Application No: A.14-08-XXX
Exhibit No:
Witness: Rodger Schwecke

Application of Southern California Gas Company (U904G) to establish a Combined Heat and Power and Distributed Energy Resources Tariff	Application 14-08-XXX (Filed August 8, 2014)

CHAPTER I

POLICY

PREPARED DIRECT TESTIMONY OF

RODGER SCHWECKE

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

August 8, 2014

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PREPARED DIRECT TESTIMONY OF

RODGER SCHWECKE

I. INTRODUCTION

Southern California Gas Company ("SoCalGas") requests California Public Utilities Commission ("CPUC" or "Commission") approval in this Application to offer a fully elective, optional, and nondiscriminatory tariff service ("Distributed Energy Resources Services"). SoCalGas' proposed Distributed Energy Resources Services Tariff helps to further expand the adoption and use of advanced energy systems including but not limited to combined heat and power ("CHP"), fuel cell, Waste Heat to Power ("WHP"), and mechanical drive technology applications thus providing greater opportunities for third party service provider participation. The tariff will help address issues commonly faced by potential tariff service customers, such as high upfront equipment costs, limited internal distributed energy resources energy management expertise, uncertain ongoing operation and maintenance ("O&M") expenses, and technology risk. SoCalGas does not intend on becoming an electric utility. Development of the Distributed Energy Resources Services Tariff was based on customer inquiries[1] and requests,[2] and designed for the purpose of meeting the current and future needs of SoCalGas customers seeking to utilize advanced energy systems to satisfy their energy requirements.

For customers electing this service, SoCalGas proposes to design, install, own, operate, and/or maintain advanced energy systems ("systems") on or adjacent to the customer's premises pursuant to an agreement between SoCalGas and the customer. SoCalGas does not propose to

[1] An inquiry is defined as an email or phone call from a customer or developer who is seeking general information about distributed energy systems.
[2] A request is defined as a customer or developer seeking Utility support in determining the economic feasibility of a distributed energy project.

own the energy provided to or produced from such systems. Customers electing service under the Distributed Energy Resources Services Tariff will be charged market-based pricing for the service. This service will be available to all customer classes.

As discussed in greater detail in testimony, SoCalGas' proposed Distributed Energy Resources Services Tariff is consistent with, and supportive of, existing state law and Commission policy which encourages utilities to propose programs that promote the environmentally beneficial use of natural gas in end-use applications such as CHP, fuel cells, waste heat to power applications, and mechanical drives. As further described in Section II below, the increased adoption of such technologies is strongly supported by state law and Commission policy.

The Distributed Energy Resources Services Tariff will:

- Be offered as an optional, nondiscriminatory tariff service that will be funded entirely by SoCalGas shareholders. Incremental costs and revenues associated with providing the Distributed Energy Resources Services Tariff will be excluded from base rates determined in SoCalGas' general rate case proceedings. Costs associated with the provision of the services will be recovered only from Distributed Energy Resources Services Tariff customers or SoCalGas shareholders.
- Utilize balancing and tracking accounts to ensure that customers and/or SoCalGas shareholders bear all costs and risks associated with the provision of the Distributed Energy Resources Services Tariff. SoCalGas will establish procedures to accurately identify all ratepayer funded resources used to support

the Distributed Energy Resources Services Tariff and their associated costs. SoCalGas will retain records and documentation that are related to this function.

- The Distributed Energy Resources Services Tariff will be promoted on a competitively neutral basis through SoCalGas' website, the use of competitively neutral scripts, and customer certifications. Information on the SoCalGas website and other promotional materials will state that other providers may offer the same or similar services. SoCalGas will deliver periodic reports to provide the Commission with the information needed for ongoing oversight.
- SoCalGas will not tie the provision of the Distributed Energy Resources Services Tariff to any other SoCalGas provided service. Information on the SoCalGas website and other promotional materials will state the tariff is fully optional and not tied to other utility services.

