



**ANALYSIS OF THE ECONOMIC AND LEVEL OF SERVICE
IMPACTS RESULTING FROM THE ANNEXATION BY
SACRAMENTO MUNICIPAL UTILITY DISTRICT
OF PACIFIC GAS AND ELECTRIC COMPANY'S
SERVICE TERRITORIES IN THE
CITIES OF WEST SACRAMENTO, DAVIS,
WOODLAND, AND UNINCORPORATED AREAS
OF YOLO COUNTY**

**Prepared for:
Sacramento County
Local Agency Formation Commission
(LAFCo)**

**Prepared by:
George E. Sansoucy, P.E., LLC
32 Nimble Hill Road
Newington, New Hampshire 03801**

March 29, 2006

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Mr. Peter Brundage
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814-2836

**RE: Economic and Level of Service Impacts Resulting from the Annexation by
SMUD of PG&E's Service Territories Analysis Report**

Dear Mr. Brundage:

Per your request, please find enclosed our report of the Economic and Level of Service Impacts Resulting from the Annexation by the Sacramento Municipal Utility District (SMUD) of Pacific Gas and Electric Company's (PG&E) Service Territories in the Cities of West Sacramento, Davis, Woodland, and unincorporated areas of Yolo County.

This report sets forth our analysis and opinions relating to SMUD's annexation and condemnation of PG&E's property in the area proposed for annexation.

If you have any questions, please do not hesitate to call.

Very truly yours,

Glenn C. Walker

GCW/dl

Enclosures

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Introduction

GES Engineers & Appraisers (GES) has been retained by the Sacramento County Local Agency Formation Commission (LAFCo) to prepare an analysis of the economic and level of service impacts resulting from the annexation of the Cities of West Sacramento, Davis, Woodland, and portions of unincorporated Yolo County (Annexation Area) into the Sacramento Municipal Utility District (SMUD).

The purpose of this report is to provide the LAFCo with an analysis of whether the expansion by SMUD into the Annexation Area is consistent with certain factors set forth in the Cortese-Knox-Hertzberg Government Reorganization Act of 2000 (CKH Act) addressing the cost and adequacy of services provided by government agencies.

These factors can be addressed by answering two primary questions which are:

1. What is the difference in the expected cost of service to the existing SMUD customers and those in the Annexation Area that would result from approval by LAFCo?
2. What is the difference in the expected level of service to both groups of customers that would result from the approval by LAFCo?

Economic Impacts of Annexation

The economic consequences of SMUD's expansion into Yolo County and condemnation of PG&E's electric property in the Annexation Area could produce a wide range of economic consequences for both SMUD's existing customers and those it proposes to annex.

The magnitude of the economic consequences will determine whether SMUD's annexation is in the public interest and should be approved by the LAFCo. SMUD's Board of Directors has already passed resolutions and taken steps to mitigate some of those economic consequences and impacts on existing customers, the local communities, and the customers in the Annexation Area.

SMUD's mitigation measures include a surcharge for the Annexation Area to mitigate any rate impact on existing SMUD customers. SMUD intends to make payments to the local communities to replace the revenues that would have otherwise been provided by PG&E in the form of franchise fees and property taxes, and includes these costs in the rates charged to the annexation customers. Finally, SMUD has mitigated the impact to the annexation customers by establishing a discount of at least 2% to the PG&E electric rates at the time of annexation.

Executive Summary

The total economic impacts of the annexation are best measured as the difference between the expected PG&E rates for providing electric service in the Annexation Area as compared to the rates SMUD will charge for equal or better service over a reasonable forecast period. The higher the PG&E rates are relative to SMUD's cost of serving the Annexation Area, the greater the benefits of annexation and vice versa.

The economic impacts are dependent upon several variables that include the forecast of PG&E rates, SMUD's power supply and operating costs in the Annexation Area, and the acquisition cost SMUD will incur to purchase and separate PG&E's electric system. SMUD and PG&E agree, or have similar forecasts of some of these variables. However, with respect to others, there are significant differences which result in different estimates of the economic impacts associated with the annexation.

Since it is impossible to know the exact economic impact of the annexation, four scenarios were selected to establish a range of the most likely economic impacts of SMUD's annexation. These four scenarios were selected as representing the most probable differences between the PG&E rates and SMUD's cost of service in the Annexation Area. The results of the four scenarios are shown in the following table and indicate a range of economic benefits from \$165 to \$380 million.

Estimated Acquisition Cost	Present Value of Economic Impact Over 20 Years	
	Adjusted PG&E Rate Forecast	SMUD's PG&E Rate Forecast
\$163 million (Assuming No Stranded Facilities) (purchase price and start-up)	\$190 million	\$380 million
\$188 million (Assuming Stranded Facilities) (purchase price and start-up)	\$165 million	\$360 million

The low end of this range represents the benefits that are created by a small difference between the PG&E rates and SMUD's cost of service, and are considered to be the most achievable. The high end of the range represents a larger difference between the PG&E rates and SMUD's cost of service resulting in greater economic benefits. These greater economic benefits are also considered achievable as SMUD's rates have historically been below those charged by PG&E and supportive of the larger difference. Therefore, it is reasonable to assume that the economic benefits associated with the annexation will fall within this range.

Level of Service

SMUD is proposing to provide service to all existing PG&E customers and any new customers in the Annexation Area. The exceptions would be existing customers in the Annexation Area that have chosen to take energy service from a provider other than PG&E via a direct access contract.

The annexation proposed by SMUD is expected to provide the same level of service to customers in the Annexation Area as currently enjoyed by its existing customers. These services will be based on the cost of serving the Annexation Area customers and providing service at least equal to that provided by PG&E.

The proposed October 2008 schedule for accomplishing the annexation is reasonable as the majority of the infrastructure necessary to serve these customers will be condemned from PG&E. The infrastructure that SMUD must construct to interconnect its existing system with the Annexation Area is primarily comprised of a 115 kilovolt (kV) transmission line and a new substation. Construction of these new facilities and additional improvements to the system are expected to be funded at the same time as the acquisition of the property purchased from PG&E and financed using a combination of commercial paper and tax-exempt debt.

Our review of the information presented by SMUD indicates that it is reasonable to assume that it will be able to accomplish the annexation and provide service and reliability at least equal to that provided by PG&E.

1.0 Purpose of Analysis and Report

GES Engineers & Appraisers (GES) has been retained by the Sacramento County Local Agency Formation Commission (LAFCo) to prepare an analysis of the economic and level of service impacts resulting from the annexation of the Cities of West Sacramento, Davis, Woodland, and portions of unincorporated Yolo County (Annexation Area) into the Sacramento Municipal Utility District (SMUD).¹

GES Engineers & Appraisers is a firm that provides valuation, consulting and engineering services to clients throughout the United States. The firm's two primary services are 1) the valuation of public utility infrastructure, energy projects, and complex industrial properties, and 2) consultation services to government entities for regulatory matters, tax agreements, energy management, and policy issues. The staff of GES includes professional engineers and appraisers with experience in a wide range of energy and regulatory matters.

The purpose of this report is to provide the LAFCo with an analysis of whether the expansion by SMUD into the Annexation Area is consistent with certain factors set forth in the Cortese-Knox-Hertzberg Government Reorganization Act of 2000 (CKH Act) addressing the cost and adequacy of services provided by government agencies.

The CKH Act identifies a list of factors for the LAFCo to consider in reviewing a proposal for annexation.² These factors are intended to address orderly development and coordination of local government agencies so as to advantageously provide for the present and future needs of the County and its communities.³ The factors that this report addresses include the following:

- The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and or alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.

¹ SMUD generates, transmits, and distributes electric power to an approximately 900 square mile service area. SMUD is the nation's sixth largest community-owned electric utility, with annual revenues of over \$1.2 billion serving a population of greater than 1.2 million people. As of March 2005, SMUD had approximately 560,000 customers and employed approximately 2,400 people, half of which were part of SMUD's service system. SMUD is governed by a seven-member Board of Directors elected by ward. The Board determines policy, performs oversight, and sets rates, rules, and regulations for the SMUD service territory.

² California Government Code § 56668.

³ California Government Code § 56425.

- The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.
- The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.
- In the case of district annexation, whether the proposed annexation will be for the interest of landowners or present or future inhabitants within the district and within the territory proposed to be annexed to the district.

The factors identified above that LAFCo must consider are addressed by answering two primary questions relating to the annexation, which are:

1. What is the difference in the expected cost of service to the existing SMUD customers and those in the Annexation Area that would result from approval by LAFCo?
2. What is the difference in the expected level of service to both groups of customers that would result from the approval by LAFCo?

This report will analyze these factors and provide our recommendations as they relate to these questions for the LAFCo to consider with respect to the SMUD annexation.

1.1 Scope of Review

The research and analysis into the economic and level of service impacts associated with the annexation are based upon documents provided to the LAFCo by SMUD and Pacific Gas and Electric Company (PG&E),⁴ and interviews of their respective representatives by GES. The primary documents reviewed in connection with this report are summarized below.

- Application for Annexation Sacramento Municipal Utility District (SMUD), July 29, 2005
- PG&E September 16, 2005 filing to LAFCo including:

⁴ PG&E is currently one of the largest combined natural gas and electric utilities in the United States. PG&E generates, transmits, and distributes electric power to a 70,000 square mile service area. The PG&E service area encompasses all of northern California, with the exception of local publicly-owned utilities. As of December 31, 2004, PG&E's annual electric revenues were approximately \$10 billion and reported to serve a population of 15 million people. PG&E is regulated by the California Public Utilities Commission (CPUC) which is located in San Francisco. Rates established for services provided by PG&E are set through a regulatory process governed by the CPUC based on cost of service pricing.

