San Diego Gas & Electric

A-16-03-004

2015 NDCTP

Workpapers

PUBLIC

Workpapers for SDG&E Chapter III.2

Witnesses: Amir Moftakhar

Allocation of Estimated SDG&E Only Costs between NRC Decommissioning Categories

Public Version

SDG&E Chapter III.2

Allocation of SDG&E Internal costs Table AKM-1:

	(000's)	Percent
Unit 1 DCE in 2014\$	\$239,436.00	5.15%
Unit 2&3 in 2014\$	\$4,411,246.00	94.85%
Total	\$4,650,682.00	100.00%

Source: The Unit 1 DCE in 2014\$, and the Unit 2&3 DCE in 2014\$ amounts came from the U1 DCE filed in 2016, and the Unit 2&3 DCE filed in 2014, respectfully.

Thirty T	Percent	allocation to	Percent allocation to Units for Table AKM	CM-1														
		Unit 2								Unit 3								
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		Licens	e Termination		uel Manager	nent	Site	Restoration		Licens	e Terminatio	uc uc	Spent Fu	el Managem	ent	Site R	estoration	
18.8 4.24 2.8 2.8 11.8 1.8<	Year			Labor	LRW Burial	Other			Other			Other	_	RW Burial	Other			Other
12.8 57.8 45.8 31.9 11.8 <th< th=""><th>2016</th><th></th><th></th><th></th><th>%0</th><th>11%</th><th>1%</th><th>%0</th><th>5%</th><th>19%</th><th>21%</th><th>28%</th><th>29%</th><th>%0</th><th>17%</th><th>2%</th><th>%0</th><th>20%</th></th<>	2016				%0	11%	1%	%0	5%	19%	21%	28%	29%	%0	17%	2%	%0	20%
17.8 27.8 <th< td=""><td>2017</td><td></td><td></td><td></td><td>%0</td><td>13%</td><td>1%</td><td>%0</td><td>1%</td><td>16%</td><td>3%</td><td>19%</td><td>31%</td><td>%0</td><td>20%</td><td>1%</td><td>%0</td><td>5%</td></th<>	2017				%0	13%	1%	%0	1%	16%	3%	19%	31%	%0	20%	1%	%0	5%
558 508 518 71	2018				%0	15%	%0	%0	%0	19%	78%	41%	33%	%0	22%	%0	%0	
55.8 62.8 53.8 <th< td=""><td>2019</td><td></td><td></td><td></td><td>%0</td><td>4%</td><td>%0</td><td>%0</td><td>14%</td><td>28%</td><td>20%</td><td>30%</td><td>18%</td><td>%0</td><td>%9</td><td>%0</td><td>%0</td><td>14%</td></th<>	2019				%0	4%	%0	%0	14%	28%	20%	30%	18%	%0	%9	%0	%0	14%
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44,8 63,8 51,8 7,8 0,8 1,8 1,9 0,8 1,8 1,9 0,8 1,8<	2022				%0	1%	%0	%0	%	48%	91%	%89	2%	%0	1%	%0	%0	2%
314 508.8 14% 77% 10% 10% 20% 20% 11% </td <td>2023</td> <td></td> <td></td> <td></td> <td>%0</td> <td>1%</td> <td>%0</td> <td>%0</td> <td>%0</td> <td>43%</td> <td>37%</td> <td>46%</td> <td>2%</td> <td>%0</td> <td>1%</td> <td>1%</td> <td>%0</td> <td>%</td>	2023				%0	1%	%0	%0	%0	43%	37%	46%	2%	%0	1%	1%	%0	%
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34 504 68 1134 094 234 504 684 1134 094 234 504 684 1134 094 234 504 684 1134 094 234 504 684 1134 094 234 094 334 504 144 144 144 144 144 094 144 094 <td>2025</td> <td></td> <td></td> <td></td> <td>%0</td> <td>1%</td> <td>39%</td> <td>%0</td> <td>48%</td> <td>5%</td> <td>20%</td> <td>3%</td> <td>10%</td> <td>%0</td> <td>1%</td> <td>36%</td> <td>%0</td> <td>43%</td>	2025				%0	1%	39%	%0	48%	5%	20%	3%	10%	%0	1%	36%	%0	43%
3.4 50.4 6.4 1.24 0.04 2.34 50.4 6.4 1.24 0.04 2.34 0.04 2.04 0.04 2.04 0.04 2.04 0.04 2.04 0.04 2.04 0.04 2.04 0.04 2.04 0.	2026				%0	2%	32%	%0	37%	3%	20%	%8	13%	%0	5%	35%	%0	43%
2.56 51.56 61.56 73.5 51.56 61.56 73.5 51.56 61.56 73.5 51.56 61.56 73.5 51.56 73.5 51.56 73.5 51.56 73.5 51.56 73.5 51.56 73.5 51.56 73.5 51.56 73.5 51.56 73.5<	2027				%0	2%	32%	%0	39%	3%	20%	%9	12%	%0	2%	37%	%0	45%
2% 50% 1% 9% 0% 31% 0% 31% 0% 31% 0% 31% 0% 31% 0% 31% 0% 1% 9% 0% 0% 47% 0% 1% 50% 1% 9% 0% 31% 0% 31% 0% 31% 0% 31% 0% 31% 0% 0% 31% 0% 0% 31% 0%	2028				%0	2%	39%	%0	26%	3%	20%	%9	12%	%0	2%	32%	%0	29%
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0% 0%<	2037				%0	20%	%0	%0	%0	%0	%0	%0	20%	%0	%05	%0	%0	%0
0% 0%<	2038				%0	20%	%0	%0	%0	%0	%0	%0	%09	%0	%09	%0	%0	%0
0% 0%<	2039				%0	%09	%0	%0	%0	%0	%0	%0	%09	%0	20%	%0	%0	%0
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0% 0%<	2041				%0	20%	%0	%0	%0	%0	%0	%0	20%	%0	20%	%0	%0	%0
0% 0%<	2042				%0	20%	%0	%0	%0	%0	%0	%0	%09	%0	20%	%0	%0	%0
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%0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %	2051				20%	8%	12%	%0	25%	%0	%0	%0	11%	20%	8%	%19	%0	62%
	2052				%0	%0	%0	%0	20%	%0	%0	%0	%0	%0	%0	%0	%0	20%

