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Witness: John C. Martin

SOUTHERN CALIFORNIA GAS COMPANY

ADVANCED METERING INFRASTRUCTURE

REBUTTAL TESTIMONY

CHAPTER 6

SOCALGAS AMI CONSERVATION IMPACTS AND BENEFITS

Prepared Rebuttal Testimony

of

John C. Martin

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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I. BACKGROUND

The purpose of this testimony is to respond to the intervener testimony submitted by several parties to the Southern California Gas Company's (SoCalGas) Advanced Metering Infrastructure (AMI) proceeding, A.08-09-023. Specifically, SoCalGas' AMI application and supporting testimony[1] identifies information feedback therm conservation benefits with a nominal direct value of $576 million over the analysis period (2009 through 2034). This therm conservation has an associated CO_2 benefit with a nominal direct value of $28.6 million over the analysis period. This testimony also calculates CO_2 benefit of eliminated vehicle miles with a nominal direct value of $0.6 million over the analysis period.[2] Specifically, this testimony will address issues raised by the California Public Utilities Commissions' (CPUC or Commission) Division of Ratepayer Advocates (DRA), The Utility Reform Network (TURN), and the Utility Workers Union of America (UWUA) to my Chapter VI, SoCalGas AMI Conservation Impacts And Benefits, as well as, additional arguments raised in an attempt to dissuade the Commission on the merits of SoCalGas' AMI conservation feedback benefits.

II. INTRODUCTION

DRA, TURN, and UWUA have made several claims or assertions that are not factually based and contrary to the factual evidence SoCalGas has presented in both Direct and Errata Testimony. DRA and TURN have selectively used responses to data requests and have not considered the complete responses or analysis that SoCalGas has presented. DRA, TURN, and UWUA are incorrect or draw flawed conclusion in several instances of their testimony.

III. SOCALGAS' PROPOSED CONSERVATION FEEDBACK COMPLEMENTS EXISTING AND FUTURE ENERGY EFFICIENCY (EE) PROGRAMS

TURN incorrectly states that, "[t]here is a danger of double counting the stimulus toward conservation from these energy efficiency programs and the information feedback opportunities SCG claims in this case."[3] Neither AMI nor EE programs have a monopoly on conservation so I

[1] SoCalGas filed prepared direct testimony supporting A.08-09-023 on September 29, 2008.
[2] SoCalGas Testimony Chapter IV, page IV-1.
[3] TURN, Schilberg, page 13.

am unclear as to what danger of double counting would exist or more importantly what the down side to this would be. On the contrary, I believe both AMI and EE can work together to enhance each other's effectiveness. Existing measurement and evaluation methodologies can disaggregate impacts for multiple EE measures installed by customers. Those same methodologies can account for new energy management tools adopted by customers, since web-based secure logons and display-based network connections data will be available for M&V analysis, just like EE program participation and measure installations are data based today.

The Commission should also be reminded that while TURN has raised its double counting issue in the present SoCalGas AMI case, and in SoCalGas' request for Approval of Gas Energy Efficiency Programs and Budgets for Years 2009-2011 (A.08-07-022), pending before the Commission. However, SoCalGas' AMI installations are scheduled to start in 2011 with approximately 9% of the meters modules installed by the end of 2011, the danger of any double counting of AMI and EE benefits is minor at best. Furthermore, SoCalGas has no therm savings identified in A.08-07-022 for Statewide Energy Efficiency Education and Training nor Statewide Marketing and Outreach, so any risk for this so-called double counting is really nonexistent.

The fact is that despite TURN's double counting concerns, California has taken great strides to promote energy efficiency and conservation measures for the utilities. The 2008 Energy Action Plan Update lists three key strategies to implement energy efficiency: building codes, appliance standards, and utility energy efficiency programs. The 2008 Energy Action Plan Update also states that, "In addition it will not be enough to replicate current strategies for delivery of energy efficiency options to consumers. To meet the AB 32 goals, we will need to employ new and innovative approaches not yet tried."[4] In D.08-07-047, the Commission outlined its goals for future energy efficiency savings goals. With SoCalGas' AMI proposal the Commission will have one more powerful tool to reduce gas usage in California; conservation feedback. Table V-1 illustrates that SoCalGas feedback conservation can add about 75% more therms to the state's existing EE therm savings goals by more than 70%.

