



# **Risk Assessment and Mitigation Phase**

**(Chapter SCG/SDG&E-Risk-6-WP)**

**Cybersecurity  
Workpapers**

**May 17, 2021**

2021 RAMP  
 SCG/SDG&E-Risk-6-WP  
 Risks Recorded and Forecast Costs Incurred Allocations Workpaper  
 Tab: Incurred\$  
 (2020 Direct \$000)

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	RECORDED DOLLARS										FORECAST DOLLARS										Shared Allocations (Yes/No)			
				O&M					Capital					O&M					Capital								
				2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2022		2023		2024		2022		2023			2024		
				\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High		\$ Low	\$ High	
SCG/SDG&E-Risk-6	Cybersecurity	C1	Perimeter Defenses	\$ 1,008	\$ 960	\$ 771	\$ 709	\$ 1,032	\$ -	\$ -	\$ -	\$ 1,209	\$ 6,382	\$ 1,281	\$ 1,637	\$ 1,281	\$ 1,637	\$ 1,281	\$ 1,637	\$ -	\$ -	\$ -	\$ -	\$ 1,800	\$ 2,300	Yes	
SCG/SDG&E-Risk-6	Cybersecurity	C2	Internal Defenses	\$ 2,282	\$ 1,481	\$ 910	\$ 813	\$ 1,190	\$ -	\$ 1,505	\$ 246	\$ 866	\$ 1,529	\$ 1,404	\$ 1,794	\$ 1,404	\$ 1,794	\$ 1,404	\$ 1,794	\$ -	\$ -	\$ -	\$ -	\$ 900	\$ 1,150	Yes	
SCG/SDG&E-Risk-6	Cybersecurity	C3	Sensitive Data Protection	\$ 1,436	\$ 770	\$ 350	\$ 319	\$ 549	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 686	\$ 876	\$ 686	\$ 876	\$ 686	\$ 876	\$ -	\$ -	\$ -	\$ -	\$ 1,200	\$ 1,610	Yes	
SCG/SDG&E-Risk-6	Cybersecurity	C4	Operational Technology (OT) Cybersecurity	\$ 846	\$ 865	\$ 723	\$ 657	\$ 824	\$ 1,772	\$ 349	\$ 13	\$ -	\$ 573	\$ 1,024	\$ 1,309	\$ 1,024	\$ 1,309	\$ 1,024	\$ 1,309	\$ 7,182	\$ 9,177	\$ 6,363	\$ 8,131	\$ 2,700	\$ 3,450	Yes	
SCG/SDG&E-Risk-6	Cybersecurity	C5	Obsolete Information Technology (IT) Infrastructure and Application Replacement	\$ 1,148	\$ 1,078	\$ 876	\$ 797	\$ 1,127	\$ -	\$ -	\$ -	\$ -	\$ 1,184	\$ 1,367	\$ 1,747	\$ 1,367	\$ 1,747	\$ 1,367	\$ 1,747	\$ -	\$ -	\$ -	\$ -	\$ 900	\$ 1,150	Yes	
<b>NOTES:</b>																											
[1] The figures 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 not been escalated to 2021 amounts.																											
[2] Costs are provided, where available, for all activities regardless of whether a RSE analysis was performed.																											

**2021 RAMP**  
**SCG/SDG&E-Risk-6-WP**  
**Risks Shared Allocations Workpaper**  
**Tab: Shared Allocations O&M**  
**(2020 Direct \$000)**

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	O&M Shared Allocations			
				Retained	SoCalGas	Sempra Energy	Other
SCG/SDG&E-Risk-6	Cybersecurity	C1	Perimeter Defenses	42%	54%	4%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C2	Internal Defenses	42%	54%	4%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C3	Sensitive Data Protection	42%	54%	4%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C4	Operational Technology (OT) Cybersecurity	42%	54%	4%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C5	Obsolete Information Technology (IT) Infrastructure and Application Replacement	42%	54%	4%	0%

NOTES: CSS (Corporate Shared Service) shares costs with SDGE, SCG, and Sempra Corporate. All mitigations have cost centers that use the CSS sharing percentages.

2021 RAMP  
 SCG/SDG&E-Risk-6-WP  
 Risks Shared Allocations Workpaper  
 Tab: Shared Allocations Capital  
 (2020 Direct \$000)

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	Capital Shared Allocations 2016			Capital Shared Allocations 2017			Capital Shared Allocations 2018			Capital Shared Allocations 2019			Capital Shared Allocations 2020			Shared Allocations 2022			Capital Shared Allocations 2023			Capital Shared Allocations 2024													
				Retained	SoCalGas	Sempra Energy	Other	Retained	SoCalGas	Sempra Energy	Other	Retained	SoCalGas	Sempra Energy	Other	Retained	SoCalGas	Sempra Energy	Other	Retained	SoCalGas	Sempra Energy	Other	Retained	SoCalGas	Sempra Energy	Other	Retained	SoCalGas	Sempra Energy	Other							
SCG/SDG&E-Risk-6	Cybersecurity	C1	Perimeter Defenses	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	60.33%	34.71%	4.96%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C1	Internal Defenses	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C3	Sensitive Data Protection	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C4	Operational Technology (OT) Cybersecurity	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	80%	20%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
SCG/SDG&E-Risk-6	Cybersecurity	C5	Operational Information Technology (IT) Infrastructure and Application Replacement	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%

