

**SOUTHERN CALIFORNIA GAS COMPANY
LOW INCOME ASSISTANCE PROGRAMS & BUDGETS
FOR PROGRAM YEARS 2015-2017
(A.14-11-011)
(DATA REQUEST DRA-SOCALGAS-003)**

QUESTION 1:

Regarding A.14-11-011, please provide the E3 calculator(s) supporting the application. Specify the source and vintage of the load profiles utilized in running the E3 calculator supporting the application.

RESPONSE 1:

SoCalGas used one version, but nine total E3 calculators to support SoCalGas' application. The E3 calculator was used for each year (2015, 2016 and 2017), each year using two discount rates (the discount rate currently in the E3 calculator as well as the most recent approved SoCal Gas WACC discount rate) and one calculator considering a prevailing wage. The nine E3 calculator files are attached separately from this response template.

The E3 Calculator used was the most current available for SoCalGas, titled: "SoCal 2013 v1c4-Draft.xlsm", found at: https://ethree.com/public_projects/cpuc4.php

In the E3 Calculator, tab "CostG" contains rates and avoided costs based on load shape. SoCalGas did not make any changes to this tab. For more information, please see the attachment below, which taken from the E3 Calculator website.



E3_Calculator_TechM
emo_6d.docx

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QUESTION 2:

Regarding ESA Table A-5 filed in A.14-11-011, please provide the portion of ESA requested program funding supporting the “resource measures” utilized in calculating the Resource TRC. Specifically, provide the all costs exclusive of administrative costs utilized in calculating the Resource TRC as a percentage of all costs exclusive of administrative costs utilized in calculating the ESACET.

RESPONSE 2:

SoCalGas proposed to identify three measures as non-resource: duct testing and sealing, repair and replacement of non-FAU furnaces and repair and replacement of water heaters. Therefore, if administrative costs are omitted, the difference between the cost of all measures and the cost of all resource measures will be the costs of these three non-resource measures.

In ESA Table A-5, SoCalGas included the ESACET and Resource TRC tests using two different discount rates (7.38% and 6.95%). The discount rates affect the net present value (NPV) calculations, as shown below.

7.38% discount rate:

2015:

NPV Cost of all measures: \$94,603,500

NPV Cost of resource measures: \$78,211,497

Resource Costs / All Costs = 82.7%

2016:

NPV Cost of all measures: \$101,574,630

NPV Cost of resource measures: \$84,815,508

Resource Costs / All Costs = 83.5%

2017:

NPV Cost of all measures: \$106,526,084

NPV Cost of resource measures: \$87,349,642

Resource Costs / All Costs = 82.0%

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RESPONSE 2 (cont.):

6.95% discount rate:

2015:

NPV Cost of all measures: \$94,703,462

NPV Cost of resource measures: \$78,297,155

Resource Costs / All Costs = 82.7%

2016:

NPV Cost of all measures: \$101,681,958

NPV Cost of resource measures: \$84,908,399

Resource Costs / All Costs = 83.5%

2017:

NPV Cost of all measures: \$106,638,644

NPV Cost of resource measures: \$87,445,308

Resource Costs / All Costs = 82.0%

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QUESTION 3:

Regarding ESA Table A-5 filed in A.14-11-011, please provide the following inputs:

- a. Gas Resource Benefit (Gas Avoided Costs Benefit)
- b. Water Non-Energy Benefits
- c. Arrearages Non-Energy Benefits
- d. Reduced Customer Calls Non-Energy Benefits
- e. Remaining Utility Non-Energy Benefits
- f. Participant Non-Energy Benefits
- g. Administrative Cost
- h. Utility Gas Measure Cost
- i. Participant Measure Cost

RESPONSE 3:

The Low-Income Public Purpose Test (LIPPT) models calculate the non-energy benefits used for the ESACET. The below attachments titled "...scg LIEE CE MPT for 2014 AR_application..." calculate the participant benefits and attachments titled "...scg LIEE CE MPT for 2014 AR_UCT_application..." calculate the utility/ratepayer benefits for each of the three program years (2015-2017).

