BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U 902 E) for Approval of its 2019 Electric Sales Forecast, Effective on January 1, 2019.

Application: 18-03-___
Exhibit No: _____

PREPARED DIRECT TESTIMONY OF

KENNETH E. SCHIERMEYER

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

CHAPTER 1

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

March 1, 2018

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I. INTRODUCTION AND PURPOSE

The purpose of this testimony is to present San Diego Gas & Electric Company's ("SDG&E") Test Year ("TY") 2019 electric sales forecast. SDG&E's proposal to update the electric sales forecast beyond the approved 2019 test-year (for years 2020, 2021 and 2022) will be provided in its upcoming 2019 General Rate Case ("GRC") Phase 2 application, which will be filed on December 1, 2018.[1]

My testimony is organized as follows:

- **Section II –** Forecast of TY 2019 Electric Sales.
- **Section III –** Update to Sales Forecast Drivers: Describes the sources and development of the electric sales forecast.
- **Section IV –** TY 2019 Monthly Rate Schedule Forecast: Describes the process that splits the annual electric sales forecast into monthly rate schedule forecasts on a net and delivered basis. The monthly rate schedule breakout of the electric sales forecast is used by SDG&E witness Jeffrey Shaughnessy (Chapter 2) for use in the rate design process.
- **Section V –** Conclusion.
- **Section VI -** Witness Qualifications.

My testimony also contains the following attachments:

[1] SDG&E's current GRC cycle is three years, with one test year and two attrition years. In SDG&E's pending TY 2019 GRC Phase 1 application (A.17-10-007), SDG&E has proposed a four-year GRC cycle (2019-2022). The issue of the length of the GRC cycle also is currently pending in Commission Rulemaking 13-11-006.

- **Attachment A –** CEC 2017 CED Consumption Table.
- **Attachment B –** CEC 2017 CED Private Supply Table.
- **Attachment C –** CEC AAEE Table.

II. FORECAST OF TY 2019 ELECTRIC SALES

SDG&E requests that the Commission approve the forecast of electric sales for SDG&E's TY 2019, as presented in this testimony. Table KS-1 sets forth the forecast of energy sales for SDG&E's electric customers.

TABLE KS-1:
TY 2019 ANNUAL ELECTRIC SALES (GWh)

Sector	**TY 2019**
Residential	6,221
Non-Residential	12,128
Total	**18,349**

Table KS-2 compares the electric sales approved in SDG&E's TY 2016 GRC Phase 2 (for 2018[2]) with the TY 2019 electric sales presented in this testimony.

TABLE KS-2
COMPARISON OF ANNUAL ELECTRIC SALES (GWh)

Sector	**2018**	**TY 2019**	**Difference**	**% Difference**
Residential	6,608	6,221	-387	-5.9%
Non-Residential	12,795	12,128	-667	-5.2%
Total	**19,403**	**18,349**	**-1,054**	**-5.4%**

[2] SDG&E's TY 2016 GRC Phase 2 presented TY 2016 with attrition years for 2017 and 2018. The authorized sales forecast for 2018 was implemented on December 1, 2017.

The basis for the 2019 electric sales forecast versus the electric sales forecast submitted in the TY 2016 GRC Phase 2 Application is discussed in Section III.

III. SALES FORECAST DRIVERS

The electric sales forecast presented in Table KS-1 is based on the latest California Energy Commission's ("CEC") California Energy Demand ("CED") forecast adopted February 21, 2018. SDG&E's TY 2019 Sales Forecast is based on the CEC's adopted 2017 mid-demand forecast ("CED 2017") (included as Attachment A to this testimony), which includes the impacts of the CEC's Private Supply (included as Attachment B to this testimony) and Additional Achievable Energy Efficiency ("AAEE") (included as Attachment C to this testimony). The TY 2019 sales forecast is an update from the TY 2016 GRC Phase 2 sales forecast, which was based on the CEC's adopted 2015 mid-demand forecast ("CED 2015") and which also included impacts of the CEC's private supply and AAEE. Forecasts of electric sales are derived from CEC data as follows:

- Electric Consumption
- Less: AAEE (Future Impacts of Energy Efficiency Programs)
- Equals: Managed Consumption
- Less: Private Supply (Self-Generation, e.g. PV)
- Equals: Electric Sales

A summary of the electric sales derivation for this TY 2019 Sales Forecast is detailed in Table KS-3.

