Company: San Diego Gas & Electric Company (U902M)

Proceeding: 2019 General Rate Case Application: A.17-10-007/-008 (cons.)

Exhibit: SDG&E-221

## REDACTED VERSION

## SDG&E

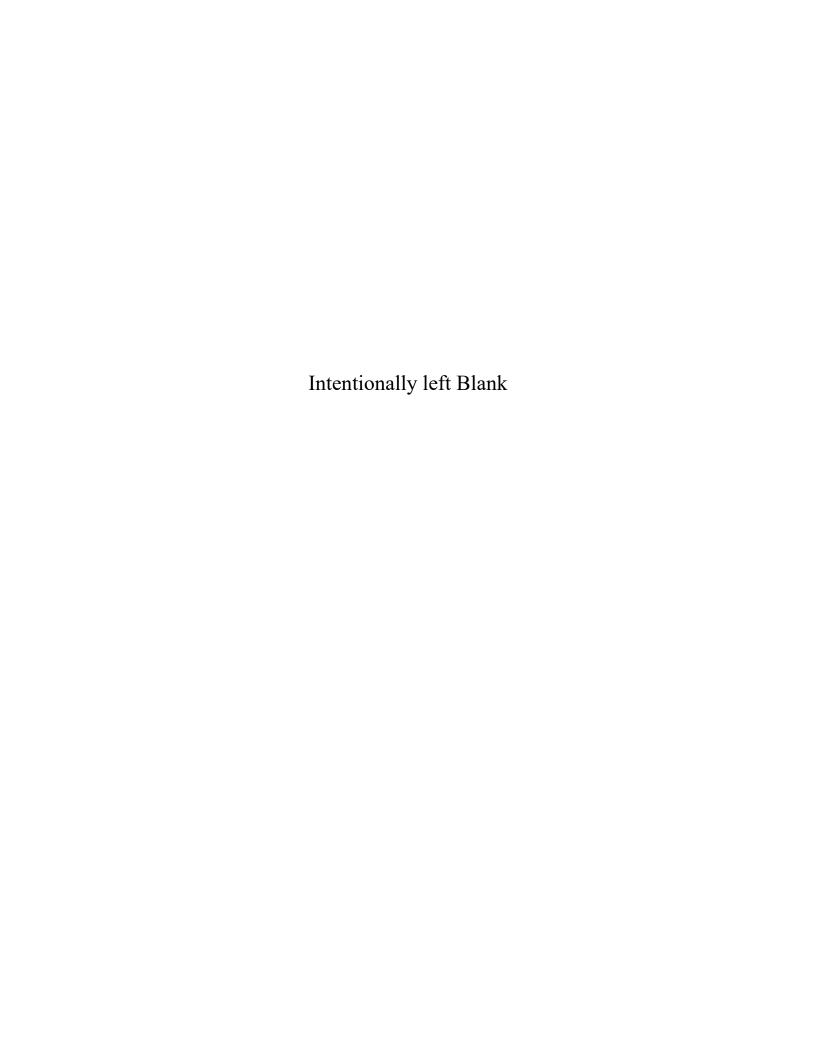
## REBUTTAL TESTIMONY OF CARMEN L. HERRERA

(FLEET SERVICES)

**JUNE 18, 2018** 

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





## **TABLE OF CONTENTS**

1.	SUMN	/IAKY (	OF DIFFERENCES	I
II.	INTRO	DDUCT	TON	1
	A.	ORA		2
	B.	TURN		3
III.	REBU	TTAL	ГО PARTIES' О&M PROPOSALS	4
	A.	Non-S	hared Services O&M	4
		1.	Ownership Cost	4
		2.	Maintenance Operation	22
		3.	Fleet Management	29
	B.	Shared	l Services O&M	30
		1.	Fleet Management Costs	30
IV.	CONC	LUSIO	N	30
			LIST OF APPENDICES	
APPE	NDIX A	1	UTILMARC Industry Vehicle Turnover Report	
			ORA-SDGE-147-LMW, SDG&E Response to Q.9	
			ORA-SDGE-047-LMW, SDG&E Response to Q.3	
			SDG&E Response to Q.3c	
			UTILMARC 2016 Industry Replacement Summary	
APPE	NDIX E	3	Errata	

## TESTIMONY OF CARMEN L. HERRERA FLEET SERVICES

#### I. **SUMMARY OF DIFFERENCES**

TOTAL O&M - Constant 2016 (\$000)							
	Base Year 2016	Test Year 2019	Change				
SDG&E	\$27,943	\$45,456	\$17,513				
ORA	\$27,943	\$30,356	\$2,413				
TURN	\$27,943	\$30,6041	\$2,661				
TURN ALT	\$27,943	\$35,582	\$7,639				

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#### II. INTRODUCTION

following testimony from other parties:

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17 18 This rebuttal testimony regarding SDG&E's request for Fleet Services addresses the

- The Office of Ratepayer Advocates (ORA) as submitted by Mr. Mark Waterworth (Exhibit ORA-19), dated April 13, 2018.
- The Utility Reform Network (TURN), as submitted by Mr. Garrick F. Jones and Mr. William P. Marcus (Exhibit TURN-05), dated May 14, 2018.

As a preliminary matter, the absence of a response to any particular issue in this rebuttal testimony does not imply or constitute agreement by SDG&E with the proposal or contention made by these or other parties. The forecasts contained in SDG&E's direct testimony, performed at the project level, are based on sound estimates of its revenue requirements at the time of testimony preparation.

<sup>&</sup>lt;sup>1</sup> SDG&E assumes that column (D) of Table 15 in the April 13, 2018, Prepared Testimony of Garrick F. Jones and William P. Marcus Addressing the Proposals of San Diego Gas & Electric Company [SDG&E] in their Test Year 2019 General Rate Case Related to Fleet Services, Real Estate, Land Services, and Facilities, Fleet Services and Facilities Operations, Compensation and Benefits, and Human Resources, Safety, Workers' Compensation and Long-Term Disability, on behalf of The Utility Reform Network [TURN], Exhibit TURN-05 (Jones) at 45:1-3, should reflect 2017 adjusted recorded actuals for "License Fees" of \$1,135, not \$1,315 as shown in Table 15.

## A. ORA

ORA issued its report on Fleet Services on April 13, 2018.<sup>2</sup> The following is a summary of ORA's positions. ORA is recommending \$30.356 million for Fleet Services O&M expenses, which is \$15.100 million less than SDG&E' forecast. The following is a summary of ORA's position(s):

- ORA is recommending \$11.009 million for Fleet Services' Ownership Costs Non-Shared O&M costs which is \$13.480 million or 55% less than SDG&E's forecast of \$24.489 million.
  - ORA is recommending \$9.437 million for Fleet Services Ownership Amortization costs which is \$9.195 million or 49% less than SDG&E's forecast of \$18.632 million.
  - ORA is recommending \$1.148 million for Fleet Services Ownership Interest costs which is \$2.332 million or 67% less than SDG&E's forecast of \$3.480 million.
  - ORA is recommending \$1.314 million for Fleet Services Ownership License Fees/Sales Tax<sup>3</sup> costs which is \$2.229 million or 63% less than SDG&E's forecast of \$3.543 million.
  - ORA is recommending \$(0.890) million for Fleet Services Ownership Salvage costs which is \$0.276 million or 24% more than SDG&E's forecast of \$(1.166) million.
- ORA is recommending \$11.179 million for Fleet Services' Maintenance Operations Non-Shared O&M costs which is \$0.883 million or 7% less than SDG&E's forecast of \$12.062 million.
- ORA is recommending \$6.003 million for Fleet Services' Automotive Fuels Non-Shared O&M costs which is \$0.737 million or 11% less than SDG&E's forecast of \$6.740 million.

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<sup>&</sup>lt;sup>2</sup> April 13, 2018, ORA Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company Test Year 2019 General Rate Case, SDG&E Supply Management & Logistics and Supplier Diversity, Fleet Services, Real Estate, Land Services and Facilities, and Environmental Services, Exhibit ORA-18 (Mark Waterworth).

<sup>&</sup>lt;sup>3</sup> ORA combines two workpapers from SDGE-21WP, 1FS001.004 - License Fees and 1FS001.006 – Sales Tax. *Id.* at 3.

ORA accepts SDG&E's TY 2019 non-shared Fleet Management forecast of \$0.548 million.

• ORA accepts SDG&E's TY 2019 shared Fleet Management forecast of \$1.616 million.

## B. TURN

The Utility Reform Network (TURN) submitted testimony on May 14, 2018.<sup>4</sup> The following is a summary of TURN's recommendations:

- TURN recommends \$11.009 million or \$13.480 million less than
   SDG&E's O&M forecast for Fleet Services Non-Shared Ownership Costs.
   TURN's recommendation mirrors ORA's proposal in this cost category.
  - In the alternative, TURN recommends \$15.987 million or \$8.502 million less than SDG&E's O&M forecast for Fleet Services Non-Shared Ownership Costs. TURN's recommendation is \$4.978 million more than ORA's proposal in this cost category.
- TURN recommends \$11.179 million or \$0.883 million less than SDG&E's O&M forecast for Fleet Services Non-Shared Maintenance Operations. TURN's recommendation mirrors ORA's proposal in this cost category.
- TURN recommends \$6.251 million or \$0.489 million less than SDG&E's O&M forecast for Fleet Services' Non-Shared Automotive Fuel Operations. TURN's recommendation is \$0.248 million more than ORA's proposal in this cost category.
- TURN does not dispute SDG&E's TY 2019 non-shared Fleet Management forecast of \$0.548 million.
- TURN does not dispute SDG&E's TY 2019 shared Fleet Management forecast of \$1.616 million.

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<sup>&</sup>lt;sup>4</sup> Ex. TURN-05 (Jones).

## III. REBUTTAL TO PARTIES' O&M PROPOSALS

## A. Non-Shared Services O&M

# Table CLH-1 Comparison of Non-Shared Services O&M Costs (\$000)

NON-SHARED O&M - Constant 2016 (\$000)						
	Base Year 2016	Test Year 2019	Change			
SDG&E	\$26,587	\$43,839	\$17,252			
ORA	\$26,587	\$28,739	\$2,152			
TURN	\$26,587	\$28,987	\$2,400			
TURN ALT	\$26,587	\$33,965	\$7,378			

## 1. Ownership Cost

## a. ORA

Table CLH-2
Fleet Ownership Cost Comparison (\$000)

SDG&E Fleet Ownership	SDG&E	ORA	Variance
Cost	TY 2019		
Amortization	\$18,632	\$9,437	(\$9,195)
Interest	\$3,480	\$1,148	(\$2,332)
Salvage	(\$1,166)	(\$890)	\$276
License Fee/Sales Tax	\$3,543 <sup>5</sup>	\$1,314 <sup>6</sup>	\$2,2297
Total	\$24,489	\$11,009	13,480

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13 14 ORA is recommending \$11.009 million which is \$13.480 million or 55% less than SDG&E forecast of \$24.489 million for TY 2019 ownership cost. ORA recommends using "2017 actual recorded ownership costs...[b]y using 2017 actual data, ORA bases its forecast on actual amortization, actual interest, actual salvage, actual license fee/taxes, and actual vehicle

<sup>&</sup>lt;sup>5</sup> ORA combines two workpapers from SDGE-21WP, 1FS001.004 - License Fees and 1FS001.006 – Sales Tax. Ex. ORA-18 (Waterworth) at 3.