[4] State of California, 2008 Update - Energy Action Plan, February 2008, Pages 7-8.

Table V-1 Comparison of Interim EE Goals for 2012 through 2020 and AMI Conservation (Mtherms)									
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
SoCalGas EE Goals*	18	34	34	35	34	33	34	34	34
SoCalGas AMI Feedback Conservation**	7	12	17	22	24	24	25	25	25
AMI Feedback as % of EE Goals	37%	35%	51%	63%	71%	74%	72%	73%	74%
*D.08-07-047, Table 2: Adopted Total Market Gross Goals (annual), page 23. **Workpapers of Mr. Martin Chapt V, "Conservation Benfit"									

TURN's double counting issue is misplaced here. The Commission should not be persuaded by arguments that feedback conservation cannot work with existing EE programs. It is clear from the Commission's guidance in the Energy Action Plan that both can work side by side in meeting the state's goals.

IV. SOCALGAS' CONSERVATION PARTICIPATION RATE IS REASONABLE, ADDITIONAL REDUCTIONS PROPOSED BY DRA ARE UNNECESSARY GIVEN SOCALGAS' CONSERVATIVE INTERPRETATION OF DR. DARBY'S PARTICIPATION GROWTH RATE[5]

In the PG&E's AMI case DRA questioned PG&E's adoption rate (participation rate) for electric conservation. PG&E assumed that the adoption rate will increase from 2 percent at year 2012 and plateau at 30 percent at year 2024, the Commission adopted DRA's lower value of 21% partly due to TURN's concerns regarding the costs of the IHD devices.[6] SCE and DRA settled on a PC Based Graphical Display assuming a 1% penetration in 2009, and a 1% growth per year,[7] which equates to an adoption rate of 16% in 2024. Considering SoCalGas' conservative participation rate of 6.5% in 2011, which grows to 7.4% in 2024, and to 8.4% in 2035, a reduction argued by DRA is not warranted in light of their prior recommendations in the PG&E and SCE AMI cases.

Additional reductions to Conservation Benefits proposed by DRA are unnecessary given SoCalGas' conservative interpretation of Dr. Darby's participation growth rate. (See Errata to

[5] A.08-09-023, Errata to Prepared Direct Testimony of Sarah Darby, dated January 6, 2009.
[6] D.09-03-026, Page 107.
[7] A.07-07-026, Motion of SCE and DRA For Adoption of Settlement Agreement, Page A-2.

Prepared Testimony of Sarah Darby) In the testimony of SoCalGas witness Dr. Darby, participation growth rate is a 1% increase each year, starting at 6.5%,[8] (i.e., participation in year two is 7.5%, and in year three 8.5%). In Mr. Martin's work papers, the growth rate of 1% is applied as a change in participation each year (i.e., participation in year two is 6.57%, and in year three 6.63%).[9] If Mr. Martin had used the 1% increase in participation each year, the 2024 participation rate would have been 19.5%, not the conservative 7.4% used in the benefits calculations. Therefore, SoCalGas has already reduced the effective Conservation Benefits by 63% (very similar to the 66% reduction proposed by DRA).[10] Additional downward adjustments in the Conservation Benefits proposed by DRA, are unwarranted given SoCalGas has already adjusted calculated benefits to compensate for uncertainties that may exist.