- PG&E's Response to Sacramento County LAFCo Regarding SMUD's Proposed Annexation Within Yolo County, Volume 1, September 16, 2005 prepared by Global Energy Decisions and Black & Veatch
- Fair Market Value as of January 1, 2008 – PG&E Yolo County Electric Properties SMUD Proposes to Condemn, September 2005 prepared by Black & Veatch
- Fair Market Value as of January 1, 2008 – PG&E Yolo County Electric Properties SMUD Proposes to Condemn – APPENDICES, September 2005 prepared by Black & Veatch
- Evaluation of SMUD's Additional Power Cost Requirements to Serve the Yolo Annexation Load, Volume III, September 15, 2005 prepared by Global Energy Decisions
- SMUD September 2005 letter Regarding SMUD Annexation – update Regarding Natural Gas Price Issues and CEC Staff Report Revised Reference Case in support of the 2005 National Gas Market Assessment
- Ann Trowbridge (Downey Brand Attorneys, LP) letter to LAFCo Regarding SMUD Annexation Application, December 2, 2005
- PG&E January 6, 2006 letter to LAFCo including:
 - Aggregated inventory by equipment class and additional equipment included in the field but not included in C-EDSA database
 - Description of additional information and follow-up to items discussed or included in letter from LAFCo
- PG&E February 1, 2006 letter to LAFCo from David E. Rubin including:
 - Appendix 1 – Cost tables
 - Appendix 2 – Assumptions and Methodology
 - Appendix 3 – Response to SMUD's December 2, 2005 letter
- SMUD Increase in Annexation Benefits and letter, February 15, 2006
- SMUD February 24, 2006 Annexation Application and letter SMUD Review of the PG&E Inventory and Valuation Data Regarding the SMUD Annexation Application
- PG&E February 28, 2006 filing to LAFCo including:
 - PG&E's Response to Sacramento County LAFCo Regarding SMUD's Proposed Annexation Within Yolo County, Volume 1, February 2006
 - Fair Market Value as of January 1, 2008 – PG&E Yolo County Electric Properties SMUD Proposes to Condemn, February 2006 prepared by Black & Veatch

- Fair Market Value as of January 1, 2008 – PG&E Yolo County Electric Properties SMUD Proposes to Condemn – APPENDICES, February 2006 prepared by Black & Veatch
- Volume III (Revised) – Evaluation of SMUD’s Additional Power Cost Requirements to Serve the Yolo Annexation Load, February 27, 2006 prepared by Global Energy Decisions
- SMUD March 1, 2006 Response Regarding Legal Authority for Valuation Methodology and letter, Ann Trowbridge (Downey Brand Attorneys, LLP)
- SMUD March 2, 2006 Response Regarding Folsom Annexation and letter
- PG&E March 8, 2006 Response to SMUD’s 2/24/06 Review of the PG&E Inventory and Valuation Data
- SMUD March 15, 2006 Review of Electric System Reliability and Stranded Facilities Regarding the SMUD Annexation Application
- SMUD March 15, 2006 letter Regarding PG&E’s comments on LAFCo DEIR
- SMUD March 15, 2006 letter Regarding PG&E rate estimates
- SMUD March 15, 2006 letter transmitting:
 - PG&E Power Flow Study
 - PG&E Preliminary Power Flow Study Report
- PG&E March 15, 2006 letter including
 - Attachment 1 – Forecasted revenue requirements
 - Attachment 2 – Assumptions
 - Attachment 3 - Proforma
- Davis Wright Tremaine, LLP “Assessment of PG&E and SMUD Proposals Regarding Valuation Methodologies Applicable to the Condemnation of Public Utility Facilities”
- California Public Utilities Commission Documents
- Selected PG&E Circuit Maps
- PG&E C-EDSA data
- California Energy Commission 2005 Integrated Energy Policy Report, November 2005

It was beyond the scope of this report for GES to perform an independent inventory of the property, or estimate of fair market value. Therefore, the analyses and conclusions presented in this report are based upon the information provided to the LAFCo and GES by SMUD and PG&E which form the basis of our opinion. GES does not represent that the inventory of property, methods of analysis, and conclusions drawn

from information presented by SMUD and PG&E would be the same as that employed by GES had it been retained to perform an independent analysis.

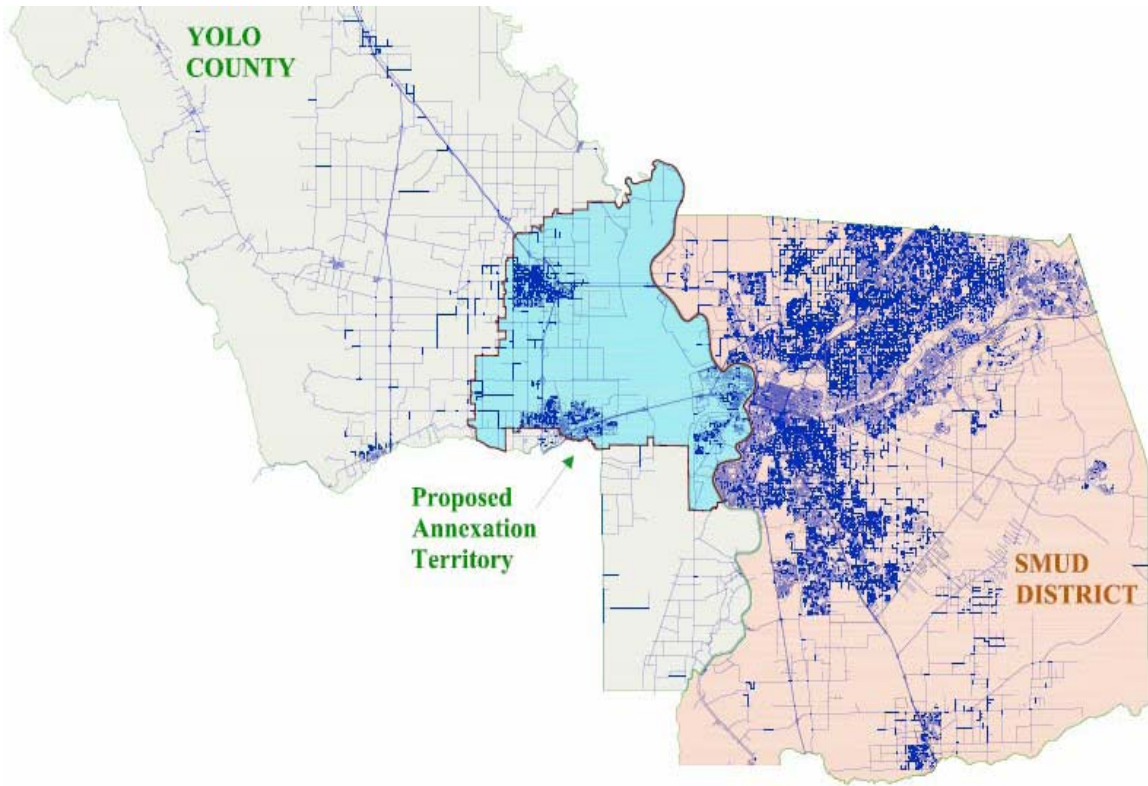
1.2 Proposed Annexation

In February 2003, the Cities of West Sacramento, Davis, Woodland, and portions of unincorporated Yolo County formally requested that SMUD consider annexing these cities and adjacent portions of Yolo County into SMUD's service territory. At the time of this request, electric service to this area was being provided by PG&E. The reasons for requesting SMUD to annex this area were that the cities in Yolo County anticipated the potential for lower rates, the ability to participate in decision making on energy related issues at the local level, and the potential to improve reliability and customer service compared to PG&E. The request for annexation was based largely on information contained in a September 2002 study prepared by Navigant Consulting, Inc. for the City of Davis.⁵

The Annexation Area is shown in Figure 1.

⁵ Application for Annexation SMUD, July 29, 2005, pg. 2.

**FIGURE 1
MAP OF ANNEXATION AREA⁶**



In April 2003, the SMUD Board of Directors adopted an annexation policy that sets the criteria that must be met for SMUD to consider annexation of any area beyond its current boundary. It was established that SMUD would only consider annexing territory into its electric service area if all of the following criteria are met:⁷

- The area proposed for annexation must be a relatively dense, urban area.
- The potential Annexation Area must be a growing area.
- The area must lie within approximately 30 miles driving distance from SMUD customer service facilities.
- The local jurisdictions seeking annexation must take the initiative by formally requesting that SMUD's Board of Directors consider annexation.
- The local jurisdictions agree to share in the cost of a study to assess the feasibility of annexation.

⁶ Source: http://www.smud.org/annexation/pdfs/lafco/Attmt%20C_Maps/Boundary_Vicinity.pdf.

⁷ Application for Annexation SMUD, July 29, 2005, pg. 2.

Section 1 Overview

The SMUD Board of Directors and Yolo County jointly authorized an independent analysis of the feasibility of annexation. The study contract was awarded to a team headed by R. W. Beck, Inc. (Beck) in March 2004.⁸ The Beck report was completed in January 2005 and concluded that annexation was technically and financially viable and promised economic benefits to both SMUD's existing customers and those in the proposed Annexation Area.⁹

After this study was released, the West Sacramento, Woodland, and Davis City Councils and the Yolo County Board of Supervisors held a series of public meetings to discuss the findings of the Beck report. In March and April 2005, the City Councils and the Yolo County Board of Supervisors unanimously voted to formally seek annexation by SMUD. On April 5, 2005, the Cities of West Sacramento, Davis, and Woodland and the County of Yolo passed a joint resolution requesting annexation by SMUD.¹⁰

The SMUD staff validated and augmented the Beck report in May 2005 and released its own analysis which confirmed that the annexation was both technically and financially feasible. In addition, in May 2005, Dr. Sanjay Varshney, the Dean of the College of Business Administration at California State University, Sacramento provided the SMUD Board of Directors with the results of his independent consulting review of the methodology and assumptions used both in the Beck report and the SMUD staff analysis. Dr. Varshney concluded "both the Yolo and SMUD customers are likely to benefit from the annexation since the benefits are achievable."¹¹

The SMUD Board of Directors voted on May 19, 2005 to submit an annexation application to the LAFCo based on the Beck report, the SMUD staff analysis, the Dr. Varshney findings, public hearings, and other public input. On July 29, 2005, SMUD submitted an application to the LAFCo seeking approval of the Annexation Area into SMUD's electric territory and sought approval by the LAFCo of the annexation.¹²

On August 22, 2005, the LAFCo made a request by letter to the California Public Utilities Commission¹³ (CPUC) for a determination of whether the annexation will

⁸ R. W. Beck, Inc. was the project manager and lead consultant responsible for the economic analysis, conclusions, and final report. Stone & Webster Management Consultants and Lucy Company provided the inventory of property and communication plan. The report prepared by this group is referred to collectively as the Beck report for ease of presentation.

⁹ Application for Annexation SMUD, July 29, 2005, pg. 3.

¹⁰ Ibid, pg. 10.

¹¹ Ibid, pgs. 10-11.

¹² Ibid, pg. 11.

¹³ The California Public Utilities Commission (CPUC) regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. The CPUC is

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substantially impair PG&E's ability to provide adequate service at reasonable rates within the remainder of its service territory. In a resolution issued November 18, 2005, the CPUC found that the proposal by SMUD to expand into the Annexation Area "will not substantially impair PG&E's ability to provide adequate service at reasonable rates within the remainder of its service territory".¹⁴

On September 16, 2005, PG&E submitted its response to the LAFCo regarding SMUD's proposed annexation within Yolo County. PG&E's response was a collaborative effort between Black & Veatch (B&V), Global Energy Advisors (Global), and PG&E. B&V is an engineering firm with vast experience in the electric and gas industries. Global is an energy consulting firm specializing in power procurement and management.¹⁵ This response calculated PG&E's estimates of the probable cost to SMUD of condemning PG&E's electric facilities within the Annexation Area and the power supply cost to serve the area's load and negative economic impacts of the annexation. PG&E identified in this response that SMUD's consultants had "significantly understated these costs and rates that SMUD will incur to serve the Annexation Area."

In addition to its September 16, 2005 filing, PG&E supplemented this information to account for subsequent changes to the boundaries of the proposed Annexation Area in a letter dated January 6, 2006, as well as addressing other follow-up items discussed at meetings between LAFCo and PG&E.

On February 1, 2006, PG&E provided a letter following up on requests made by LAFCo relating to the original costs of the property in the Annexation Area and provided additional support for its responses to a letter submitted to LAFCo on December 2, 2005 by SMUD regarding methods of valuation. In the February 1, 2006 letter to LAFCo, PG&E argued that the appropriate method of valuing the electric property within the Annexation Area should be the Replacement Cost New Less Depreciation (RCNLD) and provided its support for this position.