TABLE KS-3:
ELECTRIC SALES FORECAST DERIVATION, TOTAL SYSTEM (GWh)

	TY 2019 Electric Sales
Consumption	21,537
Less: AAEE	-365
Equals: Managed Consumption	21,172
Less: Private Supply	-2,824
Equals: Sales	**18,349**

Tables KS-4, KS-5 and KS-6 compare the changes the CEC made to the components of the electric sales forecast for the total system, the residential sector and the non-residential sector, respectively.

In the most recent CEC forecast, CED 2017, managed total consumption has declined by 406 GWh and private supply has increased by 649 GWh, versus CED 2015. The two components combine to reduce the total sales forecast by 1,054 GWH or by -5.4% from 2018 to TY 2019. A comparison of the total electric sales derivation is detailed in Table KS-4.

TABLE KS-4:
ELECTRIC SALES FORECAST DERIVATION, TOTAL (GWh)

CEC Forecast	**CED 2015**	**CED 2017**		
SDG&E Application	**TY 2016 GRC Phase 2 (Year 2018)**	**TY 2019 Sales**	**Change**	**% Change**
Consumption	22,224	21,537		
Less: AAEE	646	365		

CEC Forecast	CED 2015	CED 2017		
Equals: Managed Consumption	21,578	21,172	-406	-1.9%
Less: Private Supply	-2,175	-2,824	-649	-29.8%
Equals: Sales	**19,403**	**18,349**	**-1,054**	**-5.4%**

For the residential sector, the most recent CEC forecast (CED 2017) indicates that managed consumption has increased by 118 GWh but private supply has also increased by 505 GWh, versus CED 2015. The two components offset each other somewhat, but the net result still decreases the residential sales forecast by 387 GWH or by -5.9% from 2018 to TY 2019. A comparison of the residential electric sales derivation is detailed in Table KS-5.

TABLE KS-5:
ELECTRIC SALES FORECAST DERIVATION, RESIDENTIAL (GWh)

CEC Forecast	CED 2015	CED 2017		
SDG&E Application	**TY 2016 GRC Phase 2 (Year 2018)**	**TY 2019 Sales**	**Change**	**% Change**
Consumption	7,799	7,725		
Less: AAEE	-309	-117		
Equals: Managed Consumption	7,490	7,608	118	1.6%
Less: Private Supply	-882	-1,387	-505	57.3%
Equals: Sales	**6,608**	**6,221**	**-387**	**-5.9%**

For the non-residential sector, the most recent CEC forecast (CED 2017) indicates that managed consumption has declined by 524 GWh and private supply has increased by 143 GWh,

versus CED 2015. The two components combine to reduce the non-residential sales forecast by 667 GWH or by -5.2% from 2018 to TY 2019. A comparison of the non-residential electric sales derivation is detailed in Table KS-6.

TABLE KS-6:
ELECTRIC SALES FORECAST DERIVATION, NON-RESIDENTIAL (GWh)

CEC Forecast	**CED 2015**	**CED 2017**		
SDG&E Application	**TY 2016 GRC Phase 2 (Year 2018)**	**TY 2019 Sales**	**Change**	**% Change**
Consumption	14,425	13,812		
Less: AAEE	-337	-248		
Equals: Managed Consumption	14,088	13,564	-524	-3.7%
Less: Private Supply	-1,293	-1,436	-143	11.1%
Equals: Sales	**12,795**	**12,128**	**-667**	**-5.2%**

IV. TY 2019 MONTHLY RATE SCHEDULE FORECAST

The CEC presents forecast concepts on an annual basis. However, in this proceeding, it is necessary to have the electric sales forecast be available by rate schedule and at the seasonal level. In addition, further adjustments need to be made to the sales forecast to create a net[3] and delivered[4] sales forecast basis. Monthly sales forecast information is initially derived and then aggregated to create a seasonal-level sales forecast. The additional refinements are needed

[3] Net sales represent sales with the adjustment to account for excess PV generation that occurs on a monthly basis.
[4] Delivered sales represent the sales provided to the customer that would have otherwise been netted out by excess generation on an hourly basis.

because SDG&E witness Jeffrey Shaughnessy (Chapter 2) develops electric rates at the seasonal level and using net and delivered sales.