V. DRA INCORRECTLY STATES THAT, "SOCALGAS WOULD BE CONSISTENT WITH PREVIOUS AMI PROCEEDINGS IF IT WERE TO PROVIDE OR SUBSIDIZE DEDICATED IN-HOME DISPLAYS FOR AT LEAST A PORTION OF ITS CUSTOMER BASE."[11]

The only California AMI case that includes subsidies for in-home displays is the SCE AMI Settlement.[12] Neither PG&E nor SDG&E's AMI decisions subsidizes in-home displays.[13] Thus, I am not sure what "consistency" DRA is referring to with respect to provide or subsidizing in-home displays (IHDs). Perhaps DRA is thinking of PCTs (used for electric demand response), which are subsidized in SCE and SDG&E AMI cases. If so, this is not an issue for consideration with respect to SoCalGas' AMI request, since PCT's are not utilized on the gas side.

[8] SoCalGas Testimony, Table 2, Page V-14.
[9] SoCalGas Workpapers, Chapter VI, Financial Template Conservation (6.1M Final).xls, Worksheet "Conservation Benefit", Columns I&O.
[10] Nominal direct value.
[11] DRA Testimony, Pages 5-17.
[12] D.08-09-039, Settlement Appendix A, Attachment A, Page A-2.
[13] D.09-03-026, page 83 « we see no reason why the device should be free or discounted when, under PG&E's Upgrade proposal, the cost of the IHD is the customer's responsibility. »; In-home displays are not mentioned in SDG&E's AMI Settlement D.07-04-043.

VI. INTERVENORS MISUNDERSTAND SOCALGAS' RATIONALE FOR NOT INCLUDING COSTS FOR IHD'S IN ITS APPLICATION

DRA, TURN and UWUA raise unfounded concerns regarding the cost of in-home displays (IHD), stating one-way or another that SoCalGas has not included their cost in the AMI application. These parties are correct that SoCalGas has not included these costs in its Application, but what the parties fail to understand is why the costs were omitted. DRA, TURN, and UWUA would have the Commission believe that SoCalGas omitted the IHD costs to limit the costs in its request. SoCalGas did not include IHD costs in its application because to do so would be premature and ultimately limit the options available to customers in the future. Assuming Commission approval of SoCalGas' AMI application, AMI meters will be installed between 2011-2015. Rather than lock customers into costs for an IHD today SoCalGas would rather allow customers to make that choice over the 7+coming years as their AMI meters are installed and undoubtedly as future technological innovations become available. Few would argue that there are likely to be significant developments in the IHD market over the next 5 years that could significantly reduce their costs or improve their functionality or both.

Furthermore, the current trend of network computing will continue to enable multi-function devices such as iPhones, BlackBerry's, PDAs, game consoles, or TVs to provide the display functionality necessary for display based feedback. Theses types of display implementation, such as a "Google Gadget" will make the incremental cost of a display virtually zero in the future, and likely reduce the need to consume resources to produce another device to clutter customer's homes. The cost of multi-function information access and display devices will not be driven by access to an energy management related application. The energy related management application will be an incremental application with virtually zero incremental cost to the customer.

The simple point here is that the Commission should not require SoCalGas to include IHD costs in its AMI application and preclude customers for taking advantage of more cost effective options in the future as SoCalGas' AMI program is rolled out.

VII. RECENT DEVELOPMENTS IN HAN TECHNOLOGIES AND STANDARDS MITIGATE MANY OF DRA'S CONCERNS REGARDING DISPLAYS

DRA criticizes SoCalGas for not relying on the ZigBee protocol standard for the in-home display.[14] DRA also raises the possibility that a SoCalGas customer, who is also a SCE customer, may need two displays; one for gas and one for electricity.[15] The AMI industry and the ZigBee organization, in collaboration with many utilities, are actively working to develop solutions to minimize these concerns. The ZigBee HomePlug liaison is developing an updated Smart Energy public profile that works on both ZigBee wireless radios, and on HomePlug wire line communications.[16] This activity separates the application layer of the Smart Energy profile (the messages), from the physical and network layers (the communication paths). This separation will facilitate the deployment of the Smart Energy functionality across other proprietary communications systems (beyond ZigBee and HomePlug). Additional industry initiatives are being developed to help with situations like the SoCalGas and SCE overlap. For example, the U-SNAP Alliance is working toward the goal to provide a very inexpensive interface to enable virtually any consumer product to be connected to a HAN.[17] These developments and future technical developments will mitigate many of the concerns of DRA regarding SoCalGas not currently committing to a ZigBee-enabled HAN display. The active participation of SDG&E in the HAN and ZigBee related industry groups has provided SoCalGas invaluable benefits and insight into the evolving HAN and ZigBee standards and applications.

