

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2024 General Rate Case
Application: A.22-05-015/-016 (cons.)
Exhibit: SDG&E-240

REBUTTAL TESTIMONY
OF KENNETH E. SCHIERMEYER
(ELECTRIC CUSTOMER FORECAST)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



May 2023

TABLE OF CONTENTS

I. SUMMARY OF DIFFERENCES1
II. INTRODUCTION1
 A. Cal Advocates2
 C. UCAN4
III. REBUTTAL TO CRITIQUES OF SDG&E’S ELECTRIC CUSTOMER FORECAST...4
 A. Cal Advocates6
 B. TURN.....8
 C. UCAN11
IV. CONCLUSION.....12

APPENDICES

- APPENDIX A – GLOSSARY OF TERMS
- APPENDIX B – EX. TURN-14, FIGURES 10 AND 11
- APPENDIX C – CAL ADVOCATES’ DATA REQUEST RESPONSES
- APPENDIX D – SCREENSHOTS FROM CAL ADVOCATES’ WORKPAPERS FOR EX. CA-18-E
- APPENDIX E – TURN’S DATA REQUEST RESPONSES
- APPENDIX F – SCREENSHOTS FROM TURN’S REVISED WORKPAPERS FOR EX. TURN-14, SCG-SDGE-TURN-002 ATTCH3_ERRATUM, TAB “5-RESFCASTQ”
- APPENDIX G – SCREENSHOT FROM TURN’S REVISED WORKPAPERS FOR EX. TURN-14, SCG-SDGE-TURN-002 ATTACH3_ERRATUM, TAB “11-GRCSUMMARY”

1 **REBUTTAL TESTIMONY OF**
2 **KENNETH E. SCHIERMEYER**
3 **(ELECTRIC CUSTOMER FORECAST)**

4
5 **I. SUMMARY OF DIFFERENCES**

6 **TABLE KS-1**
7 **SUMMARY OF POSITIONS¹**

RESIDENTIAL ELECTRIC CUSTOMER FORECAST			
	Base Year 2021	Test Year 2024	Average Annual % Change
SDG&E	1,329,156	1,369,484	1.0%
CAL ADVOCATES	1,329,156	1,362,436	0.8%
TURN	1,329,156	1,361,013	0.8%

8
9 The Public Advocates Office of the California Public Utilities Commission (Cal
10 Advocates) and The Utility Reform Network (TURN) do not take issue with San Diego Gas &
11 Electric Company's (SDG&E) 2024 forecast for Small Commercial, Medium/Large
12 Commercial/Industrial, Agriculture, and Lighting Electric customers, but do take issue with
13 SDG&E's Electrical Residential Forecast, with the differences shown in Table KS-1 above.

14 **II. INTRODUCTION**

15 This rebuttal testimony regarding SDG&E's request for Electric Customer Forecast
16 addresses the following testimony from other parties:

- 17 • Cal Advocates, as submitted by Maricela Sierra (Ex. CA-18-E (Sierra)),
18 dated April 2023.
- 19 • TURN, as submitted by Jaime McGovern (Exhibit TURN-14), dated
20 March 2023.
- 21 • UCAN, as submitted by Dr. Eric Charles Woychik (Ex. UCAN-01
22 (Woychik)), dated March 2023

¹ The testimony of UCAN addresses the general topic area of Electric Customer Forecast, but does not provide any alternative proposal to the forecasts proposed by SDG&E.

1 As a preliminary matter, the absence of a response to any particular issue in this rebuttal
2 testimony does not imply or constitute agreement by SDG&E with the proposal or contention
3 made by these or other parties. The electric customer forecasts contained in SDG&E's direct
4 testimony are based on the data available at the time of the General Rate Case (GRC) application
5 filing. This approach is consistent with the Rate Case Plan, which does not contemplate
6 forecasts being updated continuously.

7 The purpose of this rebuttal testimony is to address issues raised in intervenor testimony
8 regarding the residential electric customer forecasts proposed in SDG&E's direct testimony. In
9 that testimony, SDG&E proposed to develop electric customer forecasts using statistical models
10 based on economic and demographic data, seasonal patterns and other inputs that influence
11 customer growth. Economic and demographic data for this electric customer forecast are based
12 on a blend of Moody's and Global Insights forecasting services. This blended methodology was
13 adopted by the California Public Utilities Commission (Commission or CPUC) in the Test Year
14 (TY) 2019 GRC Phase 1 Decision (D.19-09-051).

15 The alternative methodology proposed by Cal Advocates and TURN for residential
16 electric customer forecast uses a historical 10-year moving average of the level of housing
17 activity from data provided by SDG&E in workpapers. Cal Advocates and TURN's proposed
18 methodology would replace the use of forecasts developed by professional economic forecasting
19 services provided by Moody's and Global Insights. SDG&E disagrees with their proposal and
20 demonstrates below why SDG&E's forecasts are reasonable.

21 **A. Cal Advocates**

22 The following is a summary of Cal Advocates' position(s) on Residential Electric
23 Customer Forecasts:²

- 24 • Cal Advocates reduces SDG&E's Electric Residential Customers Forecast
25 for TY2024. Cal Advocates recommends 1,340,505 for 2022, 1,350,850
26 for 2023 and 1,362,436 for TY2024 for Electric Residential Customer
27 Forecast based on a 10-year rolling average of historical housing data.

² Ex. CA-18-E (Sierra) at 3:17-24.

- Cal Advocates does not take issue with SDG&E’s Forecast for Small Commercial, Medium/Large Commercial/Industrial, Agriculture, and Lighting Electric customer schedules for TY2024.

B. TURN

The following is a summary of TURN’s position(s) on Residential Electric Customer Forecasts:³

- TURN’s Electric Residential Customers Forecast for TY2024 was initially based on a 10-quarter rolling average of historical housing data. TURN subsequently revised its forecast to be based on a 10-year moving average. TURN provided its revised forecast to SDG&E after SDG&E sent TURN a data request to verify the time periods that were used in the residential electric customer forecast. SDG&E notes that the revised forecast was provided late, specifically during the time that is allotted for SDG&E to respond to intervenor testimony through rebuttal. SDG&E is responding to the revised workpapers provided by TURN on April 27, 2023.⁴
- TURN’s revised recommended residential electric customer forecast is 1,339,912 for 2022, 1,350,237 for 2023 and 1,361,013 for TY2024 for Electric Residential Customer Forecast⁵, based on a 10-year rolling average of historical housing data.⁶
- TURN asserts that SDG&E’s residential electric model historically over-forecasts growth in the relevant customer class because SDG&E allegedly relies on inflated housing data for its forecasts.

³ Ex. TURN-14 (McGovern) at 3:15.

⁴ SCG-SDGE-TURN-010, Question 1b, attached as Appendix E at KES-E-2.

⁵ Screenshot of Tab “11-GrcSummary” of workpapers for Ex. TURN-14, SCG-SDGE-TURN-002 atch3_erratum, attached as Appendix G at KES-G-2.

⁶ Screenshots of SCG-SDGE-TURN-002 atch3_erratum, attached as Appendix F at KES-F-2.

1 **C. UCAN**

2 The following is a summary of UCAN’s position(s) on Residential Electric Customer
3 Forecasts:⁷

- 4 • UCAN alleges that SDG&E’s forecasts are based on backward-looking
5 data that are not representative of the forward-looking nature of forecasts
6 to reflect the future.

7 **III. REBUTTAL TO CRITIQUES OF SDG&E’S ELECTRIC CUSTOMER**
8 **FORECAST**

9 This rebuttal testimony addresses issues raised by intervening parties regarding the
10 residential electric customer forecast. Both Cal Advocates and TURN put forth a proposed
11 residential electric customer forecast using a new methodology based on a historical 10-year
12 moving average of the level of housing activity from data provided by SDG&E in workpapers.⁸
13 However, as discussed further below, not only do the workpapers of Cal Advocates and TURN
14 fail to support 10-year moving average, in fact Cal Advocates reflects the use of a 10-*quarter*
15 moving average. This rebuttal testimony explains why neither of these apparent alternatives—
16 10-year and 10-quarter moving averages—should be adopted in this proceeding.

17 The moving average methodologies proposed by Cal Advocates and TURN would
18 replace SDG&E’s longstanding practice of relying on forecasts developed by professional
19 economic forecasting services provided by Moody’s and Global Insights. SDG&E disagrees
20 with the proposed alternative methodology and urges the Commission to reject it for two
21 fundamental reasons.

22 As an initial matter, forecasting based on historic averages can make sense in certain
23 contexts. This would include customer classes that do not have an associated cyclical economic
24 forecast available as a driver. For example, for rate schedules that are closed, changes are
25 associated with customers leaving the rate schedule because new customers are not allowed to
26 join the closed rate. An averaging approach could be appropriate in such circumstances.
27 However, an averaging approach is not appropriate for SDG&E’s broad, open residential rate
28 classes as proposed by Cal Advocates and TURN.

⁷ Ex. UCAN-01 (Woychik) at 125:13-22.

⁸ Ex. CA-18-E (Sierra) at 14:1-4; and Ex. TURN-14 (McGovern) at 4: 6-8.

1 In this case, a historical moving average methodology, such as proposed by Cal
2 Advocates and TURN, is backward-looking, while forecasts are forward-looking in nature. This
3 means that a forecast of projected future housing activity, that simply relies on history alone,
4 would ignore the potential for future changes to economic activity, such as recessions or periods
5 of rapid economic growth, changes in potential policies impacting housing activity, and other
6 events that impact the economy. Also, the selection of the period included can materially impact
7 the results. For instance, using a shorter period of exclusively backward-looking data to develop
8 a moving average may include only parts of a normal business cycle within the average. Thus,
9 any particular average may capture more recession time periods versus periods of high economic
10 growth, or vice versa.

11 Focusing on the 10-quarter moving average that Cal Advocates used highlights the
12 problems with capturing a short historical period, thereby being extremely sensitive to whatever
13 atypical events occurred within the limited period of time covered by the average. Indeed, even
14 a ten-year period is problematic because the historical periods that weigh heavily in the ten-year
15 moving average used by TURN includes an overhang on the front end from years that were
16 impacted by financial and housing crises and on the back end, years with COVID-19 pandemic
17 impacts. The COVID-19 pandemic, in particular, was an unprecedented event in recent human
18 history and presented substantial uncertainty in and shocks to the economy. As such, it cannot
19 fairly be described as reasonably representative of the going forward period in which the
20 forecasts to be adopted in this proceeding will cover.

