

**APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY &
SAN DIEGO GAS & ELECTRIC COMPANY FOR AUTHORITY TO REVISE THEIR
NATURAL GAS RATES AND IMPLEMENT STORAGE PROPOSALS EFFECTIVE
JANUARY 1, 2020 IN THE TRIENNIAL COST ALLOCATION PROCEEDING**

(A.18-07-024)

(DATA REQUEST PA OFFICE-2020TCP-005)

DATE RECEIVED: 09/14/18

DATE RESPONDED: 10/5/18

QUESTION 1:

For the commercial non-core econometric model results provided in response to ORA-Sempra-2020TCAP-002, Question 21, please explain how Sempra defines and calculates the variable PTERM1.

RESPONSE 1:

The price used in the analysis was the monthly weighted average price of gas (WACOG) for the Southern California Gas service territory. This price indicator was chosen because all customers pay for the cost of gas whether they are volumetric or transportation customers. The WACOG was converted from nominal price to real price using consumer price index (CPI). To interpret the price term (PTERM1) regression coefficient as an elasticity value, the real price was multiplied by the ratio of the average business type usage to the average real price, as show in the formula below:

$$PTERM1_t = \frac{(Real Price)_{(t-1)} \times (Average\ monthly\ usage\ by\ business\ type)}{(Average\ real\ price)}$$

Where:

Real Price	CPI adjusted natural gas real price
t (or t-1)	month # in time series

Note that to estimate price elasticities for each business type, “average monthly usage” is calculated and used by each business type, respectively. As a result, even though we use the same price data for each business type, the values of PTERM1 will vary by business type since the “Average monthly usage” vary by business type.

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QUESTION 2:

For the industrial non-core econometric model results provided in response to ORA-Sempra-2020TCAP-002, Question 22, please explain how Sempra defines and calculates the variable PTERM1.

RESPONSE 2:

The variable PTERM1 in noncore industrial model data is created using the same method and formula as the same variable name in noncore commercial model data. Please see Response 1 for a detailed explanation of this variable.

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QUESTION 3:

In response to ORA-Sempra-2020TCAP002, Question 10, Sempra provided residential econometric model results and data from SoCalGas' 2005 BCAP filing. For the period from January 2015 through December 2017, please provide, on a monthly basis, the following recorded residential model variables

- (a) USE1
- (b) USE2
- (c) USE3
- (d) USE4
- (e) USE5
- (f) MTR1
- (g) MTR2
- (h) MTR3
- (i) MTR4
- (j) MTR5
- (k) EFF1
- (l) EFF2
- (m) EFF3
- (n) EFF4
- (o) EFF5
- (p) CYCHDD
- (q) RATE1
- (r) RATE2
- (s) RATE3
- (t) RATE4
- (u) RATE5
- (v) BD

Please provide the data in an Excel spreadsheet.

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RESPONSE 3:

SoCalGas objects on the grounds that the request is seeking a level of detail that would be unduly burdensome and time-consuming to generate. Notwithstanding and subject to the foregoing objection, SoCalGas provides the following response: Please find the data requested for items (a)-(j) and (p)-(v) in the attached file. Please note that items (k)-(o), EFF1-EFF5 are not available and would require extensive work to create. Moreover, when the same data was requested in the prior TCAP (A.15-07-014), SoCalGas and Cal PA (then the Office of Ratepayer Advocates) agreed that it need not be provided.

Please note that data provided here is slightly different from that provided in the previous TCAP, A.15-07-014. Consequently, it should not be appended to the data provided in the previous TCAP. To allow for a sufficient history of data for analysis by Cal PA, this response contains data from years 2011-2017 and not only the years 2015-2017 requested.



California PA Data
Request 5 Question

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QUESTION 4:

In response to ORA-Sempra-2020TCAP-002, Question 13, Sempra provided commercial core econometric data results from its 2005 BCAP filing. For the period from January 1986 through December 2017, please provide, on a monthly basis, for each of the commercial core sectors the following variables:

- (a) USE
- (b) EI-NSH
- (c) EI-SH
- (d) HDD
- (e) BILLDAYS
- (f) SPRING
- (g) FALL
- (h) WINTER
- (i) PW
- (j) EMP
- (k) SHIFT

Please provide the data in an Excel spreadsheet.

RESPONSE 4:

(a)

The SoCalGas and SDG&E Gas Demand Forecasting Group has not used the referenced econometric models since the 2005 BCAP, and the models have not updated the underlying data since then. Consistent with the underlying 2005 BCAP filing, many of the core commercial historical data that was requested can only be provided for the years January 1980 to March 2003. In the Excel spreadsheet attached below, please find the data inputs for these limited years, all in separate tabs and named appropriately, for the data used to generate the results of the 2005 BCAP.

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2005 BCAP

filing__econometric s:



core comm Wkpaper

1.pdf

The data contained in this file (in worksheet tabs from left to right) are as follows:

- Seasons
- Appendix A- Usage: per the description in the accompanying workpaper, section 2.1, the usage in the file is defined as data from the Customer Information Systems and include customers on the G10 rate as of March 2003.
- Appendix B- Employment
- Appendix C- gas rates
- Appendix D1- space efficiency index
- Appendix D2- non space efficiency index
- Appendix F= Forecast for Average Year Design
- Appendix F- Forecast for Cold Year Design

More recent historical “as-used” core commercial usage data by business segment type (for SoCalGas and SDG&E, respectively) are contained in the two separate files below

“DR_ORA_2020 TCAP 005 Q_4a pt i.xls” and “DR_ORA_2020 TCAP 005 Q4a SDGE.xls.”