[14] DRA Testimony, Pages 5-20 to 5-21.
[15] DRA Testimony, Page 5-22.
[16] http://www.homeplug.org/news/pr/view?item_key=6ddbf0d46d2156a8cb71f25199c02b2dfd20ce8b
[17] http://www.usnap.org/technical.aspx

VIII. DRA AND TURN INCORRECTLY ASSERT THAT DISPLAY INSTALLATIONS WILL NOT BE AVAILABLE FOR SELF INSTALL AND WILL REQUIRE PROFESSIONAL INSTALLATION SIMILAR TO PCTS

Both DRA and TURN assume a $75 cost per display for display installations. This is based on the estimated cost to install a PCT from the prior SDG&E and SCE AMI cases.[18] The reason PCTs require professional installation is because the existing thermostat must be removed from the wall, the new PCT mounted on the wall and correctly wired to the HVAC system, with proper function verified. This PCT installation procedure can be done by homeowners, but may be more suited for professional installers.

Fortunately a display which would be used with a gas AMI meter does not require this extensive PCT installation effort. Since the display will communicate wirelessly with the AMI network, no physical installation is required to connect with existing electrical or mechanical systems at the premise. In addition, the commercial display market is moving away from the current PCT marketing model of utility procurement with professional installation, towards the retail distribution model with out-of-the-box self commissioning by customers. Some PCTs may include display functions, but their primary value remains electric demand response, conservation feedback would be an additional benefit of PCTs with display-based functionality.

IX. SOCALGAS AGREES THAT A CONSERVATION ADVISORY PANEL COULD BE USEFUL TO ASSIST SOCALGAS' DESIGN EFFORTS FOR CONSERVATION TOOLS AND MEASUREMENT AND EVALUATION MEASUREMENT METHODOLOGIES

DRA's proposes establishing a Conservation Advisory Panel to, "…review SoCalGas' customer outreach activities to ensure that the forecasted conservation benefits are achieved."[19] SoCalGas believes such a panel could be useful if its scope of work is focused. Until SoCalGas conducts customer research, final proposals for on-line and display based customer conservation feedback design can not be finalized. Likewise, SoCalGas acknowledges that the AMI system will make it easier to implement Measurement and Evaluation for gas EE programs and measures, as well as conservation tools. SoCalGas has identified funding for these efforts in the

18 DRA Testimony, Pages 5-18; TURN Testimony, Schilberg, page 15, Footnote 19.
19 DRA Testimony, Pages 7-9.

business case; however, actual proposals remain to be defined. Such an advisory panel may also alleviate concerns of UWUA as well, that "…SoCalGas appears to be asking this Commission to approve the AMI project and allow the Company to develop some unknown and untested website displays and unknown in-home display options…"[20] Ideally, work to alleviate these concerns would have proceeded SoCalGas' AMI application, however pre-deployment funding was not authorized for this case.

SoCalGas has $5.5 million budgeted in the AMI project to promote customer awareness of the availability and value of web-based and display-based feedback, including Customer Research directed toward the design and development of appropriate and effective conservation feedback tools. A Conservation Advisory Panel may be useful for these focused efforts and is something SoCalGas can further consider as the AMI project is approved and proceeds forward.

X. TURN MAKES AN INCORRECT ASSERTION THAT GAS CONSUMPTION MIGHT BE MEASURED IN UNITS THAT MAY NOT EVEN REGISTER ON THE DISPLAYS[21]

SoCalGas' AMI will measure gas consumption at the two cubic foot increment. Two cubic feet of gas is approximately 1/50th of a therm (100 cubic foot gas ~= 1 therm), a sufficiently small measurement unit for conservation feedback.