SDG&E's historical billing-cycle data was used to split the CEC's annual forecast into monthly forecasts by rate schedule. SDG&E reports electric sales volumes in its Revenue Reporting System ("R1"), which excludes adjustments for monthly excess PV generation, i.e., negative values are excluded rather than "added in." SDG&E creates monthly rate schedule billing determinants on a net and delivered basis by adding back excess generation on a monthly and hourly basis, respectively. A comparison of the forecasted sales concepts are shown in Table KS-7.

TABLE KS-7:
COMPARISON OF R1, NET AND DELIVERED SALES (GWh)

Forecast Basis	**TY 2019**
Sales in R1 Format	**18,349**
…..*Monthly Excess Generation Adjustment*	*-138*
Net Sales	**18,211**
…..*Hourly Delivered Sales Adjustment*	*+858*
Delivered Sales	**19,069**

Monthly sales by rate schedule, along with the corresponding monthly spread factors that were applied to the CEC's annual forecast, can be found in the associated workpapers to this testimony.

V. CONCLUSION

SDG&E requests that the Commission find the TY 2019 electric sales forecast presented in this testimony to be reasonable.

This concludes my prepared direct testimony.

VI. WITNESS QUALIFICATIONS

My name is Kenneth E. Schiermeyer. My business address is 8306 Century Park Court, San Diego, California, 92123. I am employed by SDG&E as the Electric Demand Forecasting Manager in the Customer Pricing Department. My primary responsibilities include developing and coordinating forecasts of customer growth and electric energy usage.

I have held my current position since December 2013. Since 1999, I have been employed by SDG&E in various forecasting and analysis positions of increasing responsibility. From 1996 to 1999, I worked as a Computer Programmer and Project Manager for Directions in Research, Inc.

I received a Bachelor of Science degree in Economics from Truman State University in 1994 and obtained a Master of Arts degree in Economics from Western Illinois University in 1996.

I have previously testified before this Commission.

ATTACHMENT A

CEC 2017 CED CONSUMPTION TABLE

ATTACHMENT A (CEC 2017 CED CONSUMPTION TABLE)

Form 1.1 - SDGE Planning Area
California Energy Demand 2018-2030 Revised Baseline Forecast - Mid Demand Case
Electricity Consumption by Sector (GWh)

Year	Residential	Residential Electric Vehicles*	Commercial	Commercial Electric Vehicles*	Manufacturing	Mining	Agricultural	TCU	Street Lighting	Total Consumption
1990	5,421	0	5,834	0	1,627	292	240	1,370	73	14,857
1991	5,333	0	5,694	0	1,623	316	207	1,463	76	14,710
1992	5,611	0	6,199	0	1,655	329	193	1,468	76	15,531
1993	5,551	0	6,206	0	1,650	270	210	1,476	76	15,438
1994	5,731	0	6,358	0	1,634	230	232	1,508	79	15,773
1995	5,736	0	6,510	0	1,608	246	228	1,506	81	15,915
1996	5,937	0	6,863	0	1,582	248	251	1,471	82	16,434
1997	6,125	0	7,430	0	1,712	77	84	1,619	84	17,132
1998	6,319	0	7,354	0	1,829	217	216	1,586	93	17,614
1999	6,453	0	7,707	0	1,931	207	239	1,611	93	18,241
2000	6,513	0	8,286	0	1,895	137	146	1,711	96	18,784
2001	6,117	0	7,617	0	1,852	200	233	1,722	95	17,837
2002	6,328	0	7,983	0	1,749	225	233	1,659	96	18,274
2003	6,750	0	8,318	0	1,702	207	228	1,675	99	18,979
2004	7,080	0	8,963	0	1,747	176	252	1,667	105	19,989
2005	7,113	0	8,989	0	1,710	171	255	1,678	100	20,017
2006	7,537	0	9,442	0	1,691	191	315	1,806	109	21,091
2007	7,559	0	9,453	0	1,657	204	338	1,866	114	21,189
2008	7,741	0	9,708	0	1,687	197	324	1,797	113	21,568
2009	7,586	0	9,364	0	1,554	175	322	1,912	116	21,028
2010	7,376	0	8,994	0	1,501	168	313	1,953	114	20,418
2011	7,472	0	9,075	0	1,483	163	378	1,793	106	20,470
2012	7,719	0	9,305	0	1,493	175	390	1,870	101	21,052
2013	7,591	0	9,356	0	1,442	168	358	1,889	93	20,896
2014	7,670	0	9,804	0	1,458	165	349	1,892	94	21,433
2015	7,682	62	9,830	9	1,508	161	315	1,935	90	21,520
2016	7,553	86	9,595	18	1,375	388	310	1,836	81	21,138
2017	7,546	117	9,357	30	1,368	393	314	1,845	81	20,903
2018	7,637	150	9,577	46	1,369	396	315	1,855	81	21,230
2019	7,725	189	9,784	71	1,368	399	316	1,865	81	21,537
2020	7,841	233	10,003	108	1,358	399	318	1,874	81	21,873
2021	7,985	278	10,196	151	1,357	398	319	1,882	81	22,218
2022	8,201	328	10,514	203	1,368	401	323	1,890	81	22,779
2023	8,396	382	10,718	255	1,371	403	325	1,900	81	23,194
2024	8,595	436	10,905	302	1,367	403	327	1,908	81	23,587
2025	8,781	491	11,066	350	1,365	402	330	1,916	81	23,941
2026	8,945	524	11,187	385	1,365	401	331	1,924	81	24,235
2027	9,107	559	11,281	423	1,366	400	333	1,931	81	24,499
2028	9,274	600	11,363	463	1,368	400	335	1,938	81	24,760
2029	9,453	645	11,424	507	1,370	400	337	1,944	81	25,009
2030	9,642	698	11,480	554	1,370	400	339	1,951	81	25,262

