

Attachment E
SMUD Staff Implementation Plan of Board Strategic
Directives 2005 - 2011

Sacramento Municipal Utility District

**Staff Implementation Plan of
Board Strategic Directives**

2005-2011

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INTRODUCTION

In 2002, the SMUD Board (“Board”) began a long-term strategic planning process to establish a robust yet flexible strategic framework for the future direction of SMUD. The Board reaffirmed SMUD’s purpose, which is to provide solutions for meeting our customers’ electrical energy needs.

The Board also developed three sets of new governance and strategic planning policies: Governance Process, Board-Staff Linkage, and Strategic Direction. This Implementation Plan provides a summary of the actions being taken by staff to carry out the Board’s Strategic Direction policies.

Strategic Direction Policies

The Strategic Direction policies established by the Board address customer concerns, ranging from competitive rates, to service reliability, and the environment. In most of these areas, the Board has also identified specific objectives and ways to measure staff’s success in meeting those desired objectives. Achieving all the established objectives will require trade-offs since greater reliability, for example, may require higher expenditures and lead to the need for higher rates. The challenge for staff is to develop organization-wide processes that allocate resources to meet or exceed the Board’s strategic directives.

Resource Planning Processes

SMUD staff has started several processes intended to optimize the use of all resources and achieve balanced results. The first involves the approach to acquiring customers’ energy needs. SMUD will develop an integrated plan for resource acquisition by reviewing energy efficiency, renewable resources, and distributed generation in addition to conventional sources of energy to determine a portfolio that best balances low cost, reliability, environmental, and other values the Board has identified. The second process prioritizes capital expenditures by ranking each capital project against projects from all SMUD business units based on each project’s ability to achieve the Board’s desired outcomes. The third process expands budget planning from a one-year to a three-year horizon. This will help staff develop a better awareness of trends and produce operational plans that identify and deal with critical issues well in advance when more options are available.

Implementation Plan

This Implementation Plan has been divided into three sections. Section one discusses the planning process used by the Board to develop the core and key values defined by the Board in their Strategic Directives. Section two discusses market trends and customer expectations that have helped shape the Board’s Strategic Directives and that will continue to influence SMUD’s strategic policy over the long run. Section three presents the strategies and operating procedures that will be implemented by SMUD staff to achieve and maintain established Board values and objectives.

Although this plan discusses the actions SMUD will take to achieve the objectives contained in the Board’s Strategic Directives, the plan will evolve as internal and external forces require SMUD to revisit its strategies. Ongoing strategic planning will enable SMUD to prepare for, mitigate, and respond to strategic issues that could threaten

SMUD's core or key values and will help ensure that SMUD's three year operating plans incorporate strategies to adjust to customer and market realities.

Section 1: Strategic Planning Process, Core and Key Values

In 2002 the Board of Directors began a strategic planning process. Its purpose was to define the strategic foundation of SMUD, including SMUD's purpose, values and objectives. The process included the following steps:

- Identify current business requirements and customer expectations
- Determine current and future market trends that could significantly impact SMUD's business operations
- Examine the scope of operations, both current and projected, and reaffirm the essential purpose of SMUD
- Prioritize SMUD's values into those that 1) are essential for achieving the purpose of the organization ("core" values), 2) those that provide value to customers and owners ("key" values)
- Establish additional policies consistent with core values and key values to provide SMUD with a strategic advantage and to maintain operational flexibility, given current and future market trends
- Establish quantifiable performance measures to define SMUD's success in meeting core and key values

Successful completion of these steps will establish the foundation for an implementation plan that is clearly defined, measurable, and flexible. The implementation plan is designed to articulate and communicate SMUD's strategic objectives to a broad audience. In addition, the plan is designed to be flexible, enabling SMUD to quickly adjust to evolving business needs and easily integrate with existing business processes.

SMUD's purpose and core and key values were established during the strategic planning process and are discussed below.

SMUD's Purpose

SMUD's purpose is to provide solutions for meeting our customers' electrical energy needs¹.

Core Values

Values define what is important, whether to people or to organizations. SMUD has traditionally supported many values, ranging from energy reliability to concern for low income customers.

During the strategic planning process, the Board established a hierarchy of values that define SMUD's strategic direction. The Board prioritized SMUD's values into two groups, "core values" and "key values." Core values are those that are strategically essential for SMUD and Key values provide value-added services to SMUD customers and ratepayers. Key values are subordinate to core values for prioritizing capital and O&M spending and as an aid in management decision making. SMUD's core and key values are listed below. Appendix A provides Board Policies and performance

¹ SMUD Board strategic directives (SD-1)

measures for each value and were developed to aid in evaluating the success or failure of the strategies implemented to meet the Board's objectives.