<sup>&</sup>lt;sup>6</sup> *Id*.

<sup>&</sup>lt;sup>7</sup> *Id*.

additions." ORA claims that by using 2017 actual data, its forecast is based "on actual amortization, actual interest, actual salvage, actual license fee/taxes, and actual vehicle additions." Additionally, ORA states that "the concept of compounding 2017 costs to arrive at a TY 2019 forecast is not justified based on historic data." ORA goes on to state, "SDG&E's methodology results in over-collections of an estimated \$35.1 million from 2012-2017." Finally, ORA states that "SDG&E's ownership costs forecasts largely assume estimated vehicle replacements as a cost driver; however, as shown in Table 18-3 actual acquisitions are far lower than forecast resulting in lower actual ownership costs."

SDG&E disagrees with ORA's recommendations because ORA's approach does not account for SDG&E's forecast for (1) existing vehicles already under lease, (2) State mandated heavy-duty vehicle replacements (i.e. ATCM), (3) replacements on order or scheduled to be purchased in the 2017 through 2019 period, (4) greening of the Fleet through Alternative Fuel Vehicles (AFV), (5) incremental vehicles to meet business needs, and (6) increased fees for vehicle registrations.

Table CLH-3 outlines TY 2019 Fleet Ownership Costs obligations based on contractual commitments and state and federal mandates. This table demonstrates that SDG&E will incur at least \$19.775 million in TY 2019 or \$8.766 million above ORA's recommendation. TY 2019 Fleet Ownership Costs obligations correspond with the columns in Table CLH-3: (a) vehicles already under lease agreements at YE 2017; (b) vehicles delivered year-to-date (YTD) (as of April 2018); (c) vehicles already ordered with future delivery dates; (d) California Air Resources Board (CARB) mandated ATCM replacements; (e) EPAct compliant AFVs that support State GHG emission reduction mandates; (f) increased license fees; (g) incremental vehicles for business needs (that ORA has not disputed in other SDG&E witness areas); and (h) net of proportionate salvage proceeds.

<sup>&</sup>lt;sup>8</sup> Ex. ORA-18 (Waterworth) at 8.

<sup>&</sup>lt;sup>9</sup> *Id*.

<sup>&</sup>lt;sup>10</sup> *Id*.

<sup>&</sup>lt;sup>11</sup> *Id*.

<sup>&</sup>lt;sup>12</sup> *Id*. at 9.

# Table CLH-3<sup>13</sup> SDG&E Vehicle Ownership Costs TY 2019 (As of April 2018) (\$000)

		rent itments	Future Commit ments	State and Man		(f)	(g) Incremen -tal	(h)	(i)	(j) Non-	(k)
	(a) Vehicles on Lease (as of YE 2017)	(b) Vehicles delivered YTD <sup>1</sup>	(c) Vehicles Ordered with Future Delivery Dates <sup>1</sup>	(d) ATCM (CARB Mandated) <sup>1</sup>	(e) EPAct Compliance AFV 1,3	Increased License Fees <sup>1, 2</sup>	Business Needs Not Disputed by ORA	Net Proportion -ate Salvage <sup>1, 5</sup>	TY 2019 Obliga- tions <sup>4</sup>	Committed Replace- ments TY 2019 <sup>1</sup>	GRC Request TY 2019
Amortization	\$9,578	\$917	\$1,723	\$1,262	\$676		\$392		\$14,549	\$4,083	\$18,632
Interest	\$1,166	\$709	\$637	\$458	\$136		\$103		\$3,209	\$271	\$3,480
Sales Tax	\$181	\$192	\$183	\$133	\$63		\$38		\$791	\$307	\$1,098
Salvage	\$ (904)							\$(734)	\$(734)	\$(432)	\$(1,166)
License Fees	\$1,153	\$139	\$212	\$15	\$83	\$170	\$48		\$1,961	\$484	\$2,445
Total	\$11,174	\$1,957	\$2,755	\$2,009	\$958	\$170	\$582	\$(734)	\$19,775	\$4,713	\$24,488

Ownership impacts to TY2019

6 California State Senate Bill 1

<sup>3</sup>EPAct and State GHG reduction mandates

8 Total Ownership TY 2019 is the sum of (a) through (h)

<sup>&</sup>lt;sup>13</sup> The values presented in Table CLH-3 are in nominal 2019 dollars, as SDG&E's forecasted ownership costs were zero-based and were non-standard escalated values. ORA's recommendation of 2017 fleet ownership costs is in constant 2016 dollars. Table CLH-3 is intended to illustrate the difference between ORA's recommendation and SDG&E's projected expense levels. Any authorized expenditure based on ORA's recommendation in 2016 dollars would need to be translated to 2019 dollars.

1 2	<sup>5</sup> Salvage proceeds are proportionate to commitments in (a) through (g). 2017 salvage proceeds are excluded from the summation in (i) because they relate to units eligible for auction related to the timing of vehicle deliveries.
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SDG&E's TY 2019 forecast.

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**Table CLH-4 SDG&E Ownership Cost Summary (\$000)** 

Table CLH-4, below, summarizes SDG&E's committed TY 2019 Ownership compared to

Total Committed Ownership Costs TY 2019 based on current commitments	\$ 19,775
Non-Committed Replacements TY 2019	<u>\$4,713</u>
GRC Request TY 2019	\$ 24,488

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As shown in Tables CLH-3 and CLH-4, SDG&E is committed, whether financially or pursuant to State or federal mandates, to a minimum Fleet Ownership TY 2019 costs of \$19.775 million. As such, SDG&E recommends the Commission reject ORA's proposal to use 2017 actual costs, and instead adopt SDG&E's forecast.

## ORA uses a simplified methodology for Ownership Costs

ORA's use of 2017 recorded costs is a simplification of SDG&E's Fleet Ownership approach. The section above and Table CLH-3, identifies the specific financial obligations and commitments for SDG&E's fleet of vehicles, ad demonstrates how these obligations and commitments extend into future years. The use of 2017 recorded costs does not account for these obligations. ORA's simplified approach would result in no vehicle replacements in 2018 and TY 2019. This is not practical because SDG&E must replace vehicles in 2018 and 2019 to comply with the legislative mandates of ATCM and EPAct discussed above. Furthermore, ORA has not contested incremental vehicles for business needs in other witness areas. Under ORA's approach of using 2017 recorded, SDG&E would be authorized to order these incremental vehicles but would not be authorized to fund the amortization costs in 2018 and 2019.

## Contrary to ORA's assertion, SDG&E does not use compounding for Ownership Costs

ORA states that "SDG&E primarily bases its forecast on forecasted vehicle additions by year, with the added vehicle costs compounding year over year."<sup>14</sup> ORA further states that

<sup>&</sup>lt;sup>14</sup> Ex. ORA-18 (Waterworth) at 8.

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"[T]he concept of compounding 2017 costs to arrive at a TY2019 forecast is not justified based on historic data." SDG&E does not compound 2017 forecast to arrive at 2019 ownership forecast. SDG&E uses straight line amortization (equal monthly payments of principal and applicable interest over each accounting period) to forecast costs from the purchase year through the lease term for each vehicle. SDG&E's forecasted ownership expenses have no compounding effect. Each year of ownership expense (historical or forecast) represents the straight-line amortization value of the vehicle's remaining economic life.

## SDG&E's fleet is aging and requires new replacement vehicles.

ORA's approach of using 2017 recorded costs also does not account for the age of SDG&E's fleet and the need for new replacement vehicles. SDG&E is requesting replacements of its oldest vehicles based on life cycle replacement criteria. As shown in Table CLH-5 below, 45% of SDG&E's Fleet is 8 years of age or older. These vehicles are past the end of their useful life and continued replacement deferral is not prudent, practical, or cost effective. SDG&E's amortization costs in 2019 include the ownership costs to replace SDG&E's aging Fleet vehicles.

Table CLH-5 SDG&E Vehicle Age (ORA-SDGE-047-LMW-Data – ORA\_2A\_Detail)<sup>17</sup>

VEHICLE TYPE	Unit Count	0 - 7 Years	Age 8 years	Age 9 Years	Age 10+ Years
1 - AUTOMOBILE	88	48	5	32	3
2 - COMPACT TRUCK/VAN	297	130	53	42	72
3 - LIGHT TRUCK/VAN	715	529	22	90	74
4 - MEDIUM DUTY TRUCK	391	252	6	13	120
5 - HEAVY DUTY TRUCK	222	59	4	13	146
6 - MECHANIZED					
TRAILER	80	47	2	2	29
7 - NON MECHANIZED					
TRAILER	116	21	2	0	93
8 - P.O.E.	66	15	1	1	49
Total	1975	1101	95	193	586
% of Fleet		56%	5%	10%	30%

<sup>&</sup>lt;sup>15</sup> *Id*.

<sup>&</sup>lt;sup>16</sup> October 2017, Workpapers to Prepared Direct Testimony of Carmen L. Herrera, on behalf of SDG&E, Exhibit-21-WP (Herrera) at 14.

<sup>&</sup>lt;sup>17</sup> Detail previously provided to ORA in ORA-SDGE-047-LMW, SDG&E Response to Q.2a.

Ownership costs are higher for new vehicle replacements vs. fully amortized vehicles.

As shown in Table CLH-6, 48% of all vehicles in the SDG&E forecast were fully amortized (\$0 Amortization, \$0 Interest, \$0 sales tax) at YE 2016. Vehicles that are fully amortized at YE 2016, contributed nearly \$0 to ownership costs. Table CLH-7 demonstrates the TY 2019 Ownership cost difference between a fully amortized ATCM vehicle compared with the ownership costs of a new ATCM vehicle replacement. The ownership costs of replacement vehicles in TY2019 would be much higher than reflected in 2017 adjusted recorded expense levels since the baseline ownership cost for these fully amortized vehicles would be relatively minor in 2017.

Table CLH-6
SDG&E Fleet Vehicles (Leased vs. Fully Amortized)

Vehicle Type	SDG&E Vehicle Inventory YE 2016	Vehicles Under Lease
Automobiles	87	42
Compact Trucks & Vans	325	104
Light Duty	727	480
Medium Duty	360	204
Heavy Duty	213	57
Total	1712	887
Lease Balance		<u>52%</u>
Fully Amortized		48%

## Table CLH-7 **ATCM Ownership Costs For 1 Unit**

Cost Category	Annual ATCM Ownership costs (97% Fully Amortized <sup>18</sup> )	Annual ATCM Ownership Cost for a New Replacement <sup>19</sup>
Amortization	\$ -	\$23,624
Interest	\$ -	\$ 7,802
Salvage	\$ -	\$ -
License & Sales tax	\$ 575	\$ 3,010
Total Ownership Cost	\$ 575	\$ 34,436

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In addition, costs of fleet replacement vehicles have increased. As noted in response to question 3C in data request ORA-SDG&E-47-LMW, on average, replacement ATCM vehicles are 39% more expensive than the vehicles they are replacing which leads to increased amortization costs.<sup>20</sup> As another example, the average purchase price of ½ ton pickup truck increased from \$18,399 to \$25,275 from 2006 to 2013, or over 37%.<sup>21</sup> All vehicles in the forecast are on average 24% more expensive than the vehicles they are replacing.<sup>22</sup> This increase in vehicle costs combined with the above-mentioned replacement of vehicles that are fully amortized leads to a forecasted TY 2019 cost impact greater than 2017 actuals.