Chapter II provides a detailed description of SoCalGas' proposed Distributed Energy Resources Services Tariff, and Chapter III provides details on accounting controls and procedures that will track, record, and segregate costs associated with the proposed tariff service.

SoCalGas' proposed Distributed Energy Resources Services Tariff offering will help further expand the use of CHP, fuel cell, WHP, and mechanical drive technology applications by directly addressing several barriers having the greatest impact on customers who would likely use smaller (below 20 MW) distributed energy resources systems. These systems may include configurations which could also be considered microgrids as defined by the U.S. Department of

Energy:[3]

> A group of interconnected loads and distributed energy resources (DER) with clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid [and can] connect and disconnect from the grid to enable it to operate in both grid-connected or island mode.

Only 16% of CHP systems installed in SoCalGas' service territory are below 20 MW in size;[4] however 91% of the technical potential for CHP resides in systems below 20 MW.[5] These smaller systems represent the majority of untapped potential in California but help is needed in order to foster adoption and fully realize the environmental, societal, and economic benefits associated with distributed energy resources. Additionally, approximately 75% of CHP systems in SoCalGas' territory have been operating for more than 20 years and are nearing end of life.[6] SoCalGas' proposed tariff is a new business model featuring utility involvement that will address the concerns and needs of smaller energy consumers.

SoCalGas has determined, through general, ongoing customer discussions and research, that many customers below 20 MW in size:

- Prefer not to pay or do not have the ability to finance the high upfront costs for a distributed energy system. Under the Distributed Energy Resources Services Tariff, SoCalGas shareholders will fund the project and the customer will pay a monthly fee.

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[3] http://energy.gov/sites/prod/files/2012%20Microgrid%20Workshop%20Report%2009102012.pdf page 1.
[4] ICF CHP Installation Database, 2012.
[5] California Energy Commission, "Combined Heat and Power: Policy Analysis and 2011-2030 Market Assessment", February 2012, prepared by ICF International, CEC-200-2012-002, Appendix C. SoCalGas territory was calculated by taking the summation of LADWP, SCE, and Other South territories.
[6] ICF CHP Installation Database, 2012.

- Prefer not to get involved in managing the design and construction of a distributed energy system. Under the Distributed Energy Resources Services Tariff, SoCalGas will partner with established vendors to manage system design, construction and installation.
- Are unwilling or reluctant to devote resources to develop and continually sustain the expertise to operate and maintain energy systems. Under the Distributed Energy Resources Services Tariff, SoCalGas plans to contract with established vendors to operate and/or maintain distributed energy systems.
- Prefer to contract with an experienced energy provider that understands their needs. The Distributed Energy Resources Services Tariff will provide the opportunity for customers to take an additional service from SoCalGas building on their existing relationship with SoCalGas to reduce emissions, reduce energy costs, and increase reliability.

These issues will be addressed in greater detail in Chapter II.

Finally, the proposed Distributed Energy Resources Services Tariff can serve to provide zero emission energy options for SoCalGas customers. Through this tariff service offering, biogas or renewable natural gas could be used as the fuel source for the Distributed Energy Resources facility. The energy produced from such a Distributed Energy Resources facility would be considered renewable energy, similar to other renewable technologies such as solar and wind.

II. POLICY FOUNDATIONS FOR PROPOSED SERVICE

The proposed Distributed Energy Resources Services Tariff conforms to clearly articulated State and Commission policy regarding environmentally beneficial uses of natural gas

in end-use applications such as CHP, fuel cells, WHP, and mechanical drives. The proposed Distributed Energy Resources Services Tariff will enable increased adoption of advanced energy systems consistent with law and policy, summarized as follows:

A. SoCalGas' Distributed Energy Resources Services Tariff is Consistent with the Energy Action Plan (EAP) which:

- Identified CHP as a Preferred Resource and Supported Utility Owned CHP in the 2003 EAP7
- Supports utility CHP tariff development in the 2005 EAP II[8]