A. Competitive rates

B. Access to credit markets

C. Reliability

D. Customer Relations

E. Safety

F. Environmental protection

G. Employee Relations

H. Local Control

I. Economic Development

Key Values

Key values provide value-added services to SMUD customers and ratepayers. Key values, however, are subordinate to core values. The Board adopted the following key values to guide SMUD in its planning.

A. Resource Planning

a. Local environmental benefits

b. Peak shaving

c. Renewable energy

d. Clean distributed generation

e. Market competitive energy efficiency

B. Research and Development

Section II: MAJOR TRENDS

This section summarizes major trends in the utility industry that materially affect, and are likely to affect, the formulation of SMUD's strategies and the implementation plan. The Board, along with SMUD's management and staff, constantly monitor these trends to evaluate how they will impact the Strategic Directives and the Implementation Plan. The issues are divided into two categories: customer expectations and market trends.

A. Customer Expectations

As a result of the California energy crisis of 2000-2001, customers have become more knowledgeable about power markets and have taken a more active role as customer-owners of SMUD. Customers have the following expectations of SMUD in meeting their energy needs².

- Customers expect SMUD's rates to be stable and lower in cost than PG&E rates, requiring SMUD to anticipate and manage market uncertainties and volatility.
- Customers expect reliable and safe electric service.
- Customers expect excellent customer service and service options.
- Customers expect SMUD to be an industry leader in renewable energy, energy efficiency, solar power, and other distributed generation technologies.
- Large customers expect SMUD to have rates that are competitive with other suppliers and to have the option for direct access if, and when, direct access is reinstated in California.

B. Market Trends

As part of the strategic planning process, the Board solicited input from technical experts in the industry to explore market trends that could impact SMUD's ability to achieve its core and key values. Market trends include the following:

- SMUD's customer base is one of the most rapidly growing in the country and is expected to grow by an average of 2% per year over the next decade.
- The cities of West Sacramento, Davis, and Woodland, along with Yolo County, have requested to become part of SMUD's service area. If some or all of these annexation requests are approved, they will significantly expand SMUD's service area.
- Unlike recent history, where natural gas prices have fluctuated between \$3/MMBtu and \$4/MMBtu, the market price of natural gas is forecasted to fluctuate between \$4.50/MMBtu and \$6.50/MMBtu until new and economically viable long-term solutions are developed, such as liquefied natural gas (LNG) or alternatives that increase supply and/or lower demand³.
- Nearly all new electric generation in California and the West is fueled with natural gas. Therefore, electric prices are likely to be more closely linked to natural gas prices than in the past. Electric price volatility is expected to track natural gas price volatility. If electric generation capacity shortages develop in the future, volatility would increase.
- To maintain a favorable bond rating and access to low interest financing, financial rating agencies expect SMUD to increase the proportion of new assets funded with customer equity.

² Source: SMUD customer focus groups (2000-2001), Statewide California Municipal Utility Association study (2002-2003), and SMUD commercial and residential segmentation study (2003).

³ Historical data from Platts, forecast based on forecasts of a number of independent firms, including CERA and Henwood.

- Sacramento will continue to be a non-attainment air quality basin. Thus, SMUD's challenge will be to meet future load growth while limiting use of air polluting fuels in the Sacramento basin⁴.
- State and federal energy initiatives, including the State's Renewable Portfolio Standard ("RPS"⁵) and increased Title 20 and Title 24 standards will challenge SMUD to increase renewable energy resources, improve energy efficiency, and expand demand response programs.
- The structure of regional electricity markets and transmission operations are likely to change as federal regulators continue to encourage market solutions for future energy supply and electric transmission services. This may result in larger Regional Transmission Organizations ("RTO's") and implementation of a Standard Market Design.
- The energy market will continue to be characterized by fewer credit-worthy companies until the energy industry recovers from the after effects of the Western 2000/2001 energy crisis and overbuilding of electric capacity in other parts of the country.
- Over the next 5 to 7 years a substantial percentage of SMUD's workforce will be over fifty-five years of age and eligible for retirement. Recruiting knowledgeable and well-trained employees will be essential to meeting the Board's strategic directives.

⁴ See the Sacramento Metropolitan Air Quality Management District's clean air State Implementation Plan.