## New vehicles will be replacing rental vehicles to support operating needs

As shown in Table CLH-8, rental units within the Operating groups have grown from 20 units in 2014 to 56 units in 2017. Increased rental vehicle activity indicates a growing business need for vehicles. Fleet has temporarily provided vehicle rentals to meet current operational needs, and therefore reduced recent historical replacements for 2015-2017. This is another reason

<sup>&</sup>lt;sup>18</sup> ORA-SDGE-147-LMW, SDG&E Response to Q.9, attached in Appendix A.

<sup>&</sup>lt;sup>19</sup> ORA-SDGE-047-LMW, SDG&E Response to Q.3, attached in Appendix A. Utilizes the average ATCM vehicle.

<sup>&</sup>lt;sup>20</sup> *Id.* at SDG&E Response to Q.3c, attached in Appendix A.

<sup>&</sup>lt;sup>21</sup> UTILMARC Report: 1/2 Ton Pickup Truck Data (January 28, 2015) available at https://utilimarc.com/report-12-ton-pickup-truck-data/, attached to Appendix A.

<sup>&</sup>lt;sup>22</sup> Data previously provided to ORA in ORA-SDGE-047-LMW.

forecasts. Indefinite use of rental vehicles is not a sustainable business practice because 1) rental vehicles are more expensive compared to SDG&E ownership costs; 2) vehicle configurations do not meet operational needs; and 3) fuel cost (retail pricing) for rental vehicles is more expensive compared to bulked price fuel all of which is incurred by SDG&E operating groups. SDG&E proposes to replace rental vehicles with owned vehicles.

Table CLH-8

that recent lower historical replacements should not be the basis for TY 2019 Ownership Costs

Vehicle Rentals SDG&E								
<b>Description</b> 2014 2015 2016 2017								
# of Units 20 27 33 56								

In summary, SDG&E disagrees with ORA's recommendation to use 2017 recorded costs because ORA's approach does not account for SDG&E's forecasted financial commitments, provides no funding for vehicles delivered year-to-date, for vehicles ordered with future delivery dates, for State mandated ATCM replacements, for EPAct-compliant AFVs that support State GHG emission reduction mandates; increased license fees; incremental vehicles for business needs (that ORA has not disputed) net of proportionate salvage proceeds. ORA's approach also does not allow for replacements of SDG&E's oldest vehicles based on life cycle replacement criteria, for the increased costs associated with replacing a fully amortized vehicle with a new one, and for the operating needs of SG&E's business units.

As such, SDG&E recommends rejection of ORA's proposal to use 2017 actual costs, and instead adopt SDG&E's TY 2019 forecast of vehicle ownership costs of \$24.489 million.

## i. Amortization

## Table CLH-9

## TY 2019 Amortization Costs (\$000)

SDG&E Fleet Ownership	SDG&E	ORA	Variance
Cost	Request		
Amortization	\$18,632	\$9,437	(\$9,195)

ORA recommends using 2017 adjusted recorded ownership costs for TY 2019. As stated in the section above SDG&E disagrees with ORA's recommendation and requests that the Commission adopt SDG&E's forecast of vehicle amortization costs.

## ii. Interest Costs

# Table CLH-10

1 Y 2019 II	iterest Costs (	(2000)	
nershin	SDG&E		

SDG&E Fleet Ownership	SDG&E	ORA	Variance
Cost	TY 2019	OKA	variance
Interest	\$3,480	\$1,148	(\$2,332)

ORA recommends using 2017 actual interest expenses to calculate the TY 2019 interest forecast. SDG&E disagrees with ORA's recommendation on the same grounds as Ownership costs.

Further, SDG&E disagrees with ORA's forecast methodology as this method would apply 2017 interest rates without consideration of interest rate fluctuations for forecast years. ORA's forecast methodology incorrectly assumes interest rates will remain constant. In contrast, SDG&E applies Global Insights forecasted rates which takes into consideration the anticipated fluctuations of the interest rate. <sup>23</sup> This is consistent with the publicly-available interest rates that are shown in Table CLH-11. Table CLH-11 shows that interest rates have risen over the past several years, and have nearly doubled from the beginning of 2017.

 $<sup>^{23}</sup>$  Ex. SDGE-21-WP (Herrera) at 5; TURN\_DR-026 Q14 LIBOR CONFIDENTIAL

# Table CLH-11<sup>24</sup> USD Libor Interest Rates

USD Libor- First Rate per				
Month				
5/1/2018	2.76598%			
4/1/2018	2.67000%			
3/1/2018	2.50750%			
2/1/2018	2.29278%			
1/1/2018	2.10933%			
12/1/2017	1.96044%			
11/1/2017	1.85594%			
10/1/2017	1.79067%			
9/1/2017	1.71178%			
8/1/2017	1.72567%			
7/1/2017	1.78440%			
6/1/2017	1.72650%			

## iii. Salvage

## Table CLH-12 Salvage Proceeds (\$000)

SDG&E Ownership Cost	SDG&E	ORA	Variance
	Request		
Salvage	(\$1,166)	(\$890)	\$276

ORA recommends using the 2017 actual salvage proceeds to derive its TY 2019 salvage forecast of (\$0.890) million which is \$0.276 million or 24% more than SDG&E's forecast. SDG&E disagrees with ORA's forecast as ORA incorrectly utilizes 2017 actual salvage proceeds to calculate its TY2019 forecast. Vehicle salvage values are a function of the number, type, age, mileage and condition of vehicles being sent to auction, as well as the market climate in which those auctions occur. Amounts forecasted for each year reflect the planned vehicle sales based on replacement plans. Table CLH-3 above outlines the committed proceeds for fleet salvage for TY 2019 based on current commitments which at most total (\$0.734) million. SDG&E requests that the Commission adopt SDG&E forecast of vehicle salvage proceeds of (\$1.166) million.

<sup>&</sup>lt;sup>24</sup> See *12 month US Dollar LIBOR interest rate*, available at <a href="http://www.global-rates.com/interest-rates/libor/american-dollar/usd-libor-interest-rate-12-months.aspx">http://www.global-rates.com/interest-rates/libor/american-dollar/usd-libor-interest-rate-12-months.aspx</a>

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If ORA's recommendation for Amortization and Interest is approved, then salvage cannot be greater than \$0.000 million because ORA's forecast does not allow for any additional vehicle replacements, and thus no vehicles will be available for salvage.

## iv. License Fees & Sales Tax

## Table CLH-13 License Fees & Sales Tax (\$000)

SDG&E Fleet Ownership	SDG&E	ORA	Variance
Cost	TY 2019		
License Fee & Sales Tax	\$3,543 <sup>25</sup>	\$1,314 <sup>26</sup>	\$2,229

ORA recommends using the 2017 actual license cost to derive its TY 2019 license forecast of \$1.314 million which is \$2.229 million or 63% less than SDG&E's forecast of \$3.543 million for License Fees & Sales Tax. SDG&E disagrees with ORA's recommendation on the same grounds as other Ownership costs.

Further, ORA ignores the adoption of Senate Bill 1 (SB-1) on April 1, 2017 which increases DMV vehicle registrations fees starting January 1, 2018.<sup>27</sup> SB 1 created the transportation improvement fee to provide additional resources for the state to repair infrastructure and road maintenance. The transportation improvement fee is a new variable fee that will be assessed as part of the total vehicle renewal fees. As of January 1, 2018, vehicle registration fees have increased due to this new fee. The transportation improvement fee increases vehicle registrations by a range of \$25 to \$175 per unit, depending on the value of the vehicle.<sup>28</sup> Table CLH-14 below provides the range of increased registration costs associated with this new fee.

<sup>&</sup>lt;sup>25</sup> ORA combines two workpapers from SDGE-21WP, 1FS001.004 - License Fees and 1FS001.006 - Sales Tax. Ex. ORA-18 (Waterworth) at 3.

<sup>&</sup>lt;sup>26</sup> *Id*.

<sup>&</sup>lt;sup>27</sup> December 2017, Revised Direct Testimony of Carmen L. Herrera, Addressing Fleet Services, on behalf of SDG&E, Exhibit SDG&E-21-R (Herrera) at 12.

<sup>&</sup>lt;sup>28</sup> See DMV, New Transportation Improvement Fee, *available at* <a href="https://www.dmv.ca.gov/portal/wcm/connect/2ed2c1cf-fbda-4733-9557-5c60479d6057/17vin25.pdf?MOD=AJPERES">https://www.dmv.ca.gov/portal/wcm/connect/2ed2c1cf-fbda-4733-9557-5c60479d6057/17vin25.pdf?MOD=AJPERES</a>

Table CLH-14 Transportation Improvement Fee Schedule Effective January 1, 2018<sup>29</sup>

Vehicle Value	Amount of Registration Fee Increase <sup>30</sup>
Zero to \$4,999	\$25
\$5,000 to \$24,999	\$50
\$25,000 to \$34,999	\$100
\$35,000 to \$59,999	\$150
\$60,000 and higher	\$175

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The transportation improvement fee will increase SDG&E registration fees in 2019 by \$0.170 million compared to 2017 licensing fees.<sup>31</sup> The increased state license fee is a prime example of why license and ownership cost forecasts, should not be calculated from historic values as these costs have clearly increased.

SDG&E requests that the Commission fully adopt SDG&E's TY 2019 forecast of vehicle license fees and sales tax of \$3.543 million.

#### b. **TURN**

**Table CLH-15 Comparison of Non-Shared Ownership Cost (\$000)** 

Ownership	TY 2019	Variance
SDG&E	\$24,489	
TURN	\$11,009	(\$13,480)
TURN ALT	\$15,987	(\$8,502)

TURN generally agrees with ORA's recommendations and rationale for vehicle ownership costs.<sup>32</sup> SDG&E disagrees with TURN for the same reasons stated in Section III.A.1.a., above.

<sup>&</sup>lt;sup>29</sup> *Id*.

<sup>&</sup>lt;sup>30</sup> *Id*.

<sup>&</sup>lt;sup>31</sup> Ex. SDGE-21-WP (Herrera) at 34.

<sup>&</sup>lt;sup>32</sup> Ex. TURN-05 (Jones) at 43:21-22.

As an alternative, TURN provides a recommendation of adding funding for ATCM vehicles if the Commission does not accept ORA's recommendation of using 2017 expense levels without accounting for the ATCM mandate.<sup>33</sup>

SDG&E disagrees with TURN's alternative recommendation because it only accounts for the ATCM mandate but does not account for 1) vehicles that need to be replaced due to age; 2) new vehicles for incremental business need; 3) the EPAct mandate for AFV and the premium cost for AFVs.

Table CLH-16 below outlines the number of vehicle replacements (12.8% of total Fleet) which is consistent with industry standards for Fleet turnover as illustrated in Figure CLH-17 below. SDG&E vehicle lifecycle replacements are in line with industry standards to achieve optimal total cost of ownership (TCO). <sup>34</sup>

Table CLH-16 SDG&E Forecasted Fleet Replacements

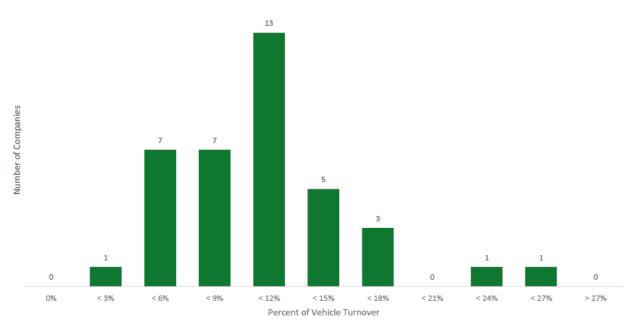
				Total
Replacements	2017	2018	2019	Units
New Fleet Units for Replacement	187	241	341	769
Alternative Fuel Vehicles (AFV)	93	58	66	217
Total Replacement Units	280	299	407	986
Annual Replacement	11.6%	11.8%	14.9%	
3-Year Average Replacement	t 12.8%			

<sup>&</sup>lt;sup>33</sup> Ex. TURN-05 (Jones) at 32-33.

