

Company: Southern California Gas Company (U904G)
Proceeding: 2016 General Rate Case
Application: A.14-11-____
Exhibit: SCG-39

SOCALGAS

DIRECT TESTIMONY OF RENE F. GARCIA

(ADVANCED METERING INFRASTRUCTURE POLICY)

November 2014

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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SUMMARY

- Southern California Gas Company (“SoCalGas” or “Company”) requests authority to extend the Advanced Metering Infrastructure Balancing Account (“AMIBA”) beyond project completion through post-test year (“PTY”) 2018 or until the full Advanced Metering Infrastructure (“AMI”) costs and benefits could be reflected in a subsequent GRC.
- If the California Public Utilities Commission (“Commission”) authorizes operating expenses in the test year 2016 GRC that are materially different than those assumed in SoCalGas’ approved AMI net revenue requirement that is currently in rates, SoCalGas proposes to adjust AMI revenue requirements and operating benefits, via an advice letter, to be consistent with Test Year (“TY”) 2016 General Rate Case (“GRC”) authorized costs to avoid double counting of AMI benefits.

1 **SOCALGAS DIRECT TESTIMONY OF RENE F. GARCIA**
2 **(ADVANCED METERING INFRASTRUCTURE POLICY)**

3 **I. INTRODUCTION**

4 **A. Summary of Proposals**

5 The purpose of this testimony is to provide SoCalGas’ AMI proposed treatment in TY
6 2016 GRC. SoCalGas proposes to extend the AMIBA into PTY 2018 or until the Advanced
7 Meter (“AM”) project’s full costs and benefits can be reflected in a subsequent GRC. Currently,
8 SoCalGas records AMI costs and benefits in the AMIBA.

9 SoCalGas will not complete AMI deployment until 2017; therefore, forecasts presented
10 in SoCalGas’ TY 2016 GRC reflect business operations, processes and practices without AMI
11 deployment (i.e., “business as usual”). Each witness impacted by AMI deployment has
12 presented testimony excluding operational costs and benefits presented in SoCalGas’ AMI
13 business case and approved in Decision (“D.”) 10-04-027. Hence, TY 2016 GRC forecasts
14 assume continuing operations without AMI in all impacted business areas. O&M benefits
15 achieved or attributed to AMI as defined in the benefit per meter mechanism authorized in D.10-
16 04-027 and established in SoCalGas’ Advice Letter (“AL”) 4110¹ have been included in AMI
17 revenue requirements and therefore excluded from TY 2016 GRC estimated expenses.

18 **B. Organization of Testimony**

19 This AMI policy testimony provides:

- 20 • General background and status of the project;
- 21 • AMI project schedule and overlap with TY 2016 GRC;
- 22 • Description of the treatment of SoCalGas AMI in this GRC;
- 23 • Summary of the Commission’s treatment of other utilities’ AMI in the GRC; and
- 24 • Overview of business areas impacted by SoCalGas AMI including a description
25 of 2018 costs and benefits as stated in the Commission approved AMI business
26 case, D.10-04-027.

27 **II. BACKGROUND AND STATUS**

28 **A. Procedural Background**

29 On April 8, 2010, the Commission issued D.10-04-027 approving SoCalGas’ AMI
30 Application (“A.”) 08-09-023, with modifications, which authorized \$1.05 billion of capital and

¹ AL 4110, U 904 G, effective April 8, 2010. AL 4110 was approved by letter dated August 4, 2010.

1 operations and maintenance (“O&M”) expenditures for SoCalGas’ AMI project over the
2 deployment period of 2010 through 2017. During this period, SoCalGas is installing
3 approximately six million gas AMI meter modules that lead to operational savings and energy
4 conservation benefits.

5 AL 4110, effective April 8, 2010, established the AMIBA and made updates to the AMI
6 revenue requirement to reflect the total costs and benefits as adopted in D.10-04-027. Total costs
7 and benefits were to be included in rates beginning January 1, 2012 through December 31, 2017.

