

Application No.: A.08-09-023
Exhibit No.: SCG –
Date: May 7, 2009
Witness: Michelle M. Mueller

SOUTHERN CALIFORNIA GAS COMPANY
ADVANCED METERING INFRASTRUCTURE
REBUTTAL TESTIMONY

CHAPTER I
SOCALGAS AMI VISION AND POLICY

Prepared Rebuttal Testimony
of
Michelle M. Mueller

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

May 7, 2009

TABLE OF CONTENTS

I.	BACKGROUND	2
II.	INTRODUCTION.....	2
III.	THE COMMISSION SHOULD FOCUS ON THE CERTAIN BENEFITS OFFERED BY SOCALGAS' AMI PROPOSAL	3
IV.	THE CONSERVATION BENEFITS SUPPORTED BY SOCALGAS' AMI PROPOSAL ARE CONSISTENT WITH THE STATE'S ENERGY ACTION PLAN.....	5
V.	ADOPTION OF SOCALGAS' AMI PROPOSAL WILL ENSURE AMI BENEFITS TO ALL OF CALIFORNIA	6
VI.	DELAY IN ADOPTION OF SOCALGAS' AMI PROPOSAL TO INVESTIGATE AMI WATER OPPORTUNITIES IS UNWARRANTED	7
VII.	CONCLUSION	8

1 **I. BACKGROUND**

2 The purpose of this testimony is to respond to the testimony submitted by several
3 intervening parties to the Southern California Gas Company’s (SoCalGas) Advanced Metering
4 Infrastructure (AMI) proceeding, Application (A.) 08-09-023. My testimony will address several
5 incorrect conclusions contained in the prepared testimonies of California Public Utilities
6 Commission’s (CPUC or Commission) Division of Ratepayer Advocates (DRA), The Utility
7 Reform Network (TURN) and the Utility Workers Union of America (UWUA) filed on April 23,
8 2009.

9 Specifically, this testimony will address issues raised by the above intervening parties to
10 my Errata to Prepared Direct Testimony, Chapter I, SoCalGas AMI Vision and Policy.¹

11
12 **II. INTRODUCTION**

13 The Commission’s basis for evaluation of the SoCalGas AMI proposal at its highest level
14 is simple and straightforward. This is not a technical decision for the Commission. This is a
15 strategic decision. The Commission’s choice is whether or not to approve an AMI application
16 that will deliver the following:

- 17 • Operating benefits of approximately \$2.9 billion for customers over the next 25 years (the
18 best of any already Commission-approved AMI project in the state).
- 19 • A system-wide technology platform with the ability to expand operating benefits as new
20 applications emerge—just as with other technologies that have been widely deployed,
21 e.g., customer information systems; field order forecasting; scheduling, routing, and
22 dispatch.
- 23 • A dramatic expansion in available energy usage information that provides customers with
24 meaningful and timely information about their natural gas consumption – information
25

26
27 ¹ Exhibit SCG-1, Errata to Prepared Direct Testimony of Michelle M. Mueller, Chapter I, filed on March 6, 2009.

1 that gives customers the ability and choice to make changes that reduce energy
2 consumption and cost.

- 3 • An implementation that completes AMI coverage across the state—giving all of the
4 customers within the CPUC’s jurisdiction equal opportunity to manage their energy use.
- 5 • A meter-reading system that replaces an obsolete system whose time has passed – manual
6 meter reading. Six million vehicle miles a year will vanish; customers will no longer
7 have to worry about unlocking gates and yards for each meter read; and confining dogs
8 and other pets on a monthly basis will no longer be required.
- 9 • An opportunity that has the potential to extend these same benefits to water companies
10 and water customers.

11
12 **III. THE COMMISSION SHOULD FOCUS ON THE CERTAIN BENEFITS
13 OFFERED BY SOCALGAS’ AMI PROPOSAL**

14 Any analysis of a proposal of this magnitude set in the future requires that assumptions
15 be made. DRA, TURN, and UWUA would have you believe that some of SoCalGas’
16 assumptions are incorrect. The above intervenors claim that the SoCalGas AMI proposal is not
17 cost effective.²

18 The fact is that SoCalGas’ assumptions are, individually and in the aggregate, sound and
19 reasonable. In analyzing these differences, the Commission should focus on those assumptions
20 that are least in dispute and those with the greatest degree of certainty attached to their
21 completion.

- 22 • **Operating savings cover 85% of the proposed costs:** What is least in dispute in this
23 application are the real operating benefits that SoCalGas will experience as a result of
24 implementing AMI. As stated throughout the application and work papers, the SoCalGas
25 AMI proposal contains the highest percentage of operating benefits, i.e. real dollar

26 ² DRA, Prepared Testimony of Robert D. Levin, Chapter 1, p. 1-2, lines 4-15 and Chapter 3, pp. 3-3 and 3-4;
27 TURN, Prepared Testimony of Jeffrey A. Nahigian, pp. 1 and 13-14; and UWUA, Prepared Direct Testimony of
Barbara R. Alexander, pp. 2-5.