 $<sup>^{34}</sup>$  See UTILMARC 2016 Industry Replacement Summary, attached in Appendix A.

# Figure CLH-17<sup>35</sup> Industry Standard for Fleet Turnover

Distribution of Companies by Fleet Turnover 2016-2017



13 Companies reported vehicle turnover between 9% to 12% of fleet between 2016 and 2017.

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Figure CLH-17 above shows the number of companies and the percentage of their fleets replaced on an annual basis with 12% of fleet vehicles being replaced per year as the mean. SDG&E is forecasting to replace a number of vehicles that is within industry standards.

TURN asserts that "the utilities' recorded figures demonstrate, just because a vehicle is eligible for replacement on the basis of age, mileage and/or condition, does not necessarily mean that the utility will replace that vehicle." SDG&E's TY 2019 request is in line with minimizing total cost of ownership (TCO) by replacing vehicles that are past the optimal TCO curve. SDG&E is attempting to implement a scheduled replacement strategy that will minimize the TCO. SDG&E underscores that the level of past replacements is not sustainable and the replacement forecasts are consistent with industry practices as outlined by a third party,

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<sup>&</sup>lt;sup>35</sup> See UTILMARC Industry Vehicle Turnover Report, attached in Appendix A.

<sup>&</sup>lt;sup>36</sup> Ex. TURN-05 (Jones) at 36:2-4.

Utilimarc, study in Figure CLH-17 (and included in Appendix A). Further, as is shown in Table CLH-18, industry benchmarks establish an optimal replacement cycle for a light duty pickup truck at 7 years to achieve the lowest total cost over the life of the asset (total cost of ownership).

Table CLH-18<sup>37</sup> Replacement Lifecycle to Achieve Lowest TCO

Lifecycle Age	Total Annualized Cost	Deviation
1	\$7,811	34.4%
2	\$7,121	22.6%
3	\$6,613	13.8%
4	\$6,251	7.6%
5	\$6,010	3.5%
6	\$5,869	1.0%
7	\$5,810	0.0%
8	\$5,821	0.2%
9	\$5,892	1.4%
10	\$6,015	3.5%
11	\$6,183	6.4%
12	\$6,391	10.0%
13	\$6,636	14.2%
14	\$6,913	19.0%

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## SDG&E's forecast for incremental vehicles in TY 2019 reflects the additional workforce requested by other SDG&E GRC witnesses representing operating functions

TURN states "that the utilities fail to provide sufficient justification for their forecasts of incremental vehicles to support incremental activities and staff."38 SDG&E operating witnesses propose incremental FTE's, programs and projects that in some instances require accompanying incremental vehicles as identified in the TY 2019 incremental vehicle for business needs request.<sup>39</sup> At minimum, 40 of the incremental vehicles associated with operating departments incremental FTE's, programs or projects were not contested by ORA. TURN reduced SDG&E's incremental for increased business without providing evidence or objection to the accompanying FTE, program or project identified in other witness areas. SDG&E is consistent when aligning

<sup>&</sup>lt;sup>37</sup> UTILMARC 2016 Industry Replacement Summary, attached in Appendix A.

<sup>&</sup>lt;sup>38</sup> Ex. TURN-05 (Jones) at 40:9-10.

<sup>&</sup>lt;sup>39</sup> Ex. SDG&E-21-WP (Herrera) at 12.

Fleet's incremental vehicle requirements with SDG&E's incremental workforce requests by other SDG&E witnesses responsible for operating functions.

# SDG&E's new replacement vehicles are needed to meet Federal and State mandated goals for alternative fuel vehicles (AFV)

TURN states the "the total number of AFV-related lease acquisitions that SDG&E forecasted to be in service by the end of 2016 in the 2016 GRC was 137, but just 64 leases had been acquired by the end of 2017, which means that [SDG&E] over-forecasted the lease-service cost (e.g. amortization, interest, etc.) for 2016 and, effectively, 2017." SDG&E disagrees with TURN's statement as 2016 total ownership cost reflected in this forecast (2019 GRC) is based on actual 2016 spend.

SDG&E is governed by the federally mandated procurement of AFVs for EPAct requirements. As an Alternative Fuel Provider Fleet, 90% of SDG&E's annual light duty vehicle purchases are required under the EPAct to be approved AFVs and 24% of SDG&E's Fleet vehicles fall under this requirement. <sup>41</sup> To achieve the 90% annual requirement, SDG&E plans to continue buying AFVs which must be purchased at a premium.

SDG&E is supporting California's state initiatives to reduce California's petroleum use by up to 50 percent by 2030, and achieve greenhouse gas (GHG) emission reduction targets of 40 percent below 1990 levels by 2030, with continued progress towards an 80 percent reduction by 2050. SDG&E proposes to support the state initiative by replacing traditional petroleum and diesel vehicles with AFVs. SDG&E expects to reduce approximately 16,000 metric tons of greenhouse gases over 5 years which is equivalent to reducing greenhouse gas emissions from 3,400 passenger vehicles driven over one year. For this reason, SDG&E's forecasted request is reasonable and necessary.

<sup>&</sup>lt;sup>40</sup> Ex. TURN-05 (Jones) at 41-42.

<sup>&</sup>lt;sup>41</sup> See sum of automobiles and compact trucks divided by OTR total, Ex. SDGE-21-R (Herrera) at 7.

<sup>&</sup>lt;sup>42</sup> *Id.* at 9:3-5.

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## 2. Maintenance Operation

Table CLH-19
Comparison of Non-Shared Maintenance Operation Cost (\$000)

<b>Maintenance Operations</b>	SDG&E Request	ORA	TURN
Maintenance Operations	\$12,062	\$11,179	\$11,179
Automotive Fuels	\$6,740	\$6,003	\$6,251
Total	\$18,802	\$17,182	\$17,430

## a. ORA

Table CLH-20
Comparison of Non-Shared Services Maintenance Cost (\$000)

<b>Maintenance Operations</b>	SDG&E TY 2019	ORA	Variance
Maintenance Operations	\$12,062	\$11,179	(\$883)
Automotive Fuel	\$6,740	\$6,003	(\$737)
Total	\$18,802	\$17,182	(\$1,620)

ORA disagrees with SDG&E's TY O&M forecast for Maintenance Operations, which are separated into two categories: (i) Maintenance Operations and (ii) Automotive Fuels.

## i. Maintenance Operations

ORA forecast for Maintenance Operations is "\$882,000 lower than SDG&E's request for \$12.061 million." <sup>43</sup> To determine its forecast, ORA uses a 3-year average (2014-2016), because according to ORA, expenses are trending downwards and the last 3 years of expense are more current and consistent, resulting in a forecast of \$11.023 million. <sup>44</sup> SDG&E disagrees with ORA's use of the 3-year average as this forecast methodology does not capture the entirety of SDG&E's maintenance cost experience but rather narrowly considers the costs from the two lowest years within the past six. Further, repairs and parts costs continue to rise with an aging Fleet, SDG&E has observed that (year-to-date) YTD average repair costs appear to be

<sup>&</sup>lt;sup>43</sup> Ex. ORA-18 (Waterworth) at 11.

<sup>&</sup>lt;sup>44</sup> *Id*.

significantly higher than 2017 as our vehicles age. YTD 2018 SDG&E has seen a 19% increase in vehicle repairs and services compared to 2017.<sup>45</sup>

SDG&E proposes to use a 5-year average for TY 2019 forecast of vehicle maintenance operations costs as it most accurately reflects the Fleet composition and associated costs given recent economic trends, and regulatory requirements such as California Basic Inspection of Terminals (BIT), discussed in greater detail below. The five-year average also better accounts for any volatility in prices for parts and materials such as tires, vehicle parts, and lubricants. SDG&E cannot predict changes in commodity prices and must therefore rely on averaging to arrive at a reasonable cost estimate. For reference, a 3-year average was selected in TY2016 as more appropriate than a 5-year average for Maintenance Operations and Automotive Fuels due to costs in 2009 being an anomaly as the nation recovered from a recession.<sup>46</sup>

Fleet Services Maintenance Operations group conducts audits to maintain compliance with CHP's (California Highway Patrol) BIT program. The CHP BIT program is an inspection program conducted by the CHP since 1965 as a tool to determine if motor carriers are complying with Motor Carrier Safety regulations, particularly with regard to the legal requirement to maintain commercial motor vehicles according to a scheduled maintenance (preventive maintenance) program. The CHP's role is to determine whether carriers' selected maintenance schedules are adequate to prevent collisions or mechanical breakdowns involving the vehicles, and all required maintenance and driver records are prepared and retained as required by law. Effective January 1, 2016, the terminal inspection requirements changed from a time-based inspection system to a performance-based inspection selection system. Prior to 2016, SDG&E managed terminal compliance inspections every two years but under the new requirements, all SDG&E's terminals will need to be inspected more frequently. To comply with the new revisions, SDG&E will be required to inspect an additional 2 terminals (locations where vehicles are regularly garaged or maintained) and 467 vehicles (originally from 341 vehicles up to 808 vehicles) due to incorporating lower level weight requirements for inspection established under

<sup>&</sup>lt;sup>45</sup> Comparison of average Jan – Dec 2017 Vehicle repair costs actual recorded expenses to average Jan – April 2018 Vehicle repair costs actual recorded expenses.

<sup>&</sup>lt;sup>46</sup> See *Business Cycle Dating Committee*, The National Bureau of Economic Research, September 20, 2010, *available at* <a href="http://www.nber.org/cycles/sept2010.html">http://www.nber.org/cycles/sept2010.html</a>. The National Bureau of Economic Research reported that the recession ended in June 2009.

the new program (units requiring inspection going from 26,000+ pounds Gross Vehicle Weight (GVW) down to 10,001+ pounds GVW).

Further, under the new BIT program, SDG&E will be required to inspect each BIT vehicle greater than 10,001 pounds GVW at least every 90 days, or more often if necessary to ensure safe operation; to document and retain the inspection documentation; and to establish and execute on a vehicle maintenance program. This is a new requirement that did not exist prior to 2016. Further, SDG&E will be required to review vehicle inspections, employee driver and Hazmat records to determine whether motor carrier permits are up to date with all compliance regulations. The incremental work added by the reduced BIT program weight limit from 26,000 pounds GVW to 10,001 pounds GVW necessitates additional FTEs.

ORA also opposes SDG&E's request of 1.7 FTE's or \$0.148 million because ORA states that since SDG&E has been able to operate for five years at current staffing levels, SDG&E does not need to return to 2012 staffing levels. SDG&E's request for incremental FTE is based on the amount of work SDG&E will need to perform. Various retirements led to a total net reduction of 5.9 Maintenance Operations FTEs for the period of 2012-2016.<sup>47</sup> As noted above, SDG&E is experiencing incremental work due to the revised BIT program, and an aging Fleet requiring more repairs.