8 **B. Deployment Status**

9 SoCalGas is proceeding on schedule to complete AMI deployment in 2017. Overall, the
10 AMI project is meeting its scope, budget, deployment, and customer benefit targets. For details
11 regarding project deployment status, refer to SoCalGas’ AM Semi Annual reports, available at
12 SoCalGas’ website.²

13 **III. AMI PROJECT SCHEDULE AND OVERLAP WITH TY 2016 GRC TIMELINE**

14 SoCalGas will continue into 2017 to deploy AMI to SoCalGas’ approximately six million
15 customers. Chart RFG-1 below depicts the overlap between TY 2016 GRC and AMI’s
16 deployment schedule, in which:

- 17 • AMI costs and benefits are included in customer rates between 2012 and 2017 per AL
18 4110 as approved in D.10-04-027;
- 19 • For TY 2016 GRC, the base year (“BY”) is 2013 and the forecasted period includes
20 years 2014 through 2016;
- 21 • The PTY period, assuming a subsequent GRC TY in 2019, includes 2017 and 2018;
- 22 • The AMI project installation period is late 2012 through 2017;
- 23 • In 2013, O&M benefits began accruing in the AMIBA per the criteria described in
24 AL 4110, and will continue to do so through project completion in 2017;
- 25 • The AMIBA is to be reconciled after the completion of the project; and
- 26 • Post-deployment AMI related costs begin in 2018.

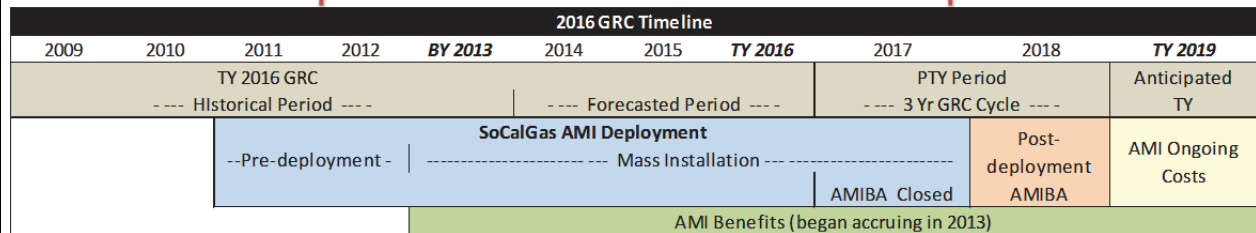
27 Since TY 2016 GRC forecasts were developed during the first year of AMI deployment,
28 business areas impacted by AMI did not have sufficient data to incorporate ongoing AMI costs
29 and benefits into TY 2016 GRC forecasts. Accordingly, all SoCalGas forecasts presented in this

² <http://www.socalgas.com/regulatory/A0809023.shtml>

GRC reflect business operations, processes and practices without AMI deployment (i.e., “business as usual”).

Chart RFG-1
AMI Deployment and TY 2016 GRC
Schedule Overlap

**AMI Costs/Benefits Incorporated in Rates
(2012 – 2017)**



IV. AMI TREATMENT IN TY 2016 GRC AND PTY 2018

A. Request for Continuation of the AMIBA in PTY 2018

Given that AMI’s deployment continues beyond the TY 2016 GRC and consistent with AL 4110, SoCalGas seeks authority to extend the AMIBA at least one year beyond the seven-year deployment period (2010-2017) through 2018, or until the associated costs and benefits are incorporated in a subsequent GRC.³ Specifically, SoCalGas requests that the AMI revenue requirement be updated and extended to reflect the total costs and benefits per the AMI business case adopted in D.10-04-027, which will be collected in rates during the post-deployment period beginning on January 1, 2018.

B. Estimated 2018 AMI Revenue Requirement

The AMI business case assumes full deployment of advanced meters by the end of 2017. The net revenue requirement for PTY 2018, expected to be \$35.1 million, includes the capital related costs from the deployment period, the incremental capital related costs resulting from customer growth, and AMI related O&M costs and benefits for that year, and taxes. Appendix B provides the estimated 2018 Annual Revenue Requirement according to the AMI business case. The estimated net revenue requirement includes post-deployment O&M benefits of \$104

³ In AL 4110, SoCalGas sought authority to continue to update the AMI revenue requirement via advice letter until the costs and benefits of the AMI system can be incorporated into the next GRC, at p. 3.

1 million.⁴ Those benefits are comprised of the on-going annual O&M benefits through the
2 deployment period and additional O&M benefits associated with the acceleration of the 2018-
3 2022 Planned Meter Change (“PMC”) program.⁵

4 **C. TY 2016 GRC Outcome Differs From AMI Authorized Benefits**

5 **1. Deployment Period AMIBA (2012 - 2017)**

6 If the Commission authorizes operating expenses reflecting AMI benefits that are already
7 included in the AMI revenue requirement, subject to the AMIBA mechanism, and approved in
8 D.10-04-027, actual AMI benefits in the AMIBA will need to be revised. SoCalGas proposes to
9 file an advice letter to revise the per meter benefit used to calculate AMI benefits should this
10 situation occur. AMI operating benefits must be consistent with and no more or no less than what
11 is authorized in SoCalGas’ TY 2016 GRC.