On February 15 and 24, 2006, SMUD submitted additional responses to PG&E's documents filed with LAFCo on September 16, 2005 as well as its review of documents made available to it by PG&E and the LAFCo on the week of January 30, 2006. These documents included access to PG&E's databases and circuit maps.

responsible for ensuring that customers have safe, reliable utility service at reasonable rates, protecting against fraud, and promoting the health of California's economy.

¹⁴ Public Utilities Commission of the State of California *Energy Division Resolution E-3952* dated November 18, 2005 at CPUC website: www.cpuc.ca.gov/Published/Comment_resolution/50457.htm.

¹⁵ PG&E September 16, 2005 filing to LAFCo, pg. 1.

Section 1 Overview

On February 28, 2006, PG&E provided updates to its responses to the LAFCo regarding SMUD's proposed annexation within Yolo County. These updated documents included modifications to the reports provided by B&V to account for the changes in the annexation boundaries and changes to Global's power supply forecasts to account for the most recent California Energy Commission¹⁶ (CEC) natural gas price forecasts. PG&E submitted additional documentation to the LAFCo on March 8, 2006, formally responding to SMUD's February 15 and 24, 2006 submissions to LAFCo regarding PG&E's power supply costs and estimated annexation benefits.

On March 15, 2006, both parties filed additional support for the PG&E retail rates in the Annexation Area. These documents set forth the breakdown of each component comprising PG&E's rates over the 20-year forecast period.

For this report, GES has made a review of the documents referenced above along with additional documents submitted by the parties. Based on this information, the following sections provide our analyses and conclusions of the economic and level of service impacts of SMUD's proposed annexation.

¹⁶ The California Energy Commission (CEC) is the state's primary energy policy and planning agency. Created by the Legislature in 1974 and located in Sacramento, the CEC has five major responsibilities: (1) forecasting future energy needs and keeping historical energy data; (2) licensing thermal power plants 50 megawatts or larger; (3) promoting energy efficiency through appliance and building standards; (4) developing energy technologies and supporting renewable energy; and (5) planning for and directing state response to energy emergency.

2.0 Introduction

The economic consequences of SMUD's expansion into Yolo County and condemnation of PG&E's electric property in the Annexation Area could produce a wide range of economic consequences for both SMUD's existing customers and those it proposes to annex. The range of economic consequences that could result from this annexation include:

- an increase or decrease in the rates for existing SMUD customers;
- an increase or decrease in the rates for customers in the Annexation Area from PG&E rates;
- a reduction in local franchise fees and property taxes due to SMUD's not-for-profit structure; and
- a reduction in state and federal income taxes due to SMUD's not-for-profit structure.

The magnitude of the economic consequences identified above will determine whether SMUD's annexation is in the public interest and should be approved by the LAFCo. SMUD's Board of Directors has already passed resolutions and taken steps to mitigate some of those economic consequences and impacts on existing customers, the local communities, and the customers in the Annexation Area.

SMUD's mitigation measures include a surcharge for the Annexation Area to mitigate any rate impact on existing SMUD customers. SMUD intends to make payments to the local communities to replace the revenues that would have otherwise been provided by PG&E in the form of franchise fees and property taxes, and includes these costs in the rates charged to the annexation customers. Finally, SMUD has mitigated the impact to the annexation customers by establishing a discount of at least 2% to the PG&E electric rates at the time of annexation.

The range of economic impacts associated with the annexation is best measured as the difference between the expected PG&E rates for providing electric service in the Annexation Area as compared to the rates SMUD will charge for equal or better service over a reasonable forecast period. The higher the PG&E rates are relative to SMUD's cost of serving the Annexation Area, the greater the benefits of annexation and vice versa.

There are several variables that will determine the magnitude of these economic impacts which include:

- rate forecasts for SMUD and PG&E;

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Economic Impacts of Annexation

- cost of acquiring PG&E's facilities, severance costs, start-up costs, litigation costs, and the associated debt service costs;
- power supply costs including energy, capacity, ancillary services, and renewable energy for the Annexation Area;
- pass-through costs, to be recovered through non-bypassable charges, primarily related to the above market energy contracts entered into by the Department of Water Resources (DWR) on behalf of the investor-owned utilities during the 2000-2001 energy crisis and PG&E's bankruptcy related costs;
- operational efficiencies and economies of scale associated with the annexation; and
- mitigation for impact to the Cities of West Sacramento, Davis, Woodland, and Yolo County associated with the loss of franchise fees and property taxes.

The Application submitted by SMUD for the annexation indicates there will be significant savings over the long-run to the electric customers in the Annexation Area. The Application indicates that these savings will be modest in the early years due to exit fees and the levelized cost¹⁷ recovery of debt service costs, and relatively high power supply costs caused by the current price of natural gas. However, over the long-run these costs are mitigated through the equity the customers build in the system.¹⁸

In general, there are several areas of cost savings that SMUD is expected to provide to customers in the Annexation Area as compared with PG&E when considering the variables identified above. Some of these savings include:

- SMUD is a not-for-profit entity with no shareholder equity requirements, and therefore has a lower cost of capital when compared to PG&E;
- the ability to use tax-exempt debt for future capital additions;
- avoidance of certain income taxes; and
- synergies created by annexing this territory into SMUD's existing operation in the Sacramento area.

The following sections are a summary of how these factors will impact SMUD's rates for providing service in the Annexation Area when compared to PG&E's rates, and the economic impacts associated with the annexation.

¹⁷ Levelized costs represent the present value of the total cost of building and operating a generating plant over its economic life, converted to equal annual payments.

¹⁸ Application for Annexation SMUD, July 29, 2005, pgs. 4-6.

2.1 Comparison of SMUD and PG&E Rate Structures

In order to understand how the economic impacts of the annexation relate to the rates that either SMUD or PG&E will charge customers, first it is important to understand the economic and regulatory environment in which PG&E operates and how SMUD typically is able to operate at a lower cost for equivalent service.¹⁹ The cost of providing electric service to customers, either by SMUD or PG&E, is a function of the following services that comprise the cost of a retail kilowatt-hour. These include the following:

- cost of power supply;
- transmission of electricity from the source of production to the local distribution system;
- distributing this to customers; and
- administering and billing the customer for providing these services.

In offering or performing each of these services, SMUD and PG&E each have a certain cost of service that it must charge customers in the Annexation Area which is a function of past and future capital and operating expenditures.

PG&E Rate Structure

The mechanism used to determine the rates charged by PG&E for each of these services is typically referred to as “cost of service” pricing and is administered by the CPUC. The CPUC establishes rates that are intended to provide the following:

- recovery of prudently invested capital;
- a chance to earn a fair return on invested capital; and
- recovery of reasonable operating expenses.

SMUD Rate Structure

SMUD’s rates are established in a similar manner except that they are not regulated by the CPUC, but instead are administered by the SMUD Board of Directors using a public process.

¹⁹ The average rates SMUD charges its existing customers are estimated to be on average 9.28¢/kWh in 2008 compared to PG&E’s estimate of its rates for the Annexation Area of 13.04¢/kWh. This difference results in SMUD providing equivalent service for approximately 30% less than PG&E.

The principles behind cost of service pricing are provided below to familiarize the reader with how regulation impacts the cost of a retail kilowatt-hour provided by either SMUD or PG&E.

2.1.1 Prudently Invested Capital - PG&E

The investment by PG&E in property to serve customers is referred to as its rate base. Rate base is typically comprised of the original cost of investment less the amount of that investment that has been recaptured through depreciation,²⁰ plus allowances for additional capital requirements of PG&E and reductions for customer advances, deferral of expenses, and contributions made to the system and not funded by PG&E. Examples of additions to rate base include the investment necessary to construct property not yet in rate base and maintain an inventory of material and supplies. Reductions to rate base include accrued depreciation, contributions to the system in the form of property, and deferred federal income taxes. The following is a summary of typical cost components that comprise the rate base of a utility like PG&E.

General computation of rate base:

Total original cost of utility plant in service
- Accumulated depreciation and amortization
+ Property held for future utility use
+ Materials & supplies
+ Working capital
- Customer advances for construction
- Contributions in aid of construction (CIAC)
+ Accumulated amortization of CIAC
- Deferred income taxes
<hr/>
Rate Base

In general, the original cost of investment less accumulated depreciation or “net book value” of PG&E represents the amount of money invested on behalf of the customer in property plant and equipment. This original investment can be considered a loan PG&E makes to the ratepayer for the property that PG&E has constructed on their behalf. Accumulated depreciation in the context of regulation represents the principle amount of this loan that has been paid back to PG&E by the ratepayer with the net book value representing the outstanding principle on the property PG&E is entitled to receive through rates from its customers.²¹ The net book value of PG&E’s property represents the regulatory value of this property and is the amount on which customers pay a fair return.

²⁰ The Original Cost Less Depreciation of a utility is often referred to as its net book value.

²¹ In the event of a sale, net book value also represents the amount of the sale price that ratepayers are entitled to receive in the form of rate base reduction.

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The adjustments to the net book value identified above are intended to reflect customer advances, CIAC, and deferral of income taxes that are sources of capital to PG&E but have no cost, or represent income without a corresponding expense and, therefore, are excluded from rate base.

2.1.2 Fair Return on Invested Capital – PG&E versus SMUD

The rate base of a utility, which is primarily comprised of net book value, represents the amount of investment on which a utility like PG&E earns a return. This return is based on the amount and cost of each type of capital used to fund the investment in this property.²² In electric utilities, the investment in property is typically funded using 50% debt and 50% equity, both of which must receive a return that is comparable to investments of similar risk.

The return on invested capital is typically an area of significant savings for not-for-profit utilities, like SMUD, as compared to for-profit utilities. This savings is demonstrated using the following example.

TABLE 1
PG&E CAPITAL STRUCTURE
AND COST OF CAPITAL
AS OF 12/31/04

A	B	C	D
Type of Capital	% of Capital	Cost of Capital	Weighted Average Cost of Capital (B x C)
Equity	49.00%	11.22%	5.50%
Preferred	2.80%	6.76%	0.19%
Debt	48.20%	5.90%	<u>2.84%</u>
			8.53%

ESTIMATE OF SMUD'S COST OF BORROWING

		Taxable	Tax Exempt
Debt	100.00%	6.25%	5.00%

Sources: Application for Annexation SMUD, July 29, 2005; Pacific Gas and Electric Company SEC Form 10-K filing for year ended 12/31/04, Exhibit 13.

²² This concept is similar to the cost of money used to purchase a house with some portion of the purchase price being contributed as equity (typically 20%) and some portion being funded with debt or a mortgage (typically 80%).

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The cost of capital in Table 1 is the annual difference in expected return on or interest rate from capital invested in the utility system that PG&E and SMUD must seek from customers. The annual required return on \$100 million of invested capital for each entity is calculated in Table 2.

TABLE 2
ANNUAL REQUIRED RETURN ON INVESTED CAPITAL
ASSUMING AN INVESTMENT OF \$100 MILLION
AT VARIOUS COSTS OF CAPITAL

A	B	C
	Cost of Capital	Annual Return (B x \$100 million) (\$ in millions)
PG&E's Required Return on Capital	8.53 %	\$8.53
SMUD's Cost of Taxable Debt	6.25 %	\$6.25
SMUD's Cost of Tax Exempt Debt	5.00 %	\$5.00

Table 2 above illustrates that not-for-profit entities, like SMUD, have a required return that is approximately 40% below a for-profit entity like PG&E. This lower cost of capital is one of the primary benefits associated with not-for-profit ownership of utility infrastructure.

