

MEMORANDUM

TO: UTILITIES ADVISORY COMMISSION

FROM: UTILITIES DEPARTMENT

DATE: October 5, 2016

SUBJECT: Staff Recommendation that the Utilities Advisory Commission Recommend that the City Council Approve Design Guidelines for the 2017 Gas Cost of Service Analysis

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REQUEST

Staff requests that the Utilities Advisory Commission (UAC) recommend that the Council approve the Design Guidelines for the 2017 Gas Cost of Service Analysis (Attachment A).

EXECUTIVE SUMMARY

Gas rates were last adjusted when an 8% rate increase went into effect on July 1, 2016. Staff intends to complete a gas rate cost of service analysis (COSA) in FY 2017 in advance of a rate adjustment on July 1, 2017. The primary goal of the COSA will be to review the allocation of costs to customer classes and the gas rate design to ensure customers are charged according to the cost to serve them. This report discusses the existing rate design, gives an overview of the issues to be addressed in the COSA analysis, and presents the proposed COSA design guidelines to guide staff and the consultant in completing the Gas COSA.

BACKGROUND

Traditionally, utilities use a COSA to allocate costs among customer classes and to design rates. COSAs gained a more important role for California publicly-owned utilities after the passage of Proposition 26 (2010). Proposition 26 added provisions to the State Constitution essentially defining every local government fee or charge as a tax, requiring voter approval, unless one of seven exceptions applies. Municipal gas rates that do not exceed the reasonable costs to the local government of providing gas service are one exception from the constitutional definition of a tax, and its voter approval requirements.

The FY 2017 Gas Utility Financial Plan ([Staff Report 6858](#)) projected the need for a 9% rate increase on July 1, 2017. The current rates, which were last changed on July 1, 2016, are based on a COSA performed in 2012. Current rates include a fixed monthly service charge for each customer group and volumetric (per therm) rates for all customers. The volumetric component

of residential gas rates (Gas Rate Schedule G-1) consists of two tiers of inclining block rates (rates that increase with consumption).

DISCUSSION

The following sections provide a review of the current rate structure, a discussion of rate design issues affecting the utility, and the proposed set of rate design guidelines to guide the COSA.

Summary of Existing Rate Structure

On July 1, 2012 CPAU restructured its gas rates so that the commodity component varied monthly to match changes in gas market prices. In addition, monthly service charges were increased to recover the cost of providing gas service to customers. In January 2015, the Council adopted a new rate component to collect the costs of purchasing allowances to comply with the State’s cap-and-trade program. This component will change depending on the cost of allowances and gas demand. Table 1, below, summarizes the current rates for all customer classes.

Table 1: Current Gas Rates

Rate Component	Units	G-1 (Residential)	G-2 (Small Commercial)	G-3 (Large Commercial)	G-10 (CNG)	Last Changed
Service Charge	\$/month	10.32	78.23	377.43	52.93	7/1/2016
Distribution (Tier 1)	\$/therm	0.5021	0.6855	0.6775	0.0963	7/1/2016
Distribution (Tier 2)	\$/therm	1.0407	N/A	N/A	N/A	7/1/2016
Commodity	\$/therm	0.3433 (Sept. 2016)	0.3433 (Sept. 2016)	0.3433 (Sept. 2016)	0.3433 (Sept. 2016)	(varies monthly) ¹
Cap-and-Trade Compliance	\$/therm	0.016 (Sept. 2016)	0.016 (Sept. 2016)	0.016 (Sept. 2016)	0.016 (Sept. 2016)	(varies with actual costs)
Total Volumetric Rate (Sept. 2016)	\$/therm	Tier 1: 0.8614 Tier 2: 1.4000	1.0448	1.0368	0.4556	
Tier 1 amount (for G-1, residential customers):						
Winter	Therms/day	2	N/A	N/A	N/A	7/1/2012
Summer	Therms/day	0.667	N/A	N/A	N/A	7/1/2012

On October 17, 2016, Council will consider amending gas rates adding a separate and revenue-neutral transportation charge that will pass through the costs PG&E charges CPAU for gas transportation². If approved, the initial Transportation Charge will be \$0.1088/therm with the Distribution Charges being reduced a like amount.

Rate Design Issues

The Gas Utility’s rates are evaluated and implemented based on the utility’s cost to serve its customers. The Gas Utility’s current rates are based on the methodology from the April 2012

¹ For historic commodity rates, see: <http://www.cityofpaloalto.org/civicax/filebank/documents/30399>

² The UAC supported this proposal at its August 31, 2016 meeting. See: <https://www.cityofpaloalto.org/civicax/filebank/documents/53652>

Gas Utility Cost of Service Study completed by Utility Financial Solutions³. Staff has identified rate design issues to address including:

- **The need to update the City's Gas COSA.** The current COSA was completed over 4 years ago and best practice is to prepare a new COSA about every five years, or when there are significant changes in the utility's costs, customer base, or other factors.
- **Carbon reduction goals.** The City's Carbon Neutral electric supply portfolio has led some customers to consider electrifying the space and water heating systems in their homes, or replacing gas-using appliances with electric ones. The gas rate structure has an impact on these decisions.