12 **2. Post-deployment Period AMIBA (2018)**

13 SoCalGas proposes to record PTY 2018 AMI actual operating expenses and benefits in a
14 post-deployment AMIBA. Since rates currently only account for AMI costs and benefits through
15 the deployment period, extending the AMIBA ensures that O&M benefits, projected to be \$104
16 million in 2018, are incorporated into rates and passed along to customers. Consistent with AL
17 4110, the AMIBA will continue to record post-deployment activity until on-going operational
18 costs and benefits can be incorporated in base rates as authorized in the subsequent GRC.

19 SoCalGas also proposes that the estimated post-deployment revenue requirement, as
20 discussed in Section IV.B above, be subject to a true-up prior to filing the AL to extend the
21 AMIBA to ensure that 2018 O&M costs and benefits included in the estimated revenue
22 requirement align with those approved in the TY 2016 GRC decision.

23 **V. COMMISSION TREATMENT OF OTHER UTILITIES’ AMI IN THE GRC**

24 As shown in Table RFG-1 below, the Commission has allowed the investor-owned
25 utilities (“IOUs”) to extend their AMI balancing accounts to: 1) avoid double counting when

⁴ The PTY forecast is in 2008 dollars loaded, taxed and escalated to 2018 dollars using the AMI business case assumptions as authorized in D.10-04-027.

⁵ PMCs in the near-term post deployment time period (2018–2022) were accelerated and incorporated into the AMI project deployment period in years 2012- 2017. Accelerating PMCs into the deployment period avoids post-deployment costs related to replacing a gas meter module installed during deployment with one that is married with the replacement meter installed after deployment. Hence, by accelerating PMCs into the deployment period, SoCalGas is avoiding a double purchase of gas meter modules.

1 | there is overlap with an IOU's AMI deployment and GRC,⁶ and/or 2) allow an IOU to track
2 | AMI-related costs after AMI has been fully deployed.⁷
3 | //
4 | //
5 | //
6 |

⁶ So as to avoid double counting, the Commission permitted SCE in D.12-11-051 and PG&E in D.06-07-027 to extend their AMI balancing accounts because overlapping periods between the IOUs' AMI deployment and GRC required GRC forecasts that delineated between AMI and GRC funded costs.

⁷ In D.13-05-010, the Commission permitted SDG&E to extend its AMI balancing account until its next GRC (TY 2016).

**Table RFG-1
California Investor Owned Utilities and AMI Treatment in the GRC**

Utility	GRC Period	AMI Deployment Period	Treatment of AMI in GRC
SDG&E	TY 2012 4 year cycle	2009-2011	<ul style="list-style-type: none"> • No overlap with AMI deployment and TY 2012 GRC; • AMI system assumed to be fully operational in TY 2012; • AMI benefits and incremental ongoing costs in TY 2012 forecast; and • Request to extend AMIBA until next GRC (TY 2016) to cover costs to meet HAN/PCT requirements of the settlement agreement and 28,000 meters remaining to be installed
SCE	TY 2012 3 year cycle	2008-June 2012	<ul style="list-style-type: none"> • Partial year overlap with AMI deployment and TY 2012 GRC; • Maintain Edison SmartConnect Balancing Account (ESCBA) for costs and benefits through deployment and separate from the GRC through December 2012; • Proposed to reflect a separate 2013 O&M forecast in its 2013 attrition mechanism as a specific adjustment; • Request to maintain ESCBA for limited purposes; and • Decision adopted SCE's two-part AMI forecast, finding that the overlapping periods between AMI deployment and GRC required the development of GRC forecasts that delineate between SmartConnect and GRC funded costs to avoid double recovery
PG&E	TY 2011 3 year cycle	2007-2013	<ul style="list-style-type: none"> • Overlap with TY 2011 GRC; • AMI Decision D.06-07-027 required PG&E in its next GRC to present, as an option, the AMIBA to be continued for AMI deployment cost recovery and benefits recognition, with an escalated and adjusted activated meter benefit mechanism until the next GRC (TY 2014); and • GRC settlement agreed that AMI related costs would not be included in the 2011 GRC and the AMIBA would be maintained until the next GRC; however, PG&E's TY 2011 GRC D.11-05-018, at Ordering Paragraph ("OP") 20, required PG&E to remove the meter reading forecast requested in the GRC and instead record actual meter reading costs in a new balancing account.