21 Moreover, the proposed methodology by Cal Advocates and TURN is inconsistent with
22 established Commission precedent, which recognizes that while forecasting is inherently
23 inaccurate to some degree, the watchword is reasonableness. The Commission approved
24 SDG&E's previous use of the exact methodology it proposes to use in this proceeding—a 50/50
25 blend of two separate third-party forecasts—which allowed SDG&E to balance alternative views
26 of each economic forecasting service into the forecasts, on which rates ultimately would be
27 established. The Commission explained its reasoning in SDG&E's TY 2019 GRC Phase 1
28 Decision (D.19-09-051), as follows:

29 It is not established that Moody's forecast is certain to be accurate or that
30 Global Insight's forecast is certain to be inaccurate. We find it more prudent
31 to rely on both forecasts to minimize the impact of a vastly incorrect forecast
32 from either company. Therefore, we find that relying on both sets of data is

1 reasonable and that the forecast of 1,468,391 electric customers for TY2019
2 should be adopted.⁹

3 **A. Cal Advocates**

4 Cal Advocates takes issue with the TY 2024 electric customer forecast for the residential
5 sector by analyzing data from the TY 2019 GRC. To replace SDG&E’s proposed forecast,
6 which uses the same methodology accepted by the Commission in D.19-09-051, Cal Advocates
7 proposes using a 10-year moving average for an alternative Cal Advocates-sponsored residential
8 electric customer forecast. The core of Cal Advocates’ rationale is the following statement,
9 “... historically in the 2019 GRC, the Housing Completion 50/50 Blend was inflated as illustrated
10 when compared with the actual recorded data by SDG&E in this GRC for TY 2024.”¹⁰

11 However, Cal Advocates’ critique of SDG&E’s residential forecasts is undermined by the
12 fact that Cal Advocates accepts SDG&E’s forecasts for small commercial and medium/large
13 commercial/industrial electric customers. SDG&E developed its forecasts for commercial
14 electric customers by using the historical relationship of residential customer growth and
15 commercial customer growth. In other words, the forecast of commercial and industrial
16 customers is dependent on the residential electric customer forecast, which uses a forecast of
17 housing completions as the main model driver. Cal Advocates accepts this for developing the
18 commercial electric customer forecasts and even states it does not challenge these forecasts. Yet,
19 for the residential electric customer forecast, Cal Advocates has selectively critiqued the use of
20 housing completion forecasts that are based on the same methodology.

21 To replace SDG&E’s Commission-accepted forecast methodology, Cal Advocates
22 proposes a new approach to forecast residential electric customers. Cal Advocates states, “Cal
23 Advocates utilized the same Excel model as SDG&E and applied a 10-year moving average to
24 the 50/50 Blend (Q Basis) to normalize SDG&E’s Housing Completions data to the model.”¹¹ In
25 a data request response, Cal Advocates asserts the following: “[t]he most recent decade is more
26 stable than 20-30 years ago. In addition, the relationship of customer connections and housing
27 patterns is changing. A 10-year average captures the most recent changes in the economy.”¹²

⁹ See D.19-09-051 at 669-670.

¹⁰ Ex. CA-18-E (Sierra) at 13:9-11.

¹¹ Ex. CA-18-E (Sierra) at 14:1-3.

¹² SCG-SDGE-PAO-003, Question 3, attached as Appendix C, at KES-C-3.

1 SDG&E requested Cal Advocates’ electric customer workpapers and determined that Cal
 2 Advocates actually used a 10-quarter moving average to forecast housing completions rather
 3 than a 10-year average. Shown in Table KS-2 below are the time periods that Cal Advocates
 4 used in workpapers¹³ to develop each time period in the forecast.

5 **Table KS-2**
 6 **Cal Advocates’ Time Periods Used to Develop Housing Completion Forecast**

Housing Completion Forecast Period	Historical Basis to Develop Forecast
Q1-2022	Q4-2019 through Q1-2022
Q2-2022	Q1-2020 through Q2-2022, Adjusted
Q3-2022	Q2-2020 through Q3-2022, Adjusted
Q4-2022	Q3-2020 through Q4-2022, Adjusted
Q1-2023	Q4-2020 through Q1-2023, Adjusted
Q2-2023	Q1-2021 through Q2-2023, Adjusted
Q3-2023	Q2-2021 through Q3-2023, Adjusted
Q4-2023	Q3-2021 through Q4-2023, Adjusted
Q1-2024	Q4-2021 through Q1-2024, Adjusted
Q2-2024	Q1-2022 through Q2-2024 from SDG&E 50/50 Blend Forecast
Q3-2024	Q2-2022 through Q3-2024 from SDG&E 50/50 Blend Forecast
Q4-2024	Q3-2023 through Q4-2024 from SDG&E 50/50 Blend Forecast

7
 8 SDG&E disagrees with Cal Advocates' stated proposal to use a 10-year moving average
 9 of housing completions, as well as the 10-quarter moving average of housing completions that is
 10 actually reflected in Cal Advocates’ workpapers. In SDG&E’s view, neither is a reasonable
 11 basis for the forecast of future housing completions. As stated above, a moving average
 12 approach applies a backward view to forecast future economic conditions. As presented in Table
 13 KS-2, a majority of Cal Advocates’ forecasted housing completions for the 10-quarter moving
 14 average are based on COVID-19 historical data points. This implies that future economic
 15 conditions will reflect COVID-19 impacts from the past, an absurd proposition that Cal
 16 Advocates does not explain let alone substantiate. Indeed, given the inconstancy between Cal

¹³ Screenshots from Cal Advocates’ workpapers for Ex. CA-18-E, attached as Appendix D at KES-D-2.

1 Advocates' workpapers and Cal Advocates' testimony, it seems that the 10-quarter approach
2 could be the product of significant calculation errors.

3 SDG&E notes as well that there are also inconsistencies in the way that Cal Advocates
4 uses data in their moving average to develop their forecasts of housing completions. For
5 example, Cal Advocates is using a blend of historical and forecast data to develop their forecast
6 for Q2-2022 through Q1-2024. Also, Cal Advocates is using SDG&E's 50/50 blend forecast of
7 Moody's and Global Insights to develop their forecast for Q2-2024 through Q4-2024. In other
8 words, at the same time that Cal Advocates is arguing against using housing completion
9 forecasts developed by Moody's and Global Insights, they are in fact using those same forecasts
10 to develop their proposed forecasts for Q2-2024 through Q4-2024 as shown in Table KS-2.

11 As shown above, SDG&E disagrees with Cal Advocates' proposal to use a historical
12 moving average of housing completions as a basis for the forecast of future housing completions
13 because it is a backward view of future forecasted economic conditions. Cal Advocates had
14 difficulties implementing their own methodology as the historical basis does not match their
15 testimony and there is a mix of historical and forecasted data included in the proposed averages.
16 Therefore, Cal Advocates' proposed methodologies are not reasonable and should not be adopted
17 by the Commission.

18 **B. TURN**

19 TURN takes issue with SDG&E's TY 2024 forecast for the residential electric customer
20 sector by analyzing data from the TY 2016 GRC and TY 2019 GRC. Like Cal Advocates,
21 TURN develops alternative residential electric customer forecasts, but TURN's workpapers
22 appear to be intended to use its proposed 10-year moving average. TURN explains its forecast
23 methodology as follows: "TURN utilized SDG&E's model but inserted housing data that reflects
24 the average quarterly new housing construction from the most recent ten years."¹⁴

25 In TURN's testimony, Figure 10 is labeled "Growth in electric residential meters-
26 SDG&E 2016 GRC" and Figure 11 is labeled "Growth in residential electric meters," which
27 SDG&E interprets as showing the growth from SDG&E's 2019 GRC.¹⁵ SDG&E agrees with the

¹⁴ Ex. TURN-14 (McGovern) at 27:2-3.

¹⁵ *Id.* at 14:1-8, Figures 10 and 11, attached as Appendix B at KES-B-2.

1 data shown in these two Figures. Forecasting inherently involves a degree of uncertainty, and
2 the likelihood that forecasts will perfectly match experience is low.

3 However, TURN conveniently leaves out not only that it was SDG&E that realized that
4 the 2016 GRC forecast could be improved, but also that SDG&E in fact took steps to implement
5 changes in the forecasting process in the TY 2019 GRC in order to improve its forecast. The TY
6 2016 GRC used housing starts from only one economic forecasting service, Global Insights. To
7 address the forecasting difference that SDG&E observed, SDG&E used a 50/50 blend of two
8 different economic forecasts produced by different services, Moody's and Global Insights, in
9 SDG&E's very next GRC, which was the TY 2019 GRC. This reduced the forecast error in the
10 2019 GRC and the methodology change was accepted by the CPUC in the TY 2019 GRC. As
11 discussed above, in acknowledging that forecasting involves uncertainty, the Commission
12 approved SDG&E's use of the 50/50 blend as reasonable.

13 SDG&E analyzed TURN's proposed methodology. SDG&E sent TURN a follow-up
14 data request, after receiving TURN's workpapers, to verify the historical periods that were used
15 in the calculation of TURN's 10-year moving average forecast of housing completions. In
16 TURN's response to the data request, TURN provided an errata workpaper file that contained a
17 revised residential electric customer forecast, although even as revised, TURN's workpaper still
18 does not illustrate a full 10-year historical moving average. Table KS-3 contains SDG&E's
19 analysis of the historical periods that comprise TURN's purportedly 10-year moving average
20 forecast of housing completions.¹⁶

21 **Table KS-3**
22 **TURN's Revised Time Periods Used to Develop Housing Completion Forecast**

Housing Completion Forecast Period	Historical Basis to Develop Forecast
Q1-2022	Q1-2021*(1-0.07618849907)
Q2-2022	Q2-2021*(1-0.07618849907)
Q3-2022	Q3-2021*(1-0.07618849907)
Q4-2022	Q4-2021*(1-0.07618849907)
Q1-2023	Q1 Data from 2013 through 2022
Q2-2023	Q2 Data from 2013 through 2022

¹⁶ Screenshots from TURN's revised workpapers for Ex. TURN-14, SCG-SDGE-TURN-002
attach3_erratum, tab "5-ResFcastQ," attached as Appendix F at KES-F-2.