LLRW = Low Level Radioactive Waste
SDG&E allocated interal costs to U2 & U3 based on percentages calculated from the 2014 U2 &U3 DCE. These percentages are derived from cashflows by year.

Total Cost Account Allocation by Year

Total of Unit 2 and Unit 3 percent allocation to Units for Table AKM-1

Unit 2 and 3 Total

Γ	Lice	nse Termina	tion	Spent	Fuel Manage	ment	S	ite Restoratio	on
Year	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other
2016	37%	99%	50%	57%	1%	28%	6%	0%	22%
2017	36%	100%	64%	62%	0%	33%	2%	0%	3%
2018	35%	100%	63%	65%	0%	37%	0%	0%	0%
2019	65%	100%	61%	35%	0%	11%	0%	0%	28%
2020	94%	100%	98%	5%	0%	1%	1%	0%	0%
2021	94%	100%	98%	6%	0%	1%	0%	0%	0%
2022	91%	100%	89%	9%	0%	2%	0%	0%	9%
2023	89%	100%	97%	9%	0%	2%	1%	0%	1%
2024	59%	100%	27%	13%	0%	2%	28%	0%	71%
2025	5%	100%	6%	20%	0%	2%	75%	0%	92%
2026	6%	100%	16%	26%	0%	4%	67%	0%	80%
2027	6%	100%	13%	25%	0%	3%	69%	0%	84%
2028	6%	100%	12%	23%	0%	3%	71%	0%	85%
2029	4%	100%	2%	17%	0%	1%	79%	0%	97%
2030	5%	100%	2%	18%	0%	1%	77%	0%	97%
2031	3%	100%	14%	22%	0%	6%	75%	0%	81%
2032	14%	100%	36%	86%	0%	64%	0%	0%	0%
2033	0%	0%	0%	100%	0%	100%	0%	0%	0%
2034	0%	0%	0%	100%	0%	100%	0%	0%	0%
2035	0%	0%	0%	100%	0%	100%	0%	0%	0%
2036	0%	0%	0%	100%	0%	100%	0%	0%	0%
2037	0%	0%	0%	100%	0%	100%	0%	0%	0%
2038	0%	0%	0%	100%	0%	100%	0%	0%	0%
2039	0%	0%	0%	100%	0%	100%	0%	0%	0%
2040	0%	0%	0%	100%	0%	100%	0%	0%	0%
2041	0%	0%	0%	100%	0%	100%	0%		0%
2042	0%	0%	0%	100%	0%	100%	0%	0%	0%
2043	0%	0%	0%	100%	0%	100%	0%		0%
2044	0%	0%	0%	100%	0%	100%	0%	0%	0%
2045	0%	0%	0%	100%	0%	100%	0%	0%	0%
2046	0%	0%	0%	100%	0%	100%	0%	0%	0%
2047	0%	0%	0%	100%	0%	100%	0%		0%
2048	0%	0%	0%	100%	0%	100%	0%		0%
2049	0%	0%	0%	100%	0%	100%	0%	0%	0%
2050	0%	0%	0%	41%	100%	24%	59%		76%
2051	0%	0%	0%	21%	100%	16%	79%		84%
2052	0%	0%	0%	0%	0%	0%	0%	0%	100%

^{*} LLRW = Low Level Radioactive Waste

^{••} SDG&E allocated interal costs to U2 & U3 based on percentages calculated from the 2014 U2 &U3 DCE. These percentages are derived from cashflows by year.