ORA also states the incremental increase related to adding new Fleet vehicles is highly discretionary and opposes \$0.144 million for non-labor maintenance costs associated with the vehicle incremental fleet request. As SDG&E disagrees and as shown in Table CLH-21, SDG&E is expected to incur at minimum \$0.079 million in Maintenance Operations related expenses associated with 40 incremental vehicles that ORA did not contest in other witness areas.

<sup>&</sup>lt;sup>47</sup> Ex. ORA-18 (Waterworth) at 11.

<sup>&</sup>lt;sup>48</sup> *Id*. at 12.

*a*. at 12

<sup>&</sup>lt;sup>49</sup> For more information please see: December 2017, Revised Direct Testimony of Gina Orozco-Mejia Addressing Gas Distribution, on behalf of SDG&E, Exhibit SDG&E-04-R (Orozco-Mejia); December 2017, Revised Direct Testimony of Deanna R. Haines Addressing Gas Engineering, on behalf of SDG&E, Exhibit SDG&E-09-R (Haines); October 6, 2017, Prepared Direct Testimony of Beth Musich Addressing Gas Transmission Operation, on behalf of SDG&E, Exhibit SDG&E-06 (Musich); December 2017, Revised Direct Testimony of Gwen R. Marelli Addressing Customer Services Field, on behalf of SDG&E, Exhibit SDG&E-17-R (Marelli); October 6, 2017, Direct Testimony of Jerry D. Stewart

Table CLH-21 Maintenance Costs for Incremental Vehicles Uncontested by ORA

	2016 Average			
Average Maintenance Cost per Vehicle	\$ 2,372			
	,			
<b>Incremental Fleet for Business Needs</b>		Year		
				Total
SDG&E Organization	2017	2018	2019	Units
TOTAL INCREMENTAL UNITS =	19	8	13	40
<b>Incremental Maintenance Costs for</b>				
Business Needs		Gallons		
	2017	2018	2019	
+19 vehicle adds (1/2 year in 2017, all				
of 2018-'19)	22,534	45,068	45,068	
+8 vehicle adds (1/2 year in 2018, all of			-	
2019)	-	9,488	18,976	
+13 vehicle adds (1/2 year in 2019)	-	-	15,418	
MAINTENANCE COSTS FOR				
INCREMENTAL UNITS (\$000)	<b>\$</b> 23	\$ 55	<b>\$</b> 79	

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ORA agrees with SDG&E's "adjustments for training, technology, and compliance" 50 for \$0.156 million in TY 2019.

SDG&E request that the Commission approve SDG&E forecast for Maintenance Operations as originally presented.

#### **Automotive Fuels** ii.

ORA recommends using a three-year historical average by using the recorded years of 2014-2016 to calculate its forecast of \$6.003 million, which is \$0.737 million or 11% less than SDG&E' forecast of \$6.740 million. SDG&E disagrees with ORA's methodology of a 3-year

Addressing Customer Service Office Operations on behalf of SDG&E, Exhibit SDG&E-18 (Stewart); October 6, 2017, Direct Testimony of Gavin Worden Addressing Cybersecurity, on behalf of SDG&E, Exhibit SDG&E-25 (Worden).

<sup>&</sup>lt;sup>50</sup> Ex. ORA-18 (Waterworth) at 11.

forecast to calculate automotive fuel expense because fuel prices have fluctuated significantly over the last six years.<sup>51</sup> Retail gasoline prices are mainly affected by crude oil prices and the level of gasoline supply relative to demand. Strong and increasing demand for gasoline and other petroleum products in the United States and the rest of the world can place intense pressure on available supplies. Even when global crude oil prices are stable, local gasoline prices fluctuate because of seasonal demand and competition between local retail fueling stations and state refinery capacity. Gasoline prices can change rapidly if something disrupts the supply of crude oil, local refinery operations, or with delivery pipelines.<sup>52</sup> Brent crude oil spot prices averaged \$72 per barrel (b) in April 2018, an increase of \$6/b from the March 2018 level and the first time monthly Brent crude oil prices have averaged more than \$70/b since November 2014.<sup>53</sup> As described in Table CLH-22 below, the cost of diesel has fluctuated by as much as of 28% year-to-year 2014-2015 and gasoline has fluctuated by as much as 18% year-to-year 2014-2015 as demonstrated by the Table CLH-22 below which is populated from data provided by the U.S. Energy Information Administration.<sup>54</sup>

Table CLH-22<sup>55</sup>
6 Year Gasoline and Diesel Retail Price Fluctuations

Fuel Type	2012	2013	2014	2015	2016	2017	2018 YTD (Jan-Apr)
Diesel PPG	\$4.16	\$4.05	\$3.93	\$2.90	\$2.56	\$2.95	\$3.26
Unleaded PPG	\$3.93	\$3.78	\$3.65	\$2.98	\$2.58	\$2.96	\$3.45

<sup>&</sup>lt;sup>51</sup> See Table CLH-20 herein, 6-years historical pricing varies from \$2.95 - \$4.16 for gasoline and \$2.58 - \$3.93 for diesel.

<sup>&</sup>lt;sup>52</sup> See *Gasoline Explained: Gasoline Price Fluctuations*, U.S. Energy Information Administration, *available at* <a href="https://www.eia.gov/energyexplained/index.php?page=gasoline\_fluctuations">https://www.eia.gov/energyexplained/index.php?page=gasoline\_fluctuations</a>

<sup>&</sup>lt;sup>53</sup> See *Short-Term Energy Outlook*, U.S. Energy Information Administration, *available at* <a href="https://www.eia.gov/outlooks/steo/">https://www.eia.gov/outlooks/steo/</a>

<sup>&</sup>lt;sup>54</sup> See *Weekly Retail Gasoline and Diesel Prices*, U.S. Energy Information Administration, Petroleum & Other Liquids (Sept. 18, 2017), *available at <a href="http://www.eia.gov/dnav/pet/pet\_pri\_gnd\_dcus\_r50\_a.htm">http://www.eia.gov/dnav/pet/pet\_pri\_gnd\_dcus\_r50\_a.htm</a>* 

<sup>&</sup>lt;sup>55</sup> *Id*.

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Fuel costs are prone to fluctuations because of the volatility of fuel prices due to political, social, and economic concerns. Such volatility makes predicting the cost of fuel over an extended historical time difficult. As a result, SDG&E uses a five-year historical average.

ORA accepts SDG&E's incremental increase of \$0.349 million in fuel cost to account for the new fuel tax. <sup>56</sup> However, "ORA does not agree with SDG&E's proposed \$144,000 increase due to [62] incremental vehicles." ORA did not contest the addition of at least 40 incremental vehicles requested at the respective operating witness level. Therefore, ORA should accept the associated fuel costs of at least, the 40 uncontested incremental vehicles which as shown in Table CLH-23 is at minimum \$0.097 million. <sup>58</sup> As such, SDG&E request that the Commission approve SDG&E' TY 2019 forecast of fuel costs of \$6.740 million.

Table CLH-23
Incremental Fuel Cost Impact of Non-Contested Vehicles

	2016			
	Average			
Average Gallons	1040			
Price Per Gallon	2017	2018	2019	
The ref Ganon	\$2.34	\$2.60	\$2.79	
	W.Y.			
<b>Incremental Fleet for Business Needs</b>	Year			
				Total
SDG&E Organization	2017	2018	2019	Units
TOTAL INCREMENTAL UNITS =	19	8	13	40
<b>Incremental Fuel Costs for Business</b>				
Needs Gallons				
	2017	2018	2019	
+19 vehicle adds (1/2 year in 2017, all of				
2018-'19)	9,880	19,760	19,760	

<sup>&</sup>lt;sup>56</sup> Ex. ORA-18 (Waterworth) at 12.

<sup>&</sup>lt;sup>57</sup> *Id*.

<sup>&</sup>lt;sup>58</sup> For more information please see: Ex. SDG&E-04-R (Orozco-Mejia); Ex. SDG&E-09-R (Haines); Ex. SDG&E-06 (Musich); Ex. SDG&E-17-R (Marelli); Ex. SDG&E-18 (Stewart); Ex. SDG&E-25 (Worden).

+8 vehicle adds (1/2 year in 2018, all of 2019)	-	4,160	8,320	
+13 vehicle adds (1/2 year in 2019)	1	-	6,760	
TOTAL GALLONS	9,880	23,920	34,840	
FUEL COSTS FOR INCREMENTAL UNITS (\$000)	\$ 23	\$ 62	\$ 97	

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#### b. **TURN**

**Table CLH-24 Maintenance Operations Costs (\$000)** 

Maintenance Operations	SDG&E TY 2019	TURN	Variance
Maintenance Operations	\$12,062	\$11,179	(\$883)
Automotive Fuels	\$6,740	\$6,251	(\$489)
Total	\$18,802	\$17,430	(\$1,372)

TURN supports ORA's recommendation for a forecast of \$17.430 million for Maintenance Operations, which is \$1.372 million or 7% less than SDG&E's request of \$18.802 million.<sup>59</sup> TURN recommends using a three-year historical average by using the recorded years of 2014-2016 to calculate its forecast. TURN also excludes incremental funding for the backfilling of vacant positions and non-labor maintenance cost associated with incremental vehicles.

#### i. **Maintenance Operations**

SDG&E disagrees with TURN's forecast methodology as it does not fully capture the entirety of SDG&E's maintenance cost experience but rather narrowly considers the costs from the two lowest years within the past six. SDG&E provided a full response to this argument in the Section III.A.2.a.i., above.

<sup>&</sup>lt;sup>59</sup> Ex. TURN-05 (Jones) at 46-50.

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## ii. Automotive Fuels

TURN agrees with ORA's forecast for Automotive Fuels which would lead to a forecast amount of \$6.003 million. At the same time, TURN also recommends "a reduction to the [SDG&E] Automotive Fuel forecast to remove the cost of fuel that will no longer be charged under base rates using GRC funds..." which would result in a forecast amount of \$0.489 million less than SDG&E's forecast. Since TURN's recommended fuel savings reduction results in a lower amount than ORA's proposed 3-year average, SDG&E assumes TURN's recommended forecast to be \$6.251 million for Automotive fuels. SDG&E provides a full response to this argument in Section III.A.2.a.ii., above.

Additionally, SDG&E notes that TURN agrees with the ORA recommendation for vehicle Ownership Costs, which SDG&E has responded to in Section III.A.1., above. As stated in that section, under ORA's recommendation SDG&E would be unable to procure vehicle replacements, including AFVs.

## 3. Fleet Management

# Table CLH-25 Comparison of Non-Shared Fleet Management Cost (\$000)

Fleet Management	SDG&E Request	ORA	TURN
Fleet Management	\$548	\$548	\$548
Total	\$548	\$548	\$548

### a. ORA

ORA does not contest SDG&E's non-shared Fleet Management forecast. SDG&E requests the Commission adopt SDG&E's forecast of \$0.548 million.

## b. TURN

TURN does not contest SDG&E's non-shared Fleet Management forecast. SDG&E requests the Commission adopt SDG&E's forecast of \$0.548 million.

<sup>&</sup>lt;sup>60</sup> *Id*. at 48.

<sup>&</sup>lt;sup>61</sup> *Id.* at 50:4-5.

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## **B.** Shared Services O&M

## 1. Fleet Management Costs

## Table CLH-26 Comparison of Shared Fleet Management Cost (\$000)

Fleet Management	SDG&E Request	ORA	TURN
Fleet Management	\$1,616	\$1,616	\$1,616
Total	\$1,616	\$1,616	\$1,616

## a. ORA

ORA does not oppose SDG&E's shared Fleet Management forecast. <sup>62</sup> SDG&E requests that the Commission adopt SDG&E's forecast of \$1.616 million.