Housing Completion Forecast Period	Historical Basis to Develop Forecast
Q3-2023	Q3 Data from 2013 through 2022
Q4-2023	Q4 Data from 2013 through 2022
Q1-2024	Q4 Data from 2014 through 2023
Q2-2024	Q2 Data from 2014 through 2023
Q3-2024	Q3 Data from 2014 through 2023
Q4-2024	Q4 Data from 2014 through 2023

1
2 As a threshold matter, SDG&E disagrees with the time periods used in TURN’s revised
3 workpapers, which still do not represent a 10-year historical moving average. As shown in Table
4 KS-3, TURN’s forecast of 2022 housing completions (Q1-2022 through Q4-2022) used only
5 2021, a single year, to develop the forecast. Additionally, the 2021 values were reduced by
6 applying a factor (1 minus 0.07618849907, or 0.92381150093) to calculate 2022 housing
7 completions. TURN indicated that the reduction reflected an adjustment that “is equal to the
8 difference between 2021 and 2022 western housing starts.”¹⁷ SDG&E questions the use of
9 housing starts to adjust housing completions for reasons related to the lag of the two concepts.
10 Also, the adjustment is being made based on the Federal Reserve’s West Census Region, which
11 includes multiple states, but applies that multi-state data to information at the San Diego County
12 Metro Statistical Area.¹⁸ TURN’s testimony does not explain how the geographically large,
13 eleven-state area represented by the West Census Region relates to or is a reasonable proxy for
14 SDG&E’s service territory, which is located in two counties in Southern California. The
15 adjustment factor therefore seems arbitrary.

16 Turning to 2023, TURN’s forecast of 2023 housing completions are based on data from
17 2013 through 2022. This time period represents a mix of history (2013 through 2021) and
18 forecast (2022). Likewise, TURN’s forecasts for 2024 housing completions are based on data
19 from 2014 through 2023. This time period also represents a mix of history (2014 through 2021)
20 and forecast (2022 and 2023). In other words, despite criticizing SDG&E’s use of vendor
21 forecasts in developing the utility’s proposed residential customer forecasts, TURN itself uses

¹⁷ TURN’s response to data request SCG-SDGE-TURN-010, attached as Appendix E at KES-E-2.

¹⁸ The West Census Region includes California, Oregon, Washington, Idaho, Nevada, Montana, Wyoming, Utah, Colorado, New Mexico, and Arizona.

1 forecast data to develop the moving averages of allegedly historical data on which it bases its
2 own proposed forecasts.

3 As discussed above with respect to Cal Advocates, SDG&E also disagrees with TURN's
4 proposal to use a historical moving average of housing completions as a basis for the forecast of
5 future housing completions for reasons including that it is a backward view of future forecasted
6 economic conditions. Also, SDG&E questions the implementation of TURN's methodology. In
7 addition to being backward-looking, TURN's proposed methodology uses a blend of history and
8 forecast to develop its moving average; therefore, the Commission should reject it.

9 C. UCAN

10 While Cal Advocates and TURN criticize SDG&E for using economic forecast data in
11 developing its proposed electric customer forecasts, UCAN attacks SDG&E from the other
12 direction. UCAN states, "The [utility's] residential forecast was based on quarterly historical
13 data from 1990 through 2021."¹⁹ As a general matter, SDG&E agrees with UCAN that a
14 residential electric customer forecast should include a forecasted driver of future housing
15 activity. However, SDG&E should point out that SDG&E is in fact using a projection of
16 housing activity as provided by professional forecasting services, Moody's and Global Insights.
17 This is stated in the direct testimony of Kenneth E. Schiermeyer (Ex. SDG&E-40) at KES-2:2-7:

18 SDG&E develops electric customer forecasts using statistical models based on
19 economic and demographic data, seasonal patterns and other inputs that
20 influence customer growth. Economic and demographic data for this electric
21 customer forecast are based on December 2021 information released from IHS
22 Global Insight's Regional Economic Service and December 2021 information
23 released from Moody's Regional Economic Service. A 50/50 blend of these
24 forecasts allows SDG&E to reflect the different views of each economic
25 forecasting service.

26 Evidently, UCAN misunderstands whether SDG&E used an economic forecasting
27 service, which it did. In fact, as discussed in this rebuttal testimony, a core criticism of
28 SDG&E's forecast methodology by two other parties, is SDG&E's use of economic forecasting
29 services in in this GRC. Cal Advocates states, "SDG&E uses Housing Completion as a main
30 driver which is a 50/50 Blend of the forecast from IHS Global Insight's Regional Economic

¹⁹ Ex. UCAN-01 (Woychik) at 125:15-16.

1 Service and Moody's Regional Economic Service"²⁰ Also, TURN cites SDG&E's direct
2 testimony when describing the use of economic forecasting services.²¹

3 SDG&E used data from 1990 through 2021 as the estimation time period for the
4 development of the residential electric customer forecast regression model and used housing
5 completion projections from Moody's and Global Insight to drive the forecast.

6 While UCAN apparently misunderstands SDG&E's position, UCAN's argument lends
7 support to SDG&E's position that its use of economic forecasting services is appropriate.

8 **IV. CONCLUSION**

9 To summarize, Cal Advocates and TURN propose residential electric customer forecasts
10 based on a historical moving average of housing completions that were provided in SDG&E's
11 electric customer forecast workpapers. Cal Advocates indicated that a 10-year moving average
12 should be used for the residential electric customer forecast in direct testimony but its
13 workpapers revealed that Cal Advocates actually used a 10-quarter moving average instead.
14 Originally, TURN also provided a residential electric customer forecast based on a 10-quarter
15 moving average. However, TURN later revised its residential electric customer forecast to be
16 based on a 10-year moving average, although not all of the data comprising the averages is
17 actually historical data. Regardless, Cal Advocates and TURN fail to demonstrate why a
18 historical period, either a 10-quarter or a 10-year, is preferable to SDG&E's approach. In
19 addition, both Cal Advocates and TURN appear to have trouble with implementing their own
20 forecast methodology, as both described it as a 10-year moving average but workpapers revealed
21 they had actually calculated 10-quarter moving averages. Regardless, SDG&E disagrees with
22 the use of historical moving average of housing completions as a basis for the forecast of future
23 housing completions because it is a backward view of future forecasted economic conditions.

24 SDG&E understands that the potential for variability and differences exist in analyses of
25 economic forecasting concepts and believes that using a 50/50 blend of data from these two
26 highly-regarded economic forecasting firms provides an unbiased and balanced view of the
27 forecast period. This methodology was accepted as reasonable by the CPUC in the TY 2019
28 GRC Phase 1 Decision (D.19-09-051).

²⁰ Ex. CA-18-E (Sierra) at 13:4-7 (citing to A.22-05-016, Ex. SDG&E-40 Prepared Direct Testimony of Kenneth Schiermeyer at KES-2.).

²¹ Ex. TURN-14 (McGovern) at 12:14-16 - 13:1-4 (citing to A.22-05-016, Ex. SDG&E-40 at KES-2).

1 Accordingly, the Commission should adopt SDG&E's electric customer forecasts, as put
2 forth in my direct testimony, without revision.

3 This concludes my prepared rebuttal testimony.

APPENDIX A
GLOSSARY OF TERMS

ACRONYM	DEFINITION
SDG&E	San Diego Gas & Electric Company
Cal Advocates	The Public Advocates Office of the California Public Utilities Commission
TURN	The Utility Reform Network
UCAN	The Utility Consumers Action Network
GRC	General Rate Case

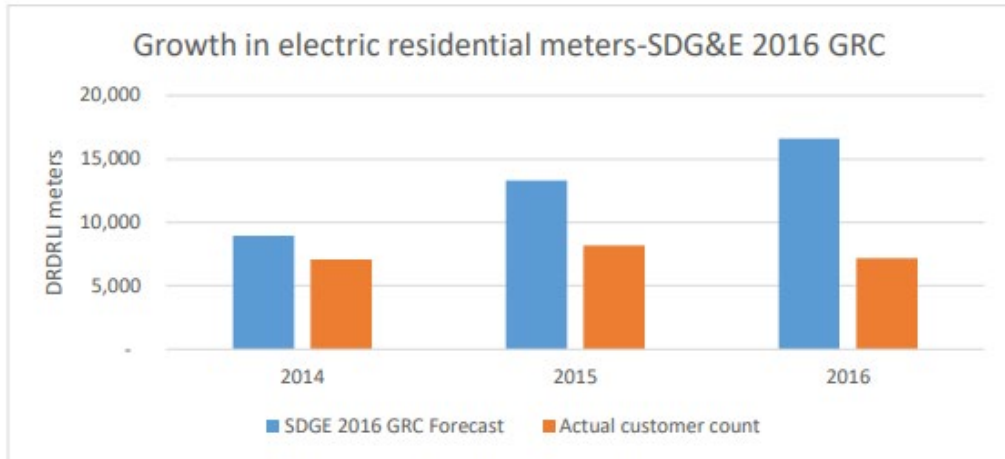
APPENDIX B

Ex. TURN-14, Figure 10, p. 14: 1-2

Ex. TURN-14, Figure 11, p. 14: 7-8

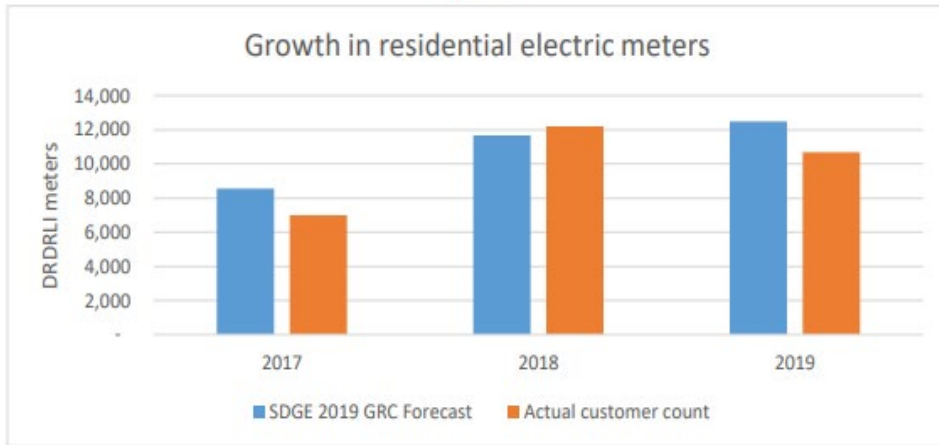
Ex. TURN-14, Figure 10, p. 14: 1-2

Figure 10



Ex. TURN-14, Figure 11, p. 14: 7-8

Figure 11



APPENDIX C

Data Request Responses:

Cal Advocates Data Request Response to SCG-SDGE-PAO-003, Question 3

PUBLIC ADVOCATES OFFICE (Cal Advocates)
DATA RESPONSE
Southern California Gas Company and San Diego Gas & Electric Company
Test Year 2024 General Rate Cases
A.22-05-015 and A.22-05-016

Date: April 10, 2023

Origination Date: April 3, 2023

Response Due: April 10, 2023

Data Request No: SCG-SDGE-PAO-003

To: Jamie York, Sempra 2024 GRC Manager
JYork@semprautilities.com

Sempra Central Files
centralfiles@semprautilities.com

From: Stacey Hunter, Project Coordinator
Public Advocates Office
505 Van Ness Avenue, Room 4104
San Francisco, CA 94102
Stacey.Hunter@cpuc.ca.gov

GENERAL OBJECTIONS

Cal Advocates objects to each data request to the extent that it mischaracterizes Cal Advocates' opening testimony.