SDG&E Internal Costs by Unit Support (2014 Dollars in Thousands)

				U1			U2			U3	
	SDG&E	SDG&E	*5.15%	6 Average Allo	cation	**46%	Average Allo	cation	**48.8	5 Average Allo	cation
	Total Labor	Total Non Labor	Labor	Non Labor	Total	Labor	Non Labor	Total	Labor	Non Labor	Total
2016	\$2,486	\$786	\$128	\$40	\$168	\$1,134	\$259	\$1,394	\$1,224	\$486	\$1,709
2017	\$2,486	\$2,371	\$128	\$122	\$250	\$1,211	\$1,330	\$2,541	\$1,146	\$919	\$2,065
2018	\$2,486	\$593	\$128	\$31	\$159	\$1,149	\$204	\$1,353	\$1,209	\$358	\$1,567
2019	\$2,486	\$580	\$128	\$30	\$158	\$1,268	\$272	\$1,540	\$1,089	\$278	\$1,368
2020	\$2,486	\$568	\$128	\$29	\$157	\$1,352	\$342	\$1,694	\$1,005	\$196	\$1,202
2021	\$1,489	\$555	\$77	\$29	\$105	\$506	\$145	\$651	\$907	\$381	\$1,288
2022	\$1,489	\$542	\$77	\$28	\$105	\$647	\$133	\$779	\$766	\$382	\$1,148
2023	\$1,489	\$530	\$77	\$27	\$104	\$719	\$264	\$984	\$693	\$238	\$931
2024	\$1,489	\$517	\$77	\$27	\$103	\$675	\$172	\$846	\$738	\$319	\$1,057
2025	\$1,489	\$458	\$77	\$24	\$100	\$726	\$228	\$953	\$687	\$207	\$893
2026	\$686	\$382	\$35	\$20	\$55	\$317	\$170	\$487	\$333	\$192	\$526
2027	\$686	\$382	\$35	\$20	\$55	\$311	\$170	\$481	\$339	\$193	\$532
2028	\$686	\$382	\$35	\$20	\$55	\$348	\$229	\$577	\$303	\$133	\$436
2029	\$686	\$382	\$35	\$20	\$55	\$273	\$130	\$403	\$377	\$233	\$610
2030	\$686	\$382	\$35	\$20	\$55	\$276	\$138	\$414	\$374	\$225	\$599
2031	\$686	\$382	\$35	\$20	\$55	\$315	\$173	\$488	\$335	\$190	\$525
2032	\$686	\$359	\$35	\$19	\$54	\$325	\$170	\$496	\$325	\$170	\$496
2033	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2034	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2035	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2036	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2037	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2038	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2039	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2040	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2041	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2042	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2043	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2044	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2045	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2046	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2047	\$0	\$328	\$0	\$17	\$17	\$0	\$155	\$155	\$0	\$155	\$155
2048	\$306	\$392	\$16	\$20	\$36	\$145	\$186	\$331	\$145	\$186	\$331
2049	\$306	\$414	\$16	\$21	\$37	\$145	\$196	\$341	\$145	\$196	\$341
2050	\$306	\$414	\$16	\$21	\$37	\$143	\$182	\$325	\$147	\$211	\$358
2051	\$306	\$414	\$16	\$21	\$37	\$66	\$119	\$185	\$225	\$273	\$498
2052	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$25,896	\$16,702	\$1,334	\$860	\$2,194	\$12,050	\$7,543	\$19,595	\$12,512	\$8,299	\$20,809

^{*} SDG&E allocated 5.15% of internal costs to U1 based on the projected total spend in the 2016 U1 DCE, and the 2014 U2 & U3 DCE.

^{**} SDG&E allocated interal costs to U2 & U3 based on percentages calculated from the 2014 U2 &U3 DCE. These percentages are derived from cashflows by year. These precentages vary slightly each year, but average 46% and 48.85% for U2 & U3, respectively.

		Ŧ	ocation of SUC	Allocation of SUG&E only costs to Cost Account (000's)	to Cost Ac	conut (nno	s)			
Table:		4			8			ú		
	Total fo	Total forecast z 94.85%		Total fo	Total forecast # 5.15%			A•B=C		
	*Allocation to U2/U	J3 (based on %	Allocation to U2/U3 (based on % spend allocated)	"Allocation to U1 (based on % spend allocated)	based on % spe	nd allocated)	SDG&E SONG	S DECOMMISS	DG&E SONGS DECOMMISSIONING COSTS (1,000'S 201	1,000°S 2014\$)
	Labor - 94.85% Non Labor - 94.85%	.abor - 34.85%	Total - 94.85%	Labor - 5,15% Non Labor - 5,15%	.abor - 5.15%	Total	Labor	NonLabor	_	Total
License Termination	11,335	4,383	16,318	267	504	177	11,602	12 5,487	87	17,089
Spent Fuel Management	8,267	7,144	15,411	533	49	582	8,801		7,193	15,394
Site Restoration	4,360	3,714	8,674	533	307	841	5,433	13 4,022	22	9,515
Total	24,562	15,842	40,404	1,333	860	2,193	25,836	16,702	02	42,538

• Calculated based on percentage of U2IU3 DCE spend by Cost Account multiplied by 94.85% of SDGE only costs. •• Calculated based on percentage of U1DCE (2016) spend by Cost Account multiplied by 5, 15% of SDGE only costs.