1 savings, of any AMI program in the state – 85% of the benefits derived from
2 implementing SoCalGas’ AMI proposal are operating benefits. There will be no meter
3 readers in the post-AMI environment. Likewise, there will be fewer billing analysts and
4 Customer Service field personnel. The Commission should be reassured by the fact that
5 SoCalGas’ total benefits are so heavily weighted towards reductions in operating costs.
6 This makes SoCalGas’ proposal more ‘robust’ because there is far less uncertainty that
7 these benefits will be realized. SoCalGas witnesses Messrs. Fong (Chapter II) and
8 Serrano (Chapter III) reiterate the soundness of the operating benefits in their rebuttal
9 testimony.

- 10 • **Lower residential costs faster than any other state AMI proposal:** Mr. Fong’s Errata
11 to Prepared Direct Testimony and Rebuttal Testimony clearly identify that SoCalGas’
12 average residential customer bills are expected to be lower in 2017, just two years after
13 AMI deployment is completed, compared to 2008 average bill levels. These lower bills
14 represent tangible benefits to SoCalGas’ ratepayers. (See Figure II-1 in Mr. Fong’s
15 Errata to Prepared Direct Testimony filed on March 6, 2009)
- 16 • **Minimal reliance on conservation to achieve benefits:** Dramatic changes in customer
17 behavior concerning their energy usage resulting in energy conservation are not required
18 to make the SoCalGas AMI program cost effective for ratepayers. The most minimal of
19 changes in customer behavior – only a 1% change – makes the SoCalGas AMI proposal
20 cost effective. However, as with each of the other AMI programs approved by the
21 Commission, SoCalGas includes conservation benefits as part of its benefit calculations.
22 (See rebuttal testimony of SoCalGas witnesses Dr. Darby (Chapter V) and Mr. Martin
23 (Chapter VI)).

24
25 So in evaluating the degree of ‘robustness’ of SoCalGas’ proposal, the Commission
26 should not solely focus on the more subjective parts of the case such as the discount rate to be
27

1 used in the analysis or the exact quantum of conservation benefits which can be forecast, where
2 reasonable people can disagree about the extent of the impacts. Instead, the Commission should
3 focus on the benefits in the case that are certain, and the operating benefits described by
4 SoCalGas are certain. Lower average customer bills two years after SoCalGas AMI deployment
5 (assuming all else is held constant) is meaningful for customers. SoCalGas' AMI proposal has a
6 solid foundation of benefits. In addition to the known and certain operating benefits, there are
7 other benefits that make AMI cost effective. The assumptions on which these additional benefits
8 are based are both reasonable and plausible.

9 **IV. THE CONSERVATION BENEFITS SUPPORTED BY SOCALGAS' AMI**
10 **PROPOSAL ARE CONSISTENT WITH THE STATE'S ENERGY ACTION**
11 **PLAN**

12 DRA argues that the State's Energy Action Plan (EAP) does not emphasize natural gas
13 conservation.³

14 DRA is wrong. SoCalGas' AMI proposal is, in fact, consistent with and supportive of the
15 State's EAP endorsement of energy conservation. The EAP makes clear that conservation makes
16 sense for both gas and electric energy⁴—and SoCalGas' AMI system will provide individual
17 customers with access to energy usage and cost information to manage their energy bills by
18 changing their energy consumption behavior to which the other investor-owned gas utilities have
19 access. In recognition of this, the Commission has, in fact approved every AMI application in
20 California with conservation as part of those programs' benefit analysis.

21
22
23
24
25 ³ DRA, Prepared Testimony of Robert D. Levin, Chapter 1, p. 1-4, lines 26-28, and p. 1-13, lines 13-16.

26 ⁴ State of California Energy Action Plan II, Implementation Roadmap for Energy Policies, September 21, 2005,
27 State of California, California Public Utilities Commission and Energy Commission, p. 3; "Promote a balanced
28 portfolio of baseload energy, demand, and peak demand reductions to obtain both reliability and long-term
resource benefits of energy efficiency for both electricity and natural gas."

1 **V. ADOPTION OF SOCALGAS' AMI PROPOSAL WILL ENSURE AMI BENEFITS**
2 **TO ALL OF CALIFORNIA**

3 California's demand for natural gas has increased and is expected to continue increasing.⁵

4 With the State's commitment to gas AMI in the Pacific Gas & Electric (PG&E) and San Diego
5 Gas & Electric (SDG&E) service territories, almost 5.1 million of the State's gas meters will be
6 receiving the benefits of a gas AMI system by the time SoCalGas begins deployment in 2011.