Cal Advocates objects to each data request to the extent that it is overly broad, unduly burdensome, or not reasonably calculated to lead to the discovery of admissible evidence.

Cal Advocates objects to each instruction and data request as overly broad and unduly burdensome to the extent that it seeks documents or information that Sempra already possesses upon receipt Cal Advocates' prepared testimony and workpapers.

Cal Advocates objects to each instruction and data request to the extent that it seeks information or documents protected from disclosure by the attorney-client privilege, attorney work product doctrine, or any other applicable privilege.

- c) Please provide a narrative explanation of Cal Advocates' justifications and/or basis for the proposed 50% reduction as of July 2023 for Cal Advocates' residential single-family and multifamily forecasts.
 - i. Provide workpapers that include all calculations showing how you derived the 50% reduction.
 - ii. What numbers did Cal Advocates use to calculate the 50% reduction?
 - iii. Did Cal Advocates account for the number of permits for new customer connections issued prior to 2023?

Cal Advocates' Response to Question 2:

- a) See workpapers submitted on April 5, 2023, regarding SDG&E Gas Customer Forecast.
- b) No. The most recent decade is more stable than 20-30 years ago. In addition, the relationship of customer connections and housing patterns is changing. A 10-year average captures the most recent changes in the economy.
- c) Please refer to response Question 1 b) above.
 - i. Please refer to response a)
 - ii. Please refer to response a)
 - iii. Yes.

Sempra Question 3:

Regarding SDG&E Electric Customer Forecast:

- a) Provide workpapers in excel for Cal Advocates proposed 10-year average forecast for residential electric customers for 2022, 2023 and 2024.
- b) Have Cal Advocates and/or Cal Advocates' witness on this matter previously sponsored a 10-year rolling average methodology for electric customer forecasts in any other proceeding? If yes, please provide the proceeding number(s).

Cal Advocates' Response to Question 3:

- a) See workpapers submitted on April 5, 2023, regarding SDG&E Electric Customer Forecast.
- b) No. The most recent decade is more stable than 20-30 years ago. In addition, the relationship of customer connections and housing patterns is changing. A 10-year average captures the most recent changes in the economy.

Sempra Question 4:

Provide all raw data for all variables in Microsoft Excel format including active cells, macros, source, and links for its proposed 10-year average forecast for the following:

- a) SoCalGas Gas Customer Forecast for 2022, 2023 and 2024
- b) SDG&E Gas Customer Forecast for 2022, 2023 and 2024
- c) SDG&E Electric Customer Forecast for 2022, 2023 and 2024

Cal Advocates' Response to Question 4:

- a) Please refer to response Question 1 a).
- b) Please refer to response Question 2 a).
- c) Please refer to response Question 3 a).

Responses prepared by Maricela Sierra.

APPENDIX D

Screenshots from Cal Advocates' workpapers for Ex. CA-18-E, titled: "A2205015 et al Public Advocates Office (Sierra) CA-18-WP Electric SDG&E," tab "3-ModelDataQ"

120	2019Q1	2019Q3	2019	1	3	1,391	0	0	0	0	2,474.8	2,183.8		
121	2019Q2	2019Q6	2019	2	6	1,933	1	0	0	0	2,292.6	2,246.3		
122	2019Q3	2019Q9	2019	3	9	4,011	0	1	0	0	1,870.4	2,218.6		
123	2019Q4	201912	2019	4	12	2,615	0	0	1	0	1,992.6	2,202.3		
124	2020Q1	2020Q3	2020	1	3	1,796	0	0	0	0	2,027.9	2,228.2		
125	2020Q2	2020Q6	2020	2	6	1,635	1	0	0	0	1,631.1	2,187.7		
126	2020Q3	2020Q9	2020	3	9	1,499	0	1	0	0	1,982.4	2,126.4		
127	2020Q4	202012	2020	4	12	1,246	0	0	1	0	1,852.8	2,063.4		
128	2021Q1	2021Q3	2021	1	3	2,092	0	0	0	0	1,572.8	2,001.2		
129	2021Q2	2021Q6	2021	2	6	3,170	1	0	0	0	1,636.0	1,933.3		
130	2021Q3	2021Q9	2021	3	9	3,885	0	1	0	0	1,615.3	1,847.4		
131	2021Q4	202112	2021	4	12	2,347	0	0	1	0	1,909.1	1,809.0		
132	2022Q1	2022Q3	2022	1	3		0	0	0	0	1,802.2	1,802.2		2,046.1
133	2022Q2	2022Q6	2022	2	6		1	0	0	0	1,778.4	1,780.8		2,166.3
134	2022Q3	2022Q9	2022	3	9		0	1	0	0	1,742.8	1,752.3		2,323.5
135	2022Q4	202212	2022	4	12		0	0	1	0	1,761.4	=AVERAGE(K126:K135)		2,490.9
136	2023Q1	2023Q3	2023	1	3		0	0	0	0	1,717.2	1,738.8		2,631.4
137	2023Q2	2023Q6	2023	2	6		1	0	0	0	1,683.3	1,721.9		2,715.2
138	2023Q3	2023Q9	2023	3	9		0	1	0	0	1,720.2	1,736.6		2,775.1
139	2023Q4	202312	2023	4	12		0	0	1	0	1,762.2	1,749.2		2,817.4
140	2024Q1	2024Q3	2024	1	3		0	0	0	0	1,909.1	1,778.6		2,837.9
141	2024Q2	2024Q6	2024	2	6		1	0	0	0	2,566.0	2,566.0		2,856.6
142	2024Q3	2024Q9	2024	3	9		0	1	0	0	2,648.1	2,648.1		2,866.5
143	2024Q4	202412	2024	4	12		0	0	1	0	2,716.8	2,716.8		2,853.8

120	2019Q1	2019Q3	2019	1	3	1,391	0	0	0	0	2,474.8	2,183.8		
121	2019Q2	2019Q6	2019	2	6	1,933	1	0	0	0	2,292.6	2,246.3		
122	2019Q3	2019Q9	2019	3	9	4,011	0	1	0	0	1,870.4	2,218.6		
123	2019Q4	201912	2019	4	12	2,615	0	0	1	0	1,992.6	2,202.3		
124	2020Q1	2020Q3	2020	1	3	1,796	0	0	0	0	2,027.9	2,228.2		
125	2020Q2	2020Q6	2020	2	6	1,635	1	0	0	0	1,631.1	2,187.7		
126	2020Q3	2020Q9	2020	3	9	1,499	0	1	0	0	1,982.4	2,126.4		
127	2020Q4	202012	2020	4	12	1,246	0	0	1	0	1,852.8	2,063.4		
128	2021Q1	2021Q3	2021	1	3	2,092	0	0	0	0	1,572.8	2,001.2		
129	2021Q2	2021Q6	2021	2	6	3,170	1	0	0	0	1,636.0	1,933.3		
130	2021Q3	2021Q9	2021	3	9	3,885	0	1	0	0	1,615.3	1,847.4		
131	2021Q4	202112	2021	4	12	2,347	0	0	1	0	1,909.1	1,809.0		
132	2022Q1	2022Q3	2022	1	3		0	0	0	0	1,802.2	1,802.2		2,046.1
133	2022Q2	2022Q6	2022	2	6		1	0	0	0	1,778.4	1,780.8		2,166.3
134	2022Q3	2022Q9	2022	3	9		0	1	0	0	1,742.8	1,752.3		2,323.5
135	2022Q4	202212	2022	4	12		0	0	1	0	1,761.4	1,765.3		2,490.9
136	2023Q1	2023Q3	2023	1	3		0	0	0	0	1,717.2	=AVERAGE(K127:K136)		2,631.4
137	2023Q2	2023Q6	2023	2	6		1	0	0	0	1,683.3	1,721.9		2,715.2
138	2023Q3	2023Q9	2023	3	9		0	1	0	0	1,720.2	1,736.6		2,775.1
139	2023Q4	202312	2023	4	12		0	0	1	0	1,762.2	1,749.2		2,817.4
140	2024Q1	2024Q3	2024	1	3		0	0	0	0	1,909.1	1,778.6		2,837.9
141	2024Q2	2024Q6	2024	2	6		1	0	0	0	2,566.0	2,566.0		2,856.6
142	2024Q3	2024Q9	2024	3	9		0	1	0	0	2,648.1	2,648.1		2,866.5
143	2024Q4	202412	2024	4	12		0	0	1	0	2,716.8	2,716.8		2,853.8

