

Application of SAN DIEGO GAS & ELECTRIC )  
COMPANY for authority to update its gas and )  
electric revenue requirement and base rates )  
effective January 1, 2024 (U 902-M) )

Application No. 22-05-\_\_\_

Exhibit No.: (SDG&E-21-CWP)

CAPITAL WORKPAPERS TO  
PREPARED DIRECT TESTIMONY  
OF JENNIFER L. REYNOLDS  
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

May 2022



2024 General Rate Case - APP  
**INDEX OF WORKPAPERS**

**Exhibit SDG&E-21-CWP - CLEAN TRANSPORTATION**

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San Diego Gas & Electric Company  
 2024 GRC - APP  
 Capital Workpapers

**Overall Summary For Exhibit No. SDG&E-21-CWP**

<b>Area:</b>	<b>CLEAN TRANSPORTATION</b>
<b>Witness:</b>	<b>Jennifer L. Reynolds</b>

**A. Clean Transportation**

In 2021 \$ (000)		
Adjusted-Forecast		
2022	2023	2024
0	0	20,000
<b>Total</b>	<b>0</b>	<b>20,000</b>

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2024 GRC - APP  
Capital Workpapers

Area: CLEAN TRANSPORTATION  
Witness: Jennifer L. Reynolds  
Category: A. Clean Transportation  
Workpaper: 21259A

**Summary for Category: A. Clean Transportation**

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	0	0	0	600
Non-Labor	0	0	0	19,400
NSE	0	0	0	0
<b>Total</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>20,000</u>
FTE	0.0	0.0	0.0	6.0

**21259A EV Rule 45 Installations**

Labor	0	0	0	600
Non-Labor	0	0	0	19,400
NSE	0	0	0	0
<b>Total</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>20,000</u>
FTE	0.0	0.0	0.0	6.0

*Note: Totals may include rounding differences.*

**Beginning of Workpaper Group  
21259A - EV Rule 45 Installations**

San Diego Gas & Electric Company  
2024 GRC - APP  
Capital Workpapers

Area: CLEAN TRANSPORTATION  
 Witness: Jennifer L. Reynolds  
 Budget Code: 21259.0  
 Category: A. Clean Transportation  
 Category-Sub: 1. Clean Transportation  
 Workpaper Group: 21259A - EV Rule 45 Installations

**Summary of Results (Constant 2021 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	0	0	0	0	0	0	0	600
Non-Labor	Zero-Based	0	0	0	0	0	0	0	19,400
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20,000</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0

**Business Purpose:**

The EV Infrastructure Rule is an optional new service rule for separately-metered EV charging sites outside of single-family homes. SDG&E is required to install, own, and ratebase the electrical distribution infrastructure at these sites between the distribution system and utility meter, which is collectively referred to as the utility-side make-ready. The customer or site host bears the cost of the make-ready beyond the utility meter and the cost of the EV Supply Equipment.

**Physical Description:**

Electrical distribution infrastructure installed under Resolution E-5167 includes poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, other equipment as necessary, and associated engineering and civil construction work.

**Project Justification:**

Pursuant to Commission Resolution E-5167, SDG&E is required to install, own, and ratebase the utility-side make-ready for separately-metered EV charging customers outside of single-family homes who choose to take service under the EV Infrastructure Rule.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2024 GRC - APP  
Capital Workpapers

Area: CLEAN TRANSPORTATION  
Witness: Jennifer L. Reynolds  
Budget Code: 21259.0  
Category: A. Clean Transportation  
Category-Sub: 1. Clean Transportation  
Workpaper Group: 21259A - EV Rule 45 Installations

**Forecast Methodology:**

**Labor - Zero-Based**

Zero-based - This method is most appropriate because SDG&E has not begun to implement the EV Infrastructure Rule at scale. SDG&E expects to begin implementing the EV Infrastructure Rule in early 2022. Costs for 2022 and 2023 will be recorded in the EVIMA. The overall cost of the EV Infrastructure Rule will be driven by the number of sites that take service under the Rule, which in turn is dependent on the pace of transportation electrification in California. Please see supplemental workpaper for forecast calculation.