1 For example, in San Diego Gas and Electric’s (“SDG&E”) GRC D.13-05-010, the
2 Commission permitted SDG&E to extend its AMI balancing account until its next GRC (TY
3 2016) to account for costs related to Home Area Network (“HAN”), Programmable
4 Communicating Thermostats (“PCT”), and to account for costs to deploy 28,000 remaining
5 meters that were not converted to Smart Meters by the end of 2011. In Southern California
6 Edison’s (“SCE”) TY 2012 GRC D.12-11-051, the Commission authorized SCE to extend its
7 AMI balancing account because overlapping periods between SCE’s AMI deployment and GRC
8 required GRC forecasts that delineated between AMI and GRC funded costs, so as to avoid
9 double counting. In Pacific Gas and Electric’s (“PG&E”) AMI D.06-07-027, the Commission
10 foresaw that in its next GRC, PG&E might have insufficient data with which to integrate the
11 costs and benefits of AMI. For this reason, in D.06-07-027 (OP 15), the Commission required
12 PG&E in its next GRC to present as an option, continuing for the rate case cycle, the balancing
13 accounts and cost savings benefits (as appropriately escalated and adjusted). The Commission
14 found that “[i]n this way we can consider whether there is sufficient data to allow a reasonable
15 forecast for AMI in test year 2010 or whether we should defer total integration of the AMI
16 system into test year 2013.”⁸

17 Comparable to SoCalGas, PG&E’s AMI meters were not fully deployed when PG&E
18 filed its (2011) GRC application in 2009. In its 2011 GRC application, PG&E proposed that the
19 existing AMI balancing account, along with an escalated and adjusted activated meter benefits
20 mechanism, be continued for AMI deployment cost recovery and benefits recognition until the
21 next GRC.

22 **VI. BUSINESS AREAS IMPACTED BY SOCALGAS AMI AND TY 2016 GRC**
23 **TREATMENT**

24 As a result of the 2010 AMI decision, authorized project costs of \$1.05 billion and O&M
25 benefits of \$184.8 million are currently being collected in rates, while actual costs and benefits
26 are recorded in the AMIBA. The AMIBA will be reconciled at the end of AMI deployment in
27 2017. As such, for TY 2016 GRC, impacted business areas have assumed no AMI impacts in

⁸ D.06-07-027 at p. 50.

1 their forecasts for years 2014 through 2016.⁹ For BY 2013, actual costs have been adjusted by
 2 the O&M benefits achieved as a result of AMI cost benefit impacts that year.

3 Table RFG-2 provides the business area and the O&M costs and O&M benefits for those
 4 areas affected by AMI’s deployment. The business area descriptions and associated costs and
 5 benefits presented below are derived from the AMI business case as presented in the Direct
 6 Testimony of Mark L. Serrano, Application (“A.”) 08-09-023.

7 **Table RFG-2**
 8 **2018 AMI O&M Costs and Benefits by Business Area**
 9 **AMI Business Case Values, Escalated to 2018 Dollars¹⁰**

	Area	In Millions	
		Costs	Benefits
1.	Meter Reading and Customer Services Field	\$ 8.3	\$ 88.7
2.	Advanced Meter Network Operations	\$ 6.2	\$ -
3.	Customer Services -Office Operations	\$ 0.8	\$ 5.7
4.	Fleet Services; Real Estate, Land & Facilities	\$ -	\$ 5.7
5.	Information Technology	\$ 3.6	\$ -
6.	Gas Distribution	\$ 0.2	\$ 3.8
7.	Human Resources and Safety	\$ -	\$ 0.4
8.	Supply Management & Supplier Diversity	\$ 0.8	\$ -
	Net Cost / Benefits	\$ 20.0	\$ 104.3

10 **A. 2018 O&M Benefits Described**

11 **1. Customer Services Field and Meter Reading**

12 SoCalGas anticipates that the total 2018 benefit in Customer Services Field (“CSF”) and
 13 Meter Reading will be approximately \$88.7 million.

14 **a. Customer Services Field**

15 As a result of AMI’s automated meter reading capabilities, AMI will eliminate certain
 16 types of fielded orders in CSF by 2018. For example, manual reads for “Gas-on Turn-on” and
 17 “Change of Account” orders will be eliminated. In some cases, “Read and Verify” orders and

⁹ Costs associated with enhanced Meter Set Assembly (“MSA”) inspections, previously referred to as the Atmospheric Corrosion (“ACOR”) inspection process, are being presented by SoCalGas witness Ms. Sara Franke, Ex. SCG-10. These costs are incremental to those originally assumed in the AMI business case, where ACOR inspection processes mirroring those of our meter reading organization were originally assumed.