## b. TURN

TURN does not oppose SDG&E's shared Fleet Management forecast. SDG&E requests that the Commission adopt SDG&E's forecast of \$1.616 million.

## IV. CONCLUSION

SDG&E's requested forecast for Fleet Services is essential to the continuation of SDG&E's efforts and commitment to public and employee safety. Fleet Services is an integral part of SDG&E's ability to provide service to its customers and respond to routine and emergency situations. SDG&E's forecasts were developed using reasonable estimates and known cost drivers. ORA and TURN focus primarily on deriving lower 2019 forecasts based primarily on historical expense levels without considering SDG&E's TY2019 operational needs. ORA's and TURN's reductions therefore would hinder this vital utility service function and leave it vulnerable to the effects of underfunding, which directly impacts the company's ability to provide operations and customer services safely and to meet its compliance obligations. SDG&E's forecasts were carefully developed and represent a prudent level of funding for the critical activities to take place in this GRC term in order to allow SDG&E to adhere to state and federal compliance laws and GHG reduction goals. SDG&E believes its forecast methods should be preferred and respectfully request that its funding for Fleet Services be granted.

This concludes my prepared rebuttal testimony.

<sup>&</sup>lt;sup>62</sup> Ex. ORA-18 (Waterworth) at 7.

## **APPENDIX A**

Utilimarc Industry Vehicle Turnover Report
ORA-SDGE-147-LMW-Q9
ORA-SDGE-047-LMW-Q3
TURN DR-026-Q14-LIBOR Confidential
TURN DR-026-Confidentiality Declaration
Utilimarc 2016 Industry Replacement Summary Report





# **Industry Vehicle Turnover Report**

For Sempra Utilities

June 4, 2018

## **Table of Contents**

Introduction	3
Results	4
Percent of Vehicle Replaced Between 2014 and 2015	2
Percent of Vehicle Replaced Between 2015 and 2016	5
Percent of Vehicle Replaced Between 2016 and 2017	6
Included Companies	

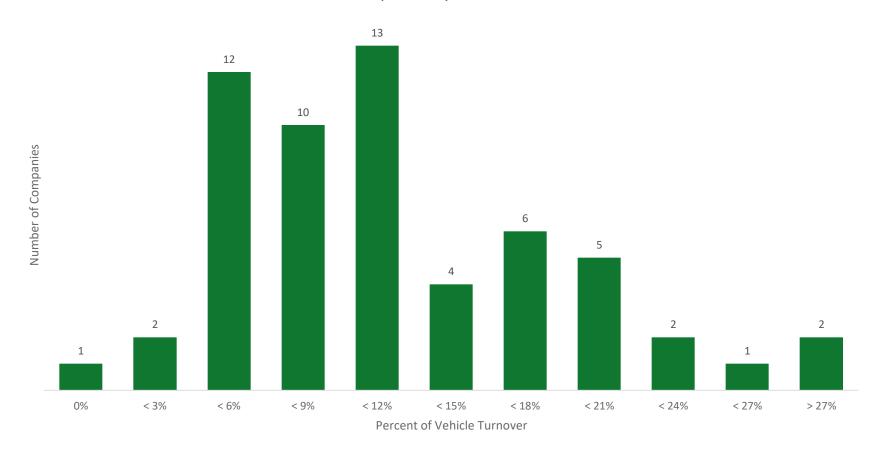
### Introduction

This report shows percent of fleet vehicles replaced year-over-year from 2014 to 2017 for an industry group of more than 50 gas and electric utility companies. This is determined by examining the unit numbers that are active as of December 31<sup>st</sup> of a given calendar year. If the unit number does not appear as active in the following calendar year, it is considered replaced. Over the three year period, the industry replaced an average of 10.69% of fleet vehicles each year.

### **Results**

### Percent of Vehicle Replaced Between 2014 and 2015

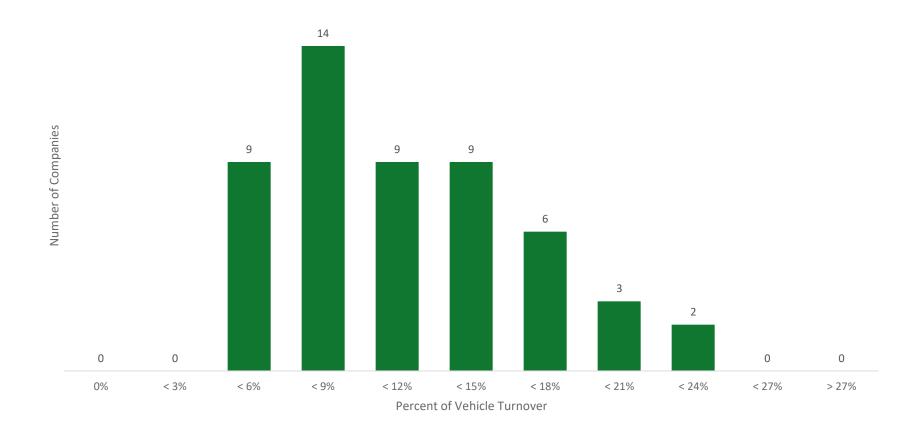
Distribution of Companies by Fleet Turnover 2014-2015



13 Companies reported vehicle turnover between 9% to 12% of fleet between 2014 and 2015.

### Percent of Vehicle Replaced Between 2015 and 2016

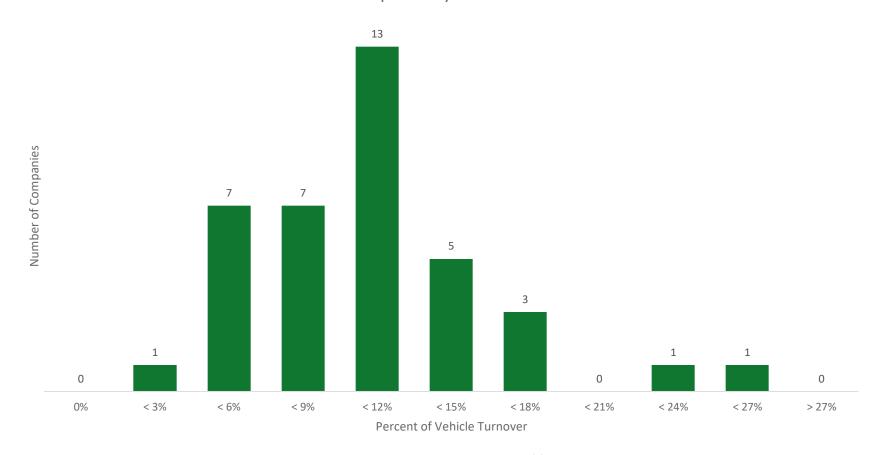
# Distribution of Companies by Fleet Turnover 2015-2016



14 Companies reported vehicle turnover between 6% to 9% of fleet between 2015 and 2016.

### Percent of Vehicle Replaced Between 2016 and 2017

### Distribution of Companies by Fleet Turnover 2016-2017



13 Companies reported vehicle turnover between 9% to 12% of fleet between 2016 and 2017.

### **Included Companies**

- AEP
- Alliant
- Ameren-AIC
- Ameren-Missouri
- APS
- AVANGRID
- Avista
- BCH
- BHE-MidAmerican
- BHE-PacifiCorp
- CCPUD
- Coned
- Consumers
- DTE
- Duke Energy-Carolinas East
- Duke Energy-Carolinas West
- Duke Energy-Florida
- Duke Energy-Midwest
- East Kentucky Power Cooperative
- El Paso Electric

- Entergy
- Exelon-BG&E
- Exelon-ComEd
- Exelon-PECO
- Exelon-PHI
- FPL
- Henkels & McCoy Group
- Idaho Power
- Indianapolis P&L
- JEA-JEA-Electric
- JEA-JEA-Water
- LADWP
- LGE-KU-Kentucky
- LGE-KU-Louisville
- MN Power
- National Grid
- Northwestern
- NV Energy-NPC
- NV Energy-SPPC
- NW Natural

- OGE
- Oncor
- PG&E
- PNM
- Portland General
- PPL
- PSEG
- SCANA
- SoCalGas
- SMUD
- SoCalEd
- Southern Co-MPC
- SRP
- TVA
- TEP
- UES
- WEC-Integrys
- WEC-We Energies
- Westar
- Xcel

# ORA DATA REQUEST ORA-SDGE-147-LMW SDG&E 2019 GRC – A.17-10-007

# SDG&E RESPONSE

DATE RECEIVED: MARCH 1, 2018 DATE RESPONDED: MARCH 16, 2018

- 9. Based on review of the number of vehicles acquired in response to data request ORASDG& E-047 Q.1c., ORA noted the vehicles acquired from 2012 (196), 2013 (321), 2014 (143), 2015 (29), and 2016 (99) however, amortization expense was relatively flat and in a decreasing from 2012 (\$10.2 million) to 2016 (\$8.3 million). Based on this please provide/answer following:
  - a. An explanation why amortization expense can remain relatively flat in a decreasing trend pattern over successive years despite variation in the number of vehicles acquired.
  - b. An explanation as to why SDG&E's forecast from 2017 to 2019 increases by almost 52% in light of amortization historically not experiencing such substantial increases despite variation in vehicle acquisition.
  - c. An explanation why the amount in 2014 of units (143), per SDG&E's response does not match the number of units in the previous rate case testimony as noted in Q.6 above.

#### SDG&E Response 09:

- a. Amortization is based on the total lease balance that fluctuates month to month, and year to year. As new vehicles are placed into service and added to the lease, the lease balance increases and so does amortization. This increase is counter-balanced with aging-vehicles that have small balances or are paid off and reduce the lease balance and subsequently reduce amortization.
- b. As SDG&E's fleet continues to age, some vehicles being replaced due to age, mileage, condition, or compliance requirements are no longer on any lease and thus have \$0 amortization; as an example, when a passenger sedan on a 5-year term lease replaces a \$0 amortization vehicle the amortization could jump from \$0 to \$5,600 per year. Based on the 2012-2017 data, SDG&E has seen increases of 13% from 2016 to 2017. SDG&E forecasts replacement of a large volume of ATCM required compliance vehicles, of which 97% do not currently have a lease balance, and thus \$0 amortization.
- c. The Fleet management database is dynamic and evergreen. As an example, as vehicles are placed into service or vehicles retire, the data is updated to reflect the most accurate information available, and as such the data does not remain static as data is updated and changes over time. Further, the database querying methodology for the 2016 General Rate Case data responses are not available; as such the methodologies from this data request response might vary from previous data request responses.