TURN should also realize, through its example on page 6, that residential customers use about twice the gas energy compared to electric energy, highlighting the importance of gas conservation relative to electricity. TURN states that, "Residential electricity consumption is roughly 600 kWh per month for Edison customers," And, "SCG residential customers consume roughly 21 therms per month in the summer…and 50-80 terms per month in winter." (TURN page 6) Using TURN's example, residential customers use twice the BTUs in gas compared to electricity.[22]

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[20] UWUA Testimony, Page 10.
[21] TURN Testimony Page 6, Footnote 4.
[22] Electricity: 600kWH/month x 12 months x 3,412 BTUs/kWh = 24.6 Million BTUs per year. Gas: (21 therms/summer month x 4 SCG summer months) + (50 therms/month x 8 SCG winter months) = 484 therms/year x 100,000 BTUs/therm = 48.4 Million BTUs per year.

XI. TURN OVERPLAYS THE EXISTING USE OF PROGRAMMABLE THERMOSTATS FOR ENERGY EFFICIENCY

TURN states that, "many homes are now equipped with programmable thermostats that are already pre-programmed to reduce energy consumption during night-time hours and are already used by many customers to reduce energy use."[23] TURN is correct that roughly 29% of SoCalGas' customers had programmable thermostats as of 2004, and 20% of them already setback their temperature. However this means that only 6% (0.29 x 0.20) of SoCalGas customers set back their thermostats in 2004. I think TURN would agree that at 6% there is significant room for improvement.[24]

Furthermore, programmable thermostats are not currently providing the EE impacts expected of them. Net realization rates for programmable thermostats are from zero[25] to 1%[26] to 2.4%[27] of ex ante estimates. The lack of savings appears to be related to the pre-programming aspect of these thermostats, as illustrated by the investigators:

> Customer's had many complaints about this measure. Often they were unhappy with the temperature setpoint schedule but did not understand how to reset it. [26]

> The low realization rate for programmable thermostat gas savings is attributable to the fact that few tenants use the programmable features of the thermostat – of the few tenants who are using these features, use of the features is not causing behavioral changes that result in lower energy use.[27]

[23] TURN Testimony, Shilberg, Pages 10 to 11.

[24] While it is true that SCE will be installing programmable communicating thermostats (PCTs) as part of their AMI, however those 350,000 PCTs represent only 7% or less of SoCalGas' customer base. 350,000 PCTs / 5,565,174 SoCalGas meters = 7% of SoCalGas customers (assuming one PCT per customer, disregarding ~60% service territory overlap).

[25] Alternative Energy Systems Consulting, Comprehensive Hard-to-Reach Mobile Home Energy Savings Program Evaluation, Measurement and Verification Report Final Report, CPUC Contract #1275-1276, 2007, Table 3-9, page 29.

[26] Kema, Evaluation of the 2004-2005 Partnership for Energy Affordability in Multi-Family Housing Program, #1211-04 FINAL REPORT, 2006, Table 4-15 page 4-17.

[27] Itron, 2004/2005 Statewide Express Efficiency and Upstream HVAC Program impact Evaluation, CALMAC Study ID# PGE0272.01, 2008, page 4-14.

> The verification process determined that approximately 75% of the thermostats had not been programmed and are therefore assumed to not achieve electricity or gas savings.[28]

These results illustrate where conservation feedback can help. By using web-based and or display-based feedback customer can learn thermostat set points that are comfortable and conserve gas. This feedback learning can be enhanced with complementary educational or outreach programs via the new marketing channels of web-based and display based feedback.