2.1.3 Operation and Maintenance Expenses

The operation and maintenance expenses of PG&E's system typically are reimbursed at cost along with a reimbursement for payment of state and federal taxes. SMUD typically is exempt from these taxes, and as such does not have a comparable item of expense that is reimbursed through the rates it charges customers.

The expenses associated with providing electric services include the following:

- power supply;
- direct and indirect labor associated with its employees;
- operating expenses such as truck leases, equipment purchases, office supplies, etc.;

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- billing, customer support, and administrative support;
- non-bypassable charges associated with previous investments on behalf of the customer; and
- income, franchise and property taxes.²³

This reimbursement of prudently incurred operation and maintenance expenses, when combined with the return on and of invested capital, will result in the utility being justly compensated for the service it provides to customers.

The understanding of how PG&E currently operates and charges customers for electric service is an important element of understanding the validity of the economic impacts associated with the annexation and in considering the range of fair market value estimates provided to the LAFCo by SMUD and PG&E. The analysis and conclusion relative to the cost of service and fair market value estimates developed by each party is discussed below, along with a reconciliation of those items that represents a probable range of economic impacts.

2.2 Overview of Economic Analyses Performed for the Annexation Area

In analyzing the economic benefits of the annexation, SMUD and its consultants have prepared an analysis of the cost SMUD will incur to serve customers in the Annexation Area as compared to the expected cost of PG&E serving the same customers. SMUD's analysis was based on the cost of service pricing principle discussed above, with the economic impact being the difference between the amounts charged to customers using the SMUD and PG&E's rates. PG&E has provided a similar forecast using SMUD's model, but presents its own retail rate forecast and estimate of SMUD's cost of service in the Annexation Area. In these economic analyses, SMUD and PG&E both used the period 2008 to 2027 as the 20-year period to determine the economic impacts associated with the annexation.

In its February 15, 2006 filing, SMUD forecast the economic benefits to exceed \$400 million. PG&E provided its own forecast of the economic losses that it projects will occur as a result of the annexation. In its February 28, 2006 filing, PG&E estimated that the economic impacts could range from a positive \$7 million to an economic loss of \$495 million. On March 15, 2006, PG&E revised the \$495 million loss to a loss of \$370 million based on an update to its retail rate forecast in the Annexation Area.

²³ SMUD has agreed to make franchise fees and property tax payments, even though it is exempt from these taxes.

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The estimated economic impacts that will result from the annexation presented in this report are based on the submissions by SMUD and PG&E as referenced previously. The filings to LAFCo by both parties are voluminous and include discussions and analyses by SMUD and PG&E relating to their respective forecast of the economic impacts associated with SMUD's annexation.

The filings to LAFCo by SMUD and PG&E were reviewed and used to develop our estimate of the economic impacts of the annexation. The areas of review and analysis include the following:

- **Customers and Expected Sales:** SMUD and PG&E have each identified the rate class and number of customers in the Annexation Area along with the associated electric usage by these customers.
- **PG&E Composite Rates for the Annexation Area:** SMUD and PG&E have each provided 20-year forecasts of the PG&E rates for the customers in the proposed Annexation Area. This assumption forms the basis of any savings available under SMUD annexation or the amount of benefit PG&E believes the customers in this territory enjoy from its service.
- **SMUD's Cost of Acquisition:** The cost SMUD will incur in acquiring the electric system in the Annexation Area from PG&E is another variable that is required to estimate the economic impacts of this annexation. The cost of acquisition includes both the purchase of PG&E's system and the costs associated with system start-up, upgrades, stranded costs, severance, financing, and litigation.
- **Power Supply Costs:** The costs associated with procuring wholesale electrical energy on behalf of the customers in the Annexation Area is another component of the economic analysis. The customers in the Annexation Area are currently provided service by PG&E utilizing its generation and supply resources. Several of these resources will no longer be available to customers in the Annexation Area if SMUD is successful and SMUD will be responsible for procuring a power supply on their behalf. The cost of this future power supply as it compares to that of PG&E will have an impact on the rates SMUD must charge customers in the Annexation Area.
- **Operation and Maintenance Expenses:** The cost of operating the electric and distribution system in the Annexation Area is also an item that will impact the rates SMUD charges.

In some instances, SMUD and PG&E agree on the assumptions or have forecasts that are similar. The primary area of dispute between the parties relates to PG&E's future retail rates in the Annexation Area and the estimate of acquisition costs SMUD will incur to purchase and separate PG&E's property.

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The following section is a summary of the assumptions that are used to analyze the economic impacts of the annexation by SMUD and PG&E and our analysis and opinion as to the reasonableness of each, and the range of estimated economic impacts.

2.2.1 Customers and Expected Electric Sales

The customers and their expected electrical usage in the Annexation Area is a function of the boundaries and the number and type of customer within these boundaries. The number and type of customer within these boundaries will impact the economic analysis as it determines the amount of capital investment necessary to service customers, the relationship between average and peak usage, the annual electrical consumption, and the operational and administrative costs necessary to serve these customers.

In its July 29, 2005 Application, SMUD estimated that in 2008 there would be 80,227 customers in the Annexation Area with a total energy requirement (including loss) of 1,382,000 megawatt-hours (MWh). PG&E used this same figure in its September 2005 filing.²⁴

In its February 15, 2006 filing, SMUD used the same number of customers and energy requirements. However, PG&E has modified its assumptions relative to customers and energy requirements due to changes in the boundaries of the Annexation Area. Table 3 is a comparison of the estimated number of customers and energy usage in SMUD and PG&E’s most recent filings for 2008 through 2027.

TABLE 3
SUMMARY OF CUSTOMERS AND ENERGY USAGE
WITHIN THE ANNEXATION AREA
IN 2008 AND 2027

	2008			2027		
	SMUD	PG&E	%	SMUD	PG&E	%
Customers	80,227	81,421	1.5%	107,767	109,371	1.5%
Energy Requirements	1,382,340	1,390,993	0.6%	1,995,754	2,008,250	0.6%

Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

²⁴ Application for Annexation SMUD July 29, 2005 Attachment L; PG&E September 16, 2005 filing to LAFCo, Volume II, Proforma.

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Table 3 indicates that PG&E assumes 1.5% more customers than SMUD and 0.6% more energy requirements. The difference in these estimates is not considered to be meaningful and therefore both are considered a reasonable estimate of the customers and energy requirements over the 20-year forecast period starting in 2008.

2.2.2 PG&E Retail Rates for the Annexation Area

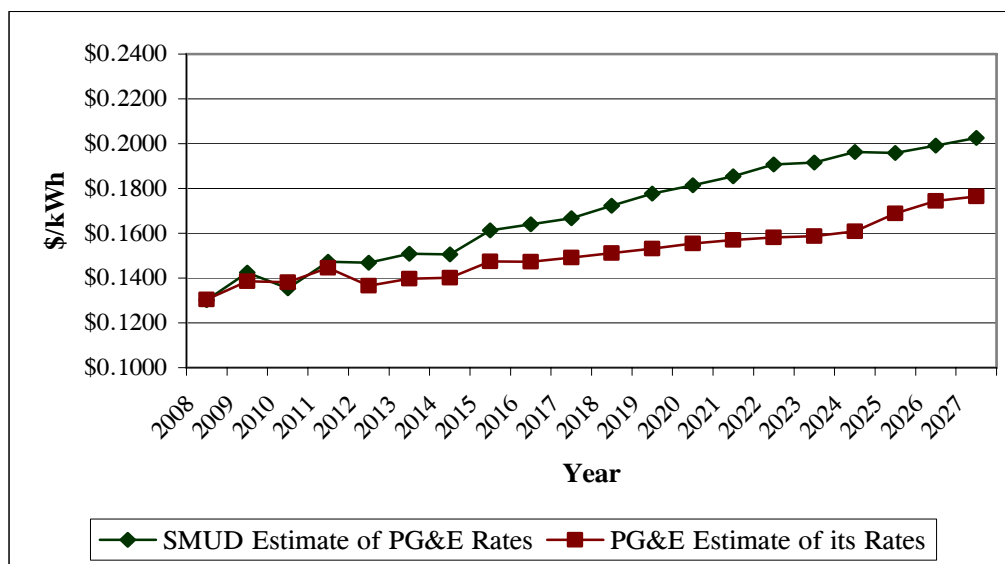
The PG&E system rates applicable to the annexation customers are based on the cost of service principle discussed above. These rates are established in proceedings before the CPUC and reflect the cost of providing electric service to all of PG&E's electric customers in the State of California by rate class. In general, these rates include the return on and of invested capital, the cost of power supply, and operation and maintenance costs incurred by PG&E to provide these services.

In its July 29, 2005 Application, SMUD estimated the PG&E rates based on the then current cost to customers established by the CPUC, and estimated how these rates would change over the forecast period.

In its September 2005 filing, PG&E provided its own rate forecasts to serve the customers in the Annexation Area based on the expected natural gas prices and cost of service estimates known at that time. Subsequent to those filings, SMUD and PG&E have revised their estimate of PG&E's rates.

The most recent PG&E rate forecasts prepared by SMUD and PG&E are shown in Figure 2. The forecasts in Figure 2 illustrate that for the period 2008 through 2011, SMUD and PG&E have similar estimates of the rates PG&E will charge in the Annexation Area. However, between 2011 and 2027, the rate forecasts diverge and result in a difference of up to approximately 20% in several years of the forecast.

FIGURE 2
COMPARISON OF SMUD AND PG&E RETAIL RATE FORECASTS
IN THE ANNEXATION AREA



Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

The rates shown in Figure 2 include the expected cost for PG&E to provide distribution, transmission, and power supply services, and recover non-bypassable charges from customers in the Annexation Area. The rate estimates provided by PG&E on March 15, 2006 for the Annexation Area are approximately 2% below the rates it estimates system-wide.

In estimating the economic impacts of the annexation, the difference between the PG&E rates and SMUD’s cost to serve the customers in the Annexation Area represent the economic impacts of the annexation. SMUD and PG&E have both provided estimates of PG&E rates in the Annexation Area for the period 2008 through 2027. The reasonableness of these forecasts has been reviewed relative to PG&E’s current rates, future capital requirements, and cost of providing service to electric customers.

