

## Risk Assessment and Mitigation Phase Cross-Functional Factor

(SCG-CFF-4-WP)

## Foundational Technology Systems Workpapers

May 17, 2021

2021 EAMP SCG-CFF-4-WP Cross-Functional Factors Recorded and Forecast Costs Incurred Workpaper Tab: IncurredS (2020 Direct 5000)

								RECORD	ED DOLLAR	S				FORECAST DOLLARS													A	
						O&M					Capital						Capital						4					
				2016	2017	2018	2019	2020	2016	2017	2018	2019	2020		2022		2023		2024	2	2022		2023		- 2	024	Shared Allocations	
CFF Volume ID	CFF Name	Line No.	Project / Program Description											\$ Lo	ow \$ High	\$	Low \$ High	\$ Li	w \$ High	\$ Low	\$ Hig	gh	\$ Low	\$ High	\$ Low	\$ High	(Yes/No)	
SCG/SDG&E-CFF-4	Foundational Technology Systems	1	Data Center Modernization	\$ 810	\$ 876	\$ 697	\$ 1,242	\$ 1,308	\$ 15,438	\$ 30,172	\$ 16,381	\$ 49,585	\$ 41,547	\$	1,177 \$ 1,50	4 \$	1,177 \$ 1,504	\$ 1,	177 \$ 1,504	\$ 19,364	\$ 24	,743 \$	19,440	\$ 24,840	\$ 26,730	\$ 34,155	Yes	
SCG/SDG&E-CFF-4	Foundational Technology Systems	6	IT Service Continuity	\$ 990	\$ 1,021	\$ 955	\$ 671	\$ 792	\$ -	\$ -	\$ -	\$ -	\$ -	\$	712 \$ 91	10 \$	712 \$ 910	\$	712 \$ 910	\$ 4,735	\$ 6	,050 \$	4,860	\$ 6,210	\$ 4,860	\$ 6,210	No	
SCG/SDG&E-CFF-4	Foundational Technology Systems	7	Cloud Resiliency Services	\$ 711	\$ 624	\$ 176	\$ 73	\$ -	\$ 1,404	\$ -	\$ 17,280	\$ -	\$ -	\$	769 \$ 98	32 \$	3,453 \$ 4,413	\$ 3,	453 \$ 4,413	\$ 782	\$ 1	,000 \$	1,043	\$ 1,333	\$ 1,304	\$ 1,666	Yes	
SCG/SDG&E-CFF-4	Foundational Technology Systems	2	Network & Voice System Resiliency	\$ 44	\$ 63	\$ 320	\$ 543	\$ 559	\$ 6,027	\$ 8,739	\$ 8,569	\$ 6,463	\$ 12,375	\$	503 \$ 64	13 \$	503 \$ 643	3 \$	503 \$ 643	\$ 17,102	\$ 21	,852 \$	13,557	\$ 17,323	\$ 11,340	\$ 14,490	Yes	
SCG/SDG&E-CFF-4	Foundational Technology Systems	3	Monitoring Systems and Services	\$ 236	\$ 293	\$ 287	\$ 613	\$ 1,212	\$ -	\$ -	\$ 2,397	\$ 2,439	\$ 4,223	\$	2,125 \$ 2,71	5 \$	2,575 \$ 3,290	\$ 2,	575 \$ 3,290	\$ 4,947	\$ 6	,322 \$	3,327	\$ 4,252	\$ 4,050	\$ 5,175	Yes	
	Foundational Technology Systems		Gas Operations Systems Resiliency																							\$ 53.666		
SCG/SDG&E-CFF-4	Foundational Technology Systems	4	Gas Operations Systems Resiliency	\$ 2,446	\$ 2,650	\$ 3,204	\$ 2,996	\$ 3,142	\$ 21,980	\$ 11,117	\$ 25,379	\$ 31,200	\$ 23,289	\$	2,828 \$ 3,61	3 \$	2,828 \$ 3,613	\$ 2,	828 \$ 3,613	\$ 39,791	\$ 50	1,843 \$	36,279	\$ 46,356	\$ 42,000	5 53,666	Yes	
reciences err a	Foundational Technology Systems		Emergency Operations Center (EOC) Technology Resiliency	S 34	\$ 52	ć 202	S 138			s -	ć 2.220			_			144 \$ 184					.373 S	4.345	\$ 1,553	S 1.215	\$ 1553	Yes	
SCG/SDG&E-CFF-4	Foundational Technology Systems		Emergency Operations Center (EOC) Technology Resiliency	\$ 34	3 32	\$ 202	\$ 138	\$ 100	3 -	3 -	\$ 2,228	\$ 2,013	\$ 1,424	>	144 5 18	94 \$	144 \$ 184	4 5	144 5 184	\$ 1,075	3 1	,3/3 \$	1,215	\$ 1,553	\$ 1,213	5 1,553	res	
scg/sng&r.cer.4	Foundational Technology Systems	5	End User Access and Support Services	c 501	\$ 451	\$ 1.716	\$ 715	\$ 805	\$ 5.502	\$ 12.574	\$ 38	\$ 2222	¢ 43	e	1064 \$ 136	n s	1,064 \$ 1,360	1 5 1	164 \$ 1360	\$ 15.210	¢ 10	135 C	15 210	¢ 10.435	٠.	٠.	Yes	
Jedy Journal of T	Touridational Technology Systems	,	End out recess and support services	7 331	7 431	7 1,710	J /13	y 003	7 3,333	J 11,574	J 30	7 1,133	7	7	1,004 0 1,50	-	1,004 9 1,500	7 1,	304 3 2,300	3 13,210	7 10	,,433 \$	13,210	7 15,455	7	7	103	
NOTES:																												
NUTES:				_												+						_				-		
[1] The figures provid	tures provided are direct charges and do not include company loaders, with the exception of vacation and sick. The costs are also in 2020 dollars and have no						its.																					