B. SoCalGas' Distributed Energy Resources Services Tariff is Consistent with the 2011 Integrated Energy Policy Report's Support for Increased CHP Adoption

- "Combined heat and power facilities can reduce energy use by capturing waste heat associated with electricity production and using it to power industrial facilities, universities, hospitals, and other facilities." 9
- "The Governor's policy goals for distributed generation and combined heat and power, along with the recent qualifying facility settlement, will have a major effect on future electricity demand and infrastructure needs."[10]

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[7] http://www.energy.ca.gov/energy_action_plan/, May 2003. Positioned CHP and other forms of distributed generation as a preferred supply resource in the "loading order" following cost-effective energy efficiency, demand response and renewable energy systems. A specific goal of the EAP was to "Promote customer and utility owned distributed generation."

[8] http://www.energy.ca.gov/energy_action_plan/2005-09-21_EAP2_FINAL.PDF, Section 4, Key Action Item 9, "Develop tariffs and remove barriers to encourage the development of environmentally-sound combined heat and power resources and distributed generation projects. Page 8.

[9] California Energy Commission, 2011. 2011 Integrated Energy Policy Report. Publication Number: CEC-100-2011-001-CMF, Page 12.

[10] California Energy Commission, 2011. 2011 Integrated Energy Policy Report. Publication Number: CEC-100-2011-001-CMF, Page 12.

C. SoCalGas' Distributed Energy Resources Services Tariff Fully Supports California's Environmental Policies and Goals (AB32)[11] Through Increased CHP Adoption

The Climate Change Scoping Plan,[12] published by the California Air Resources Board in December of 2008, outlined various measures needed to reduce GHG emissions and sets a statewide target of an additional 4,000 MW of installed CHP capacity by 2020. This would result in 6.7 million metric tons (MMT) of GHG reductions.[13]

D. SoCalGas' Distributed Energy Resources Services Tariff Provides Ratepayers with Environmental Benefits (Public Utilities Code § 740.8)

Effective January 1, 2006, Public Utilities Code section 740.8 was modified to require that health and environmental benefits, greenhouse gas emission reductions, and increasing alternative fuel use be among the interests of ratepayers to be considered by the Commission in evaluating utility programs.[14]

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[11] In 2006, Governor Schwarzenegger signed Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, which affirmed California's leadership role in the effort to reduce GHG emissions [AB32 (Stats. 2006, Ch. 488)]. AB32 established an ambitious goal of reducing statewide GHG emissions to 1990 levels by 2020 and required the California Air Resources Board to begin developing discrete early actions to reduce greenhouse gases while also preparing a Scoping Plan to identify how best to reach the 2020 limit [AB32 *Id*., § 38561(a)].

[12] http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

[13] California Air Resources Board Climate Change Scoping Plan (pursuant to AB-32), December, 2008, pages 43-44.

[14] PUC Code § 740.8 - "As used in Section 740.3, 'interests' of ratepayers, short- or long-term, mean direct benefits that are specific to ratepayers in the form of safer, more reliable, or less costly gas or electrical service, consistent with Section 451, and activities that benefit ratepayers and that promote energy efficiency, reduction of health and environmental impacts from air pollution, and greenhouse gas emissions related to electricity and natural gas production and use, and increased use of alternative fuels." As described more fully in Chapter 2, SoCalGas' proposed Distributed Energy Resources Tariff is consistent with §740.8 because it provides ratepayers with environmental benefits in the form of greenhouse gas emissions reduction.