Please note, however, the data contained in the files below are not directly comparable to the data in the 2005 BCAP study.



DR_ORA



DR_ORA_2020TCAP_0

2020TCAP_005_Questi05 Question 4a_part ii

(b)

For the period covering January 1980-March 2003, please refer to the Excel file named “2005 BCAP Filing Econometric Study.xls,” Appendix D2. The data have not been compiled since the 2005 BCAP filing.

(c)

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For the period covering January 1980-March 2003, please refer to the Excel file named "2005 BCAP Filing Econometric Study.xls," Appendix D1. The data have not been continuously compiled since the 2005 BCAP filing.

(d)

Please refer to the spreadsheet contained below and named DR-ORA_2020TCAP005_ Question 4 and 5 for historical weather detail for SoCalGas and SDG&E.



DR_ORA_2020TCAP
005 Question 4 and 5.

(e)

The cycle billing days are contained in the Excel formatted spreadsheet attached to response 4(d).

(f)

Seasonal Dummies are contained in the first tab of the Excel formatted workbook submitted for part 4(a), in the tab named "Seasons".

(g)

Seasonal Dummies are contained in the first tab of the Excel formatted workbook submitted for part 4(a) in the tab named "Seasons".

(h)

Seasonal Dummies are contained in the first tab of the Excel formatted workbook submitted for part 4(a) in the tab named "Seasons".

(i)

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For the period covering January 1980-March 2003 and named variable Pw, please refer to the Excel file named "2005 BCAP Filing Econometric Study.xls" Appendix C. The data have not been compiled since the 2005 BCAP filing.

(j)

For commercial employment historical data, please refer to response 4(a). The employment for the respective utilities are in separate tabs in the files:

"DR_ORA_2020 TCAP 005 Q_4a pt i.xls" and

"DR_ORA_2020 TCAP 005 Q4a SDGE.xls"

(k)

The variable shift is an indicator variable due to business structural changes and exogenous impacts, as defined in section 3.1 of the accompanying core industrial workpapers for the 2005 BCAP filing. However, the variable shift cannot be located or reproduced.

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QUESTION 5:

In response to ORA-Sempra-2020TCAP-002, Question 18, Sempra provided industrial core econometric model results from its 2005 BCAP filing. For the period from January 1986 through December 2017, please provide, on a monthly basis, for each of the industrial core sectors, the following variables

- (a) USE
- (b) WINTER
- (c) SPRING
- (d) FALL
- (e) SHIFT
- (f) BILLDAYS
- (g) EI
- (h) HDD
- (i) EMP
- (j) PW

Please provide the data in an Excel spreadsheet.

RESPONSE 5:

(a)

The SoCalGas and SDG&E Gas Demand Forecasting Group has not used the referenced econometric models since the 2005 BCAP, and the models have not updated the underlying core industrial data since then. Consistent with the underlying 2005 BCAP filing, many of the core industrial historical data that was requested can only be provided for the years January 1980 to March 2003. In the Excel spreadsheet attached below, please find the data inputs for these limited years, all in separate columns and named appropriately, for the data used to generate the results of the 2005 BCAP.

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2005 bcap_core

industrial data_dat07



Core Ind

Wkpaper2.pdf

Per the description in the accompanying workpaper, section 2.0, the usage in the file is defined as data from the Customer Information Systems and include customers on the G10 rate as of March 2003

Please note, however, that econometric models were not used to prepare the 2020 TCAP forecast results. The file attached below contains the following updated “as-used” data for the core industrial market (in tabs from left to right)

SCG Usage
SDGE Usage
SCG employment
SDGE employment



ORA DR-005
Q5_Chū.xlsx

Please note that the core industrial data contained in the above file are not comparable to the data found in the 2005 BCAP study.

(b)

Please find the seasonal dummy data in the Excel formatted file (tab marked “Seasons”) submitted for response 4(a).

(c)

Please find the seasonal dummy data in the Excel formatted file (tab marked “Seasons”) submitted for response 4(a).

(d)

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Please find the seasonal dummy data in the Excel formatted file (tab marked "Seasons") submitted for response 4(a).

(e)

The variable shift is an indicator variable due to business structural changes and exogenous impacts, as defined in section 3.1 of the accompanying core industrial workpapers for the 2005 BCAP filing. However, the variable shift cannot be located or reproduced.

(f)

Please refer to the Excel spreadsheets submitted for response 4(d) and 4(e), specifically the two files, herein named:

DR-ORA_2020TCAP005_Question 4 and 5 for historical weather detail for SoCalGas.

DR-ORA-2020TCAP005_Question 4 and 5 for historical weather detail for SDG&E.

(g)

For the period covering January 1980-March 2003 and named variable EI, please refer to the Excel file named "2005 BCAP core industrial data.xls" submitted in response 5(a). The data have not been continuously compiled since the 2005 BCAP filing.

(h)

Please refer to the Excel spreadsheet attached to the response to question 4(h).

(i)

Please refer to the Excel files submitted in the response to part 5(a).

(j)

For the period covering January 1980-March 2003 and named variable Pw, please refer to the Excel file named "2005 BCAP core industrial data.xls" submitted in response 5(a). The data have not been compiled since the 2005 BCAP filing.