120	2019Q1	2019Q3	2019	1	3	1,391	0	0	0	0	2,474.8	2,183.8		
121	2019Q2	2019Q6	2019	2	6	1,933	1	0	0	0	2,292.6	2,246.3		
122	2019Q3	2019Q9	2019	3	9	4,011	0	1	0	0	1,870.4	2,218.6		
123	2019Q4	201912	2019	4	12	2,615	0	0	1	0	1,992.6	2,202.3		
124	2020Q1	2020Q3	2020	1	3	1,796	0	0	0	0	2,027.9	2,228.2		
125	2020Q2	2020Q6	2020	2	6	1,635	1	0	0	0	1,631.1	2,187.7		
126	2020Q3	2020Q9	2020	3	9	1,499	0	1	0	0	1,982.4	2,126.4		
127	2020Q4	202012	2020	4	12	1,246	0	0	1	0	1,852.8	2,063.4		
128	2021Q1	2021Q3	2021	1	3	2,092	0	0	0	0	1,572.8	2,001.2		
129	2021Q2	2021Q6	2021	2	6	3,170	1	0	0	0	1,636.0	1,933.3		
130	2021Q3	2021Q9	2021	3	9	3,885	0	1	0	0	1,615.3	1,847.4		
131	2021Q4	202112	2021	4	12	2,347	0	0	1	0	1,909.1	1,809.0		
132	2022Q1	2022Q3	2022	1	3		0	0	0	0	1,802.2	1,802.2		2,046.1
133	2022Q2	2022Q6	2022	2	6		1	0	0	0	1,778.4	1,780.8		2,166.3
134	2022Q3	2022Q9	2022	3	9		0	1	0	0	1,742.8	1,752.3		2,323.5
135	2022Q4	202212	2022	4	12		0	0	1	0	1,761.4	1,765.3		2,490.9
136	2023Q1	2023Q3	2023	1	3		0	0	0	0	1,717.2	1,738.8		2,631.4
137	2023Q2	2023Q6	2023	2	6		1	0	0	0	1,683.3	=AVERAGE(K128:K137)		2,715.2
138	2023Q3	2023Q9	2023	3	9		0	1	0	0	1,720.2	1,736.6		2,775.1
139	2023Q4	202312	2023	4	12		0	0	1	0	1,762.2	1,749.2		2,817.4
140	2024Q1	2024Q3	2024	1	3		0	0	0	0	1,909.1	1,778.6		2,837.9
141	2024Q2	2024Q6	2024	2	6		1	0	0	0	2,566.0	2,566.0		2,856.6
142	2024Q3	2024Q9	2024	3	9		0	1	0	0	2,648.1	2,648.1		2,866.5
143	2024Q4	202412	2024	4	12		0	0	1	0	2,716.8	2,716.8		2,853.8

120	2019Q1	201903	2019	1	3	1,391	0	0	0	2,474.8	2,183.8		
121	2019Q2	201906	2019	2	6	1,933	1	0	0	2,292.6	2,246.3		
122	2019Q3	201909	2019	3	9	4,011	0	1	0	1,870.4	2,218.6		
123	2019Q4	201912	2019	4	12	2,615	0	0	1	1,992.6	2,202.3		
124	2020Q1	202003	2020	1	3	1,796	0	0	0	2,027.9	2,228.2		
125	2020Q2	202006	2020	2	6	1,635	1	0	0	1,631.1	2,187.7		
126	2020Q3	202009	2020	3	9	1,499	0	1	0	1,982.4	2,126.4		
127	2020Q4	202012	2020	4	12	1,246	0	0	1	1,852.8	2,063.4		
128	2021Q1	202103	2021	1	3	2,092	0	0	0	1,572.8	2,001.2		
129	2021Q2	202106	2021	2	6	3,170	1	0	0	1,636.0	1,933.3		
130	2021Q3	202109	2021	3	9	3,885	0	1	0	1,615.3	1,847.4		
131	2021Q4	202112	2021	4	12	2,347	0	0	1	1,909.1	1,809.0		
132	2022Q1	202203	2022	1	3		0	0	0	1,802.2	1,802.2		2,046.1
133	2022Q2	202206	2022	2	6		1	0	0	1,778.4	1,780.8		2,166.3
134	2022Q3	202209	2022	3	9		0	1	0	1,742.8	1,752.3		2,323.5
135	2022Q4	202212	2022	4	12		0	0	1	1,761.4	1,765.3		2,490.9
136	2023Q1	202303	2023	1	3		0	0	0	1,717.2	1,738.8		2,631.4
137	2023Q2	202306	2023	2	6		1	0	0	1,683.3	1,721.9		2,715.2
138	2023Q3	202309	2023	3	9		0	1	0	1,720.2	=AVERAGE(K129:K138)		2,775.1
139	2023Q4	202312	2023	4	12		0	0	1	1,762.2	1,749.2		2,817.4
140	2024Q1	202403	2024	1	3		0	0	0	1,909.1	1,778.6		2,837.9
141	2024Q2	202406	2024	2	6		1	0	0	2,566.0	2,566.0		2,856.6
142	2024Q3	202409	2024	3	9		0	1	0	2,648.1	2,648.1		2,866.5
143	2024Q4	202412	2024	4	12		0	0	1	2,716.8	2,716.8		2,853.8

120	2019Q1	201903	2019	1	3	1,391	0	0	0	2,474.8	2,183.8		
121	2019Q2	201906	2019	2	6	1,933	1	0	0	2,292.6	2,246.3		
122	2019Q3	201909	2019	3	9	4,011	0	1	0	1,870.4	2,218.6		
123	2019Q4	201912	2019	4	12	2,615	0	0	1	1,992.6	2,202.3		
124	2020Q1	202003	2020	1	3	1,796	0	0	0	2,027.9	2,228.2		
125	2020Q2	202006	2020	2	6	1,635	1	0	0	1,631.1	2,187.7		
126	2020Q3	202009	2020	3	9	1,499	0	1	0	1,982.4	2,126.4		
127	2020Q4	202012	2020	4	12	1,246	0	0	1	1,852.8	2,063.4		
128	2021Q1	202103	2021	1	3	2,092	0	0	0	1,572.8	2,001.2		
129	2021Q2	202106	2021	2	6	3,170	1	0	0	1,636.0	1,933.3		
130	2021Q3	202109	2021	3	9	3,885	0	1	0	1,615.3	1,847.4		
131	2021Q4	202112	2021	4	12	2,347	0	0	1	1,909.1	1,809.0		
132	2022Q1	202203	2022	1	3		0	0	0	1,802.2	1,802.2		2,046.1
133	2022Q2	202206	2022	2	6		1	0	0	1,778.4	1,780.8		2,166.3
134	2022Q3	202209	2022	3	9		0	1	0	1,742.8	1,752.3		2,323.5
135	2022Q4	202212	2022	4	12		0	0	1	1,761.4	1,765.3		2,490.9
136	2023Q1	202303	2023	1	3		0	0	0	1,717.2	1,738.8		2,631.4
137	2023Q2	202306	2023	2	6		1	0	0	1,683.3	1,721.9		2,715.2
138	2023Q3	202309	2023	3	9		0	1	0	1,720.2	1,736.6		2,775.1
139	2023Q4	202312	2023	4	12		0	0	1	1,762.2	=AVERAGE(K130:K139)		2,817.4
140	2024Q1	202403	2024	1	3		0	0	0	1,909.1	1,778.6		2,837.9
141	2024Q2	202406	2024	2	6		1	0	0	2,566.0	2,566.0		2,856.6
142	2024Q3	202409	2024	3	9		0	1	0	2,648.1	2,648.1		2,866.5
143	2024Q4	202412	2024	4	12		0	0	1	2,716.8	2,716.8		2,853.8

120	2019Q1	201903	2019	1	3	1,391	0	0	0	2,474.8	2,183.8		
121	2019Q2	201906	2019	2	6	1,933	1	0	0	2,292.6	2,246.3		
122	2019Q3	201909	2019	3	9	4,011	0	1	0	1,870.4	2,218.6		
123	2019Q4	201912	2019	4	12	2,615	0	0	1	1,992.6	2,202.3		
124	2020Q1	202003	2020	1	3	1,796	0	0	0	2,027.9	2,228.2		
125	2020Q2	202006	2020	2	6	1,635	1	0	0	1,631.1	2,187.7		
126	2020Q3	202009	2020	3	9	1,499	0	1	0	1,982.4	2,126.4		
127	2020Q4	202012	2020	4	12	1,246	0	0	1	1,852.8	2,063.4		
128	2021Q1	202103	2021	1	3	2,092	0	0	0	1,572.8	2,001.2		
129	2021Q2	202106	2021	2	6	3,170	1	0	0	1,636.0	1,933.3		
130	2021Q3	202109	2021	3	9	3,885	0	1	0	1,615.3	1,847.4		
131	2021Q4	202112	2021	4	12	2,347	0	0	1	1,909.1	1,809.0		
132	2022Q1	202203	2022	1	3		0	0	0	1,802.2	1,802.2		2,046.1
133	2022Q2	202206	2022	2	6		1	0	0	1,778.4	1,780.8		2,166.3
134	2022Q3	202209	2022	3	9		0	1	0	1,742.8	1,752.3		2,323.5
135	2022Q4	202212	2022	4	12		0	0	1	1,761.4	1,765.3		2,490.9
136	2023Q1	202303	2023	1	3		0	0	0	1,717.2	1,738.8		2,631.4
137	2023Q2	202306	2023	2	6		1	0	0	1,683.3	1,721.9		2,715.2
138	2023Q3	202309	2023	3	9		0	1	0	1,720.2	1,736.6		2,775.1
139	2023Q4	202312	2023	4	12		0	0	1	1,762.2	1,749.2		2,817.4
140	2024Q1	202403	2024	1	3		0	0	0	1,909.1	=AVERAGE(K131:K140)		2,837.9
141	2024Q2	202406	2024	2	6		1	0	0	2,566.0	2,566.0		2,856.6
142	2024Q3	202409	2024	3	9		0	1	0	2,648.1	2,648.1		2,866.5
143	2024Q4	202412	2024	4	12		0	0	1	2,716.8	2,716.8		2,853.8

APPENDIX E

Data Request Response:

SCG-SDGE-TURN-010

DATA REQUEST SCG-SDGE-TURN-010
SoCalGas and SDG&E's 2024 GENERAL RATE CASE
A.22-05-015 and A.22-05-016

DATE SENT: April 14, 2023

Testimony: TURN-14, Intervenor Testimony of Jaime McGovern

Response Date: 4/26/23

Subject: Gas Customer Forecast; Electric Customer Forecast

REQUEST:

Please provide the following:

1. Please refer to TURN's response to data request SCG-SDGE-TURN-002, attachment titled: "SCG-SDGE-TURN-002 atch3.xlsx" regarding SDG&E's electric customer forecast.
 - a. For each value in column K, rows 130 through 141, on tab "5-ResFestQ", please provide a detailed explanation of how TURN calculated the values.
 - b. Please provide a detailed explanation of how TURN developed the value 0.07618849907% used in the formulas on tab "5-ResFestQ" in cells K130, K131, K132 and K133.
 - c. Please provide all documentation supporting your responses to subparts a. and b. above, including workpapers in Microsoft Excel format that include all formulas and calculations.