2021 RAMP

SCG-CFF-4-WP

Tab: Shared Allocations - Cap

(2020 Direct \$000)				1																															
				C	apital Shared A			-	Capital Shared Allocations 2017				Capital Shared Allocations 2018				pital Shared	Allocations i	2019						pital Shares	Allocations	2022	-	apital Shared	d Allocations 2	1023		pital Share	d Allocations 2	024
CFF Volume ID	CFF Name	Line No.	Project / Program Description	Retained	18902	Sempra	Other	Retained	SDG&E	Sempra	Other	Retained	SOGRE	Sempra	Other	Retained	SDGBE	Sempra	Other	Retained	SOCRE	Sempra	Other	Retained	SDGAE	Sempra	Other	Retained	SDG&E	Sempra	Other	Retained	20684	Sempra	Other
SCG/SDGBE-CFF-4	Foundational Technology Systems	1	Data Center Modernization	57%	390		× 0	s 70	5 27%	20	6 0%	89%	10%	5 29	00	79%	19%	2%	200	65%	33%	2%	01	100%	8			N 100*	s 0%	5 0%	9%	100%	01	K 06	ON
SCG/SDGBE-CFF-4	Foundational Technology Systems	6	IT Service Continuity	gs.	α		× 0	s 0	6 0%	0	6 0%	ON.	one		0	996	0%	one	200	cns.	2%	ON	on on	100%	8			N 100*	s 0%	5 0%	9%	100%	on	K 06	ON
SCG/SDG8E-CFF-4	Foundational Technology Systems	7	Cloud Resiliency Services	57%	39		× 0	× 0	6 0%		6 0%	96%	0%	59		9%	9%	0%		os	9%	9%	01	100%	8			N 100	6 0%	0%	9%	100%	01	s 05	ON
SCG/SDGBE-CFF-4	Foundational Technology Systems	2	Network & Voice System Resiliency	82%	175		× 0	s 90	5 200	29	6 0%	87%	12%	5 29	00	92%	10%	One	200	90%	10%	0%	01	82%	179	. 19		N 95	6 5%	5 0%	9%	100%	01	K 06	ON
SCG/SDG8E-CFF-4	Foundational Technology Systems	3	Monitorine Systems and Services	os.	o		× 0	× 0	6 0%		6 0%	SEN	20%	. 49		58%	28%	4%		SBN	28%	43	01	52%	299			N 50	40%	5X	9%	SEN	401	s 28	ON
SCG/SDG8E-CFF-4	Foundational Technology Systems		Gas Operations Systems Resiliency	72%	27		s 0	N 75	25%		6 0%	SEN	12%	. 29		96%	12%	1%		84%	12%	25	01	5 89%		. 39		N 92	4 5%	25	9%	923	61	s 25	ON.
SCG/SDGBE-CFF-4	Foundational Technology Systems		Emergency Operations Center (EOC) Technology Resiliency	gs.	α		× 0	s 0	6 0%	0	6 0%	ລາ	20%		0	67%	22%	one	200	100%	2%	ON	on on	100%	8			ns 2001	s 0%	5 0%	9%	100%	on	K 06	ON.
SCG/SDGME-CFF-4	Soundational Technology Systems		End User Access and Support Services	57%	39		× 0	S 57	299			52%	20%		09	52%	20%	4%	000	57%	29%	430	01	100%	09			N 1007	. 06	0%	9%	000	01	K 06	ON