- a. Gas Resource Benefit (Gas Avoided Costs Benefit)
Located on tab "2_Energy Rates"
- b. Water Non-Energy Benefits
Located on tab "12_NEB & Measure Ratios" – columns AX and AY
- c. Arrearages Non-Energy Benefits
Located on tab "12_NEB & Measure Ratios" – columns J and K
- d. Reduced Customer Calls Non-Energy Benefits
Located on tab "12_NEB & Measure Ratios" – columns T and U
- e. Remaining Utility Non-Energy Benefits
Located on tab "12_NEB & Measure Ratios" – columns J through AH
- f. Participant Non-Energy Benefits
Located on tab "12_NEB & Measure Ratios" – columns AX through BV

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RESPONSE 3(cont.):

g. Administrative Cost

Administrative costs are located in multiple areas. In the E3 Calculator the total nominal administrative costs are located on tab "Input," cell N12. In the LIPPT models, there is a breakdown of administrative costs on tab "4_Cost Summary."

h&i. Utility Gas Measure Cost and Participant Measure Cost

Costs are not split out by utility or participant. There are measure costs, which are the costs for the actual equipment and installation and there are administrative costs. The measure costs can be found in the E3 Calculator on tab "Input." Cost per measure is in column L. Also, these costs can be found in the LIPPT models, tab "3_Measure Cost & Savings," column H has the cost per measure and column I has total cost per measure (cost/measure * quantity of measures).

2015 Participant Benefits



2015 scg LIEE CE
MPT for 2014 AR_appl

2015 Participant Benefits using WACC



2015 scg LIEE CE
MPT for 2014 AR_appl

2015 Utility Benefits



2015 scg LIEE CE
MPT for 2014 AR_UCT

2015 Utility Benefits using WACC



2015 scg LIEE CE
MPT for 2014 AR_UCT

2016 Participant Benefits



2016 scg LIEE CE
MPT for 2014 AR_appl

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RESPONSE 3(cont.):

2016 Participant Benefits using WACC



2016 scg LIEE CE
MPT for 2014 AR_appl

2016 Utility Benefits



2016 scg LIEE CE
MPT for 2014 AR_UC_

2016 Utility Benefits using WACC



2016 scg LIEE CE
MPT for 2014 AR_UC_

2017 Participant Benefits



2017 scg LIEE CE
MPT for 2014 AR_appl

2017 Participant Benefits using WACC



2017 scg LIEE CE
MPT for 2014 AR_appl

2017 Utility Benefits



2017 scg LIEE CE
MPT for 2014 AR_UC_

2017 Utility Benefits using WACC



2017 scg LIEE CE
MPT for 2014 AR_UC_

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QUESTION 4:

Regarding ESA Table A-2 filed in A.14-11-011, please provide the source(s) of the energy savings estimate utilized for each measure in column A (Measures). Source(s) may include 2011 Impact Evaluation Report (released Aug 2013), DEER database (specify date of update to DEER), workpapers, other. If source of energy savings estimate is workpapers or other, provide a copy of the workpapers or other source.

RESPONSE 4:

All measures except for the two new proposed measures (tub spouts and high efficiency furnaces) annual therm savings are from the two most recent low-income impact evaluation reports. These reports can be found on Calmac at <http://www.calmac.org/default.asp> by searching the following title or study ID.

1. PY2011 Energy Savings Assistance Program Impact Evaluation, Study ID SDG0273.01 and SDG0273.02
2. Impact Evaluation of the 2009 California low-income Energy Efficiency Program, Study ID SCE0273.01 and SCE0273.02

The annual therm savings for furnace replacement with a high efficiency furnace is calculated in the workpaper attached below. On page 10 of the workpaper there are four embedded excel spreadsheets. The first spreadsheet contains annual therm savings by utility, FAU, housing type and climate zone.



Furnace
Workpaper_WPSCGRE

Tub spouts are a completely new measure and therefore was not included in any previous impact evaluations, DEER or workpapers. The therm savings for tub spouts used in the application is from a document by ShowerStart LLC titled "Systematically Reducing Shower Based Waste: Tubspout System Overview and Savings Estimates," attached below.



Tub Spout Overview
And Savings Estimates