* Residential and commercial electric vehicle consumption included in residential and commercial totals.
Last historic year is 2016. Consumption includes self-generation.

Annual Growth Rates (%)

1990-2000	1.85%	--	3.57%	--	1.53%	-7.26%	-4.81%	2.25%	2.71%	2.37%
2000-2016	0.93%	--	0.92%	--	-1.98%	6.70%	4.80%	0.44%	-1.04%	0.74%
2016-2020	0.94%	28.42%	1.05%	56.75%	-0.31%	0.71%	0.63%	0.52%	0.00%	0.86%
2016-2030	1.76%	16.16%	1.29%	27.75%	-0.03%	0.22%	0.64%	0.44%	0.00%	1.28%

ATTACHMENT B

CEC 2017 CED PRIVATE SUPPLY TABLE

ATTACHMENT B (CEC 2017 CED PRIVATE SUPPLY TABLE)

Form 1.7a - SDGE Planning Area
California Energy Demand 2018-2030 Revised Baseline Forecast - Mid Demand Case
Private Supply by Sector (GWh)

Year	Residential	Commercial	Manufacturing	Mining	Agricultural	TCU	Total Consumption
1990	0	171	203	0	0	86	460
1991	0	157	217	0	0	90	465
1992	0	146	213	0	0	77	437
1993	0	149	199	0	0	54	403
1994	0	146	190	0	0	56	392
1995	0	148	192	0	0	52	392
1996	0	152	180	0	0	57	389
1997	0	150	181	0	0	54	384
1998	0	142	171	0	0	53	366
1999	0	137	124	0	0	68	328
2000	0	141	126	0	0	92	359
2001	1	125	154	0	0	94	373
2002	3	281	157	0	1	85	525
2003	5	330	186	0	0	93	614
2004	8	434	204	0	0	90	736
2005	11	485	205	0	0	102	803
2006	15	513	195	0	1	130	854
2007	20	592	171	0	1	130	913
2008	26	616	188	0	1	93	923
2009	36	611	168	0	4	97	916
2010	60	605	164	0	6	98	933
2011	86	639	148	0	11	70	955
2012	121	630	153	0	12	110	1,027
2013	189	666	159	0	13	112	1,139
2014	323	713	144	0	15	122	1,317
2015	530	748	144	0	17	162	1,602
2016	861	802	131	0	19	155	1,969
2017	1,074	866	139	0	20	176	2,275
2018	1,232	1,005	157	0	20	199	2,614
2019	1,387	1,045	162	0	21	207	2,824
2020	1,529	1,083	167	0	21	213	3,014
2021	1,653	1,123	171	0	21	219	3,189
2022	1,758	1,164	176	0	22	225	3,344
2023	1,844	1,205	181	0	22	231	3,482
2024	1,916	1,249	185	0	22	237	3,609
2025	1,977	1,295	190	0	22	243	3,727
2026	2,028	1,345	194	0	22	248	3,838
2027	2,072	1,401	199	0	22	254	3,948
2028	2,110	1,463	203	0	22	260	4,059
2029	2,146	1,533	208	0	22	265	4,175
2030	2,182	1,609	212	0	22	271	4,296