⁵ Public Utilities Code Section 399.11 to 399.16

Section III: IMPLEMENTATION PLAN

The Board's strategic planning process resulted in the development of core and key values and the outcomes SMUD wants to achieve as an organization. This implementation plan describes the key operating elements staff is pursuing to achieve and maintain the Board's established values.

The planning groups from each business area develop budgets and three year operating plans annually, generally beginning in March. The budgets and plans include proposed capital projects that will help SMUD meet its goals. SMUD Staff is evaluating processes to enable prioritizing capital projects across all business units based on each projects contributions to meeting customer needs and satisfying SMUD values. The project ranking includes scoring projects, allowing a comparison of projects across all business units and functions. SMUD staff will use this tool to ensure limited capital budgets are allocated to those capital projects that will best help SMUD achieve its goals now and in the future and to monitor project performance.

This section describes the key initiatives, Board policies and performance measures aimed at achieving the objectives defined by the Board. In other words, the following discussion will outline the operating elements and strategies that support each of the core and key values. It also provides an overview of the issues that will influence SMUD's ability to meet the adopted performance measures over time.

A. Core Value: Competitive Rates

Performance Measure: Maintaining competitive rates is a core value of the District. Therefore, the Board establishes a competitive system average rate target of at least 10 percent below Pacific Gas & Electric Company's system average rates. The Board reaffirms its commitment to maintaining competitive rates for each of its customer classes, while continuing to equitably allocate costs across and within customer classes.⁶

Key Value: Lower the cost to serve our customers by reducing per customer peak usage.⁷

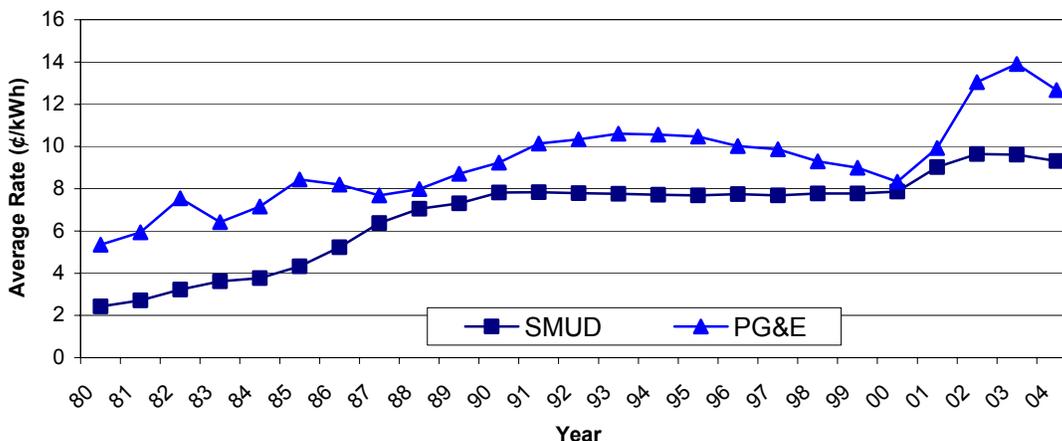
Overview:

SMUD's average rates have been consistently lower than PG&E over the last 20 years, as depicted in the following chart:

⁶ SMUD Board strategic directives (SD-2)

⁷ SMUD Board strategic directives (SD-9)

System Average Rate Comparison 1980 - 2004



PG&E recently emerged from bankruptcy, lowering its rates by an average of about 8%. PG&E may continue lowering its rates through 2010 as its high-priced power contracts expire, restructuring costs are paid off, and bonds issued that allowed PG&E to emerge from bankruptcy are retired. Once PG&E's rates are adjusted for these items, SMUD's system average rate is still expected to be about 12% lower than PG&E's. However, maintaining this rate advantage over PG&E depends upon how well SMUD manages its costs of energy, including natural gas, relative to PG&E.

Volatile natural gas costs are the most significant challenge SMUD faces in keeping its average rates competitive with PG&E. Both SMUD and PG&E rely on natural gas to generate a large share of their annual energy requirements. Over the long run, every \$1/MMBtu increase in the average price of natural gas leads to the need for a 5% increase in SMUD's revenues. Presently, PG&E's rates are not as directly linked to natural gas market prices because PG&E sold most of its natural gas generation and power purchase contracts assigned to them from the California Department of Water Resources do not all set prices based on the market price of natural gas. As these contracts expire during the next several years, PG&E's reliance on natural gas resources is likely to mirror SMUD's by 2010. How successful SMUD is at managing natural gas volatility and costs relative to PG&E's exposure and management of gas volatility will be a significant factor in determining SMUD's long-term competitiveness with PG&E.