QUESTION 1a RESPONSE

TURN appreciates the data request which has highlighted cell calculation error.

TURN will be submitting revised testimony next week, which will include the revisions described here. TURN submits the corrected workpapers as an attachment to this data response (SCG-SDGE-TURN-002 atch3_erratum). For K130-133, in the corrected workpapers, as described in TURN's testimony, for 2022, TURN reduced housing completions by 7.6 percent from the previous year (2021) to reflect the decrease in western housing construction (see 1b below).

In preparing workpapers for testimony, when calculating the forecasted housing completions for 2023 and 2024 as the average of the prior 10 years, TURN inadvertently selected the previous 10 quarters of housing data (column K) instead of the prior 10 years of corresponding quarters. TURN has now corrected the cell selection to correctly calculate each quarter of 2023 and 2024 forecast as the average of the prior ten corresponding quarters.

QUESTION 1b RESPONSE

TURN utilized the US western housing starts referenced on page 31 of A.22-05-15 TURN-14-Atch1, and the 0.07618849907 (corrected from 0.07618849907%) is equal to the difference between 2021 and 2022 western housing starts in that that table.

QUESTION 1c RESPONSE

Please see attachment SCG-SDGE-TURN-002 attch3_erratum.

APPENDIX F

**SCREENSHOTS FROM TURN'S REVISED WORKPAPERS FOR EX. TURN-14,
SCG-SDGE-TURN-002 ATTCH3_ERRATUM, TAB "5-RESFCASTQ"**

94	2013Q1	2013Q3	###	1	3	1,705	0	0	0	0	1,570	#####	
95	2013Q2	2013Q6	###	2	6	1,631	1	0	0	0	1,157	#####	
96	2013Q3	2013Q9	###	3	9	1,445	0	1	0	0	1,128	#####	
97	2013Q4	201312	###	4	12	1,607	0	0	1	0	1,221	#####	
98	2014Q1	2014Q3	###	1	3	1,697	0	0	0	0	1,518	#####	
99	2014Q2	2014Q6	###	2	6	1,908	1	0	0	0	1,454	#####	
100	2014Q3	2014Q9	###	3	9	2,158	0	1	0	0	1,473	#####	
101	2014Q4	201412	###	4	12	1,275	0	0	1	0	2,038	#####	
102	2015Q1	2015Q3	###	1	3	2,176	0	0	0	0	1,696	#####	
103	2015Q2	2015Q6	###	2	6	1,601	1	0	0	0	1,669	#####	
104	2015Q3	2015Q9	###	3	9	2,421	0	1	0	0	1,817	#####	
105	2015Q4	201512	###	4	12	1,910	0	0	1	0	1,983	#####	
106	2016Q1	2016Q3	###	1	3	986	0	0	0	0	1,948	#####	
107	2016Q2	2016Q6	###	2	6	1,180	1	0	0	0	1,667	#####	
108	2016Q3	2016Q9	###	3	9	2,182	0	1	0	0	1,862	#####	
109	2016Q4	201612	###	4	12	1,787	0	0	1	0	1,668	#####	
110	2017Q1	2017Q3	###	1	3	1,692	0	0	0	0	2,147	#####	
111	2017Q2	2017Q6	###	2	6	1,183	1	0	0	0	2,155	#####	
112	2017Q3	2017Q9	###	3	9	1,820	0	1	0	0	1,769	#####	
113	2017Q4	201712	###	4	12	3,443	0	0	1	0	2,036	#####	
114	2018Q1	2018Q3	###	1	3	2,952	0	0	0	0	2,595	#####	
115	2018Q2	2018Q6	###	2	6	3,457	1	0	0	0	2,483	#####	
116	2018Q3	2018Q9	###	3	9	3,086	0	1	0	0	2,195	#####	
117	2018Q4	201812	###	4	12	2,798	0	0	1	0	2,315	#####	
118	2019Q1	2019Q3	###	1	3	1,391	0	0	0	0	2,475	#####	
119	2019Q2	2019Q6	###	2	6	1,933	1	0	0	0	2,293	#####	
120	2019Q3	2019Q9	###	3	9	4,011	0	1	0	0	1,870	#####	
121	2019Q4	201912	###	4	12	2,615	0	0	1	0	1,993	#####	
122	2020Q1	2020Q3	###	1	3	1,796	0	0	0	0	2,028	#####	
123	2020Q2	2020Q6	###	2	6	1,635	1	0	0	0	1,631	#####	
124	2020Q3	2020Q9	###	3	9	1,499	0	1	0	0	1,982	#####	
125	2020Q4	202012	###	4	12	1,246	0	0	1	0	1,853	#####	
126	2021Q1	2021Q3	###	1	3	2,092	0	0	0	0	1,573	#####	
127	2021Q2	2021Q6	###	2	6	3,170	1	0	0	0	1,636	#####	
128	2021Q3	2021Q9	###	3	9	3,885	0	1	0	0	1,615	#####	
129	2021Q4	202112	###	4	12	2,347	0	0	1	0	1,909	#####	
130	2022Q1	2022Q3	###	1	3	1,620	0	0	0	0	1,453	Forecast #####	1,620
131	2022Q2	2022Q6	###	2	6	1,743	1	0	0	0	1,511	Forecast #####	1,743
132	2022Q3	2022Q9	###	3	9	2,253	0	1	0	0	1,492	Forecast #####	2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1	0		Forecast #####	2,245
134	2023Q1	2023Q3	###	1	3	2,022	=AVERAGE(K130,K126,K122,K118,K114,K110,K106,K102,K98,K94)						2,022
135	2023Q2	2023Q6	###	2	6	1,971	1	0	0	0	1,766	Forecast #####	1,971

95	2013Q2	2013Q6	###	2	6	1,631	1	0	0	0	1,157	#####	
96	2013Q3	2013Q9	###	3	9	1,445	0	1	0	0	1,128	#####	
97	2013Q4	201312	###	4	12	1,607	0	0	1	0	1,221	#####	
98	2014Q1	2014Q3	###	1	3	1,697	0	0	0	0	1,518	#####	
99	2014Q2	2014Q6	###	2	6	1,908	1	0	0	0	1,454	#####	
100	2014Q3	2014Q9	###	3	9	2,158	0	1	0	0	1,473	#####	
101	2014Q4	201412	###	4	12	1,275	0	0	1	0	2,038	#####	
102	2015Q1	2015Q3	###	1	3	2,176	0	0	0	0	1,696	#####	
103	2015Q2	2015Q6	###	2	6	1,601	1	0	0	0	1,669	#####	
104	2015Q3	2015Q9	###	3	9	2,421	0	1	0	0	1,817	#####	
105	2015Q4	201512	###	4	12	1,910	0	0	1	0	1,983	#####	
106	2016Q1	2016Q3	###	1	3	986	0	0	0	0	1,948	#####	
107	2016Q2	2016Q6	###	2	6	1,180	1	0	0	0	1,667	#####	
108	2016Q3	2016Q9	###	3	9	2,182	0	1	0	0	1,862	#####	
109	2016Q4	201612	###	4	12	1,787	0	0	1	0	1,668	#####	
110	2017Q1	2017Q3	###	1	3	1,692	0	0	0	0	2,147	#####	
111	2017Q2	2017Q6	###	2	6	1,183	1	0	0	0	2,155	#####	
112	2017Q3	2017Q9	###	3	9	1,820	0	1	0	0	1,769	#####	
113	2017Q4	201712	###	4	12	3,443	0	0	1	0	2,036	#####	
114	2018Q1	2018Q3	###	1	3	2,952	0	0	0	0	2,595	#####	
115	2018Q2	2018Q6	###	2	6	3,457	1	0	0	0	2,483	#####	
116	2018Q3	2018Q9	###	3	9	3,086	0	1	0	0	2,195	#####	
117	2018Q4	201812	###	4	12	2,798	0	0	1	0	2,315	#####	
118	2019Q1	2019Q3	###	1	3	1,391	0	0	0	0	2,475	#####	
119	2019Q2	2019Q6	###	2	6	1,933	1	0	0	0	2,293	#####	
120	2019Q3	2019Q9	###	3	9	4,011	0	1	0	0	1,870	#####	
121	2019Q4	201912	###	4	12	2,615	0	0	1	0	1,993	#####	
122	2020Q1	2020Q3	###	1	3	1,796	0	0	0	0	2,028	#####	
123	2020Q2	2020Q6	###	2	6	1,635	1	0	0	0	1,631	#####	
124	2020Q3	2020Q9	###	3	9	1,499	0	1	0	0	1,982	#####	
125	2020Q4	202012	###	4	12	1,246	0	0	1	0	1,853	#####	
126	2021Q1	2021Q3	###	1	3	2,092	0	0	0	0	1,573	#####	
127	2021Q2	2021Q6	###	2	6	3,170	1	0	0	0	1,636	#####	
128	2021Q3	2021Q9	###	3	9	3,885	0	1	0	0	1,615	#####	
129	2021Q4	202112	###	4	12	2,347	0	0	1	0	1,909	#####	
130	2022Q1	2022Q3	###	1	3	1,620	0	0	0	0	1,453	Forecast #####	1,620
131	2022Q2	2022Q6	###	2	6	1,743	1	0	0	0	1,511	Forecast #####	1,743
132	2022Q3	2022Q9	###	3	9	2,253	0	1	0	0	1,492	Forecast #####	2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1	0		Forecast #####	2,245
134	2023Q1	2023Q3	###	1	3	2,022							2,022
135	2023Q2	2023Q6	###	2	6	1,971	=AVERAGE(K131,K127,K123,K119,K115,K111,K107,K103,K99,K95)						1,971
136	2023Q3	2023Q9	###	3	9	2,457	0	1	0	0	1,720	Forecast #####	2,457