XII. TURN'S RECOMMENDATION TO USE THE STANDARD PRACTICE MANUAL TO EVALUATE SOCALGAS' AMI SHOULD BE REJECTED BECAUSE TURN SELECTIVELY DEFINES "COSTS TO THE CUSTOMER" IN THE PARTICIPANT TEST

TURN recommendation to use the Standard Practice Manual (SPM) to evaluate the cost effectiveness of the SoCalGas' AMI business case should be rejected. The SPM framework is designed to evaluate the cost effectiveness of demand-side programs, such as demand response and energy efficiency. SoCalGas' AMI demand side benefit is not a demand response program or an energy efficiency program. Rather, it is a metering project based on operating benefits and conservation benefits, and should be valued as a capital investment project, for which project costs and benefits are appropriately considered.

The California Stand Practice Manual (SPM) acknowledges the weakness of the Participant Test. Specifically the manual states, "[s]ince many customers do not base their decision to participate in a program entirely on quantifiable variables, this test cannot be a complete measure of the benefits and costs of a program to a customer."[28]

TURN conveniently redefines "costs to the customer" used in the Participant Test through omission of key language. TURN defines "costs to the customer" in the Participant test to include, "the cost of equipment and installation, O&M costs, removal costs, and the value of the customer's time." The actual language in the SPM reads:

[28] California Standard Practice Manuel: Economic Analysis of Demand-Side Programs and Projects, October 2001, Chapter 2, Page 8.

> "The costs to a customer of program participation are all **out-of-pocket expenses incurred** as a result of participating in a program, plus any increases in the customer's utility bill(s). The out-of-pocket expenses include the cost of any equipment or materials purchased, including sales tax and installation; any ongoing operation and maintenance costs; any removal costs (less salvage value); and the **value of the customer's time in arranging for the installation of the measure, if significant."** (Emphases added)[29]

TURN modifies the SPM definition to include costs beyond out-of-pocket expenses incurred and time beyond arranging for installation. TURN's argument to include an arbitrary customer cost to glance at a display or web-page, has no foundation in SPM methodology.

Finally a realistic Participant Test using TURN's and DRA's estimated device cost of $100 results in a payback just over two years. Installation costs will be negligible using an out-of-the-box installation and commission process intended for customer self-install, as discussed earlier. Therefore, TURN's monthly savings of $3.88 per month, equates to $46.56 per year.[30] The simple payback for this is just over two years (under 26 months, a 46.56% return on investment). An investment that pays for itself this quickly would likely be an easy decision for most SoCalGas customers, and should not be considered an impediment to SoCalGas' participant and growth rates for in-premise displays.

XIII. THE UWUA APPARENTLY DENIES OR IGNORES EVALUATION, MEASUREMENT AND VERIFICATION METHODOLOGIES THAT USE CONTROL GROUPS TO CORRECT FOR MACRO ENVIRONMENTAL CHANGES SUCH AS COMMODITY GAS PRICE CHANGES AND ECONOMIC CYCLES

California utilities have years of experience measuring and verifying the consumption impacts of EE and DR programs and measures. These same methodologies and techniques can be used to measure similar impacts of feedback conservation tools. Since upon approval of SoCalGas' application herein, all customers will have AMI meters, consumption data from

[29] SPM, 2001, Chapter 2, Page 8.
[30] TURN Testimony, Schilberg, Page 15, ($3.88 per month saving x 12 months = $46.56 per year savings).

conservation feedback participants can be easily compared with similarly situated non-participants, pre and post installation. Comparison between participants and non-participants is one effective method to isolate the impact of a particular treatment.[31] Web-based participation can be tracked based on secure and verified web log-ins and Display-based participation can be tracked based on display installation and network connection data. Similarly situated non-participant control sub-groups are easily developed and measured, since the remaining population of customers has the necessary AMI meter data for measurement.

XIV. CONCERNS ABOUT BATTERY LIFE ASSOCIATED WITH REAL-TIME INFORMATION FEEDBACK ARE IRRELEVANT AND ADDRESSED IN SOCALGAS' TESTIMONY

SoCalGas acknowledges that real-time information feedback may significantly reduce the life of the gas module battery. However, SoCalGas does not rely on real-time information feedback for conservation benefits. Display based feedback benefits identified by SoCalGas witness Dr. Darby only require updates of hourly consumption data 3 or 4 times per day. SoCalGas testimony also states that "Tariffed rates and or programs may be designed to provide more real-time transmission of gas consumption data to customers willing to pay extra to compensate for the shortened battery life of the gas meter module".[32] Therefore real-time data is not a prerequisite of display based feedback benefits, and customers seeking real-time data will have a means to receive it with no impact to other ratepayers.