Annual Growth Rates (%)

1990-2000	--	-1.90%	-4.66%	--	--	0.69%	-2.45%
2000-2016	80.74%	11.48%	0.26%	--	--	3.30%	11.22%
2016-2020	15.42%	7.82%	6.14%	5.81%	2.42%	8.29%	11.23%
2016-2030	6.87%	5.10%	3.47%	1.90%	1.02%	4.05%	5.73%

ATTACHMENT C

CEC AAEE TABLE

ATTACHMENT C (CEC AAEE TABLE)

Scenario Number	Scenario Name	Utility	Sector	Category 1	Category 2	Conventional or Emerging	End Use	Savings Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Source
3	Mid Mid	SDG&E	Res	Codes and Standards	Appliance Standards		AppPlug	Electric Energy (GWh/year)	0.00	0.90	12.35	23.19	34.17	44.14	56.09	68.74	79.28	85.98	91.22	93.74	96.12	96.84	Navigant
3	Mid Mid	SDG&E	Res	Codes and Standards	Appliance Standards		HVAC	Electric Energy (GWh/year)	0.00	0.00	1.00	2.91	4.78	6.62	8.45	10.27	12.07	13.87	15.66	17.45	19.23	20.98	Navigant
3	Mid Mid	SDG&E	Res	Codes and Standards	Appliance Standards		Lighting	Electric Energy (GWh/year)	0.00	22.33	44.14	59.80	74.65	88.75	102.16	108.20	113.60	118.86	123.97	125.14	126.27	127.36	Navigant
3	Mid Mid	SDG&E	Res	Codes and Standards	Building Standards		WholeBlg	Electric Energy (GWh/year)	0.00	0.00	0.00	6.06	17.99	29.79	41.44	52.96	64.35	75.62	86.77	97.81	108.75	119.60	Navigant
3	Mid Mid	SDG&E	Res	Behavioral	Utility Programs		WholeBlgB	Electric Energy (GWh/year)	0.00	11.39	16.17	18.89	21.78	24.96	28.20	31.60	35.24	38.95	42.83	46.67	50.55	54.58	Navigant
3	Mid Mid	SDG&E	Res	Low Income	Utility Programs		WholeBlg	Electric Energy (GWh/year)	0.00	7.26	14.58	21.71	28.83	35.96	43.09	50.21	57.34	64.46	71.59	78.72	85.84	92.97	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Conventional	AppPlug	Electric Energy (GWh/year)	0.00	2.68	13.60	24.89	28.08	30.59	32.38	33.53	34.38	35.04	35.79	36.77	38.05	39.41	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Conventional	BldgEnv	Electric Energy (GWh/year)	0.00	0.68	1.62	2.53	3.38	4.13	4.83	5.43	5.99	6.40	6.80	7.20	7.13	6.85	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Conventional	HVAC	Electric Energy (GWh/year)	0.00	0.48	1.11	1.86	2.77	3.74	4.79	5.97	7.27	8.56	9.95	11.52	13.20	14.90	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Conventional	Lighting	Electric Energy (GWh/year)	0.00	1.83	4.29	7.33	11.41	16.88	23.61	31.24	39.63	48.30	57.15	66.08	74.95	83.69	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Conventional	WaterHeat	Electric Energy (GWh/year)	0.00	0.59	1.27	1.96	2.64	3.11	3.78	4.34	4.85	5.25	5.61	5.95	5.87	5.81	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Emerging	AppPlug	Electric Energy (GWh/year)	0.00	0.81	1.86	3.09	4.47	5.96	7.59	9.30	11.19	13.21	15.42	17.85	20.43	23.18	Navigant
3	Mid Mid	SDG&E	Res	Equipment	Utility Programs	Emerging	WholeBlg	Electric Energy (GWh/year)	0.00	1.88	5.05	6.15	7.77	9.57	11.55	13.58	15.90	18.21	20.64	23.27	26.00	28.80	Navigant
3	Mid Mid	SDG&E	Ind	Codes and Standards	Appliance Standards		Lighting	Electric Energy (GWh/year)	0.19	0.39	0.59	0.78	0.96	1.15	1.33	1.50	1.68	1.86	2.03	2.20	2.38	2.55	Navigant
3	Mid Mid	SDG&E	Ind	Codes and Standards	Appliance Standards		MachDr	Electric Energy (GWh/year)	0.00	0.00	0.16	0.40	0.62	0.81	0.97	1.11	1.23	1.34	1.44	1.53	1.62	1.71	Navigant