SMUD, in developing an energy supply portfolio, will consider and evaluate all options to meet customer energy needs, including energy efficiency, renewable resources and conventional electric supply resources to yield the most effective mix of resources and programs that meet SMUD's core and key values. This means that energy efficiency and renewable resources will not be limited to public goods prescribed amounts, but may compete with conventional resources to supply customer energy needs and meet Board established values. Similarly, capital project ranking will be based on project contributions to Board adopted values.

To maintain a competitive rate advantage over PG&E, SMUD must lower its wholesale cost of power and reduce the impact of volatile energy and natural gas markets. SMUD is pursuing the following plan elements to meet the competitive target set by the Board.

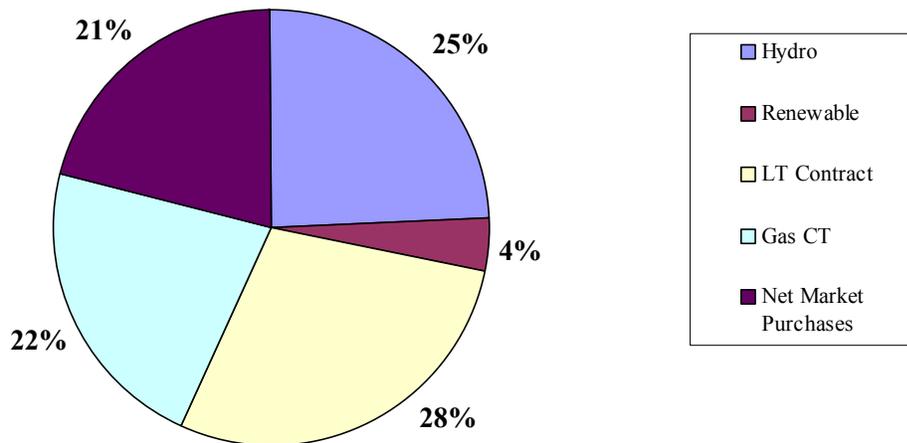
- a) Lower energy costs and improve efficiency.
- b) Retain system flexibility.
- c) Reduce power supply costs by reducing peak demand and energy use.
- d) Reduce the impact of volatile energy markets.
- e) Monitor and participate in proceedings that affect the energy market and regulatory climates.

Plan Elements:

Lower Energy Costs and Improve Efficiency

New Efficient Local Generation – In 2003, 43% of SMUD’s energy needs were met through long-term contracts and market purchases (see figure below). These purchases will be largely replaced after the 500 MW Consumnes Power Plant is completed and is put into service in the 3rd quarter of 2005.

2003 SMUD Energy Requirements By Resource Type



The new Consumnes power plant is cost effective compared to existing contracts and market purchases. Additionally, the new plant will be located within SMUD’s service area, thus reducing SMUD’s reliance on imported energy and ISO service charges attached to delivery of imports. To meet long-term energy needs, SMUD has the option to construct additional natural gas generation at Rancho Seco and will make that decision in 2005.

Retain System Flexibility

SMUD is seeking FERC renewal of a 50-year license for 688 megawatts of hydroelectric generation in the Sierra Nevada (the UARP – Upper American River Project). The UARP is one of SMUD’s lowest cost and most flexible resources. SMUD is also seeking approval of a new pumped storage facility that would serve as a hedge against high on-peak prices, provide ancillary services supporting SMUD system operations and provide

more dispatch flexibility to other SMUD resources. Re-licensing and pumped storage will help SMUD avoid high cost market prices and help minimize SMUD's energy costs.

Reduce Power Supply Costs by Reducing Peak Demand and Energy

SMUD has many energy efficiency programs and rebates that assist customers in managing energy use, lowering peak demand, and reducing costs. The cost of energy to supply customer's summer peak energy requirements is generally higher and more volatile than during other periods. Therefore, reducing peak demand and energy use will reduce peak supply energy costs. In its integrated approach to energy procurement, SMUD will evaluate, rank and then implement cost effective programs (including dynamic load management and energy efficiency) that reduce load during the summer peak periods. These programs will be integrated with other capacity resources to reduce costs and cost volatility of summer peak supply.