7 SoCalGas customers should have the same opportunity as other customers to benefit from energy
8 management and savings opportunities that may result from the availability of timely customer
9 gas usage information.

10 A clear void will occur if SoCalGas' customers are not able to access the same
11 information concerning their gas usage as those of PG&E and SDG&E. This lost opportunity
12 will have adverse impacts on the following goals stated in the EAP:

- 13 • Encouraging and promoting energy conservation and efficiency as the first priority.⁶
- 14 • Providing alternative solutions in the face of anticipated rising natural gas prices.⁷
- 15 • Reducing greenhouse gas emissions.⁸

16 SoCalGas customers should not be the "doughnut hole" in the middle of the State of California
17 denied the opportunity to control their usage/bills because they are customers of the only major
18 state utility denied approval of its AMI program.

19
20
21
22 ⁵ State of California Energy Action Plan, Adopted May 8, 2003 by the CPUC, p. 4.

23 ⁶ IBID, p. 5

24 ⁷ Energy Action Plan II, Implementation Roadmap for Energy Policies, September 21, 2005, State of California,
25 California Public Utilities Commission and Energy Commission, pp. 9-10, "Because natural gas is becoming
26 more expensive, and because much of electricity demand growth is expected to be met by increases in natural gas-
27 fired generation, reducing consumption of electricity and diversifying electricity generation resources are
28 significant elements of plans to reduce natural gas demand and lower consumers' bills. California must also
promote infrastructure enhancements, such as additional pipeline and storage capacity, and diversify supply
sources to include liquefied natural gas (LNG)".

⁸ IBID, pp. 2. "In addition, EAP II highlights the importance of taking actions in the near term to mitigate
California's contributions to climate change from the electricity, natural gas and transportation sectors."

1 **VI. DELAY IN ADOPTION OF SOCALGAS' AMI PROPOSAL TO INVESTIGATE**
2 **AMI WATER OPPORTUNITIES IS UNWARRANTED**

3 DRA suggests delaying consideration of SoCalGas's AMI proposal until a "joint
4 development of gas and water AMI networks" has been investigated.⁹

5 The rebuttal testimony of Mr. Fong addresses the issue of why delaying consideration of
6 the SoCalGas AMI project, as proposed by DRA and UWUA, is unwarranted. My testimony
7 will address specifically why there is no reason to delay consideration of the SoCalGas AMI
8 proposal to investigate the potential for SoCalGas' AMI system to be used by water agencies, as
9 proposed by DRA. As stated in my direct testimony, SoCalGas has already taken steps to ensure
10 that its AMI system will have the capability to provide operational benefits to water agencies and
11 their customers by encouraging and enabling water conservation.

12 "SoCalGas' request for proposal included a requirement for an AMI technology
13 capable of reading water meters.... SoCalGas has actively communicated its
14 interest in working with the major Southern California water agencies as the
15 SoCalGas' AMI system is deployed.... Although water AMI has not been
16 identified as a cost or a benefit in SoCalGas' AMI business case, the capability to
17 extend the SoCalGas AMI system to water meters has the potential to provide
18 significant operational benefits to water agencies and their customers in the
19 SoCalGas service territory.¹⁰

20 Attachment I-1 provides letters from the City of Compton and City of Cerritos indicating
21 that, if SoCalGas' AMI system is approved by the CPUC, they would be interested in assessing
22 how SoCalGas' AMI technology could benefit their customers, including the possibility of
23 participating in an AMI pilot program. Since SoCalGas' AMI project considers the potential
24 value to both water agencies and SoCalGas customers by extending the SoCalGas system to
25 water meters, there is no reason to delay adoption of the SoCalGas AMI proposal until such an
26 investigation is completed. Delaying the opportunity for SoCalGas' customers to benefit from

27 ⁹ DRA, Prepared Testimony of Robert D. Levin, Chapter 1, pp. 1-16 and 1-17.

28 ¹⁰ Exhibit SCG-1, Errata to Prepared Direct Testimony of Michelle M. Mueller, Chapter I, filed March 6, 2009,
p. I-7.

1 AMI is especially unwarranted since even DRA admits that such an investigation is unlikely to
2 show that joint development of a gas and water AMI network is cost-effective.¹¹
3

4 **VII. CONCLUSION**

5 As a group DRA, TURN and UWUA have missed the overall value of a strategic
6 initiative that provides the platform for not just savings in natural gas, but also by providing a
7 platform for other similar utilities, like water, to leverage the same technology to give customers
8 the opportunity to manage their costs proactively rather than after the fact. In addition, this new
9 technology has the potential to do more than established in the initial case—who could have
10 imagined the impact of cell phones when the networks were first being deployed? The basic
11 platform enabled the growth of many subsequent applications that have made a significant
12 difference for both customers and business as a whole.