A review of the details that comprise the rate forecasts provided by PG&E demonstrates that for the years 2015 through 2027, the component of rates associated with the distribution expenses were escalated at a rate of less than 1% per year. This rate of escalation understates the costs PG&E is likely to incur providing distribution services and falls below the escalation rate it used for the transmission component of rates. Therefore, the distribution component of PG&E’s rate forecast for 2015 through 2027 was adjusted to reflect the rate of inflation PG&E applied to its transmission

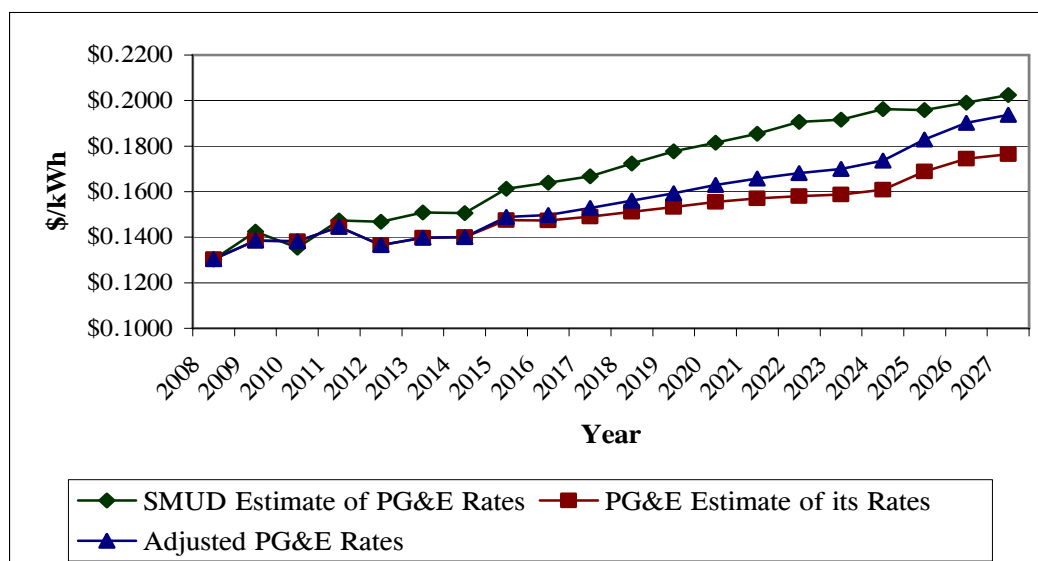
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component of rates. The rates that result from this adjustment are considered a more reasonable estimate of PG&E's rates.

Figure 3 presents the original PG&E rates, adjusted PG&E rates, and SMUD's forecast of these rates.

FIGURE 3
COMPARISON OF SMUD AND PG&E FORECASTS
WITH THE ADJUSTED FORECAST
FOR THE PG&E RETAIL RATES
IN THE ANNEXATION AREA



Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

The forecasts of PG&E rates in Figure 3 illustrates how SMUD's estimate of PG&E rates and the adjusted PG&E rates still differ, but begin to converge by the end of the period. This difference primarily relates to power supply and reliability service cost estimates used by SMUD and PG&E in the forecast of these rates. SMUD's estimate of these rates assumes that PG&E will incur greater costs associated with these components, while PG&E assumes that it will be able to avoid or mitigate these future increases in power supply and reliability service costs and consequently have lower rates.

Since the SMUD and the adjusted PG&E forecasts both appear reasonable, the economic impacts were analyzed under two different scenarios. The first scenario assumes that PG&E is able to mitigate future power supply and reliability service cost increases by utilizing its hydroelectric and nuclear resources and implementing demand-

side management. The second scenario assumes that PG&E rate increases are at the level forecast by SMUD, and PG&E's power supply and reliability service costs are higher than in PG&E's forecast. These two scenarios will establish the range of possible PG&E rates which are then compared to SMUD's cost of service to measure the economic impacts of the annexation.

2.2.3 Cost of Acquisition

The cost SMUD will incur to acquire the existing electrical system in the Annexation Area from PG&E through a condemnation is another variable required in estimating SMUD's cost of service to customers in the Annexation Area. The cost of acquisition includes the purchase of PG&E's system in the Annexation Area and the cost associated with system start-up costs, upgrades, stranded costs, severance, financing costs, and litigation costs.

In its July 29, 2005 Application, SMUD estimated a fair market value of \$84 million for the system plus other costs at \$53 million, for a total acquisition cost of \$137 million in 2008.

On September 16, 2005, subsequent to SMUD making its Application, PG&E filed a response to SMUD's Application setting forth comments relative to its opinion of the acquisition costs for the system and its own estimate of severance. This submission was followed by additional submittals that set forth PG&E's opinion relative to the estimated acquisition costs of its system and associated severance and stranded costs. PG&E estimated the fair market value of the system at \$516.70 million and the severance costs at \$50.6 million.

The total difference between SMUD and PG&E's estimate of acquisition cost is summarized in Table 4.

TABLE 4
COMPARISON OF SMUD AND PG&E ACQUISITION COSTS
FOR THE ANNEXATION AREA
AS OF 12/31/04

	SMUD (\$ in millions)	PG&E (\$ in millions)
Estimated Fair Market Value	\$84.00	\$516.70
Severance, Start-up and Stranded Costs	<u>\$53.00</u>	<u>\$50.60</u>
Total:	\$137.00	\$567.30

Sources: Application for Annexation SMUD, July 29, 2005; PG&E February 28, 2006 filing to LAFCo, pg. 27.

Discussion of Fair Market Value

In annexing portions of Yolo County, SMUD proposes to condemn those portions of PG&E’s property within the Annexation Area. The price SMUD must pay PG&E for this property is defined as its fair market value. The definition of fair market value in this context is as follows:

“the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for so doing, nor obliged to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for so doing, each dealing with the other with full knowledge of all the uses and purposes for which the property is reasonably adaptable and available.”²⁵

Most valuation experts and authoritative sources agree that there are three generally accepted approaches to estimating the fair market value of a property. These are: 1) the cost approach; 2) the sales comparison approach; and 3) the income capitalization approach. The applicability of each approach varies with the nature and purpose of the valuation assignment. After each approach has been considered, the appraiser reconciles to a single value, or range of value, that most accurately reflects the property’s fair market value as of the valuation date.

An estimate of fair market value for the electric systems being acquired by SMUD from PG&E in the Annexation Area was presented by both parties. The discussion of the property’s fair market value is found in Appendix C to this report, as the documents are voluminous and required a review of methodology, assumptions, and analyses

²⁵ California Government Code § 126.320(a).

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presented by SMUD and PG&E. A summary of the fair market value estimates as presented by SMUD and PG&E, and a reconciliation of these estimates is presented below.

The fair market value set forth by SMUD is \$84 million²⁶ whereas PG&E estimates it to be \$516.7 million²⁷, resulting in a difference of approximately 515%. This difference in fair market value estimates is the result of several factors that include the property inventory, the unit costs applied to this inventory, the calculation of depreciation, and the number of methods used to estimate the fair market value.

To determine the fair market value, SMUD used the cost and income capitalization approaches. In its February 24, 2006 filing, SMUD updated its original analysis and provided information on electric utility system transactions. SMUD's value estimates range from \$84 to \$130 million. SMUD's Application used a value estimate of \$84 million which was below the \$110 million estimate used by SMUD staff in its report.

PG&E utilized the cost approach to determine the value of the property being acquired by SMUD and estimated a value of \$516.7 million. PG&E's value estimate included additional components for the change in value from 2004 to the 2008 acquisition date, going-concern value, and adjustments for current assets and liabilities.

A review of the methodology, assumptions, and analyses presented by SMUD and PG&E result in a range of value from \$79 to \$154 million for the electric property in the Annexation Area and is presented in Appendix C. The lower and upper ends of the range are established using the Original Cost Less Depreciation²⁸ (OCLD) and Replacement Cost New Less Depreciation²⁹ (RCNLD) estimates. The income capitalization and sales comparison approaches determine how the final value estimate relates to this range based upon the property's earning potential.

The income capitalization and sales comparison approaches both indicate that the fair market value is at the lower end of the range and is best represented by the fair market value of \$110 million used by SMUD staff in its report. Therefore, \$110 million is considered a reasonable estimate of fair market value for the property SMUD is proposing to condemn in the Annexation Area.

²⁶ Application for Annexation SMUD, July 29, 2005.

²⁷ PG&E February 28, 2006 filing to LAFCo, Volume II, pg. 1.

²⁸ The OCLD is typically defined as the original cost of the property when it was first placed into service less the accrued depreciation. The OCLD value is an estimate of the property's "net book value" and is generally equivalent to the rate base value of the property. The OCLD, or the net book value, typically establishes the lower end of value for rate regulated property.

²⁹ The RCNLD is defined as the cost of constructing a Replacement Cost New (RCN) of the property at current prices with the same or closely related material less accumulated depreciation. The RCNLD value typically establishes the upper end of value.

Severance and Stranded Investment

In addition to the costs SMUD will incur in acquiring the existing facilities owned by PG&E in the Annexation Area, there are also costs associated with severing that system from PG&E's existing system, building facilities to interconnect the Annexation Area to the SMUD system, and compensating PG&E for certain properties that are no longer economically viable due to SMUD's annexation. As indicated in Table 4, SMUD estimates these to be approximately \$53 million. PG&E's estimate of \$50.6 million includes stranded investments and severance costs but not start-up or other costs.

The SMUD estimate of severance and start-up costs includes the following components:³⁰

- \$2.3 million in severance to PG&E's distribution system;
- \$39.7 in interconnection and start-up costs;
- \$10 million in litigation fees; and
- \$1 million in debt issuance costs.

SMUD and PG&E have similar estimates of severance costs for the distribution system. SMUD estimated that severance would be approximately 1% of the system's RCN, or \$2.3 million. PG&E estimated this severance to be \$2.5 million. Therefore, with respect to severance costs for the distribution system, SMUD and PG&E appear to be in agreement with an estimate of approximately \$2.5 million.³¹

In addition to the stranded distribution costs, PG&E estimated that SMUD's annexation will change the flow of power in the region and require a \$14.2 million upgrade of the Rio Oso Substation.

PG&E also estimates stranded costs associated with six transmission lines, or segments of those lines, totaling 61.59 miles with an RCNLD of \$22.84 million, and a 42 MVA transformer that will no longer be needed at the Brighton Substation with an RCNLD of \$8.48 million. The total estimate of stranded investments and severance costs associated with these transmission lines and substation is estimated at approximately \$50 million.³²

³⁰ Application for Annexation SMUD, July 29, 2005, Attachment F, App. G.

³¹ PG&E February 28, 2006 filing to LAFCo, pg. 43.

³² Ibid, pgs. 43-44.

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PG&E's claims of stranded investments and severance costs associated with the 115 kV lines and substation upgrades are based on its analysis of power flow in the region. The use of power flow studies to analyze the impact on the electric system for changes like those SMUD is proposing typically requires a certain set of assumptions relative to both sources of supply and demand in order to determine how the electric flow will change within the system. The new power flows will then be a function of how these existing and future supply and demand relationships change the system.

In a review of PG&E's power flow analysis, it does not appear to account for SMUD's interconnection to the Western Area Power Administration (WAPA) which would impact the results of the analysis. In addition, since the annexation customers will be served by a different mix of supply sources, it is difficult to predict with any degree of certainty how these supply sources will impact the regional transmission system.

SMUD's annexation of PG&E's property and construction of new interconnections will most likely impact power flows in the region. However, there is no evidence that these power flows will impact the ability of PG&E to recapture the investment in their transmission facilities through the rates it charges customers or what portion will be used by PG&E to serve existing and future customers.

It is unknown at this time, the extent of system upgrades or stranded facilities that will result from the annexation. To account for these uncertainties, the economic impacts were analyzed under two scenarios.