¹⁰ Values are loaded, taxed and escalated to 2018 dollars as authorized in D.10-04-027. Dollars are rounded to the nearest hundred thousand.

1 “High-bill Investigations” will no longer be required. SoCalGas anticipates that the benefits
2 associated with the elimination of CSF orders will be approximately \$30.6 million.

3 **b. Meter Reading**

4 By 2018, SoCalGas customers, except those customers enrolled in the Opt-Out Program,
5 will receive monthly bills based on AMI’s automated meter reads. As a result of AMI
6 automation, costs associated with the manual meter reading function, meter readers, meter
7 reading equipment and meter reading management staff will no longer be required. The meter
8 reading O&M benefits in 2018 are expected to be approximately \$58.1 million.

9 **2. Customer Services – Office Operations**

10 The net benefit for Customer Services – Office Operations in 2018 is expected to be
11 approximately \$5.7 million. With AMI’s improved accuracy of meter reads, SoCalGas
12 anticipates there will be benefits in 2018 of approximately \$5.0 million due to reductions in
13 billing exceptions, a reduction in fielded re-validate read orders and reductions in mailing
14 expenses. There will also be a reduction in postage fees as a result of increased on-line bill
15 presentment and processing, estimated to be \$0.3 million. In addition, SoCalGas anticipates that
16 the Customer Contact Center (“CCC”) will experience a decrease in call volumes and associated
17 telecommunications costs due to a reduction in errors inherent to manual meter reads and read
18 estimates. This benefit will be approximately \$0.4 million in 2018.

19 **3. Fleet Services and Facility Operations**

20 With the elimination of meter reading and the reduction of CSF orders and associated
21 full-time equivalents (“FTE”), fleet services will achieve benefits in 2018 of approximately \$5.7
22 million. \$2.2 million of the \$5.7 million is attributable to a reduction of approximately 200
23 company vehicles for CSF. The remaining \$3.5 million is attributable to a reduction in Meter
24 Reading fleet vehicle costs.

25 **4. Gas Distribution**

26 In Gas Distribution, O&M benefits in 2018 will be attributed to the avoidance of
27 dedicated telecommunication costs for Electronic Pressure (“EP”) monitors as well as the
28 avoided costs to replace meters with an Electronic Corrector (“EC”). The net benefit expected in
29 2018 for Gas Distribution is approximately \$3.8 million. EP data traffic will be transmitted via
30 the AM network in 2018, eliminating stand-alone EP telecommunication costs of about \$1.0
31 million. Costs avoided for EC meter change outs, with fittings, are expected to be \$2.8 million.

1 **5. Human Resources and Safety**

2 In 2018, the benefits related to Human Resources (“HR”) and safety services are
3 expected to be \$0.4 million.

4 HR devotes resources for staffing and supporting the Meter Reading department. Once
5 AMI is deployed, the workload in the HR department will decrease. The benefits associated
6 with eliminating HR work related to meter reader staffing and other HR support are expected to
7 be approximately \$0.3 million in 2018. In addition, with the reduction in the meter reader
8 workforce, workload in safety services will decrease. Safety incident investigations, attributable
9 to the meter reading work environment, will have been eliminated. The expected benefit related
10 to the reduction in safety advisor staffing is expected to be \$0.1 million in 2018.

11 **B. 2018 O&M Costs Described**

12 **1. Customer Services Field and Meter Reading**

13 The total 2018 O&M costs for CSF and Meter Reading is approximately \$8.3 million.

14 **a. Customer Services Field**

15 Anticipated O&M costs in 2018 attributed to CSF will be approximately
16 \$7.9 million. Those costs include:

- 17 ▪ Costs associated with service order process changes - Once AMI is
18 deployed, SoCalGas will have a better means of determining when
19 there is abnormal consumption on closed accounts. Instead of
20 monitoring gas usage based upon a single manually-obtained meter
21 read each month, SoCalGas will use electronic hourly AMI meter
22 readings to monitor gas consumption. As a result, SoCalGas
23 anticipates that there will be incremental field work performed to
24 investigate the causes for increased gas use. On occasion, SoCalGas
25 will “hard close” services where gas consumption cannot be explained
26 and there is no person present with whom to establish service. The
27 costs associated with this work, and the subsequent costs associated
28 with restoring service to “hard close” accounts, are estimated to be
29 approximately \$3.7 million.
- 30 ▪ ACOR costs - After the deployment of AMI, SoCalGas will conform
31 to General Order (“GO”) 112E and Department of Transportation

1 (“DOT”) 192.481 (a) requiring inspection of above ground pipelines
2 for corrosion every three calendar years.¹¹ SoCalGas will create
3 special routes for the personnel performing this work and tools will be
4 acquired to facilitate reporting. Additionally, SoCalGas will develop
5 materials that can be distributed to customers notifying them of
6 upcoming inspections at their premises. O&M costs for ACOR,
7 including office staff needed to coordinate the program and associated
8 expenses, are expected to be \$3.3 million in 2018.