Reduce the Impact of Volatile Energy Markets

Manage Natural Gas Costs – SMUD hedges natural gas costs to minimize the impact of volatile and expensive natural gas costs on SMUD's overall energy portfolio. To achieve this goal, SMUD plans to meet about 35% of its natural gas requirements with contracts that exceed 5 years in length, 45% from contracts with 1-5 year terms, and 20% from contracts that expire in less than 1 year. SMUD anticipates the potential for a 20 percent variance in total gas requirements from year to year due to changes in the market value of energy and the amount of energy generated. The objective is to prevent significant impacts due to short-term price fluctuations in the gas markets while striking a balance between reducing the number of adjustments to customers' rates and maintaining competitive SMUD gas costs. SMUD's recent purchase of natural gas reserves should meet about 15% of SMUD's long-term natural gas needs. SMUD is also evaluating the purchase of additional gas reserves for its long-term portfolio.

Manage Control Area Costs - SMUD developed its own control area in 2002, which provides SMUD greater autonomy in managing the reliability of Sacramento's electric system. In addition, having its own control area protects SMUD from volatile CAISO control area service costs (the CAISO procures many of these services through the short-term energy markets) and constantly changing rules governing allocation of these costs.

Diversify Energy Resources - SMUD is pursuing the acquisition of additional renewable energy, in part, to reduce the financial risk associated with natural gas prices. SMUD has set a goal of supplying 20% of its energy from renewables by 2011, a more aggressive goal than the state target of 20% by 2017. SMUD is pursuing local biomass projects, expansion of its wind power facilities in the Solano Hills, and is reviewing responses to a request for qualifications for additional renewable energy supplies.

Monitor and Participate in Proceedings that Influence the Energy Market and Utility Regulatory Climate

SMUD actively monitors and participates in regulatory and legal processes before the United States Congress, the California legislature, the California Public Utilities Commission (CPUC), Federal Energy Regulatory Commission (FERC) and other

regulatory bodies to advocate positions that are consistent with District values and that preserve the authority to make decisions locally in the interest of its customer/owners. In addition, staff advocates positions on issues that could influence costs paid by the customer/owners. These include proposed design and operating protocols for standardized energy markets, rules affecting access to the markets and cost recovery related to implementing these markets, legislated procurement goals and requirements for renewable resources, energy efficiency and metering technologies.

B. Core Value: Access to Credit Markets

Performance Measure: Maintaining access to credit is a core value of the District. Therefore, the District shall comply with all bond indenture requirements and develop budgets in a fiscally sound manner. The Board establishes a target of an equity contribution to total District capitalization of at least 20 percent by the end of 2007, which means that no more than 80 percent of the District's assets are financed using debt.⁸

Overview:

SMUD relies on bond markets to finance a portion of SMUD's annual capital spending, and will need new financing to continue construction of the Consumnes Power Plant, fund natural gas reserve purchases, and expand the infrastructure needed to serve the Sacramento area's growing population.

After the 2000/2001 energy crisis, the energy sector experienced a significant degradation in credit quality. Although SMUD's senior lien bonds have maintained solid ratings, rating agencies recommended that SMUD develop a plan to improve its financial position to ensure quality ratings in the future.

Rating agencies consider a wide variety of factors in setting a bond rating. Some factors, such as the strength of the economy, are not within the control of SMUD, while other factors are, such as financial ratios. The rating agencies have cited SMUD's high level of debt relative to assets as one of their primary concerns. Increasing SMUD's equity, while maintaining strong annual debt service coverage ratios and cash balances, will be essential to maintaining and improving SMUD's current credit ratings.

Plan Elements:

Improve Customer Equity and Cash Flow

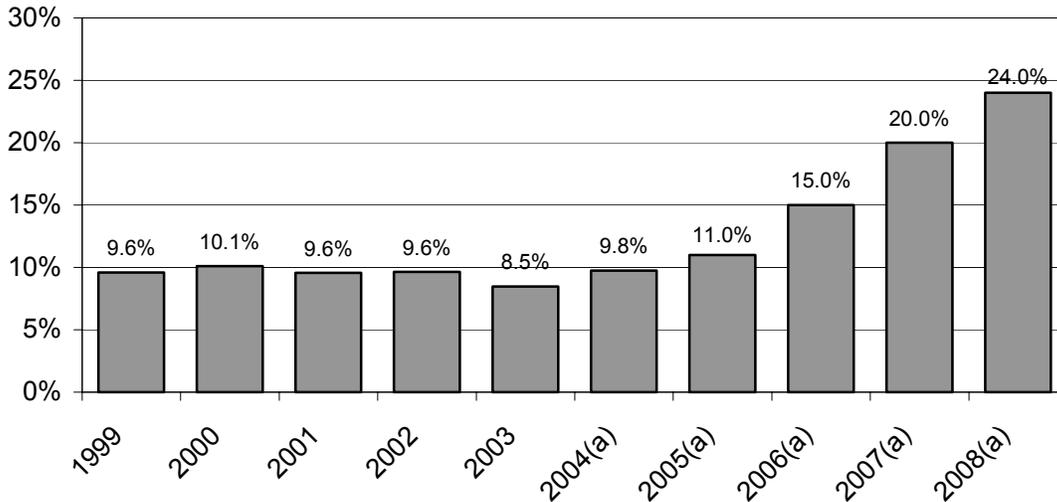
Improving customer equity as a percent of total capitalization requires an increase in net assets (net income) and/or a decrease in long-term debt. Increasing cash flows accomplishes both as increasing cash flows are correlated with increases in net assets, and additional cash flow reduces the need for debt to fund capital projects.