2021 RAMP
SCG-CFF-4-WP
Cross-Functional Factors Recorded and Forecast Costs Shared Allocations Workpaper
Tab: Shared Allocations - O&M
(2020 Direct \$000)

						O&M Shared	Allocations	5	
CFF Volume ID	CFF Name	Line No.	Project / Program Description	Cost Center Type	Retained	SDG&E	Sempra Energy	Other	O&M Notes
CFF VOIGINE ID	CFF Name	Lille NO.	Project / Program Description	.,,,,					Any CCs that are shared used this
SCG/SDG&E-CFF-4	Foundational Technology Systems	1	Data Center Modernization	CSS	54%	42%	4%	0%	methodology
									Any CCs that are non-shared used this
SCG/SDG&E-CFF-4	Foundational Technology Systems	1	Datacenter Modernization	NSS	100%	0%	0%	0%	methodology
CCC /CDC 0 F CFF 4	Form death and Track and an Contained		IT Combas Combastles	css	54%	42%	407	00/	Any CCs that are shared used this
SCG/SDG&E-CFF-4	Foundational Technology Systems	6	IT Service Continuity	CSS	54%	42%	4%	0%	methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	6	IT Service Continuity	NSS	100%	0%	0%	0%	Any CCs that are non-shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	7	Cloud Resiliency Services	css	54%	42%	4%	0%	Any CCs that are shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	2	Network & Voice System Resiliency	NSS	100%	0%	0%	0%	Any CCs that are non-shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	2	Network & Voice System Resiliency	css	54%	42%	4%	0%	Any CCs that are shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	3	Monitoring Systems and Services	css	54%	42%	4%	0%	Any CCs that are shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	3	Monitoring Systems and Services	NSS	100%	0%	0%	0%	Any CCs that are non-shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	4	Gas Operations Systems Resiliency	NSS	100%	0%	0%		Any CCs that are non-shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	4	Gas Operations Systems Resiliency	css	54%	42%	4%	0%	Any CCs that are shared used this methodology
SCC/SDCS F CFF 4	Foundational Tochnology Cost		Gas Operations Systems Resilians:	USS	56%	44%	0%	001	Any CCs that are shared used this methodology
SCG/SDG&E-CFF-4	Foundational Technology Systems	4	Gas Operations Systems Resiliency	033	56%	44%	υ%	0%	Any CCs that are shared used this
SCG/SDG&E-CFF-4	Foundational Technology Systems	8	Emergency Operations Center (EOC) Technology Resiliency	CSS	54%	42%	4%	0%	
SCG/SDG&E-CFF-4	Foundational Technology Systems	5	End User Access and Supporting Services	css	54%	42%	4%	0%	Any CCs that are shared used this methodology
SCG/SDG&F-CEE 4	Foundational Technology Systems	5	End User Access and Support Services	NSS	100%	0%	0%	00/	Any CCs that are non-shared used this methodology
3CG/3DG&L-CFF-4	Touridational Technology Systems	ر	End oder Access and Support Services	1433	100%	U%	U70	U76	петовоюду

NOTES: Each mitigation had some cost centers that were shared and some that were non-shared, we used the respective allocation percentages based on that identifier. CSS (Corporate Shared Service) shares costs with SDGE, SCG, and Sempra Corporate. USS (Utility Shared Service) shares costs with SDGE and SCG. NSS (Non-Shared Service) means that the costs remain in full at SCG.