E. SoCalGas' Distributed Energy Resources Services Tariff Supports Cogeneration (Public Utilities Code section § 372(a))

"It is the policy of the state to encourage and support the development of cogeneration as an efficient, environmentally beneficial, competitive energy resource that will enhance the reliability of local generation supply, and promote local business growth."[15]

F. SoCalGas' Distributed Energy Resources Services Tariff Supports Customer and Utility Owned CHP (AB1613 and California Public Utilities Code section § 2840.6(c))

The Waste Heat and Carbon Emissions Reduction Act (Assembly Bill 1613) was signed into law in October of 2007, expanding the California Public Utilities Code (section 2840.6) to support both customer and utility owned CHP.[16] Assembly Bill 1613 (AB 1613) reflects the intent of the Legislature: "(A) to dramatically advance the efficiency of the state's use of natural gas by capturing unused waste heat, (B) to reduce wasteful consumption of energy through improved…utilization of waste heat…particularly when this reduces emissions of carbon dioxide and other carbon-based greenhouse gases, (C) to support and facilitate both customer- and utility-owned combined heat and power systems."

AB 1613 also directed the CPUC to develop a feed-in tariff for CHP projects less than 20MW. As a result, the Commission initiated a rulemaking (R.08-06-024) where the CPUC recognized the benefits of increased CHP deployment and created a framework for expanded adoption of CHP in specific, environmentally advantageous applications. Under that rulemaking, the Commission ordered the electric utilities to purchase power from qualifying

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[15] AB 1186, An act to amend Section 372 of the Public Utilities Code, relating to electrical restructuring. FEBRUARY 18, 2011.

[16] California Public Utility Code section 2840.6 (c).

CHP facilities and found that additional CHP deployment would increase energy efficiency and reduce GHG and Nitrous Oxide (NOx) emissions.

In the Commission's final decision of R.08-06-024 they state: "Purchase of electricity under AB 1613 would serve the public interest by encouraging additional efficient use of energy and the reduction of GHG emissions."[17] Further, the decision states "all customers will receive the environmental and locational benefits produced by CHP systems participating under AB 1613,"[18] and "the legislation expresses the intent to support and facilitate both consumer and utility-owned CHP systems and imposes certain requirements on the Commission the California Energy Commission, the California Air Resources Board, and electric corporations."[19] The Commission's decision clearly advocates both accelerated adoption and utility ownership of CHP systems.

G. SoCalGas' Distributed Energy Resources Services Tariff Supports Electric Utilities in Meeting the Goals of the Qualifying Facilities (QF) Settlement

California has been a leader in promoting CHP as far back as 1978 beginning with the passage of the Public Utility Regulatory Policy Act (PURPA)[20] and the ensuing standard offer power purchase contracts that utilities were required to accept from Qualifying Facilities (QF's). Beginning in the early 1980s, CHP in California sustained fifteen years of annual double digit capacity growth.[21] However, near the turn of the century, rising natural gas prices as well as standby and departing load charges started to erode the outlook for CHP economics.

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[17] D.09-12-042, Conclusion of Law 1.
[18] D.09-12-042, Finding of Fact 13.
[19] D.09-12-042, p.2.
[20] http://www.ferc.gov/industries/electric/gen-info/qual-fac/what-is.asp.
[21] A New generation of Combined Heat and Power: Policy Planning for 2030; California Energy Commission Staff Paper; authored by Bryan Neff; September 2012.

In December of 2010, the Commission adopted the Qualifying Facilities (QF) Settlement under decision D.10-12-035[22] which transitions the historic QF program (including standard PPA offers and PURPA efficiency requirements) to a new QF/CHP program based in large part on competitive solicitations and a more stringent efficiency/GHG threshold. The QF/CHP settlement, approved by the CPUC, recognizes the value of Investor Owned Utility (IOU) ownership of CHP and grants limited credits from IOU owned CHP toward GHG emission reduction targets.[23] The new program, launched in November of 2011, is divided into two periods. The first 48 month period, ending November of 2013, established a combined target of 3,000 MW for the three IOU's (PG&E, SCE and SDG&E) composed of: 1) legacy contracts (repowering of existing CHP capacity); 2) power purchase agreements (PPA's) for new CHP capacity originating from utility Request for Offer (RFO) solicitations; and 3) PPA's from smaller (under 20 MW), efficient CHP systems on the customer side of the meter per AB 1613 feed-in-tariff guidelines. The second period, starting in December of 2013 and continuing through the end of 2020, is designed to reach the State goal of 6.7 MMT GHG reductions from an additional 4,000 MW of new CHP capacity as outlined by ARB in the AB32 Scoping Plan.