The first scenario assumes that there are no system impacts or stranded facilities as a result of the annexation. The second scenario assumes that the annexation results in the six transmission lines and the 42 MVA transformer at the Brighton Substation becoming stranded. The cost estimate used by PG&E for these facilities appears high, therefore, an estimate of \$25 million was used to measure the impact of this potential stranding of facilities.³³

2.2.4 Power Supply

The power supply cost includes energy, capacity, ancillary services, and renewable energy supply for the Annexation Area. The power supply cost will be borne by the customers in the Annexation Area based upon costs incurred by SMUD to procure these services on their behalf.

In its July 29, 2005 Application, SMUD indicated that it would procure the power supply for the Annexation Area by a combination of long-term purchase power contracts and new natural gas-fired generation. The power supply costs in these filings

³³ This was based on 50% of the PG&E estimate.

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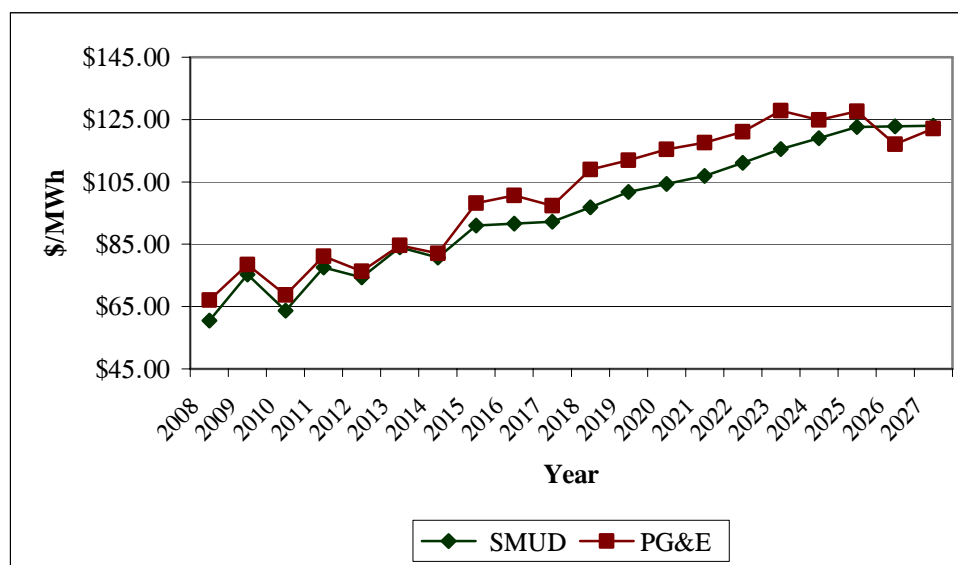
were based upon generation data in CPUC Rulemaking 04-04-026 ³⁴(filed April 22, 2004) and natural gas prices for northern California from the Beck Report.

In its February 15, 2006 filing, SMUD updated its power supply cost to reflect a CEC December 2005 gas price forecast.

In its September 2005 filing, PG&E criticized the use of the Beck gas forecast and used a forecast that demonstrated how more recent 2005 natural gas forecasts prepared by the CEC were higher than the forecast used by SMUD. In addition, PG&E criticized the manner in which SMUD estimated the cost of procuring generating resources for customers in the Annexation Area.

In the most recent filings made to the LAFCo, SMUD and PG&E have used the same CEC December 2005 gas price forecast to estimate the future cost of power supply which results in similar price forecasts. The SMUD and PG&E power supply forecasts are shown in Figure 4.

FIGURE 4
COMPARISON OF SMUD AND PG&E FORECASTS
OF POWER SUPPLY COSTS
IN THE ANNEXATION AREA



Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

The difference in power supply cost estimates over the 20-year period is approximately 5% and is considered a reasonable difference for independent power supply cost

³⁴ Application for Annexation SMUD, July 29, 2005, Appendix F, pg. 43.

forecasts. The difference in these forecasts is primarily due to the method of estimating the capital costs associated with new generating resources and the cost of the resources in the marketplace.

In procuring its power supply, it is reasonable to assume that SMUD will be able to use a variety of methods to meet its resource needs that include building units, contracting for resources, and/or using demand-side management to defer the need for resources. PG&E's forecast of SMUD's power supply costs do not appear to account for SMUD's ability to use all of these methods and assumes that SMUD will only be able to build new units. This assumption leads to a higher estimate for the cost of generation supply than would be expected in the marketplace. Therefore, SMUD's estimate of power supply costs has been used to estimate the economic impacts of the annexation.

2.2.5 Operation and Maintenance Expenses

In analyzing the economic impacts of the annexation, the operation and maintenance expenses associated with the electric system in the Annexation Area have been reviewed. These expenses include the following:

- operation and maintenance (O&M) and administrative and general (A&G) expenses;
- franchise fees and property taxes; and
- non-bypassable charges.

Operation and Maintenance and Administrative and General

In its July 29, 2005 Application, SMUD prepared an analysis of the costs associated with operation of the system in the Annexation Area. This study demonstrated that it will be incrementally less expensive to operate the electric system in the Annexation Area than SMUD's current electric system. This is primarily due to the additional economies of scale that SMUD will enjoy with the increased service territory and additional contributions to fixed costs provided by the electric customers in the Annexation Area.

In its February 28, 2006 filing, PG&E reviewed the cost SMUD had proposed for operating the electric distribution and transmission system in the Annexation Area and concluded that "it is reasonable to assume that, on an incremental basis, the operation and maintenance costs to serve the Annexation Area would be somewhat lower than the SMUD average system wide O&M rate per kW today."³⁵ Therefore, there appears to

³⁵ PG&E February 28, 2006 filing to LAFCo, Volume 1, pg. 46.

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be no dispute relative to SMUD's estimate of O&M and A&G expenses for the electric system within the Annexation Area.

Franchise Fees and Property Taxes

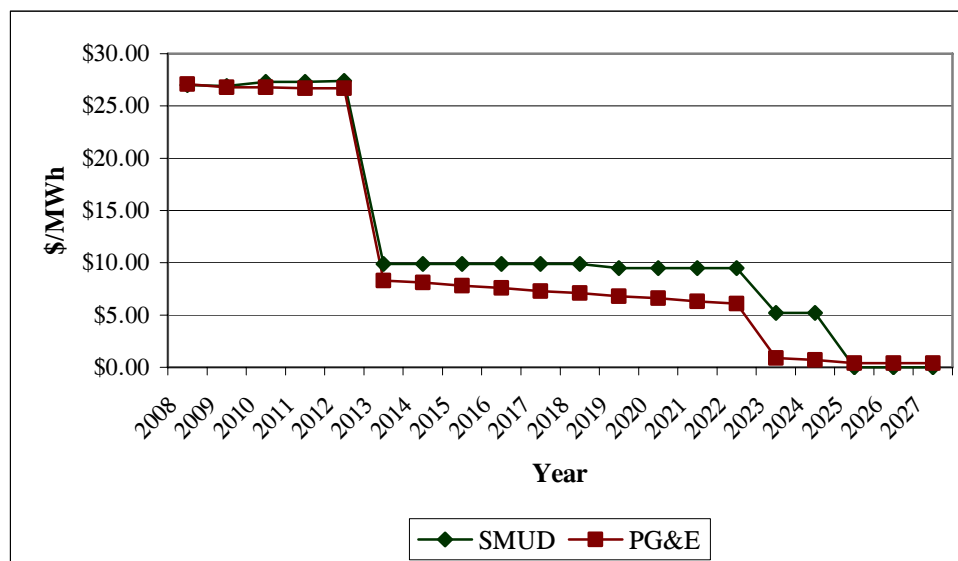
The franchise fees and property tax payments SMUD anticipates making in the Annexation Area are intended to include franchise fees and property tax payments. SMUD staff included an in lieu of franchise fee estimate to approximate the payment being made by PG&E. The franchise fees in California go directly to the cities in the Annexation Area and to Yolo County for the unincorporated areas. The cities outside the Annexation Area would be unaffected. SMUD staff has estimated the franchise fees are equal to approximately 1.5% of retail revenue in its economic analysis.

SMUD has also incorporated a payment in lieu of property taxes for the Annexation Area since SMUD does not typically pay property taxes. These taxes also are used to support local services. In its analysis, SMUD staff utilized a property tax payment in lieu of approximately \$1.41 million in 2008.

PG&E has provided its own forecast of the franchise fees and property taxes SMUD will incur associated with the property in the Annexation Area.

The SMUD and PG&E franchise fees and property tax forecasts are shown in Figure 5.

FIGURE 5
COMPARISON OF SMUD AND PG&E FORECASTS
OF FRANCHISE FEES AND PROPERTY TAX COSTS
IN THE ANNEXATION AREA



Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

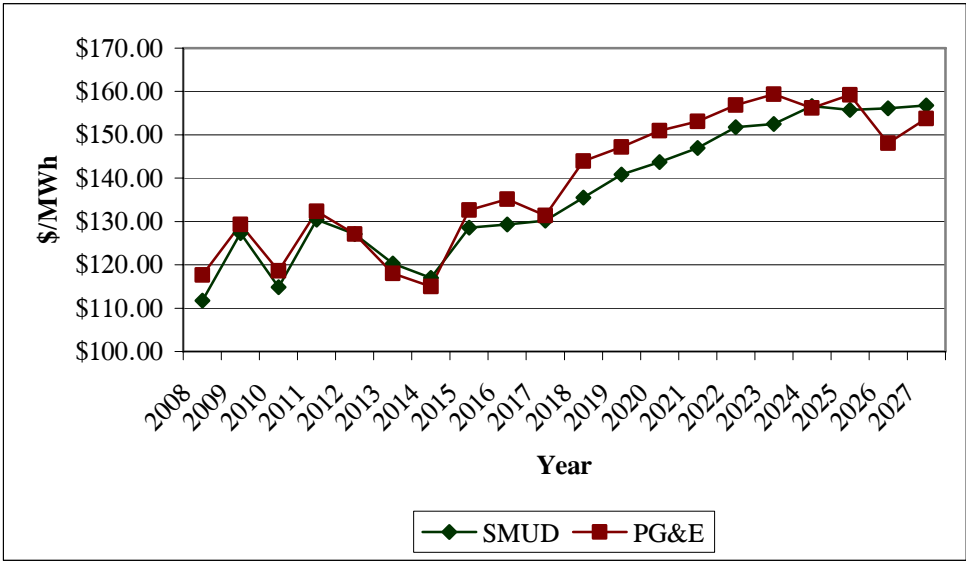
Figure 5 illustrates that PG&E has forecast a lower payment than SMUD for the franchise fee and property tax component. Therefore, SMUD’s estimate has been used in the economic impact analysis.

Non-bypassable Charges

The customers in the Annexation Area also will have to pay certain non-bypassable charges that include expenses or charges that were incurred by PG&E on behalf of the electric customers in the Annexation Area. These charges cannot be eliminated or avoided by the customers leaving PG&E’s service territory or taking electric service from SMUD. PG&E’s current and future rates include a number of non-bypassable charges designed to recover the costs of stranded generation, nuclear decommissioning, and in certain instances, rate reduction bonds. In addition, PG&E had incurred certain costs associated with the California energy crisis related to purchased power costs incurred by the California DWR and costs associated with the PG&E bankruptcy.

Non-bypassable charges apply to existing customers within the Annexation Area that currently are contained in PG&E rates. The SMUD and PG&E forecasts of non-bypassable charges are shown in Figure 6.