96	2013Q3	201309	###	3	9	1,445	0	1	0	0	1,128	#####	
97	2013Q4	201312	###	4	12	1,607	0	0	1	0	1,221	#####	
98	2014Q1	201403	###	1	3	1,697	0	0	0	0	1,518	#####	
99	2014Q2	201406	###	2	6	1,908	1	0	0	0	1,454	#####	
100	2014Q3	201409	###	3	9	2,158	0	1	0	0	1,473	#####	
101	2014Q4	201412	###	4	12	1,275	0	0	1	0	2,038	#####	
102	2015Q1	201503	###	1	3	2,176	0	0	0	0	1,696	#####	
103	2015Q2	201506	###	2	6	1,601	1	0	0	0	1,669	#####	
104	2015Q3	201509	###	3	9	2,421	0	1	0	0	1,817	#####	
105	2015Q4	201512	###	4	12	1,910	0	0	1	0	1,983	#####	
106	2016Q1	201603	###	1	3	986	0	0	0	0	1,948	#####	
107	2016Q2	201606	###	2	6	1,180	1	0	0	0	1,667	#####	
108	2016Q3	201609	###	3	9	2,182	0	1	0	0	1,862	#####	
109	2016Q4	201612	###	4	12	1,787	0	0	1	0	1,668	#####	
110	2017Q1	201703	###	1	3	1,692	0	0	0	0	2,147	#####	
111	2017Q2	201706	###	2	6	1,183	1	0	0	0	2,155	#####	
112	2017Q3	201709	###	3	9	1,820	0	1	0	0	1,769	#####	
113	2017Q4	201712	###	4	12	3,443	0	0	1	0	2,036	#####	
114	2018Q1	201803	###	1	3	2,952	0	0	0	0	2,595	#####	
115	2018Q2	201806	###	2	6	3,457	1	0	0	0	2,483	#####	
116	2018Q3	201809	###	3	9	3,086	0	1	0	0	2,195	#####	
117	2018Q4	201812	###	4	12	2,798	0	0	1	0	2,315	#####	
118	2019Q1	201903	###	1	3	1,391	0	0	0	0	2,475	#####	
119	2019Q2	201906	###	2	6	1,933	1	0	0	0	2,293	#####	
120	2019Q3	201909	###	3	9	4,011	0	1	0	0	1,870	#####	
121	2019Q4	201912	###	4	12	2,615	0	0	1	0	1,993	#####	
122	2020Q1	202003	###	1	3	1,796	0	0	0	0	2,028	#####	
123	2020Q2	202006	###	2	6	1,635	1	0	0	0	1,631	#####	
124	2020Q3	202009	###	3	9	1,499	0	1	0	0	1,982	#####	
125	2020Q4	202012	###	4	12	1,246	0	0	1	0	1,853	#####	
126	2021Q1	202103	###	1	3	2,092	0	0	0	0	1,573	#####	
127	2021Q2	202106	###	2	6	3,170	1	0	0	0	1,636	#####	
128	2021Q3	202109	###	3	9	3,885	0	1	0	0	1,615	#####	
129	2021Q4	202112	###	4	12	2,347	0	0	1	0	1,909	#####	
130	2022Q1	202203	###	1	3	1,620	0	0	0	0	1,453	Forecast #####	1,620
131	2022Q2	202206	###	2	6	1,743	1	0	0	0	1,511	Forecast #####	1,743
132	2022Q3	202209	###	3	9	2,253	0	1	0	0	1,492	Forecast #####	2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1	0	1,764	Forecast #####	2,245
134	2023Q1	202303	###	1	3	2,022	0	0	0	0	1,900	Forecast #####	2,022
135	2023Q2	202306	###	2	6	1,971	1	0	0	0	1,766	Forecast #####	1,971
136	2023Q3	202309	###	3	9	2,457	0	=AVERAGE(K132,K128,K124,K120,K116,K112,K108,K104,K100,K96)				2,457	
137	2023Q4	202312	###	4	12	2,348	0	0	1	0	1,878	Forecast #####	2,348

97	2013Q4	201312	###	4	12	1,607	0	0	1	0	1,221	#####	
98	2014Q1	201403	###	1	3	1,697	0	0	0	0	1,518	#####	
99	2014Q2	201406	###	2	6	1,908	1	0	0	0	1,454	#####	
100	2014Q3	201409	###	3	9	2,158	0	1	0	0	1,473	#####	
101	2014Q4	201412	###	4	12	1,275	0	0	1	0	2,038	#####	
102	2015Q1	201503	###	1	3	2,176	0	0	0	0	1,696	#####	
103	2015Q2	201506	###	2	6	1,601	1	0	0	0	1,669	#####	
104	2015Q3	201509	###	3	9	2,421	0	1	0	0	1,817	#####	
105	2015Q4	201512	###	4	12	1,910	0	0	1	0	1,983	#####	
106	2016Q1	201603	###	1	3	986	0	0	0	0	1,948	#####	
107	2016Q2	201606	###	2	6	1,180	1	0	0	0	1,667	#####	
108	2016Q3	201609	###	3	9	2,182	0	1	0	0	1,862	#####	
109	2016Q4	201612	###	4	12	1,787	0	0	1	0	1,668	#####	
110	2017Q1	201703	###	1	3	1,692	0	0	0	0	2,147	#####	
111	2017Q2	201706	###	2	6	1,183	1	0	0	0	2,155	#####	
112	2017Q3	201709	###	3	9	1,820	0	1	0	0	1,769	#####	
113	2017Q4	201712	###	4	12	3,443	0	0	1	0	2,036	#####	
114	2018Q1	201803	###	1	3	2,952	0	0	0	0	2,595	#####	
115	2018Q2	201806	###	2	6	3,457	1	0	0	0	2,483	#####	
116	2018Q3	201809	###	3	9	3,086	0	1	0	0	2,195	#####	
117	2018Q4	201812	###	4	12	2,798	0	0	1	0	2,315	#####	
118	2019Q1	201903	###	1	3	1,391	0	0	0	0	2,475	#####	
119	2019Q2	201906	###	2	6	1,933	1	0	0	0	2,293	#####	
120	2019Q3	201909	###	3	9	4,011	0	1	0	0	1,870	#####	
121	2019Q4	201912	###	4	12	2,615	0	0	1	0	1,993	#####	
122	2020Q1	202003	###	1	3	1,796	0	0	0	0	2,028	#####	
123	2020Q2	202006	###	2	6	1,635	1	0	0	0	1,631	#####	
124	2020Q3	202009	###	3	9	1,499	0	1	0	0	1,982	#####	
125	2020Q4	202012	###	4	12	1,246	0	0	1	0	1,853	#####	
126	2021Q1	202103	###	1	3	2,092	0	0	0	0	1,573	#####	
127	2021Q2	202106	###	2	6	3,170	1	0	0	0	1,636	#####	
128	2021Q3	202109	###	3	9	3,885	0	1	0	0	1,615	#####	
129	2021Q4	202112	###	4	12	2,347	0	0	1	0	1,909	#####	
130	2022Q1	202203	###	1	3	1,620	0	0	0	0	1,453	Forecast #####	1,620
131	2022Q2	202206	###	2	6	1,743	1	0	0	0	1,511	Forecast #####	1,743
132	2022Q3	202209	###	3	9	2,253	0	1	0	0	1,492	Forecast #####	2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1	0	1,764	Forecast #####	2,245
134	2023Q1	202303	###	1	3	2,022	0	0	0	0	1,900	Forecast #####	2,022
135	2023Q2	202306	###	2	6	1,971	1	0	0	0	1,766	Forecast #####	1,971
136	2023Q3	202309	###	3	9	2,457	0						2,457
137	2023Q4	202312	###	4	12	2,348	0	=AVERAGE(K133,K129,K125,K121,K117,K113,K109,K105,K101,K97)				2,348	
138	2024Q1	202403	###	1	3	2,051	0	0	0	0	1,933	Forecast #####	2,051

98	2014Q1	2014Q3	###	1	3	1,697	0	0	0		1,518	#####
99	2014Q2	2014Q6	###	2	6	1,908	1	0	0		1,454	#####
100	2014Q3	2014Q9	###	3	9	2,158	0	1	0		1,473	#####
101	2014Q4	201412	###	4	12	1,275	0	0	1		2,038	#####
102	2015Q1	2015Q3	###	1	3	2,176	0	0	0		1,696	#####
103	2015Q2	2015Q6	###	2	6	1,601	1	0	0		1,669	#####
104	2015Q3	2015Q9	###	3	9	2,421	0	1	0		1,817	#####
105	2015Q4	201512	###	4	12	1,910	0	0	1		1,983	#####
106	2016Q1	2016Q3	###	1	3	986	0	0	0		1,948	#####
107	2016Q2	2016Q6	###	2	6	1,180	1	0	0		1,667	#####
108	2016Q3	2016Q9	###	3	9	2,182	0	1	0		1,862	#####
109	2016Q4	201612	###	4	12	1,787	0	0	1		1,668	#####
110	2017Q1	2017Q3	###	1	3	1,692	0	0	0		2,147	#####
111	2017Q2	2017Q6	###	2	6	1,183	1	0	0		2,155	#####
112	2017Q3	2017Q9	###	3	9	1,820	0	1	0		1,769	#####
113	2017Q4	201712	###	4	12	3,443	0	0	1		2,036	#####
114	2018Q1	2018Q3	###	1	3	2,952	0	0	0		2,595	#####
115	2018Q2	2018Q6	###	2	6	3,457	1	0	0		2,483	#####
116	2018Q3	2018Q9	###	3	9	3,086	0	1	0		2,195	#####
117	2018Q4	201812	###	4	12	2,798	0	0	1		2,315	#####
118	2019Q1	2019Q3	###	1	3	1,391	0	0	0		2,475	#####
119	2019Q2	2019Q6	###	2	6	1,933	1	0	0		2,293	#####
120	2019Q3	2019Q9	###	3	9	4,011	0	1	0		1,870	#####
121	2019Q4	201912	###	4	12	2,615	0	0	1		1,993	#####
122	2020Q1	2020Q3	###	1	3	1,796	0	0	0		2,028	#####
123	2020Q2	2020Q6	###	2	6	1,635	1	0	0		1,631	#####
124	2020Q3	2020Q9	###	3	9	1,499	0	1	0		1,982	#####
125	2020Q4	202012	###	4	12	1,246	0	0	1		1,853	#####
126	2021Q1	2021Q3	###	1	3	2,092	0	0	0		1,573	#####
127	2021Q2	2021Q6	###	2	6	3,170	1	0	0		1,636	#####
128	2021Q3	2021Q9	###	3	9	3,885	0	1	0		1,615	#####
129	2021Q4	202112	###	4	12	2,347	0	0	1		1,909	#####
130	2022Q1	2022Q3	###	1	3	1,620	0	0	0		1,453	Forecast ##### 1,620
131	2022Q2	2022Q6	###	2	6	1,743	1	0	0		1,511	Forecast ##### 1,743
132	2022Q3	2022Q9	###	3	9	2,253	0	1	0		1,492	Forecast ##### 2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1		1,764	Forecast ##### 2,245
134	2023Q1	2023Q3	###	1	3	2,022	0	0	0		1,900	Forecast ##### 2,022
135	2023Q2	2023Q6	###	2	6	1,971	1	0	0		1,766	Forecast ##### 1,971
136	2023Q3	2023Q9	###	3	9	2,457	0	1	0		1,720	Forecast ##### 2,457
137	2023Q4	202312	###	4	12	2,348	0					2,348
138	2024Q1	2024Q3	###	1	3	2,051	0	=AVERAGE(K134,K130,K126,K122,K118,K114,K110,K106,K102,K98)			2,051	
139	2024Q2	2024Q6	###	2	6	2,026	1	0	0		1,826	Forecast ##### 2,026