To achieve the Board's target of 20% equity by the end of 2007, SMUD will increase net assets by approximately \$300 million during the 2004 – 2007 period while maintaining long-term debt approximately at end of 2003 reported levels. SMUD's business units have prepared 3-year operating plans that manage costs and help SMUD meet the 20%

⁸ SMUD Board strategic directives (SD-3)

equity target by 2007. The following chart shows the historical equity to debt ratios from 1999 through 2003, and targeted ratios for 2004 through 2007.

Equity to Total Capitalization Ratio



Maintain Strong Cash Reserves

SMUD plans to maintain sufficient cash balances to allow for the normal lead time to access credit markets and to cover risks that SMUD chooses to assume (such as the impact of a poor hydro year). SMUD maintains cash balances and short-term credit totaling three to six months of revenues.

Minimize Unexpected Losses Through Energy Risk Management Practices

Rating agencies have recently been focusing on the ability of an organization to financially weather an extreme event like the 2001 California energy crisis and manage ongoing risks and uncertainties in its aftermath. SMUD practices comprehensive short-term and long-term risk management to limit exposure to significant risks, including volatility in natural gas and electricity market prices, credit risks including trading counter-party credit issues, seasonal hydrology risks, long-term trends in fuel prices and technology development, and regulatory-driven changes in the industry. SMUD will continue its comprehensive approach to risk management to meet the Board's goal of being 95% certain that revenue after cash expenses will be equal to at least 150% of debt service.

C. Core Value: Reliability

Performance Measures:

- The District will assure all customer energy requirements are met. This will be accomplished through the use of: (i) its generation resources and purchase power portfolio 100 percent of the time; and (ii) its transmission assets to assure an overall availability of at least 99 percent.
- The District will achieve distribution system reliability by limiting the average frequency of outages to 1.16 or less per customer

per year and by limiting the average duration of outages to less than 80.4 minutes per customer per year with no individual circuits exceeding these targets for more than two consecutive years.

- The District will maintain the electric system in good repair.⁹

The first performance measure is to ensure that SMUD has sufficient sources of electric power, especially during periods with high load demands. The second measure ensures that SMUD can deliver this power to its distribution substations. The third performance measure relates to how often outages occur and how long they last.

Overview:

In addition to competitive prices, SMUD's customers expect reliable service, which ranks consistently as customers' main concern with their electric service. Reliability involves providing a sufficient supply of electricity (generation) and delivering that electricity through transmission and distribution facilities. Utility reliability standards and practices have recently received national attention because of a recent massive blackout that affected many states on the East Coast and in Canada. SMUD regularly participates in national and regional electric reliability councils and contributes to establishing new reliability standards. SMUD's service reliability compares favorably to competitors, and SMUD strives to meet or exceed all reliability standards. However, tree related outages and direct-bury underground cable failures continue to pose a challenge to reliability. In addition, during the California energy crisis in 2000 and 2001, the California ISO initiated rolling statewide blackouts due to shortages related to IOU credit issues and resulting power suppliers' production curtailments. This has heightened customer awareness and concern about service reliability.

