim and Trustee have been fulfilled.

"B. Except for withdrawals being made under 10 C.F.R. § 50.82(a)(8), or as otherwise permitted under the Exemptions issued by the Nuclear Regulatory Commission for San Onofre Nuclear Generating Station, Units 2 and 3, on September 5, 2014 (NRC Document ID No. NRC 2014 0170, 79 Fed.Reg. 55,019 (Sept. 15, 2014)), or for payments of ordinary administrative costs and other incidental expenses of the Fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the Fund, no disbursement or payment may be made from the Fund until written notice of the intention to make disbursement or payment has been given to the Nuclear Regulatory Commission Director of the Office of Nuclear Reactor Regulation, or Director of the Office of

Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the Fund may be made following the 30-working-day notice period if the Trustee does not receive written notice of objection from the Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, within the notice period.

"C. In the event of the Grantor's default or inability to direct decommissioning activities, the Trustee shall make payments from the Fund as the NRC shall direct, in writing, to provide for the payment of the costs of required activities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the NRC, from the Fund for expenditures for required activities in such amounts as the NRC shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the NRC specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein."

3. That "SCHEDULE C-1 – FORM OF DISBURSEMENT CERTIFICATE" is hereby added to the Agreement, as shown on Attachment 2 hereto.

4. Except as expressly amended hereby, all the remaining provisions of the Agreement shall remain in full force and effect. The information contained in Schedules C and C-1 may be modified from time to time without a formal amendment of the Agreement, provided (1) the modified Schedules remain consistent with the terms and conditions of the Agreement and (2) the modified Schedules are acceptable to both Anaheim and USBNA, as indicated by

execution of the modified Schedule by Anaheim's representative and full performance by USBNA of its obligations thereunder.

5. Trustee's signatory represents that the signatory holds the position set forth below his or her signature and that the signatory is authorized to execute this First Amendment on behalf of Trustee and to bind Trustee hereto.

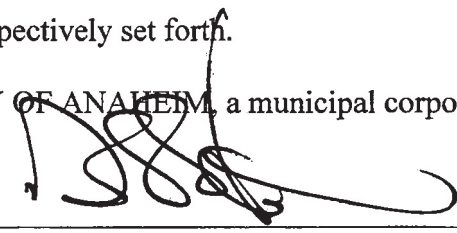
6. The "Effective Date" of this First Amendment is hereby defined as the latest date of execution by the signatories hereto.

***[Remainder of page blank; signatures on next page.]***

IN WITNESS WHEREOF, the Grantor and the Trustee have caused this First Amendment to be executed on the dates hereinafter respectively set forth.

DATE: 11/23/15

CITY OF ANAHEIM, a municipal corporation

By:   
Dukku Lee  
Public Utilities General Manager

DATE: 11/23/15

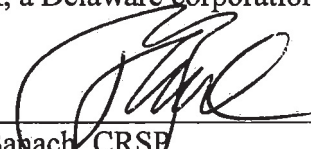
ATTEST:

By:   
Linda N. Andal, CMC  
City Clerk

Anaheim/Grantor

DATE: 11/5/15


U.S. BANK, a Delaware corporation

By:   
Tim Banach, CRSE  
Vice President | Relationship Manager  
U.S. Bank Institutional Trust & Custody

USBNA/Trustee

APPROVED AS TO FORM:

MICHAEL R.W. HOUSTON  
CITY ATTORNEY

  
By: Alison M. Kott  
Assistant City Attorney

**SCHEDULE C**

**FIRST AMENDED SPECIMEN CERTIFICATE OF EVENTS**

Tim Banach  
U.S. Bank, N.A.  
1420 Kettner Blvd, Suite 200  
San Diego, CA 92101

Attention: Trust Division

Gentlepersons:

In accordance with the terms of the Decommissioning Trust Fund Agreement dated November 6, 1990 ("Agreement"), as amended, between the City of Anaheim and U.S. Bank National Association, successor Trustee, I, Linda N. Andal, City Clerk of the City of Anaheim, hereby certify that the following events have occurred:

1. The City of Anaheim is required to commence the decommissioning of its facility located at San Onofre Nuclear Generating Station Units 2 and 3, San Diego County, California, (hereinafter called the decommissioning).
2. The plan for the commencement and conduct of the decommissioning, including the Post-Shutdown Decommissioning Activities Report, Irradiated Fuel Management Plan, Site-Specific Decommissioning Cost Estimate, and any amendments or revisions (collectively, "Plan") was submitted to the U.S. Nuclear Regulatory Commission (NRC), or its successor, on September 23, 2014, 90 days or more before the date of this First Amended Certificate of Events, and the NRC noticed the Plan.
3. The City Council of the City of Anaheim has adopted the attached Resolution authorizing the commencement of the decommissioning.

---

Linda N. Andal, CMC  
City Clerk  
City of Anaheim

Date: \_\_\_\_\_

ATTACHMENT 1 to FIRST AMENDMENT

**SCHEDULE C-1**

**FORM OF DISBURSEMENT CERTIFICATE**

Tim Banach  
U.S. Bank, N.A.  
1420 Kettner Blvd, Suite 200  
San Diego, CA 92101

Attention: Trust Division

Gentlepersons:

In accordance with the terms of the Decommissioning Trust Fund Agreement dated November 6, 1990, as amended, between the City of Anaheim and U.S. Bank National Association, successor Trustee, I, Brian Beelner, AGM - Finance & Administration of the City of Anaheim, hereby certify that:

1. Decommissioning is proceeding pursuant to an NRC-noticed Post-Shutdown Decommissioning Activities Report, Irradiated Fuel Management Plan, and Site-Specific Decommissioning Cost Estimate, including any amendments or revisions (collectively, "Plan").
2. The funds withdrawn will be expended for activities undertaken pursuant to that Plan;  
and
3. All conditions precedent to the making of this withdrawal and disbursement set forth in any agreement between the City of Anaheim and the Trustee have been fulfilled.

The undersigned authorizes and instructs the Trustee to disburse to the City of Anaheim the sum in the amount of \$ \_\_\_\_\_ from the trust Fund to pay decommissioning costs.

\_\_\_\_\_  
Brian Beelner  
AGM – Finance & Administration  
City of Anaheim

Date: \_\_\_\_\_

ATTACHMENT 2 to FIRST AMENDMENT