**FIGURE 6
COMPARISON OF SMUD AND PG&E FORECASTS
OF NON-BYPASSABLE CHARGES
IN THE ANNEXATION AREA**



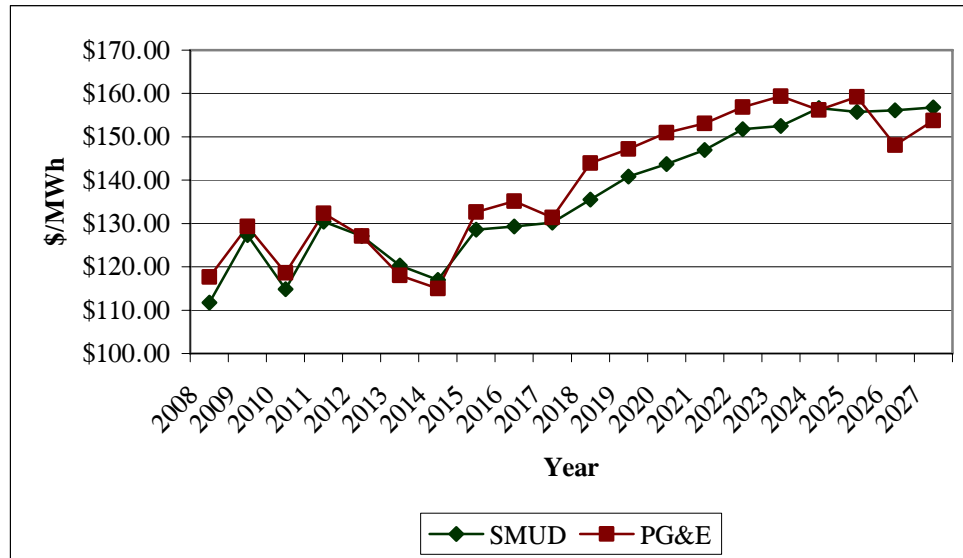
Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

Figure 6 illustrates that PG&E has forecast lower non-bypassable charges than SMUD. Therefore, SMUD’s estimate has been used in the economic impact analysis.

2.2.6 Comparison of Total Cost of Service

The rates SMUD will charge customers in the Annexation Area include the components of costs previously discussed plus the debt service on the capital necessary to purchase, upgrade, and operate the system which includes the power supply costs, operation and maintenance, franchise fees, property taxes, and non-bypassable charges. The SMUD and PG&E forecasts of these expenses (before debt service) over the forecast period are shown in Figure 7.

FIGURE 7
COMPARISON OF SMUD AND PG&E FORECASTS
OF TOTAL NON-DEBT COSTS OF SERVICE
IN THE ANNEXATION AREA



Sources: SMUD February 15, 2006 filing to LAFCo, Attachment 1; PG&E March 15, 2006 filing to LAFCo, Attachment 3.

Figure 7 illustrates that SMUD and PG&E have similar estimates of the dollars per megawatt-hour cost SMUD will incur to supply power and operate the electric system in the Annexation Area prior to inclusion of debt service. Therefore, SMUD’s cost of serving customers in the Annexation Area has been used in the economic impact analysis.

2.3 Economic Impact Analysis

In its July 29, 2005 Application and again in its February 2006 filing, SMUD has set forth a proforma calculating the economic impacts associated with the annexation. This proforma analyzes the net present value of the difference between PG&E’s expected retail rates compared with the cost of providing electric service in the Annexation Area by SMUD between 2008 and 2027. In providing its responses to the LAFCo, PG&E used this same proforma but set forth its own inputs and assumptions. This same proforma was used to estimate the economic impacts of SMUD’s annexation in this report.

Section 2

Economic Impacts of Annexation

Since it is impossible to know the exact economic impact of the annexation, a range of most likely economic impacts was developed, based on reasonable estimates of the variables that are necessary to estimate these economic impacts.

The economic impacts are dependent upon several variables that include the forecast of PG&E rates, SMUD's power supply and operating costs in the Annexation Area, and the acquisition cost SMUD will incur to purchase and separate PG&E's electric system. SMUD and PG&E agree, or have similar forecasts of some of these variables. However, with respect to others, there are significant differences which result in different estimates of the economic impacts associated with the annexation.

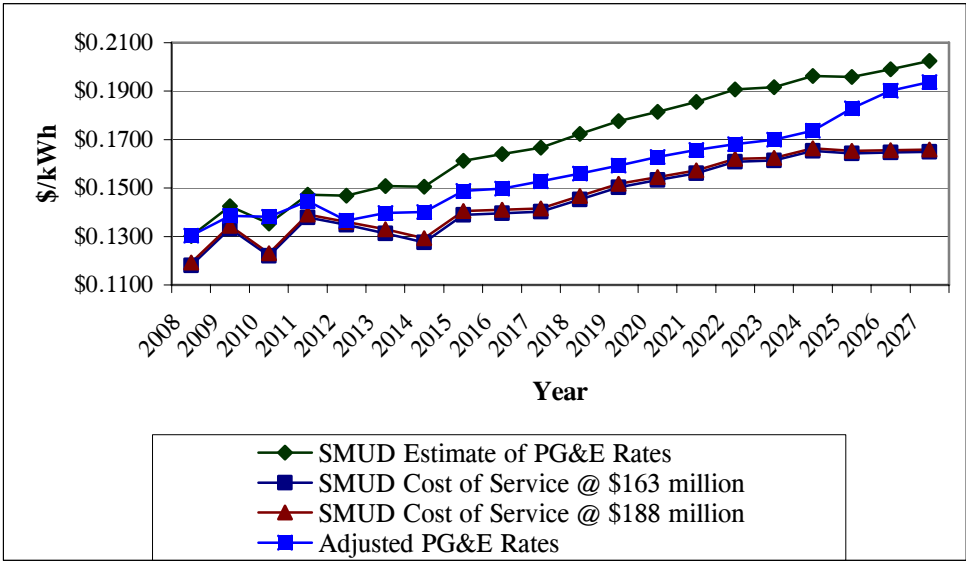
In developing this range of economic impacts, the most probable scenarios associated with SMUD's annexation have been selected from the almost infinite number of possible scenarios that may occur. The four scenarios selected as being most probable are described as follows:

- The future PG&E rates will reflect the estimate presented by PG&E, and adjusted for the distribution expenses at the escalation rate, discussed above. SMUD's cost of service will reflect its forecast of power supply and operating costs and an acquisition price of \$163 million.
- The future PG&E rates will reflect the estimate presented by SMUD. SMUD's cost of service will reflect its forecast of power supply and operating costs and an acquisition price of \$163 million.
- The future PG&E rates will reflect the estimate presented by PG&E, and adjusted for the distribution expenses at the escalation rate, discussed above. SMUD's cost of service will reflect its forecast of power supply and operating costs and an acquisition price of \$188 million.
- The future PG&E rates will reflect the estimate presented by SMUD. SMUD's cost of service will reflect its forecast of power supply and operating costs and an acquisition price of \$188 million.

Section 2
Economic Impacts of Annexation

Figure 8 illustrates the relationship between the forecast of PG&E’s rates in the Annexation Area and SMUD’s cost of service under each of the scenarios. The difference between the PG&E rates and SMUD’s cost of service will reflect the economic impacts of the annexation.

FIGURE 8
COMPARISON OF PG&E RETAIL RATES
WITH SMUD TOTAL COST OF SERVICE
IN THE ANNEXATION AREA



Section 2
Economic Impacts of Annexation

The economic benefits associated with the four scenarios over the 20-year forecast period are summarized in Table 5 and range from \$165 to \$380 million.

TABLE 5
RANGE OF ECONOMIC IMPACTS
ASSOCIATED WITH SMUD'S ANNEXATION

Estimated Acquisition Cost	Present Value of Economic Impact Over 20 Years	
	Adjusted PG&E Rate Forecast	SMUD's PG&E Rate Forecast
\$163 million (Assuming No Stranded Facilities) (purchase price and start-up)	\$190 million	\$380 million
\$188 million (Assuming Stranded Facilities) (purchase price and start-up)	\$165 million	\$360 million

The range of economic benefits shown in Table 5 is dependent on the PG&E rates and SMUD's cost of service over the forecast period. The low end of this range represents the benefits that are created by a small difference between the PG&E rates and SMUD's cost of service, and are considered to be the most achievable. The high end of the range represents a larger difference between the PG&E rates and SMUD's cost of service resulting in greater economic benefits. These greater economic benefits are also considered achievable as SMUD's rates have historically been below those charged by PG&E and supportive of the larger difference. Therefore, it is reasonable to assume that the economic benefits associated with the annexation will fall within this range.

3.0 Introduction

The CKH Act requires that annexation applications include a plan for providing service in the Annexation Area. The plan for service must include: (1) a description of the services to be extended to the annexed area, (2) the level and range of those services, (3) an indication of when those services may be extended feasibly, (4) an indication of any improvements or upgrades that will be undertaken if the annexation is completed, and (5) information with respect to how those services will be financed.³⁶

3.1 Services To Be Provided

SMUD is proposing to provide service to all existing PG&E customers and any new customers in the Annexation Area. The exceptions would be existing customers in the Annexation Area that have chosen to take energy service from an energy service provider other than PG&E via a direct access contract.

SMUD electric service and rates are designed to accommodate the energy usage needs of five general categories of customers. These include:

- residential;
- small commercial;
- agricultural;
- medium-large commercial; and
- industrial and lighting (street, traffic, and outdoor).

In addition to retail energy sales, SMUD will implement a variety of load management, conservation, renewable/green power, and public programs in the Annexation Area.

The rates SMUD charges customers in the Annexation Area will be different from those currently charged to existing customers due to the inclusion of a surcharge that is required to assure that existing SMUD customers do not subsidize those customers in the Annexation Area.

3.2 Reliability of Service under SMUD Ownership

SMUD is proposing to provide at least the same level of service as PG&E in the proposed Annexation Area.

³⁶ CKH Act/California Government Code § 56653.

The reliability of an electric system is typically measured by the number of outages and the corresponding duration of those outages. The utility industry relies primarily on three measures to determine system reliability. These include:³⁷

- System Average Interruption Duration Index (SAIDI)

SAIDI is defined as the total minutes of sustained customer interruption divided by the total number of customers, expressed in minutes per year. It may be expressed in smaller time periods (month or quarter) or smaller portions of the system (region or circuit) upon request. It characterizes the average length of time customers were without power during the time period.

- System Average Interruption Frequency Index (SAIFI)

SAIFI is defined as the total number of sustained customer interruptions divided by the total number of customers, expressed in interruptions per customer per year. It may be expressed in smaller time periods (month or quarter) or smaller portions of the system (region or circuit) upon request. It characterizes the average number of sustained power interruptions for each customer during the time period.

- Momentary Average Interruption Frequency Index (MAIFI)

MAIFI is defined as the total number of momentary customer interruptions divided by the total number of customers, expressed as momentary interruptions per customer per year. It may be expressed in smaller time periods (month or quarter) or smaller portions of the system (region or circuit) upon request. It characterizes the average number of momentary power interruptions for each customer during the time period.

In its July 29, 2005 Application, SMUD provided an analysis comparing its average reliability to PG&E's for various periods of time.³⁸ SMUD relied upon the SAIDI and SAIFI reliability criteria in determining the reliability of its system relative to PG&E's and used this information to predict reliability for the Annexation Area.