- 9 ■ AMI meter module failures – After the deployment of the AMI
10 technology, there will be CSF work required to maintain the system.
11 Specifically, CSF personnel will be required to replace AMI meter
12 modules with new ones when they fail. The AMI meter module
13 failure rate is incremental to the underlying failure rate of gas meters
14 and is estimated to result in an increase expense of \$0.9 million in
15 2018.

16 **b. Meter Reading**

17 SoCalGas estimates that ongoing O&M costs for meter reading in 2018 will be
18 approximately \$0.4 million. These costs include clerical labor for managing SoCalGas’
19 Customer Information System (“CIS”) geographical coding updates and meter reading
20 supervisor transition costs.¹² Transition costs are for the one-year post-deployment period only
21 and include costs associated to providing job opportunities to employees impacted by the project.
22 Some management employees may take advantage of retraining opportunities while others may
23 elect to retire during the AMI deployment period.

24 **2. AMI Network Operations**

25 Once the AMI is fully deployed and operational, AM Network Operations will continue
26 to oversee the operation of the network, manage exceptions and perform data analytics to fine
27 tune the technology and to seek opportunities to further utilize the AMI technology. Additional

¹¹ Incremental costs associated with MSA inspections, previously referred to as the ACOR process, are being presented by SoCalGas witness Ms. Sara Franke, Ex. SCG-10.

¹² As described in A.08-09-023, CIS geographical coding updates include activities within the meter reading department that are performed to support the new business (meter growth) process; geographical coding attributes include section/segment, political subdivision, BTU district, altitude district, and the maintenance of utility records associated with annexations and other similar events.

1 AM Network Operation functions include costs to maintain the network equipment (Data
2 Collector Unit construction and maintenance), wide area network (“WAN”) and network data
3 collection system (Head-End). O&M costs associated with AM Network Operations are
4 estimated to be \$6.2 million in 2018. AM Network Operation costs are a subset of the
5 Information Technology costs projected and described in A.08-09-023, with modifications.

6 **3. Customer Services – Office Operations**

7 O&M costs in 2018 for Customer Services – Office Operations will be approximately
8 \$0.8 million. Due to customer growth, there will be some billing exceptions and investigations
9 resulting from the additional AMI installation activity and potential network failures.¹³ Those
10 costs are expected to total approximately \$0.2 million. In addition, with the reduction of fielded
11 Turn-On orders after the AMI technology is deployed, there will be additional remittance
12 processing O&M costs for mailing the SoCalGas Welcome Packet to customers.¹⁴ These costs
13 are expected to be approximately \$0.6 million.

14 **4. Information Technology**

15 Once AMI is implemented, there will be on-going O&M costs incurred by SoCalGas’
16 Information Technology (“IT”) Department. Post-deployment, IT will continue to support the
17 AMI systems and infrastructure. In addition, IT will manage related interfaces and fund
18 maintenance agreements. The total IT O&M expenses expected in 2018 are approximately \$3.6
19 million.

20 **5. Gas Distribution**

21 In Gas Distribution, O&M communication costs will remain for 1,500 stand-alone EC
22 meters that will not be rebuilt and converted to the AM network. Those costs are expected to be
23 \$0.2 million in 2018.

24 **6. Supply Management and Supplier Diversity**

25 The O&M cost for Supply Management in 2018 is expected to be approximately \$0.8
26 million. These costs are associated with the Meter Shop processing and re-harvesting of
27 functioning AMI meter modules from meters that fail in the field.

¹³ Costs related to customer growth are based on the customer growth projections as approved in D.10-04-07.

¹⁴ The SoCalGas Welcome Packet includes the written notification of safety information that is included on the tags left at the premises in case the new customer did not see the tag and the “Gas Facts” booklet as described in A.08-09-023.