3	Mid Mid	SDG&E	Ind	Equipment	Utility Programs	Conventional	HVAC	Electric Energy (GWh/year)	0.00	0.18	0.31	0.42	0.51	0.56	0.59	0.62	0.64	0.66	0.66	0.67	0.67	0.68	Navigant
3	Mid Mid	SDG&E	Ind	Equipment	Utility Programs	Conventional	Lighting	Electric Energy (GWh/year)	0.00	3.72	6.91	9.19	11.23	12.29	12.74	12.49	12.56	12.70	12.56	12.43	9.66	7.24	Navigant
3	Mid Mid	SDG&E	Ind	Equipment	Utility Programs	Conventional	MachDr	Electric Energy (GWh/year)	0.00	2.35	4.09	5.40	6.44	6.97	6.76	6.60	6.66	6.72	6.77	6.85	6.93	6.96	Navigant
3	Mid Mid	SDG&E	Ind	Equipment	Utility Programs	Conventional	ProcHeat	Electric Energy (GWh/year)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	Navigant
3	Mid Mid	SDG&E	Ind	Equipment	Utility Programs	Conventional	ProcRefrig	Electric Energy (GWh/year)	0.00	0.08	0.16	0.24	0.30	0.35	0.39	0.42	0.44	0.46	0.47	0.47	0.47	0.47	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Appliance Standards		AppPlug	Electric Energy (GWh/year)	0.00	1.08	8.26	15.10	21.27	26.73	31.58	35.25	38.21	39.65	40.64	41.11	41.51	41.90	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Appliance Standards		ComRefrig	Electric Energy (GWh/year)	12.38	30.27	48.04	65.65	83.10	100.39	117.52	134.48	151.29	167.88	181.51	193.01	198.19	201.39	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Appliance Standards		HVAC	Electric Energy (GWh/year)	0.00	0.64	1.36	2.19	2.98	3.75	44.28	82.60	119.68	156.06	192.05	227.82	263.47	299.01	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Appliance Standards		Lighting	Electric Energy (GWh/year)	0.19	21.47	42.56	62.12	80.61	98.11	114.71	121.33	127.12	132.75	138.22	139.74	141.21	142.62	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Appliance Standards		MachDr	Electric Energy (GWh/year)	0.00	0.00	0.00	0.10	0.20	0.29	0.38	0.48	0.57	0.65	0.74	0.83	0.91	1.00	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Appliance Standards		WaterHeat	Electric Energy (GWh/year)	0.00	0.00	0.20	0.42	0.63	0.85	1.07	1.10	1.12	1.14	1.17	1.19	1.21	1.23	Navigant
3	Mid Mid	SDG&E	Com	Codes and Standards	Building Standards		WholeBlg	Electric Energy (GWh/year)	0.00	0.00	0.00	2.79	13.52	23.92	33.96	43.65	53.01	62.05	70.79	79.26	87.47	95.46	Navigant
3	Mid Mid	SDG&E	Com	Behavioral	Utility Programs		WholeBlgB	Electric Energy (GWh/year)	0.00	4.82	10.10	16.76	22.57	28.67	32.14	35.39	38.00	40.96	44.20	47.82	51.80	56.26	Navigant
3	Mid Mid	SDG&E	Com	SB 350 - Prop 39	Prop 39		AppPlug	Electric Energy (GWh/year)	0.87	1.71	1.89	1.94	1.88	1.85	1.80	1.73	1.65	1.57	1.51	1.47	1.45	1.42	SB350
3	Mid Mid	SDG&E	Com	SB 350 - Prop 39	Prop 39		HVAC	Electric Energy (GWh/year)	3.63	7.11	7.86	8.07	7.83	7.72	7.48	7.22	6.87	6.53	6.29	6.10	6.04	5.92	SB350
3	Mid Mid	SDG&E	Com	SB 350 - Prop 39	Prop 39		Lighting	Electric Energy (GWh/year)	6.40	12.53	13.86	14.22	13.81	13.60	13.18	12.72	12.10	11.51	11.08	10.75	10.65	10.43	SB350
3	Mid Mid	SDG&E	Com	SB 350 - Bldg Stnds	T2420119AA		WholeBlg	Electric Energy (GWh/year)	0.00	0.00	0.00	8.89	17.78	26.66	35.55	44.44	53.33	62.21	71.10	79.99	88.88	97.76	SB350