SMUD's goal for 2005 was to have its SAIDI in the range of 80.4 to 94 minutes of average outage time per customer. The goal for the SAIFI is 1.16 to 1.33 outages per customer for 2005. According to the documents filed with the LAFCo, SMUD is within that range.

³⁷ CPUC Decision 96-09-045, September 9, 1996, Appendix A.

³⁸ Application for Annexation SMUD, July 29, 2005, Appendix K.

Section 3 Level of Service

PG&E responded to SMUD's claims in both its September 2005 and February 2006 responses to the LAFCo. In these documents, PG&E criticized SMUD for comparing the indices for SMUD's Sacramento system with those of PG&E or other utilities. According to PG&E, "comparisons of reliability statistics among utilities are notoriously misleading."³⁹ This is due to a number of factors including differences in geography, major event definitions, step restoration, the systems used to do the calculations, and what is recorded in the outages. PG&E cites that PG&E and SMUD have dramatically different service territories with PG&E serving approximately 5.3 million customers over 71,000 square miles. SMUD's service territory is a relatively urban and suburban environment providing service to 533,000 customers in 900 square miles. PG&E criticized SMUD for comparing the proposed Annexation Area with PG&E's Sacramento Division which has dramatically fewer customers per mile compared to SMUD.

According to PG&E, the density in its Sacramento Division is 66 customers per square mile compared to SMUD's 615 customers per square mile. The difference in customers per square mile makes the comparison meaningless. PG&E instead advocates utilizing data from its Mission Division which serves 376 customers in a 700 square mile area. The Mission Division encompasses portions of Alameda, Contra Costa, San Joaquin, Santa Clara, and Stanislaus Counties in a primarily urban and suburban area.⁴⁰

According to the information presented by PG&E, customers located within the Annexation Area experience substantially better reliability than the average PG&E customer. PG&E criticizes SMUD's proposed reliability and ability to serve customers in the Annexation Area for two reasons. First, PG&E claims that SMUD's plans to serve these customers from its existing facilities located in Sacramento will result in reduced response time. Second, PG&E criticized SMUD's smaller size of operation which will result in fewer options and less flexibility in case of widespread outages in the Annexation Area.

PG&E indicates that it has three service centers in the area to draw on, along with the ability to draw on service employees throughout its system and, therefore, it advocates that it can respond more quickly than SMUD, as SMUD is choosing not to acquire these facilities. In its February 28, 2006 filing, PG&E set forth SAIDI and SAIFI indexes that it claims are more representative of its service in densely populated areas.

³⁹ PG&E February 28, 2006 filing to LAFCo, pg. 49.

⁴⁰ Ibid, pg. 48.

Table 6 is PG&E’s estimate of reliability using the SAIDI and SAIFI indexes for various sections of its system.

TABLE 6
PG&E’S ESTIMATE OF RELIABILITY
COMPARED TO SMUD’S ORIGINAL PROPOSAL⁴¹

Area	Customer Density (customers/sq. mile)	2000-2004 Average SAIDI (minutes/customers)	2000-2004 Average SAIFI (interruptions/ customer)
PG&E – System	75	238.7	1.466
PG&E – Mission Division	537	87.2	1.069
PG&E – Sacramento Division	66	219	1.335
PG&E – Annexation Area	331	139.5	0.937
SMUD – System	615	89	1.31

Source: PG&E February 28, 2006 filing, pg. 50.

In its March 15, 2006 filing, SMUD responded to the comparison made by PG&E by identifying that SAIDI and SAIFI indexes used by SMUD and PG&E are calculated using different methods. The difference is in the definition of an outage which SMUD defines as a sustained outage lasting one minute or longer. PG&E’s definition is an outage lasting five minutes or longer and is based upon criteria established by the CPUC.⁴²

In its March 15, 2006 filing, SMUD recalculated both the SAIDI and SAIFI indices for its region relative to the areas presented by PG&E based on the CPUC less stringent criteria and excluding major events. The results of SMUD’s recalculated indices as compared to PG&E’s Sacramento Division and Mission Division industries are provided in Table 7.

⁴¹ Ibid, pg. 50

⁴² SMUD Review of Electric System Reliability and Stranded Facilities Regarding the SMUD Annexation Application, March 15, 2006.

TABLE 7
SMUD AND PG&E SAIDI AND SAIFI INDEXES
USING CPUC METHOD⁴³

Area	2000-2004 Average SAIDI (minutes/customers)	2000-2004 Average SAIFI (interruptions/ customer)
PG&E – Mission Division	78.9	0.995
PG&E – Sacramento Division	186.2	1.218
SMUD – System	57.83	0.892

A review of the information in Tables 6 and 7 related to SMUD and PG&E’s reliability indicates that in general, SMUD has comparable or better reliability than PG&E. This information is supportive of SMUD’s claim that electric customers in the Annexation Area will receive service at least equal to that provided by PG&E.

PG&E’s claim that the location of service centers impacts reliability is inconsistent with SMUD’s outage response plan. PG&E appears to imply that outage response will come only from SMUD’s service center. This is not SMUD’s plan. Instead, troubleshooters will be located throughout the service territory.⁴⁴

Troubleshooters will be the first to respond to outages and diagnose the problem. If the troubleshooter cannot solve the problem, additional support will be dispatched from SMUD’s service centers. In many instances, the troubleshooters in the Annexation Area will solve the problem with no reason to dispatch additional crews. This method of outage response is typical and is not expected to impact reliability.

In the event that a dispatch was required from SMUD’s service center, there does not appear to be significant differences between the distance and travel time from SMUD’s service center to the Annexation Area and other regions of SMUD’s system. To illustrate the relative proximity of the various regions of SMUD’s service territory, a map of the Annexation Area and other portions of SMUD’s service territory is included in Appendix A.

In addition, SMUD has prepared a summary of travel times between its service center and various regions in the existing and proposed area. The travel times are summarized in Table 8.

⁴³ Ibid, Section F.

⁴⁴ Ibid, Section B.

TABLE 8
TRAVEL TIME BETWEEN SMUD CORPORATE YARD
TO JOB SITES IN SACRAMENTO AND YOLO COUNTY

Yolo County Locations	Minutes	Sacramento County Locations	Minutes
Woodland County Road 98 & Highway 16	32	Clay, CA 14984 Guadalupe Dr.	37
Davis - CR 30 & CR 96	29	Rancho Murieta, CA	32
West Sacramento - Gregory Ave & Jefferson Blvd	12	6237 Fountain Square Dr. Citrus Heights	20
1350 Halyard Dr West Sacramento City Hall	8	Herald, CA	29
23 Russell Blvd Davis City Hall	20	50 Natomas St Folsom City Hall	23
300 1st St Woodland City Hall	27	Galt, CA	26

With respect to massive or catastrophic outages, SMUD is proposing to use mutual assistance agreements with neighboring utilities for system restoration. Use of mutual assistance agreements are typical utility practice and common in the industry.

3.3 Schedule of Service

In its July 29, 2005 Application, SMUD anticipates providing electric service to the Annexation Area within approximately 24 months of filing of the Certificate of Completion by LAFCo. This schedule would result in the annexation occurring in approximately October 2008.⁴⁵

The plan for meeting its goal of October 2008 includes acquiring the PG&E facilities and construction of new transmission lines and substations to serve customers in the Annexation Area. SMUD anticipates that acquisition, construction, and commissioning activities will be completed prior to SMUD commencing service in the Annexation Area.⁴⁶ A review of the proposed schedule for providing service in the Annexation Area appears to be reasonable and achievable based on the current timeline. Since

⁴⁵ Application for Annexation SMUD, July 29, 2005, pg. 33.

⁴⁶ Ibid, pg. 33.

SMUD will be acquiring the majority of the property it needs to serve the customers in the Annexation Area from PG&E, the orderly transition from PG&E to SMUD and should be relatively efficient given SMUD's experience of operating similar electric facilities.

3.4 Indication of Improvements and Upgrades That Will Be Undertaken in Conjunction with the Annexation

SMUD anticipates acquiring the majority of the property required to serve electric customers in the Annexation Area by condemning the property of PG&E. This property includes the transmission, substation, and distribution property that currently serves this area. A general map of this area has been provided as Figure 1. The property SMUD is proposing to condemn is currently sufficient to allow PG&E to provide service to the existing electric customers and is expected to perform the same function under SMUD ownership.

According to its July 29, 2005 Application, SMUD also anticipates the construction of a new 115 kV transmission line from the existing PG&E transmission line north of Woodland to the Alverta Substation owned by SMUD. This transmission line will range between 15 and 18 miles, depending on the exact route selected to construct this interconnection. SMUD also anticipates the reconstruction of 2.5 miles of existing SMUD 115 kV transmission line in order to add additional transmission lines into the service area. This line would be constructed from PG&E's existing transmission line located on Power Inn Road to SMUD's existing Hedge Substation. In addition to these two major projects, SMUD has identified additional system upgrades that will allow it to maintain and/or improve system reliability in the Annexation Area.

The ownership of the electric system in the Annexation Area will require SMUD to replace and expand the infrastructure for existing and future customers. SMUD has indicated that in the first five years that it owns the system, it expects to invest \$28 million for system upgrades and expansions. SMUD currently provides service to customers in the Sacramento area and has demonstrated that it can maintain and expand the electric utility system to meet the requirements of its customers.

3.5 Financing

The acquisition of the existing facilities and construction of new facilities will require SMUD to obtain financing for the purchase and/or construction of these facilities. According to its July 29, 2005 Application, SMUD will use its best efforts to use new long-term, fixed rate, tax-exempt system revenue bonds with a level debt service

structure for the Annexation Area where possible.⁴⁷ In addition, portions of the initial capital outlays that require the use of taxable debt are anticipated to be financed with commercial paper supported by a letter of credit from the customers in the Annexation Area. SMUD indicates in its Application that its debt service coverage will be in accordance with senior bond indenture, coverage requirements, and the SMUD Board of Directors' goal for building equity. In paying down the debt associated with the purchase and/or construction of facilities for the Annexation Area, SMUD's intent is to retire the commercial paper issued on behalf of the customers in the Annexation Area first to minimize the interest expense and revenue required for coverage associated with this type of financing. The financing structure proposed by SMUD appears to be reasonable and consistent with how SMUD currently finances capital projects. Therefore, after review of the financing options available to SMUD, the proposed structure appears reasonable.

3.6 Conclusions

The annexation proposed by SMUD is expected to provide the same level of service to customers in the Annexation Area as currently enjoyed by its existing customers. These services will be based on the cost of serving the Annexation Area customers and providing service at least equal to that provided by PG&E.

The proposed October 2008 schedule for accomplishing the annexation is reasonable as the majority of the infrastructure necessary to serve these customers will be condemned from PG&E. The infrastructure that SMUD must construct to interconnect its existing system with the Annexation Area is primarily comprised of a 115 kV transmission line and a new substation. Construction of these new facilities and additional improvements to the system are expected to be funded at the same time as the acquisition of the property purchased from PG&E and financed using a combination of commercial paper and tax-exempt debt.

Our review of the information presented by SMUD indicates that it is reasonable to assume that it will be able to accomplish the annexation and provide service and reliability at least equal to those provided by PG&E.

⁴⁷ Ibid, pg. 43.