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C. 2018 Capital Costs and Benefits Described; Treatment in GRC

SoCalGas estimated \$44.6 million in avoided capital expenditures in its AMI application, which was approved in D.10-04-027. These capital-related benefits have not been included in the estimated 2018 AMI revenue requirement. Capital benefits will be provided to ratepayers in SoCalGas’ subsequent GRC as a result of those costs being excluded from that GRC application, thereby reducing the GRC revenue requirement charged to ratepayers in future years. Capital benefits are primarily attributed to avoided meter and regulator purchases in years 2018 through 2022, resulting from the acceleration of the PMC program into the 2012 -2017 deployment period.

In 2018, the revenue requirement includes the capital related costs resulting from the deployment period capital expenditures, as well as capital related costs resulting from \$6.8 million in capital expenditures due to customer growth and the deployment of new AMI modules. These costs include the factory installation costs of attaching the AMI modules to all size 1 – 4 meters. The 2018 capital related costs are included in the revenue requirement described in Section IV. B- Estimated 2018 AMI Revenue Requirement.

1 **VII. CONCLUSION**

2 As stated in Section I., SoCalGas' AMI project was approved by the Commission in
3 D.10-04-027 and its implementation will continue through 2017. The AMIBA was established to
4 reconcile differences in recorded costs and benefits from those forecasted costs and benefits
5 established in the adopted AMI business case presented in AL 4110. Those approved benefits
6 have already been netted against approved AMI costs and integrated into current customer rates.
7 As a result, no AMI costs or benefits have been presented in this TY 2016 GRC.

8 SoCalGas anticipates that by the Company's next GRC, SoCalGas will have more
9 understanding and data upon which to base AMI costs and benefits savings. In the interim,
10 SoCalGas requests authorization to continue utilizing the AMIBA to capture AMI-related costs
11 and benefits that occur after the deployment period but prior to the next GRC (anticipated to be
12 TY 2019). For the subsequent GRC, AMI will be fully deployed and incorporated into regular
13 business operations.

14 As AMI technology and data is further utilized, new capabilities or programs may emerge
15 that were not anticipated in the original business case. Any costs or customer benefits associated
16 with those programs will be treated as incremental new programs to what was originally
17 presented in A.08-09-023.

18 This concludes my prepared direct testimony.
19

1 **VIII. WITNESS QUALIFICATIONS**

2 My name is Rene F. Garcia and I am presently employed by the Southern California Gas
3 Company. My business address is 555 W. Fifth St., Los Angeles, California, 90013.

4 My current position is Advanced Meter Project Management Office (“PMO”) Manager. I
5 manage the team responsible for defining and overseeing project governance, contracts and
6 compliance and benefits achievement for the AMI project. I have been in this role since
7 September of 2011.

8 I have been employed by the Sempra Energy companies since 1998 and have held
9 various positions within business unit staff organizations and Information Technology; many of
10 my years have been in project and PMO management. Prior to joining the Company, I consulted
11 with a small firm and supported SoCalGas on various transformational projects, including the
12 Year 2000 project, Geographic Information System and a process re-engineering project for Gas
13 Distribution & Operations. In 1995, I graduated from California State University, San
14 Bernardino with a Bachelor of Arts degree in Economics.

15 I have not previously testified before the California Public Utilities Commission.
16

APPENDIX A - GLOSSARY

A.: Application
ACOR: Atmospheric Corrosion Inspection
AL: Advice Letter
AM: Advanced Meter
AMI: Advanced Metering Infrastructure
AMIBA: Advanced Metering Infrastructure Balancing Account
BY: Base Year
CCC: Customer Contact Center
CIS: Customer Information System
CSF: Customer Services Field
D.: Decision
DOT: Department of Transportation
EC: Electronic Corrector
EP: Electronic Pressure
FTE: Full-time Equivalent
GO: General Order
GRC: General Rate Case
HAN: Home Area Network
HR: Human Resources
IOUs: Investor-Owned Utilities
IT: Information Technology
MSA: Meter Set Assembly
O&M: Operations and Maintenance
OP: Ordering Paragraph
PCT: Programmable Communicating Thermostats
PG&E: Pacific Gas & Electric Company
PMC: Planned Meter Change
PMO: Project Management Office
R.: Order Instituting Rulemaking
SCE: Southern California Edison Company
SOCALGAS: Southern California Gas Company
SDG&E: San Diego Gas & Electric Company
Sempra: Sempra Energy
TY: Test Year
WAN: Wide Area Network