H. SoCalGas' Distributed Energy Resources Services Tariff Helps Attain State and Federal Executive Goals

- The Governor's Clean Energy Jobs Plan, announced as part of the Governor's campaign in 2010, calls for 6,500 MW in new CHP capacity by 2030.[24]

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[22] CHP Program Settlement Agreement Term Sheet; October 8, 2010; Approved by the CPUC in December 2010; Became effective on November 23, 2011.
[23] D.10-12-035 page 40.
[24] "Brown Announces Clean Energy Jobs Plan," http://gov.ca.gov/docs/Clean_Energy_Plan.pdf , Page 6. The stated purpose of this goal is "to improve the competitiveness of United States manufacturing, lower energy costs, free up future capital for businesses to invest, reduce air pollution, and create jobs".

- President Obama issued an executive order on energy efficiency that includes a national goal of 40 gigawatts (GW) of new, cost effective industrial CHP by the end of 2020. [25]

SoCalGas' Distributed Energy Resources Services Tariff is an innovative, utility shareholder backed tariff offering which will increase CHP adoption and help meet both state and federal executive goals. Increased CHP investment by $1 million will create 4 jobs.[26]

III. CONCLUSION

SoCalGas has developed an innovative tariff that benefits ratepayers, supports customers, improves the environment, and assists the State in meeting program and policy goals and mandates. Furthermore, as discussed more fully in Chapter II, the Distributed Energy Resources Services Tariff will help address issues commonly faced by potential tariff service customers, such as high upfront cost, limited internal energy management expertise, uncertain ongoing O&M expenses, and technology risk. The tariff helps to further expand the CHP, fuel cell, WHP, and mechanical drive technology applications thus providing greater opportunities for third party service provider participation. For all of the reasons stated above, SoCalGas encourages the Commission to act expeditiously and approve the Distributed Energy Resources Services Tariff as proposed.

IV. WITNESS QUALIFICATIONS

My name is Rodger Schwecke. I am employed by Southern California Gas Company (SoCalGas) as the Vice President of Customer Solutions. My business address is 555 West Fifth

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[25] http://www.whitehouse.gov/the-press-office/2012/08/30/executive-order-accelerating-investment-industrial-energy-efficiency.

[26] https://www1.eere.energy.gov/manufacturing/distributedenergy/pdfs/chp_report_12-08.pdf page 4.

Street, Los Angeles, California, 90013-1011. As Vice President of Customer Solutions, I oversee major customer-related activities for SoCalGas, including account executives, customer communications and eservices. I am also responsible for customer programs promoting energy efficiency, sustainability, low-income assistance and the development of new emerging technologies, including clean transportation, distributed energy, in-home services and biofuels.

From 2010 through 2012, I was Director of Storage, managing underground storage field operations that supports the daily and seasonal operational flexibility for the gas transmission and distribution system for SoCalGas. Prior to this position, I was Director of Energy Markets and Capacity Products from 2007 to 2010. In this role I led the development, marketing, and capacity planning for products and services using existing pipeline and storage assets, developing regulatory cases involving those assets, and exploring expansion of the assets. From 2007, I served in increasingly responsible management positions in business development, operations, marketing, engineering and project management for SoCalGas and Sempra Energy affiliates. I graduated in 1983 from California State University, Long Beach, with a Bachelor of Science in Chemical Engineering.

I have previously testified before the California Public Utilities Commission, State of Maine Utilities Commission, and the North Carolina Utilities Commission.