**Non-Labor - Zero-Based**

Zero-based - This method is most appropriate because SDG&E has not begun to implement the EV Infrastructure Rule at scale. SDG&E expects to begin implementing the EV Infrastructure Rule in early 2022. Costs for 2022 and 2023 will be recorded in the EVIMA. The overall cost of the EV Infrastructure Rule will be driven by the number of sites that take service under the Rule, which in turn is dependent on the pace of transportation electrification in California. Please see supplemental workpaper for forecast calculation.

**NSE - Zero-Based**

Not Applicable

**Beginning of Workpaper Sub Details for  
Workpaper Group 21259A**



San Diego Gas & Electric Company  
2024 GRC - APP  
Capital Workpapers

Area: CLEAN TRANSPORTATION  
 Witness: Jennifer L. Reynolds  
 Budget Code: 21259.0  
 Category: A. Clean Transportation  
 Category-Sub: 1. Clean Transportation  
 Workpaper Group: 21259A - EV Rule 45 Installations  
 Workpaper Detail: 21259A.001 - Customer driven utility side make-ready installations related to Rule 45  
 In-Service Date: Not Applicable

Description:

The EV Infrastructure Rule is an optional new service rule for separately-metered EV charging sites outside of single-family homes established by Commission Resolution 5167-E. SDG&E is required to install, own, and ratebase the electrical distribution infrastructure and associated construction at these sites between the distribution system and utility meter, which is collectively referred to as the utility-side make-ready. The customer or site host bears the cost of the make-ready beyond the utility meter and the cost of the EV Supply Equipment.

<b>Forecast In 2021 \$(000)</b>				
	<b>Years</b>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		0	0	600
Non-Labor		0	0	19,400
NSE		0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>20,000</b>
FTE		0.0	0.0	6.0

*Note: Totals may include rounding differences.*

**Supplemental Workpapers for Workpaper Group 21259A**

Supplemental Workpaper for Workpaper 21259A EV Rule 45 Installations

Annual site need in SDG&E service territory	2022		2023		2024		2025		2026		2027	
	DC Fast Charger	42		76		35		87		64		188
Level 2	485		708		680		1,060		1,163		1,179	
<b>Total</b>	<b>527</b>		<b>784</b>		<b>715</b>		<b>1,148</b>		<b>1,227</b>		<b>1,366</b>	

Input Assumptions	Notes	
	Ports per site (DCFC)	3
	Ports per site (L2)	9
	Average utility-side make-ready cost (per site)	\$ 39,278
Assume SDG&E Rule 45 meets which percentage of annual site need	45% Excludes medium-duty/heavy-duty sites, which are primarily funded through SDG&E Power Your Drive for Fleets Program	

Based on SDG&E observed costs SDG&E believes that in general utility-side make-ready costs do not significantly differ between DCFC and Level 2 sites. Actual costs will vary based on site capacity, design, and location. Please see next page for breakdown.

Modeling Results	Make-Ready Direct Costs (\$M)		2022		2023		2024		2025		2026		2027	
	Annual site need in SDG&E service territory		527		784		715		1,148		1,227		1,366	
Annual new Rule 45 sites		237		353		322		516		552		615		
Direct cost (\$M)		\$9.31		\$13.85		\$12.63		\$20.29		\$21.68		\$24.15		
Revenue recovered through	EV Infrastructure Rule Memo Account		EV Infrastructure Rule Memo Account		EV Infrastructure Rule Balancing Account (requested)		EV Infrastructure Rule Balancing Account (requested)		EV Infrastructure Rule Balancing Account (requested)		EV Infrastructure Rule Balancing Account (requested)		EV Infrastructure Rule Balancing Account (requested)	
AVERAGE (\$M)						\$20		\$20		\$20		\$20		

**Supplemental Workpaper for Workpaper 21259A EV Rule 45 Installations**  
**Based on SDG&E observed costs SDG&E believes that in general utility-side make-ready costs do not significantly differ between DCFC and Level 2 sites. Actual costs will vary based on site capacity, design, and location**

Input Assumptions	Average utility-side make-ready cost (per site)	\$ 39,278
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Test Job #1

Labor	15,105
Material	14,372
Other	9,800
	39,278

Note: Design cost are not included