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	AppPlug	Electric Energy (GWh/year)	0.00	1.19	2.83	4.40	5.99	7.53	9.11	10.27	11.47	12.64	13.24	13.88	14.52	14.86	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	BldgEnv	Electric Energy (GWh/year)	0.00	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	ComRefrig	Electric Energy (GWh/year)	0.00	10.65	21.69	32.77	43.31	53.12	61.39	67.80	73.45	78.53	83.36	88.10	92.03	95.89	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	DataCenter	Electric Energy (GWh/year)	0.00	0.36	0.73	1.11	1.48	1.83	2.16	2.29	2.36	2.75	3.14	3.53	3.86	4.20	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	FoodServ	Electric Energy (GWh/year)	0.00	1.14	2.34	3.56	4.84	6.09	7.36	8.65	9.94	11.23	12.52	13.80	15.08	16.35	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	HVAC	Electric Energy (GWh/year)	0.00	8.00	16.34	24.74	33.27	42.14	51.22	60.75	70.24	78.33	86.41	94.71	102.82	111.27	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	Lighting	Electric Energy (GWh/year)	0.00	22.35	47.03	75.84	110.10	150.72	198.77	254.95	320.21	394.98	479.37	572.99	674.95	784.19	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	WaterHeat	Electric Energy (GWh/year)	0.00	0.14	0.31	0.50	0.70	0.92	1.16	1.44	1.75	2.08	2.43	2.81	3.21	3.67	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Conventional	WholeBlg	Electric Energy (GWh/year)	0.00	0.41	0.82	1.24	1.65	2.05	2.43	2.81	3.18	3.54	3.89	3.92	3.87	3.74	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Emerging	AppPlug	Electric Energy (GWh/year)	0.00	0.15	0.29	0.41	0.53	0.65	0.76	0.87	0.83	0.79	0.77	0.74	0.72	0.69	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Emerging	Lighting	Electric Energy (GWh/year)	0.00	0.19	0.41	0.65	0.93	1.25	1.59	1.96	2.35	2.77	3.02	3.27	3.52	3.74	Navigant
3	Mid Mid	SDG&E	Com	Equipment	Utility Programs	Emerging	WholeBlg	Electric Energy (GWh/year)	0.00	2.55	5.61	7.85	11.86	16.31	21.37	27.19	33.67	40.62	48.11	56.22	64.91	74.14	Navigant
3	Mid Mid	SDG&E	Ag	Codes and Standards	Appliance Standards		MachDr	Electric Energy (GWh/year)	0.00	0.00	0.16	0.31	0.42	0.52	0.59	0.63	0.67	0.69	0.70	0.71	0.71	0.71	Navigant
3	Mid Mid	SDG&E	Ag	Equipment	Utility Programs	Conventional	HVAC	Electric Energy (GWh/year)	0.00	0.18	0.38	0.61	0.86	1.14	1.44	1.76	2.10	2.45	2.80	3.15	3.31	3.43	Navigant
3	Mid Mid	SDG&E	Ag	Equipment	Utility Programs	Conventional	Lighting	Electric Energy (GWh/year)	0.00	0.20	0.44	0.69	0.94	1.14	1.30	1.20	1.22	1.15	0.98	0.85	0.76	0.70	Navigant
3	Mid Mid	SDG&E	Ag	Equipment	Utility Programs	Conventional	MachDr	Electric Energy (GWh/year)	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.10	0.14	0.20	0.25	0.31	0.38	0.46	Navigant
3	Mid Mid	SDG&E	Ag	Equipment	Utility Programs	Conventional	ProcRefrig	Electric Energy (GWh/year)	0.00	0.32	0.66	1.01	1.35	1.64	1.85	2.01	2.18	2.30	2.37	2.43	2.47	2.50	Navigant
3	Mid Mid	SDG&E	Ag	Equipment	Utility Programs	Emerging	Lighting	Electric Energy (GWh/year)	0.00	0.02	0.06	0.10	0.15	0.22	0.29	0.36	0.43	0.49	0.54	0.57	0.60	0.59	Navigant
3	Mid Mid	SDG&E	Stl	Equipment	Utility Programs	Conventional	Stl	Electric Energy (GWh/year)	0.00	0.56	1.21	1.96	2.81	3.79	4.91	6.17	7.58	9.14	10.85	12.70	14.70	16.84	Navigant