2021 RAMP  
 SCG/SDG&E-Risk-6-WP  
 Risks Recorded and Forecast Costs After Allocations Workpaper  
 Tab: After Allocations\$  
 (2020 Direct \$000)

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	RECORDED DOLLARS										FORECAST DOLLARS											
				O&M					Capital					O&M					Capital						
				2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2022		2023		2024		2022		2023		2024	
														\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High
SCG/SDG&E-Risk-	Cybersecurity	C1	Perimeter Defenses	\$ 453	\$ 558	\$ 656	\$ 616	\$ 811	\$ 232	\$ 220	\$ 1,978	\$ 3,007	\$ 10,231	\$ 984	\$ 1,257	\$ 984	\$ 1,257	\$ 984	\$ 1,257	\$ 2,595	\$ 3,316	\$ 2,196	\$ 2,806	\$ 5,222	\$ 6,673
SCG/SDG&E-Risk-	Cybersecurity	C2	Internal Defenses	\$ 1,029	\$ 1,637	\$ 2,554	\$ 1,964	\$ 2,457	\$ 552	\$ 1,861	\$ 5,159	\$ 2,881	\$ 4,312	\$ 2,484	\$ 3,173	\$ 2,484	\$ 3,173	\$ 2,484	\$ 3,173	\$ 1,897	\$ 2,425	\$ 3,254	\$ 4,158	\$ 4,254	\$ 5,435
SCG/SDG&E-Risk-	Cybersecurity	C3	Sensitive Data Protection	\$ 661	\$ 1,221	\$ 2,083	\$ 1,524	\$ 1,869	\$ 758	\$ 41	\$ -	\$ -	\$ -	\$ 1,848	\$ 2,362	\$ 1,848	\$ 2,362	\$ 1,848	\$ 2,362	\$ 1,688	\$ 2,156	\$ 1,730	\$ 2,211	\$ 3,389	\$ 4,531
SCG/SDG&E-Risk-	Cybersecurity	C4	Operational Technology (OT) Cybersecurity	\$ 379	\$ 502	\$ 603	\$ 565	\$ 704	\$ 1,772	\$ 349	\$ 13	\$ -	\$ 458	\$ 838	\$ 1,071	\$ 838	\$ 1,071	\$ 838	\$ 1,071	\$ 7,182	\$ 9,177	\$ 6,363	\$ 8,131	\$ 2,700	\$ 3,450
6	Cybersecurity	C5	Obsolete Information Technology (IT) Infrastructure and Application Replacement	\$ 512	\$ 608	\$ 700	\$ 653	\$ 852	\$ 1,029	\$ 1,197	\$ 26	\$ 930	\$ 1,326	\$ 1,020	\$ 1,303	\$ 1,020	\$ 1,303	\$ 1,020	\$ 1,303	\$ 2,129	\$ 2,721	\$ 2,229	\$ 2,849	\$ 3,562	\$ 4,551

NOTES: The after allocation O&M costs are a combination of costs that were retained at SDGE and costs that were sent to SDGE from SoCalGas & Sempra Corporate. For the cyber chapter in particular, a large portion of costs are received from Sempra Corporate

[2] The figures 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 not been escalated to 2021 amounts.

[3] Costs are provided, where available, for all activities regardless of whether a RSE analysis was performed.

2021 RAMP  
 SCG/SDG&E-Risk-6-WP  
 Risks Recorded and Forecast Units Workpaper  
 Tab: Units

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	Units Description		RECORDED UNITS										FORECAST UNITS											
						O&M					Capital					O&M				Capital							
				Capital	O&M	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2022		2023		2024		2022		2023		2024	
																Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
SCG/SDG&E-Risk-6	Cybersecurity	C1	Perimeter Defenses	No Feasible Units	No Feasible Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SCG/SDG&E-Risk-6	Cybersecurity	C2	Internal Defenses	No Feasible Units	No Feasible Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SCG/SDG&E-Risk-6	Cybersecurity	C3	Sensitive Data Protection	No Feasible Units	No Feasible Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SCG/SDG&E-Risk-6	Cybersecurity	C4	Operational Technology (OT) Cybersecurity	No Feasible Units	No Feasible Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SCG/SDG&E-Risk-6	Cybersecurity	C5	Obsolete Information Technology (IT) Infrastructure and Application Replacement	No Feasible Units	No Feasible Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		