# ORA DATA REQUEST ORA-SDGE-047-LMW SDG&E 2019 GRC – A.17-10-007

# SDG&E RESPONSE

DATE RECEIVED: DECEMBER 6, 2017 DATE RESPONDED: DECEMBER 20, 2017

- 3. Referring to SDG&E's testimony Pg. CLH-8 Line 9-10, ORA noted: (2) \$4.929 million (or 26%) of the 2019 amortization forecast total (note: questions will also pertain to other costs as well) is state mandated (ATCM) replacements. Based on this, please answer/provide the following:
  - a. A list of the new vehicles (subject to this mandate) broken out by year (2017-2019), by vehicle type, and expected cost per vehicle.
  - b. For each vehicle type the associated amortization, interest, salvage, license fees, and sales tax that ties to the 2017-2019 forecast.
  - c. Typically are the new vehicles more expensive than the replaced vehicles? If yes, on average by how much?
  - d. A list of vehicles, by year (forecast 2017-2019), by type, and their representative age that are being replaced by these new vehicles.
  - e. Will the purchase of these new vehicles increase the net size of SDG&E's fleet? If yes, by how many.
  - f. When the State mandated (ATCM) regulatory requirements start and when do they end?
  - g. For the number of vehicles in SDG&E's fleet subject to this mandate, what percentage will be replaced in the forecast period that meets this mandate?
  - h. In the event SDG&E does not replace the vehicles subject to the ATCM requirements, what will the impact be on the ratepayers (e.g., fines), and the dollar amount of those impacts.

#### SDG&E Response 3:

a.

SDG&E Vehicle Types ATCM Replacements							
VEHICLE TYPES 2017 2018 2019							
3. LIGHT TRUCK & VANS	10	2	5				
4. MEDIUM DUTY TRUCK	27	9	71				
5. HEAVY DUTY TRUCK	42	42	47				
Grand Total 79 53 123							

### ORA DATA REQUEST ORA-SDGE-047-LMW SDG&E 2019 GRC – A.17-10-007 SDG&E RESPONSE

DATE RECEIVED: DECEMBER 6, 2017 DATE RESPONDED: DECEMBER 20, 2017

SDG&E Vehicle Types ATCM Currently Under Purchase Order						
VEHICLE TYPES	2017	2018	2019			
3. LIGHT TRUCK & VANS	36	0	0			
4. MEDIUM DUTY TRUCK	24	2	0			
5. HEAVY DUTY TRUCK	1	0	0			
<b>Grand Total</b>	61	2	0			

During the process of preparing this data request, SDG&E discovered an error in the vehicle counts listed in SDG&E-21 workpaper 1FS0001.001 pages 6-7 and page 12 and 1FS001.002, page 18. The workpaper incorrectly omitted the ATCM vehicles currently under purchase order. The workpaper will be corrected at the next opportunity. See detailed list of vehicles subject to ATCM compliance replacement with information requested in table ORA-SDGE-047-LMW-DATA, tab ORA\_3A\_Detail (attached). Age is listed in months at the time of the forecast, YE 2016. Please note that the costs indicated in this category also include units currently under purchase order that are subject to ATCM compliance replacement.

- b. The forecast model does not break-out the amortization, interest, salvage, license fees, and sales tax by vehicle type. The forecast model provides forecast in each of the presented groupings listed in the workpapers SDG&E-21 1FS001.001 1FS001.006; ATCM required replacements, incremental vehicles for business needs, AFV premium, and existing vehicle replacements due to replacement criteria being met.
- c. Yes, new vehicles are replacing assets that are on average 12 years old and fully amortized; as a result, new vehicles will be more expensive than the vehicles they are replacing. New vehicles in the ATCM category are on average \$29,158, or 39%, more expensive than the most recently purchased comparable vehicle of the type that is being replaced. Please see additional detail in table ORA-SDGE-047-LMW-DATA, tab ORA\_3A\_Detail (attached). Age is listed in months at the time of the forecast, YE 2016.
- d. See detailed list of vehicles subject to ATCM compliance replacement with information request in table ORA-SDGE-047-LMW-DATA, tab ORA\_3A\_Detail (attached). Age is listed in months at the time of the forecast, YE 2016.
- e. No, these replacements are 1 for 1.

### ORA DATA REQUEST ORA-SDGE-047-LMW **SDG&E 2019 GRC – A.17-10-007 SDG&E RESPONSE**

DATE RECEIVED: DECEMBER 6, 2017 DATE RESPONDED: DECEMBER 20, 2017

### **SDG&E** Response 3 Continued:

f. The first ATCM compliance deadline was January 1, 2012 for engine model year 2006 and older. ATCM regulations have continued adding additional engine model years subject to compliance where all diesel engines must comply with ATCM regulations in January 1, 2023. See ARB Truck and Bus Regulation Compliance Requirements Summary last updated August 29, 2014 for additional detail

https://www.arb.ca.gov/msprog/onrdiesel/documents/tbfinalreg.pdf

- g. SDG&E intends to fully comply with ATCM requirements and replace 100% of vehicles subject to ATCM compliance.
- f. All non-compliant vehicles must be out of service by the compliance deadlines. If these vehicles are not replaced, SDG&E cannot legally operate these vehicles which, in turn, will impact SDG&E crews' ability to complete work in the field. SDG&E could also face fines and/or criminal penalties for noncompliance. See https://www.arb.ca.gov/diesel/tru/documents/fag.pdf for a list of potential fines.

	Confidential and Protected Materials Pursuant to PUC Section 583, GO 66-D, and D.17-09-023. Confidential information has been shaded in gray.								
	TURN_DR-026-Q14a-LIBOR - Global Insights Jan 2017								
Quarter	RMEUROD3M	Adjust for 30 Day LIBOR	1-Month LIBOR	Average LIBOR for YEAR	<b>Contractual Spread</b>	<b>Total Rate</b>			
2017:1		-0.010%							
2017:2		-0.010%							
2017:3		-0.010%							
2017:4		-0.010%							
2018:1		-0.010%		70.4					
2018:2		-0.010%							
2018:3		-0.010%				<i>4</i>			
2018:4		-0.010%							
2019:1	3	-0.010%							
2019:2		-0.010%							
2019:3		-0.010%							
2019:4		-0.010%							

# BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

# DECLARATION OF CARMEN L. HERRERA REGARDING CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS PURSUANT TO D.17-09-023

#### I, Carmen L. Herrera do declare as follows:

- 1. I am Director of Support Services for Southern California Gas Company (SoCalGas). I have been delegated authority to sign this declaration by Michael M. Schneider. I have reviewed the confidential information included within (1) TURN\_DR-026-Q1-Cash Flow Model SDGE, (2) TURN\_DR-026-Q1-Cash Flow Model SoCalGas, (3) TURN\_DR-026-Q8a-Lease Agreement, (4) TURN\_DR-026-Q8c-New Lease Agreement RFP Recommendation, (5) TURN\_DR-026-Q8f-New Lease Agreement (6) TURN\_DR-026-Q14-LIBOR, (7) TURN\_DR-026-LIBOR 2018, (8) TURN\_DR-Q26-ORA-3A (the "Fleet Expenses Data Request"). I am personally familiar with the facts in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or information and belief.
- 2. I hereby provide this Declaration in accordance with Decision ("D.") 17-09-023 and General Order ("GO") 66-D to demonstrate that the confidential information ("Protected Information") provided in NGV Stations Data Request is within the scope of data protected as confidential under applicable law.
- 3. In accordance with the narrative justification described in Attachment A, the Protected Information should be protected from public disclosure.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge.

Executed this 27th day of March, 2018, at Los Angeles, CA.

Carmen Herrera

**Director of Support Services** 

# **ATTACHMENT A**

# SoCalGas Request for Confidentiality on the following information in its response to TURN Data Request

<b>Location of Protected</b>	Legal Citations	Narrative Justification
Information		
Information The following documents a for the following data request are confidential: (1) TURN_DR-026-Q1-Cash Flow Model SDGE, (2) TURN_DR-026-Q1-Cash Flow Model SoCalGas, (3) TURN_DR-026-Q8a-Lease Agreement, (5) TURN_DR-026-Q8f-New Lease Agreement The information shaded in gray for the following data requests is confidential: (4) TURN_DR-026-Q8c-New Lease Agreement RFP Recommendation, (6) TURN_DR-026-Q14-	Gov't Code § 6254(k)  ("Records, the disclosure of which is exempted or prohibited pursuant to federal or state law"). See, e.g., D.11-01-036, 2011  WL 660568 (2011)  (agreeing that confidential prices and contract terms specifically negotiated with a program vendor is proprietary and commercially sensitive and should remain confidential).  Gov't Code § 6254.7(d) (trade secrets)  Evid. Code § 1060 (trade	The following documents entitled, (1) TURN_DR-026-Q1-Cash Flow Model SDGE, (2) TURN_DR-026-Q1-Cash Flow Model SoCalGas, (3) TURN_DR-026-Q8a- Lease Agreement, (5) TURN_DR-026-Q8f- New Lease Agreement contain confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The identified confidential information is protected by confidentiality clauses within contracts between SoCalGas and third-party vendors. The confidential information contained in these documents includes vendor pricing information which is proprietary. The proprietary information contains commercially-sensitive trade secrets and content not intended for public disclosure. Public disclosure would pose potential negative impacts and/or competitive harm.
New Lease Agreement RFP Recommendation, (6)	(trade secrets)	disclosure. Public disclosure would pose potential negative impacts and/or
	Gov't Code § 6254.15 (disclosure not required for "corporate financial records, corporate proprietary information").	competitive pricing, and the ability to secure optimal terms with third parties.  The data that is shaded in gray in the documents entitled, (4) TURN_DR-026-Q8c-New Lease Agreement RFP Recommendation, (6) TURN_DR-026-Q14-LIBOR, (7) TURN_DR-026-LIBOR 2018, (8) TURN_DR-Q26-ORA-3A cannot be disclosed as this data is proprietary, and represents and contains
		proprietary, commercially sensitive, trade secrets, and content not intended for public disclosure. SoCalGas derives economic

value from it not being generally known to the public and uses reasonable efforts to maintain the secrecy of this information. Such trade secrets may not be used or disclosed except under appropriate precautions to maintain the confidentiality hereof, and may not be used in any way not expressly authorized by SoCalGas as it could cause substantial harm to SoCalGas and ultimately the ratepayers.

Further, SoCalGas' vendors engage in efforts which involve communications and work product which is intended only for access by designated members. Public disclosure would pose potential negative impacts and/or harm to SoCalGas, its vendors, and/or the ratepayers.

Market-sensitive lease cost and term information, if disclosed could provide market participants and SoCalGas/SDG&E's competitors with insight into SoCalGas/SDG&E's real estate, facilities and fleet activities, plans, and strategies, which would place SoCalGas/SDG&E at an unfair business disadvantage. This could ultimately result in increased cost to core ratepayers. If disclosed, SoCalGas/SDG&E's competitors and market participants could also derive economic value from this information.





# **2016 Industry Replacement Summary**

For LGE-KU

Presented by Utilimarc

### **Table of Contents**

Introduction	
Results	
Industry Lifecycles	
Methodology	
Lifecycle Calculations	6
Lifecycle Calculation (continued)	7
Regression Analysis	8
Index	9
Definitions	
List of Assumptions	10

#### Introduction

The Utilimarc Vehicle Replacement Module (VRM) mathematically determines when you should replace your assets. The VRM uses your historic practices to predict future ownership and maintenance cost and determines what lifecycle will guarantee the lowest total cost over the life of the asset. This calculation is built on the following variables:

- Historic Maintenance Cost (including Parts, Labor, Outside Vendors)
- Historic Utilization
- Historic Acquisition Cost and Residual Value
- Current Acquisition Cost

The following report presents the result of running the VRM methodology using data from across the industry. The result is a set of class specific, industry standard lifecycles.