13 SoCalGas remains committed to its vision for enabling its customers to reduce future
14 bills through operational efficiencies and the ability to better manage their natural gas
15 consumption through the use of AMI technology.

16 Our proposal was created to support SoCalGas customers, and with Commission
17 approval we will deploy the AMI system best suited to meet both SoCalGas' and the state's
18 needs. We have incorporated what we have learned from the other utilities in the state in our
19 proposal and our deployment plans, providing both customer and community benefits.

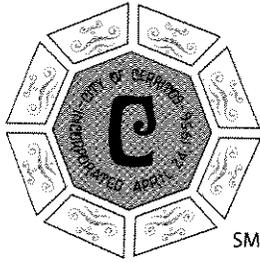
20 In summary, SoCalGas is ready and eager to move forward with full AMI deployment for
21 its customers. We ask the Commission to approve our plan as proposed and to give SoCalGas
22 the authorization to begin the necessary work to transform our metering and distribution system
23 for our customers' benefit as well as to the benefit of the entire state of California. This will
24 allow our customers to receive the same benefits and opportunities as the other AMI plans
25 previously authorized by the Commission for PG&E, SDG&E and SCE.
26

27 ¹¹ DRA, Prepared Testimony of Robert D. Levin, Chapter 1, p. 1-16, lines 13-17.
28

1 This is a strategic decision for the Commission. Will the Commission approve an AMI
2 proposal that will: (a) deliver almost \$2.9 billion in operating savings to customers over the next
3 25 years; (b) provide customers with meaningful and timely information about their natural gas
4 consumption; (c) replace an obsolete system whose time has passed; (d) provide a
5 communications network with the potential to extend to water companies and water customers;
6 and, (e) complete the mosaic of AMI that now almost covers the state? The answer must be a
7 clear and resounding yes!

8 This concludes my rebuttal testimony.
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

ATTACHMENT I-1



CITY OF CERRITOS

CIVIC CENTER • 18125 BLOOMFIELD AVENUE
P.O. BOX 3130 • CERRITOS, CALIFORNIA 90703-3130
PHONE: (562) 860-0311 • FAX: (562) 916-1371
WWW.CI.CERRITOS.CA.US



May 4, 2009

Southern California Gas Company
Attn: Mark Serrano, AMI Project Manager
Mail Location GT09G4
555 West Fifth Street
Los Angeles, California 90013

Dear Mr. Serrano:

The **City of Cerritos** confirms its interest in evaluating the use of SoCalGas' Advanced Metering Infrastructure (AMI) for the wireless reading of its **15 to 30** water meters.

Should SoCalGas receive California Public Utilities Commission (CPUC) authorization to design and deploy an AMI system, the **City of Cerritos** would be interested in assessing how use of the SoCalGas AMI technology can benefit its customers.

The **City of Cerritos** would like to investigate how well the technology can support its business needs. The **City of Cerritos** would consider participating in a pilot test of the equipment.

Sincerely,

Charles Emig
Water Superintendent

vk
cc Vince Brar, Assistant Senior City Manager

JIM EDWARDS
MAYOR

BRUCE W. BARROWS
MAYOR PRO TEM

CAROL CHEN
COUNCILMEMBER

JOSEPH CHO, Ph.D.
COUNCILMEMBER

LAURA LEE
COUNCILMEMBER



City of Compton
MUNICIPAL SERVICES
WATER DEPARTMENT

(310) 605-5595
Fax. (310) 763-4567

KAMBIZ SHOGHI
General Manager

April 30, 2009

Southern California Gas Company
Attn: Mark Serrano, AMI Project Manager
Mail Location GT09G4
555 West Fifth Street
Los Angeles, California 90013

The City of Compton is interested in exploring potential use of a SoCalGas Advanced Metering Infrastructure (AMI) for the reading of its water meters.

In the event that SoCalGas receives California Public Utilities Commission (CPUC) authorization to design and deploy an AMI system, the City of Compton would be interested in assessing how use of the SoCalGas AMI technology can benefit its customers.

Once SoCalGas has announced the specific AMI technology it intends to deploy, the City of Compton would greatly appreciate being informed so that it can investigate how well the technology can support its business needs. During the course of its investigation of the technology, the City of Compton may wish to participate in a pilot test of the equipment.

Sincerely,

A handwritten signature in cursive script that reads "Kambiz Shoghi".

KAMBIZ SHOGHI
GENERAL MANAGER