2021 RAMP SCG-CFF-4-WP Cross-Functional Factors Recorded and Forecast Costs After Allocations Workpaper Tab: After Allocations\$

(2020 Direct \$000)

						RECORDE	D DOLLARS					FORECAST DOLLARS												
						0&M					Capital					0&M			Capital					
				2016	16 2017 2018 2		2019	2020	2016	2017	2018	2019	2020	2022		2023	20	024	20	22	20	23	2024	
CFF Volume ID	CFF Name	Line No.	Project / Program Description											\$ Low \$ Hi	h \$ Lov	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High
SCG/SDG&E-CFF-4	Foundational Technology Systems	1	Data Center Modernization	\$1,678	\$ 1,728	\$ 1,626	\$ 2,188	\$ 2,276	\$ 8,792	\$ 18,050	\$ 14,900	\$ 32,466	\$ 24,944	\$ 2,049 \$ 2,0	18 \$ 2,0	19 \$ 2,618	\$ 2,049	\$ 2,618	\$ 19,364	\$ 24,743 \$	19,440	\$ 24,840 \$	26,730 \$	34,155
SCG/SDG&E-CFF-4	Foundational Technology Systems	6	IT Service Continuity					\$ 2,709		\$ -	\$ -	\$ -	\$ -	\$ 2,555 \$ 3,								\$ 6,210 \$	4,860 \$	
SCG/SDG&E-CFF-4	Foundational Technology Systems	7	Cloud Resiliency Services	\$711	\$ 665	\$ 409	\$ 133	\$ 203	\$ 799	\$ -	\$ 16,503	\$ -	\$ -	\$ 1,215 \$ 1,	53 \$ 3,9	00 \$ 4,984	\$ 3,989	\$ 5,097	\$ 782	\$ 1,000 \$	1,043	\$ 1,333 \$	1,304 \$	1,666
SCG/SDG&E-CFF-4	Foundational Technology Systems	2	Network & Voice System Resiliency	\$3,244	\$ 3,562	\$ 4,462	\$ 3,659	\$ 3,862	\$ 6,385	\$ 9,362	\$ 8,426	\$ 6,380	\$ 10,880	\$ 3,476 \$ 4,	42 \$ 3,4	76 \$ 4,442	\$ 3,476	\$ 4,442	\$ 15,766	\$ 20,146 \$	13,069	\$ 16,700 \$	11,340 \$	14,490
SCG/SDG&E-CFF-4	Foundational Technology Systems	3	Monitoring Systems and Services	\$390	\$ 453	\$ 534	\$ 761	\$ 1,583	\$ -	\$ -	\$ 1,379	\$ 1,404	\$ 2,535	\$ 1,980 \$ 2,	30 \$ 2,2	22 \$ 2,839	\$ 2,222	\$ 2,839	\$ 2,863	\$ 3,658 \$	1,858	\$ 2,374 \$	2,349 \$	3,002
SCG/SDG&E-CFF-4	Foundational Technology Systems	4	Gas Operations Systems Resiliency	\$4,813	\$ 5,304	\$ 5,784	\$ 5,628	\$ 6,526	\$ 17,250	\$ 10,653	\$ 22,857	\$ 29,190	\$ 20,068	\$ 5,873 \$ 7,5	05 \$ 5,8	73 \$ 7,505	\$ 5,873	\$ 7,505	\$ 35,633	\$ 45,531 \$	33,832	\$ 43,230 \$	39,585 \$	50,581
SCG/SDG&E-CFF-4	Foundational Technology Systems	8	Emergency Operations Center (EOC) Technology Resiliency	\$443	\$ 493	\$ 654	\$ 641	\$ 983	\$ -	\$ -	\$ 1,381	\$ 1,766	\$ 1,424	\$ 884 \$ 1,	30 \$ 8	84 \$ 1,130	\$ 884	\$ 1,130	\$ 1,075	\$ 1,373 \$	1,215	\$ 1,553 \$	1,215 \$	1,553
SCG/SDG&E-CFF-4	Foundational Technology Systems	5	End User Access and Support Services	\$1,361	\$ 1,362	\$ 1,964	\$ 1,535	\$ 1,640	\$ 3,184	\$ 7,216	\$ 1,480	\$ 1,640	\$ 1,513	\$ 1,724 \$ 2,3	03 \$ 1,7	24 \$ 2,203	\$ 1,724	\$ 2,203	\$ 15,210	\$ 19,435 \$	15,210	\$ 19,435 \$	- \$	-
NOTES: The after allocation O&M costs are a combination of costs that were retained at SCG and costs that were sent to SCG from SDGE & Semora Corporate.																								
[2] The figures provided	been escalate	ed to 2021 a	amounts.																					
[3] Costs are provided, v	where available, for all activities regardless of wheth																							