XV. UWUA'S CITATION OF THE 1995 CHICAGO HEAT WAVE IS A RED HERRING INTENDED TO DISTRACT THE COMMISSION FROM THE BENEFITS OF INFORMATION FEEDBACK

Suggesting that better and more timely gas usage information would put customer health and safety at risks is irrational (UWUA, p. 13, lines 3-18).

To the contrary, with AMI, SoCalGas will be able to monitor, much more closely, potential abnormal usage conditions. For example, if a meter begins to show an unusual drop in

[31] Charles Rivers Associates, Impact Evaluation Of The California Statewide Pricing Pilot, Final Report, March 2005.

[32] SoCalGas Testimony, Martin, Chapter VI, page V1-3 line 25 t0 VI-4 line 1.

usage, high-low alarms would be triggered and the customer can be contacted to determine the reasons for such changes. Moreover, an abnormal increase in sustained usage may trigger other alarms that may require a field visit. In other words, by having access to timely usage data, SoCalGas is in a better position to help customers who may require assistance or detect unsafe conditions.

No one has ever raised or even rationally claimed that AMI will lead customers to make unwise or irrational decisions on their electric or gas usage. The assertion by UWUA that AMI could produce events similar to what occurred during the July 2005 Chicago heat wave where elderly customers, "refused to use their fans or other cooling devices because they were afraid they could not afford the additional usage or were convinced they would survive the soaring temperatures by doing without or being thrifty in their usage," is inflammatory. First, SoCalGas has not proposed any change to a dynamic gas pricing structure (i.e., no time differentiated prices for gas). Second, customers choosing to turn off appliances because of high utility bills have nothing to do with AMI. AMI provides customers with more timely information on their gas usage. Customer specific gas interval usage information enables customers to intelligently decide or choose to change their behavior (conservation).

If one were to extend UWUA arguments to State's "Flex Your Power" messages aired during the peak summer months to turn down the air conditioning or during the cold winter months to turn down the heat, then the State of California is essentially putting the population at risk. This argument by UWUA turns messages on energy conservation on their head. In other words, UWUA believes that the information age should not be leveraged for customers and that "ignorance is bliss."

XVI. TURN'S FALLACY OF SMALL NUMBERS STATEMENT IS JUST THAT, A FALLACY

TURN suggests that the small number for conservation (1%) has a big impact ($148 million), so the Commission should consider these benefits carefully.[33] TURN's fallacy is similar to UWUA's statement that, "the estimated customer usage reductions are minuscule to most customers."[34] Both parties illustrate a very compelling point that that small behavior changes are all that is needed to achieve the conservation benefits in SoCalGas' AMI case. SoCalGas is not asking customers to significantly change their life styles, on the contrary, small changes learned by customers and appropriate to each individual customer is all that is needed to achieve the 1% consumption reductions. And finally, $148 million over 24 years is a small number compared to SoCalGas' annual sales revenues of $3,870 Million.[35] In other words, over a 24 year period, SoCalGas customers will consume enough gas to generate revenues of approximately $93 billion (undiscounted) and yet only a small fraction of conservation is necessary for SoCalGas AMI conservation estimates.

XVII. CONCLUSION

Conservation feedback benefits proposed by SoCalGas is reasonable as stated in prepared testimony. Intervener arguments are without merit and should be ignored by the Commission.

This concludes my rebuttal testimony.

[33] TURN Testimony, Schilberg, Page 17.
[34] UWUA Testimony, Page 7, Line 12.
[35] Annual Report of Southern California Gas Company, 2007, page 301, line 1, Other Revenues.