Operating Plan Elements:

Manage Supply and Electric Capacity to Maintain and Improve Reliability

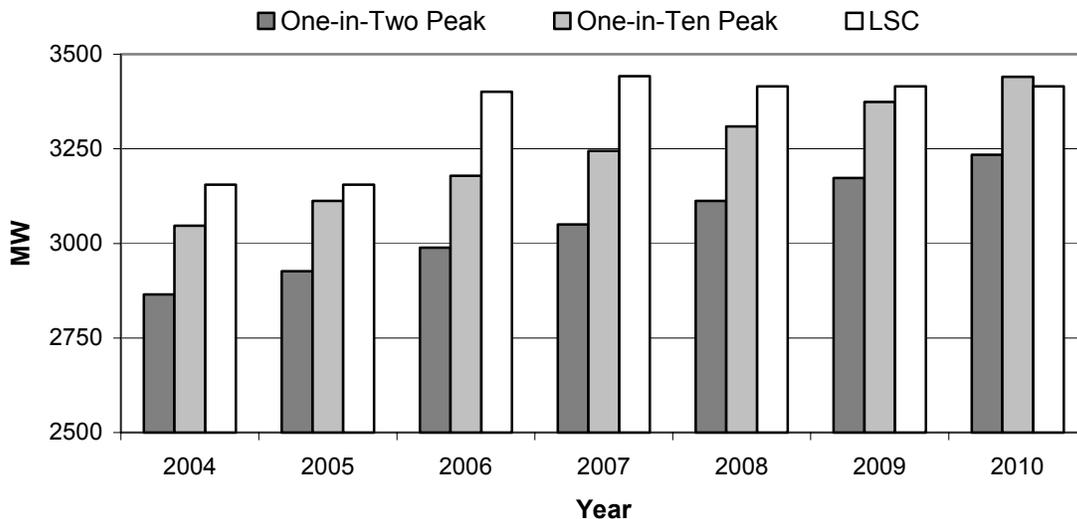
Plan System with Sufficient Capacity to Meet Extreme Customer Demands

SMUD plans, designs, and builds its supply and delivery infrastructure to meet extreme peak demands with adequate Load Serving Capability¹⁰ ("LSC"). The figure below shows SMUD's total system LSC and projected peak customer demands.

⁹ SMUD Board strategic directives (SD-4)

¹⁰ The electric system capacity assuming the largest single supply source or transmission line is unavailable.

Demand Forecast and Load Serving Capability



Based on the graph above, SMUD should have sufficient LSC through 2009 after the Cosumnes Power Plant (CPP) comes on line in September 2005. SMUD is actively pursuing transmission projects to ensure adequate LSC beyond 2009. SMUD is working with the Western Area Power Administration and other stakeholders to fund and construct a new 230 kV line from the O'Banion substation to the Elverta substation. Installation of this line would extend Load Serving Capability beyond 2012.

Operate Own Control Area to Maintain Sufficient Reliability Services

In June 2002 SMUD established its own control area. One of the benefits of the new control area was to remove customers' exposure to statewide outages like those resulting from dysfunctional California electric markets during the previous two years. SMUD continues to evaluate alternatives to maintain system reliability services essential to customers.

Maintain Present Distribution Reliability and Manage System Outage Frequency and Duration

Improve Cable Reliability

Underground cable failure is the number one contributor to customer outages and represents a major challenge as the existing inventory ages. The cable replacement and rehabilitation programs¹¹ strive to keep the number of cable failures at or below the present rate. Distribution Services targets sections of cable that can provide the best reliability improvement, either through rehabilitation or replacement of the cable, at the lowest cost. The number of cable failures and the amount of cable rehabilitation and

¹¹ The rehabilitation Program injects insulating material into the underground cable to extend its life expectancy.

replacement are monitored and evaluated annually to ensure the most efficient use of resources to meet these program objectives.

Prioritize Distribution System Maintenance Expenditures

The transmission and distribution maintenance plan strives to achieve an appropriate balance between preventive, predictive, and corrective maintenance. Further, within these general categories, the maintenance plan balances resources among different activities (e.g. tree trimming and pole replacement) for maximum cost effectiveness. Below are factors that determine how investments are prioritized:

- Employee and public safety.
- Regulatory compliance.
- Projects that have the largest impact on reliability per dollar spent.
- Life-cycle distribution equipment cost reductions.

Utilize New Technology to Improve Efficiency

A primary objective of the Service Delivery Information Technology (SDIT) project is to reduce outage times and to schedule field maintenance and troubleshooting personnel and resources more efficiently. Primary objectives also strive to provide better information to customers during and after outages.

Prioritize Capital Improvements

Planning criteria for the distribution system ensures the system has sufficient capacity to serve distribution peak loads¹² even with the loss of the largest single system component. SMUD prioritizes capital improvements to improve distribution system reliability, to reduce the frequency and duration of outages, to meet distribution planning criteria, to minimize the need for equipment upgrades or expansions, and to improve customer relations. Capital spending is analyzed to ensure that the final portfolio of distribution investments will help SMUD achieve its core and key values.