APPENDIX B – AMI ANNUAL REVENUE REQUIREMENT

**Southern California Gas Company
Advanced Metering Infrastructure
Advice Letter Filing - March 2014
All Property and O&M - Total Costs & Benefits
Annual Revenue Requirement (For Rate Purposes) - 2012-2018 (\$ in thousands)**

Deployment

	2010 **	2011 **	2012	2013	2014	2015	2016	2017	2018
Franchise Fees & Uncollectibles	-	-	597.1	1,508.2	2,019.4	2,541.3	3,050.8	2,605.1	2,008.4
O&M expenses	-	-	19,350.1	27,718.6	32,708.2	36,487.8	38,649.9	19,418.7	-
Property Taxes	-	-	1,340.9	2,633.9	4,073.8	5,576.1	7,212.5	8,092.4	7,025.7
Preferred Equity Interest	-	-	342.0	671.8	1,039.1	1,422.3	1,839.7	2,064.1	838.8
Interest Expense	-	-	3,517.8	6,910.0	10,687.6	14,629.0	18,922.1	21,230.6	15,325.9
Depreciation Expense	-	-	18,377.9	25,130.1	32,983.4	41,377.8	49,836.8	41,083.2	41,132.0
Federal Tax Expense	-	-	(10,869.0)	10,694.8	14,766.5	18,855.0	22,743.3	19,077.4	16,842.9
State Tax Expense	-	-	(3,219.1)	2,326.8	3,269.7	4,973.9	6,616.5	5,247.4	4,616.8
Return on Equity	-	-	5,755.3	11,305.2	17,485.6	23,934.0	30,957.6	34,734.5	30,592.2
Revenue Requirement*	-	-	35,192.9	88,899.4	119,033.3	149,797.2	179,829.1	153,553.3	118,382.7

Post-Deployment

	2010 **	2011 **	2012	2013	2014	2015	2016	2017	2018
Franchise Fees & Uncollectibles	-	-	-	-	-	-	-	-	356.4
O&M expenses	-	-	-	-	-	-	-	-	19,980.7
Property Taxes	-	-	-	-	-	-	-	-	43.8
Preferred Equity Interest	-	-	-	-	-	-	-	-	5.2
Interest Expense	-	-	-	-	-	-	-	-	95.4
Depreciation Expense	-	-	-	-	-	-	-	-	184.6
Federal Tax Expense	-	-	-	-	-	-	-	-	121.4
State Tax Expense	-	-	-	-	-	-	-	-	29.8
Return on Equity	-	-	-	-	-	-	-	-	190.4
Revenue Requirement*	-	-	-	-	-	-	-	-	21,007.7

Total

	2010 **	2011 **	2012	2013	2014	2015	2016	2017	2018
Franchise Fees & Uncollectibles	-	-	597.1	1,508.2	2,019.4	2,541.3	3,050.8	2,605.1	2,364.8
O&M expenses	-	-	19,350.1	27,718.6	32,708.2	36,487.8	38,649.9	19,418.7	19,980.7
Property Taxes	-	-	1,340.9	2,633.9	4,073.8	5,576.1	7,212.5	8,092.4	7,069.4
Preferred Equity Interest	-	-	342.0	671.8	1,039.1	1,422.3	1,839.7	2,064.1	844.0
Interest Expense	-	-	3,517.8	6,910.0	10,687.6	14,629.0	18,922.1	21,230.6	15,421.3
Depreciation Expense	-	-	18,377.9	25,130.1	32,983.4	41,377.8	49,836.8	41,083.2	41,316.6
Federal Tax Expense	-	-	(10,869.0)	10,694.8	14,766.5	18,855.0	22,743.3	19,077.4	16,964.2
State Tax Expense	-	-	(3,219.1)	2,326.8	3,269.7	4,973.9	6,616.5	5,247.4	4,646.6
Return on Equity	-	-	5,755.3	11,305.2	17,485.6	23,934.0	30,957.6	34,734.5	30,782.6
Revenue Requirement*	-	-	35,192.9	88,899.4	119,033.3	149,797.2	179,829.1	153,553.3	139,390.3
O&M Benefits	-	-	(7.3)	(4,186.4)	(18,033.0)	(33,620.4)	(56,633.4)	(72,334.2)	(104,315.1)
Net Revenue Requirement	-	-	35,185.6	84,712.9	101,000.3	116,176.8	123,195.7	81,219.1	35,075.2

* Revenue Requirement shown above is net of Working Cash benefits:

Revenue Requirement associated with Working

Cash Reduction - - (147.5) (779.2) (1,981.7) (2,672.8) - - (6,690.0)

** Revenue requirement included in 2012 for these years.