99	2014Q2	2014Q6	###	2	6	1,908	1	0	0		1,454	#####
100	2014Q3	2014Q9	###	3	9	2,158	0	1	0		1,473	#####
101	2014Q4	201412	###	4	12	1,275	0	0	1		2,038	#####
102	2015Q1	2015Q3	###	1	3	2,176	0	0	0		1,696	#####
103	2015Q2	2015Q6	###	2	6	1,601	1	0	0		1,669	#####
104	2015Q3	2015Q9	###	3	9	2,421	0	1	0		1,817	#####
105	2015Q4	201512	###	4	12	1,910	0	0	1		1,983	#####
106	2016Q1	2016Q3	###	1	3	986	0	0	0		1,948	#####
107	2016Q2	2016Q6	###	2	6	1,180	1	0	0		1,667	#####
108	2016Q3	2016Q9	###	3	9	2,182	0	1	0		1,862	#####
109	2016Q4	201612	###	4	12	1,787	0	0	1		1,668	#####
110	2017Q1	2017Q3	###	1	3	1,692	0	0	0		2,147	#####
111	2017Q2	2017Q6	###	2	6	1,183	1	0	0		2,155	#####
112	2017Q3	2017Q9	###	3	9	1,820	0	1	0		1,769	#####
113	2017Q4	201712	###	4	12	3,443	0	0	1		2,036	#####
114	2018Q1	2018Q3	###	1	3	2,952	0	0	0		2,595	#####
115	2018Q2	2018Q6	###	2	6	3,457	1	0	0		2,483	#####
116	2018Q3	2018Q9	###	3	9	3,086	0	1	0		2,195	#####
117	2018Q4	201812	###	4	12	2,798	0	0	1		2,315	#####
118	2019Q1	2019Q3	###	1	3	1,391	0	0	0		2,475	#####
119	2019Q2	2019Q6	###	2	6	1,933	1	0	0		2,293	#####
120	2019Q3	2019Q9	###	3	9	4,011	0	1	0		1,870	#####
121	2019Q4	201912	###	4	12	2,615	0	0	1		1,993	#####
122	2020Q1	2020Q3	###	1	3	1,796	0	0	0		2,028	#####
123	2020Q2	2020Q6	###	2	6	1,635	1	0	0		1,631	#####
124	2020Q3	2020Q9	###	3	9	1,499	0	1	0		1,982	#####
125	2020Q4	202012	###	4	12	1,246	0	0	1		1,853	#####
126	2021Q1	2021Q3	###	1	3	2,092	0	0	0		1,573	#####
127	2021Q2	2021Q6	###	2	6	3,170	1	0	0		1,636	#####
128	2021Q3	2021Q9	###	3	9	3,885	0	1	0		1,615	#####
129	2021Q4	202112	###	4	12	2,347	0	0	1		1,909	#####
130	2022Q1	2022Q3	###	1	3	1,620	0	0	0		1,453	Forecast ##### 1,620
131	2022Q2	2022Q6	###	2	6	1,743	1	0	0		1,511	Forecast ##### 1,743
132	2022Q3	2022Q9	###	3	9	2,253	0	1	0		1,492	Forecast ##### 2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1		1,764	Forecast ##### 2,245
134	2023Q1	2023Q3	###	1	3	2,022	0	0	0		1,900	Forecast ##### 2,022
135	2023Q2	2023Q6	###	2	6	1,971	1	0	0		1,766	Forecast ##### 1,971
136	2023Q3	2023Q9	###	3	9	2,457	0	1	0		1,720	Forecast ##### 2,457
137	2023Q4	202312	###	4	12	2,348	0					2,348
138	2024Q1	2024Q3	###	1	3	2,051	0					2,051
139	2024Q2	2024Q6	###	2	6	2,026	1	=AVERAGE(K135,K131,K127,K123,K119,K115,K111,K107,K103,K99)			2,026	
140	2024Q3	2024Q9	###	3	9	2,511	0	1	0		1,780	Forecast ##### 2,511

100	2014Q3	201409	###	3	9	2,158	0	1	0	0	1,473	#####
101	2014Q4	201412	###	4	12	1,275	0	0	1	0	2,038	#####
102	2015Q1	201503	###	1	3	2,176	0	0	0	0	1,696	#####
103	2015Q2	201506	###	2	6	1,601	1	0	0	0	1,669	#####
104	2015Q3	201509	###	3	9	2,421	0	1	0	0	1,817	#####
105	2015Q4	201512	###	4	12	1,910	0	0	1	0	1,983	#####
106	2016Q1	201603	###	1	3	986	0	0	0	0	1,948	#####
107	2016Q2	201606	###	2	6	1,180	1	0	0	0	1,667	#####
108	2016Q3	201609	###	3	9	2,182	0	1	0	0	1,862	#####
109	2016Q4	201612	###	4	12	1,787	0	0	1	0	1,668	#####
110	2017Q1	201703	###	1	3	1,692	0	0	0	0	2,147	#####
111	2017Q2	201706	###	2	6	1,183	1	0	0	0	2,155	#####
112	2017Q3	201709	###	3	9	1,820	0	1	0	0	1,769	#####
113	2017Q4	201712	###	4	12	3,443	0	0	1	0	2,036	#####
114	2018Q1	201803	###	1	3	2,952	0	0	0	0	2,595	#####
115	2018Q2	201806	###	2	6	3,457	1	0	0	0	2,483	#####
116	2018Q3	201809	###	3	9	3,086	0	1	0	0	2,195	#####
117	2018Q4	201812	###	4	12	2,798	0	0	1	0	2,315	#####
118	2019Q1	201903	###	1	3	1,391	0	0	0	0	2,475	#####
119	2019Q2	201906	###	2	6	1,933	1	0	0	0	2,293	#####
120	2019Q3	201909	###	3	9	4,011	0	1	0	0	1,870	#####
121	2019Q4	201912	###	4	12	2,615	0	0	1	0	1,993	#####
122	2020Q1	202003	###	1	3	1,796	0	0	0	0	2,028	#####
123	2020Q2	202006	###	2	6	1,635	1	0	0	0	1,631	#####
124	2020Q3	202009	###	3	9	1,499	0	1	0	0	1,982	#####
125	2020Q4	202012	###	4	12	1,246	0	0	1	0	1,853	#####
126	2021Q1	202103	###	1	3	2,092	0	0	0	0	1,573	#####
127	2021Q2	202106	###	2	6	3,170	1	0	0	0	1,636	#####
128	2021Q3	202109	###	3	9	3,885	0	1	0	0	1,615	#####
129	2021Q4	202112	###	4	12	2,347	0	0	1	0	1,909	#####
130	2022Q1	202203	###	1	3	1,620	0	0	0	0	1,453	Forecast ##### 1,620
131	2022Q2	202206	###	2	6	1,743	1	0	0	0	1,511	Forecast ##### 1,743
132	2022Q3	202209	###	3	9	2,253	0	1	0	0	1,492	Forecast ##### 2,253
133	2022Q4	202212	###	4	12	2,245	0	0	1	0	1,764	Forecast ##### 2,245
134	2023Q1	202303	###	1	3	2,022	0	0	0	0	1,900	Forecast ##### 2,022
135	2023Q2	202306	###	2	6	1,971	1	0	0	0	1,766	Forecast ##### 1,971
136	2023Q3	202309	###	3	9	2,457	0	1	0	0	1,720	Forecast ##### 2,457
137	2023Q4	202312	###	4	12	2,348	0	0	1	0	1,878	Forecast ##### 2,348
138	2024Q1	202403	###	1	3	2,051	0	0	0	0	1,933	Forecast ##### 2,051
139	2024Q2	202406	###	2	6	2,026						026
140	2024Q3	202409	###	3	9	2,511	=AVERAGE(K136,K132,K128,K124,K120,K116,K112,K108,K104,K100)					511
141	2024Q4	202412	###	4	12	2,407	0	0	1	0	1,944	Forecast ##### 2,407

APPENDIX G

Screenshot from TURN's revised workpapers for Ex. TURN-14, SCG-SDGE-TURN-002
attach3_erratum, Tab "11-GrcSummary"

AutoSave Off SCG-SDGE-TURN-002 atch3_erratum.xlsx - Read-Only

File Home Insert Draw Page Layout Formulas Data Review View Automate Help Acrobat

B9

	A	B	C	D	E	F
1	<u>Year</u>	<u>Res Avg</u>	<u>% Ch</u>			
2	2021	1,329,156				
3	2022	1,339,912	0.81%			
4	2023	1,350,237	0.77%			
5	2024	1,361,013	0.80%			
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

3-ModelDataQ 4-ResReg 5-ResFcastQ 6-ResFcastM 7-NonResFcastQ 8-NonResFcastM 9-Trend% 10-AllFcastM 11-GrcSummary