Rate Design Guidelines

In the past, the UAC and Council have expressed concern about having limited ability to make changes to proposed rate structures once a COSA is completed. Therefore, staff has committed to having policy discussions with the UAC and Council prior to embarking on a COSA. Staff is proposing a set of rate design guidelines (Attachment A) to guide the development of the next Gas COSA. The proposed guidelines are described below:

- Guideline 1. Rates must be based on the cost of service.
- Guideline 2. Maximize the volumetric rate and minimize the fixed charges, if feasible.
- Guideline 3. All existing rates should be reviewed for applicability in the COSA.
- Guideline 4. The COSA should consider the impact of rate designs on electrification.
- Guideline 5. The effect of proposed rate design changes on low income customers should be considered.

Guideline 1: Rates to be based on the cost of service

The goal of a COSA is to identify the costs associated with serving each customer class and the rates required to recover those costs. Historically, gas utilities have been able to make some adjustments to COSA-recommended rates to achieve environmental or social objectives. After Prop. 26, such rates cannot be structured solely to achieve policy objectives unless they are also cost-based, absent voter approval. The COSA has become an important tool for demonstrating that utility rates are based on the cost of service. As a result, this guideline must be the overriding one for the COSA.

Guideline 2: Maximize the volumetric rate and minimize the fixed charges, if feasible

Staff anticipates retaining the existing rate structure—consisting of a volumetric component and a fixed monthly charge. To encourage efficient use of resources and to maximize the incentive to convert gas-using appliances to electric-using appliances, the volumetric component should be maximized to the extent feasible while still complying with the cost of service requirement of Proposition 26 (See Guideline 1).

³ Staff Report 2812: <http://www.cityofpaloalto.org/civicax/filebank/documents/41839>

Guideline 3: Evaluation of all existing rate schedules for continuation, consolidation, or redefinition

Staff recommends evaluating all existing rate schedules to determine whether they should be continued or redefined. The main focus of this review will be the customer class definitions for non-residential customers. The consultant will evaluate whether the boundaries between small commercial and master-metered residential customers (G-2) and large commercial customers (G-3) should be redefined to more accurately reflect the customer profiles of each group.

Guideline 4: Impact on electrification

To achieve the City's carbon reduction goals, electrification is required. Some customers are considering greater use of electricity in their homes by replacing natural gas fueled water and space heaters with efficient heat pump water and space heaters. These customers are likely to have significantly different gas load profiles from the average residential customer. Staff recommends evaluating whether the cost to serve these customers differs from other residential customers. If so, adjusting the pricing structure applicable to these customers may be appropriate.

Guideline 5: Impact on low income customers

Changes in rate design can have different impacts on customers who use different amounts of energy. Low-income customers have lower gas usage than other customers, on average. Staff intends to evaluate the impact of any recommended rate design changes on low-income consumers and may recommend mitigation of those impacts if necessary.

NEXT STEPS

After receiving the UAC's recommendation, staff will take the COSA design guidelines to the Finance Committee, followed by consideration by the City Council. The COSA is expected to be completed by the spring of 2017 so that updated rates can be adopted as part of the FY 2018 budget process to be effective on July 1, 2017.

RESOURCE IMPACT

The work associated with this project will be absorbed using existing staff and contract budgets. The new rates adopted as a result will be designed to generate adequate sales revenue to fund the gas utility's operations in FY 2017. For FY 2017, the utility is projected to need roughly 9% more sales revenue (\$3.8 million) than is generated by current rates. Expenses exceed revenues currently, and reserves are being used to moderate customer impacts as rates are brought to parity. Costs in general are projected to increase due to inflation, and continued work on cross-bore inspections requires additional short-term funding. For more detail on these projections see the proposed FY 2017 Gas Utility Financial Plan ([Staff Report 6858](#)).

POLICY IMPLICATIONS

The process of adopting these design guidelines provides the UAC and Council an opportunity to provide policy guidance to staff before work begins on the COSA. Once a COSA is complete, it can be difficult to modify the resulting rate design without reviewing and possibly amending the analysis.

ENVIRONMENTAL REVIEW

Adoption of the Design Guidelines for the 2017 Gas Cost of Service Analysis does not meet the definition of a project, under Public Resources Code Section 21065 and CEQA Guidelines Section 15378(b)(5), because it is an administrative governmental activity which will not cause a direct or indirect physical change in the environment, thus no environmental review is required.

ATTACHMENT

A. Proposed Design Guidelines for the 2017 Gas Cost of Service Analysis

PREPARED BY:

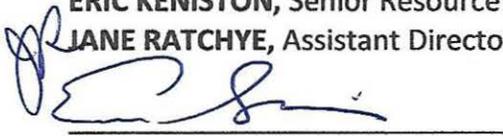
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APPROVED BY:



ED SHIKADA

Interim Director of Utilities

Design Guidelines for the Gas Utility Cost of Service Analysis

1. Rates must be based on the cost to serve customers. This is the overriding principle for the cost of service analysis (COSA); all other rate design considerations are subsidiary to this basic premise.
2. For this cost of service study, and to the extent feasible, the revenue from volumetric energy charges should be maximized and the revenue from the fixed charge should be minimized to provide the maximum incentive for efficiency and electrification, the conversion of gas-using appliances to electricity-using appliances.
3. The COSA should involve a review of all existing rate schedules for applicability in the COSA.
4. The COSA should evaluate the impact of rate designs on the economics of electrification.
5. The impact of any proposed changes on low income customers should be evaluated