# Results

# **Industry Lifecycles**

Class	Description (or Example)	Purchase Price	Age	Annual Mileage	Lifecycle Age	Lifecycle Range
Compact Sedan	Cavalier	\$21,786	7.20	7,112	7	5 - 8
Midsize Sedan	Camry, Malibu, Taurus, Lumina	\$25,798	7.99	9,155	5	4 - 6
Fullsize Sedan	Impala, Crown Vic	\$28,696	6.22	14,747	6	5 - 8
Hybrid Sedan	Prius, Focus Hybrid, Volt	\$28,627	5.24	9,882	7	5 - 8
Compact Pickup	1/4-ton pickup.	\$28,858	7.97	9,650	6	5 - 7
Light Duty Pickup	1/2-ton pickup.	\$33,138	5.90	14,287	7	5 - 8
Medium Duty Pickup	3/4-ton pickup.	\$40,975	6.79	12,253	6	5 - 7
Heavy Duty Pickup	1 ton pickup.	\$54,175	7.29	11,953	8	7 - 10
Compact SUV	Escape, Jeep Liberty, Blazer, Equinox	\$26,695	5.46	11,513	5	4 - 7
Midsize SUV	Explorer, Trailblazer	\$32,343	5.26	12,322	8	6 - 9
Fullsize SUV	Suburban, Tahoe, Expedition	\$48,934	7.80	11,681	9	8 - 11
Van - Passenger		\$32,107	6.57	8,879	8	7 - 10
Van - Mini Cargo	1/4-ton cargo van.	\$30,061	6.09	8,836	7	5 - 8
Van - Cargo 150	1/2-ton cargo van.	\$38,315	5.69	13,099	7	6 - 9
Van - Cargo 250	3/4-ton cargo van.	\$40,875	6.57	9,508	9	7 - 10
Van - Cargo 350	1 ton cargo van.	\$41,785	7.85	11,677	6	4 - 7
Cube Van	Cargo van with cube or box shaped body.	\$98,417	8.08	7,003	13	11 - 15
Step Van	Cargo can with a walkthrough body.	\$148,756	8.45	5,482	13	12 - 15
Dump Truck - Single	Truck with dump body, ≤ 6 yards	\$75,337	8.58	5,967	11	9 - 13
Dump Truck - Tandem	Truck with dump body, 7-15 yards	\$133,980	6.63	5,436	12	10 - 14

Class	Description (or Example)	Purchase Price	Age	Annual Mileage	Lifecycle Age	Lifecycle Range
LD Service Truck	Truck with service body, < 20,000 GVW	\$70,981	7.41	11,385	6	5 - 8
MD Service Truck	Truck with service body, 20,000 - 30,000 GVW	\$134,163	7.64	5,957	16	14 - 18
HD Service Truck	Truck with service body, > 30,000 GVW	\$169,837	7.53	6,228	14	12 - 16
Stake Truck	Truck with flatbed or stake body.	\$112,598	8.56	7,818	12	10 - 13
Light Duty Aerial	Bucket Truck < 26,000 GVW	\$136,411	5.24	17,531	6	4 - 7
Medium Duty Aerial	Bucket Truck > 26,000 GVW and < 33,000 GVW	\$197,031	7.52	12,137	9	8 - 11
Heavy Duty Aerial	Bucket Truck > 33,000 GVW and < 55,000 GVW	\$228,179	7.45	9,101	12	10 - 14
Super Heavy Duty Aerial	Bucket Truck > 55,000 GVW	\$357,801	5.72	6,392	10	8 - 11
Diggers, Derricks	Digger Derrick < 55,000 GVW	\$275,520	8.58	6,332	14	12 - 16
Super HD Diggers, Derricks	Digger Derrick > 55,000 GVW	\$327,564	6.60	5,263	14	12 - 16
Semi-Tractor - Tandem		\$156,330	8.74	19,070	10	8 - 12
Mobile Crane		\$257,407	9.06	5,084	15	13 - 18

# Methodology

### **Lifecycle Calculations**

For each class, Utilimarc's Vehicle Replacement Module (VRM) predicts future ownership and maintenance cost and determines what lifecycle achieves the lowest total cost over the life of the asset. This is done by calculating the annualized total cost of a variety of lifecycle scenarios. As an example, the table below shows the annualized cost for the possible lifecycles of a typical light duty pickup truck.

Lifecycle Age	<b>Total Annualized Cost</b>	Deviation
1	\$7,811	34.4%
2	\$7,121	22.6%
3	\$6,613	13.8%
4	\$6,251	7.6%
5	\$6,010	3.5%
6	\$5,869	1.0%
7	\$5,810	0.0%
8	\$5,821	0.2%
9	\$5,892	1.4%
10	\$6,015	3.5%
11	\$6,183	6.4%
12	\$6,391	10.0%
13	\$6,636	14.2%
14	\$6,913	19.0%

### **Lifecycle Calculation (continued...)**

Consider the following three replacement scenarios for our light duty pickup truck over a 14-year financial period:

Scenario 1: A fleet manager plans to replace this vehicle every year. The annualized cost of this replacement strategy is \$7,811. Over the 14 year period, this replacement strategy will cost fleet  $14 \times $7,811 = $109,354$ .

Scenario 2: A fleet manager plans to replace this vehicle every seven years. The annualized cost of this replacement strategy is \$5,810. Over the 14 year period, this replacement strategy will cost fleet  $14 \times 5,810 = $81,340$ .

Scenario 3: A fleet manager plans to replace this vehicle every fourteen years. The annualized cost of this replacement strategy is \$6,913. Over the 14 year period, this strategy will cost fleet  $14 \times $6,913 = $96,768$ 

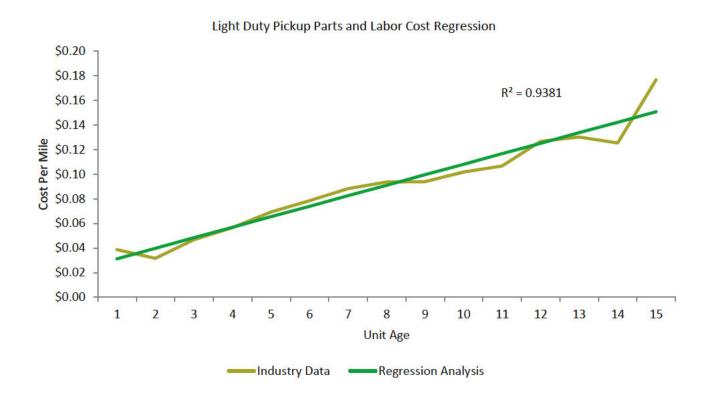
The table below summarizes the calculations in the previous example.

	<b>Chosen Replacement Age</b>	Financial Period (Years)	<b>Annualized Cost</b>	<b>Total Ownership Cost For Financial Period</b>
Scenario 1	1	14	\$7,811	\$109,354
Scenario 2	7	14	\$5,810	\$81,340
Scenario 3	14	14	\$6,913	\$96,768

This example illustrates that minimizing total annualized cost achieves the lowest total cost of ownership over the life of the vehicle. Utilimarc recommends replacing units within 1.0% of the true lowest cost of ownership. This generally provides a three-year range for replacement, which allows for flexibility when planning replacement without dramatically effecting overall cost.

### **Regression Analysis**

The VRM predicts future maintenance costs using vehicle class specific linear regressions. A regression model is built for each vehicle class based on historical, maintenance data from the Utilimarc database. The following example was built from historical industry data. It shows the total parts and labor regression for light duty pickup trucks.



These regressions work in conjunction with an aging model that simulates changes in fleet mix over time. Together, these models can accurately predict future costs, labor hour demand and much more.

#### Index

#### **Definitions**

**Lifecycle** is the age at which a unit is prepared for replacement. This is typically stated as an age or limit on lifetime mileage. This analysis relies primarily on age when determining whether or not to replace a unit.

**Labor Hour Demand** is the amount of labor hours needed to support a unit over a period of time. This includes labor hours handled internally or by an outside vendor.

**Ownership Cost** is the cost associated with owning a unit over time. This analysis interprets ownership cost as the difference between the sale value of a unit in the current year and the sale value of the same unit in the previous year.

**Maintenance Cost** is the cost to actively use a unit over time. This includes the cost of parts and repairs handled internally or by an outside vendor. For this analysis, fuel is not included as a maintenance cost.

*Total Cost* is the sum of Maintenance and Ownership cost.

**Capitol Investment** is the amount spent on purchasing a new unit. This includes all costs to put the unit into service.

**Residual Value** is the amount received for the sale of a unit, expressed as a percent of the original purchase price.

### **List of Assumptions**

The following is a short list of important assumptions made by the model, provided for your reference and information:

- Inflation is included on all future costs, set by default to 3%.
- The ownership cost of each asset is establish based on a fixed rate depreciation schedule. Each asset is assumed lose 17% of its book value each year.
- Annual mileage is assumed to be consistent among all vehicles of a given class. No adjustments in annual mileage are made based on the vintage of the unit.

# **APPENDIX B**

Errata Changes - SDGE Testimony Log Template CLH SDGE-21 ERRATA SDGE Amortization Supplemental

# SCG 2019 GRC Testimony Revision Log – June 2018

Exhibit	Witness	Dago	Line or Table	Revision Detail
EXIIIDIL	withess	Page	Table	
				This supplemental workpaper has been
				amended to update the number of units in
				each of the following categories; New Fleet
				Units for Replacements; Alternative Fuel
				Vehicles (AFV) Vehicles; Airborne Toxic
				Control measures (ATCM) Vehicles: See
				SDG&E-21-SMFS-CLH-1FS001.001
				Amortization (updated) included in this
SDGE-21-WP	Fleet & Facilities	12		appendix.
SDGE-21-R	Fleet & Facilities	CLH-13	11	Replace 255 vehicles, with 318 vehicles.

#### SDG&E-21-SMFS-CLH-1FS001.001 Amortization (updated)

Amortization	Year						
		2017		2018		2019	Total
Current Fleet	\$	10,052,979	\$	10,279,188	\$	9,501,385	\$ 29,833,552
Fleet Replacements 2017 through 2019	\$	475,559	\$	1,671,562	\$	3,133,384	\$ 5,280,505
Incremental Fleet for Business Needs	\$	91,733	\$	252,667	\$	383,933	\$ 728,333
Incremental Fleet for Business Needs Fueling our Future (FOF) 250	\$	4,133	\$	8,267	\$	8,267	\$ 20,667
Premium for Alternative Fuel Vehicle (AFV) Replacements	\$	210,847	\$	503,833	\$	676,333	\$ 1,391,013
Airborne Toxic Control Measures (ATCM) Vehicles	\$	1,463,205	\$	3,237,524	\$	4,928,976	\$ 9,629,705
TOTAL AMORTIZATION =		\$12,298,456		\$15,953,041	\$	18,632,278	\$ 46,883,775

Fleet Replacements (CORRECTED)	Year			
	2017	2018	2019	<b>Total Units</b>
Fleet Replacements 2017 through 2019	108	188	218	514
Alternative Fuel Vehicles (AFV)	93	58	66	217
Airborne Toxic Control Measures (ATCM) Vehicles	140	55	123	318
TOTAL REPLACEMENT UNITS =	341	301	407	1,049

Incremental Fleet for Business Needs		Year		
SDG&E Organization	2017	2018	2019	<b>Total Units</b>
Gas Distribution	2	0	0	2
Gas Transmission	4	20	2	26
Electrical Distribution O&M	0	0	0	0
Customer Service Field	9	4	6	19
Customer Services- Office Operations	7	0	6	13
Customer Services- Office Operations Fueling our Future (FOF)250	2	0	0	2
TOTAL INCREMENTAL UNITS =	24	24	14	62