D. Core Value: Customer Relations

- Performance Measure:** Maintaining a high level of customer relations is a core value of SMUD. Therefore, the Board establishes an overall customer satisfaction target of 95 percent. Customer satisfaction is measured as the percentage of surveyed respondents who are satisfied or very satisfied with the following services: new connects/transfers, energy audits, tree trimming, power quality, and design/construction services.¹³
- Key Values:** To assure SMUD's long-term competitiveness and its ability to deliver innovative products and services, SMUD shall invest in research and development projects that support its core and key values, based on an analysis of the projects' relative risks and their potential benefits to SMUD customers.¹⁴

¹² Defined as the fourth consecutive day over 100 degrees and the peak day temperature of 110 degrees)

¹³ SMUD Board strategic directives (SD-5)

¹⁴ SMUD Board strategic directives (SD-10)

Overview:

Customers' perspectives on utility service are changing. Customers expect to receive a level of service that meets or exceeds the standards set by other product or service suppliers, and not necessarily other utility suppliers. As a result, consumers have high expectations for how rapidly and accurately their needs are met.

Based on these expectations, SMUD is taking advantage of new technology to improve communication, customer interaction, and the efficiency of processes that meet customers' needs. In addition, SMUD has continued to fund services that customers value, including energy efficiency programs and low-income programs.

Continued growth in SMUD's service area poses a challenge for maintaining and improving SMUD's service. With an expected customer growth rate of about 2% per year through 2012, SMUD has one of the most rapidly expanding service areas in the country.

Operating Plan Elements:

Utilize Technology to Improve Communication with Customers

IVR and WEB Upgrades

Upgrades to SMUD's SAP operating system have improved customer contacts and call center operations, resulting in reduced customer call center wait times and abandoned calls, while improving customer satisfaction with the call center. SMUD is expanding its Integrated Voice Response ("IVR") and Web services to include options, such as electronic bill tracking, online payments, web management of customer accounts, summary and budget billing, custom due dates, payment by credit/debit/ATM cards, and electronic bill presentment and payment.

Outage Management and the SDIT System

The Service Delivery Information Technology (SDIT) project will integrate SMUD's distribution system planning, outage management, design, facilities management, engineering, and graphical mapping capabilities to improve the efficiency of service, lower costs, and enhance customer relations. Customers will see improved service as they will receive better information regarding the status of outages, including information on service restoration times and outage causes. The GIS system will store all of the distribution system components and attributes in one database, thereby significantly improving data accuracy and reducing the time to access data. It will also assure retention of information about the system. This is especially critical as SMUD loses key personnel to retirements.

Provide Customers a Variety of Energy Solutions

Energy Efficiency

Existing energy efficiency programs are funded to lower customers' bills while preserving and enhancing their quality of life and business activities. These programs also improve air quality by reducing generation from fossil fuel units and increasing reliability. SMUD will continue to offer energy efficiency programs that expand customer choice and help customers manage their energy use. SMUD provides free shade trees, offers rebates

for investments in energy efficient technologies, and encourages participation in numerous demand response programs.

Value Added Customer Relations

SMUD will continue to offer products and services that add value and are extensions of SMUD's core business. Specifically, SMUD has expanded its residential and commercial green power program (Greenenergy), as well as providing customers a single source to transfer all utility services, offering a limited in-home wiring repair service, and considering various applications of efficient distributed generation.

Rate Alternatives

SMUD customers' awareness of energy-related issues has led to expanded retail pricing options. SMUD will offer rate options that provide incentives for customers to manage their energy use, that pass through market prices, and that rely on new technologies to expand service options. In addition, SMUD will continue to offer commercial customers pricing incentives to reduce peak demand and custom contracts that meet specific customer needs.

Capture Customer Concerns and Address Future Customer Needs

Customer Surveys

SMUD regularly surveys customers to gauge their perceptions of SMUD's services, to evaluate the effectiveness of current products and services, and to prepare for future needs. The surveys provide insight into what customer's value and define potential new products or services customers may expect from SMUD.

Invest in Research and Development

SMUD invests in R&D projects that can support meeting core and key values and that provide significant customer benefits. SMUD evaluates each investment for its benefits relative to costs and risks to ensure that R&D investments and projects will provide positive returns for customers.

E. Core Value: Safety

Performance Measure Creating a safe environment for workers and customers is a core value of the District. Therefore, the Board is committed to meeting all applicable laws and regulations, continuous safety improvement, and establishes a target to reduce 2002 District safety incident rates (OSHA Recordable, Lost Time and Preventable Vehicle Accidents) by 50 percent by 2008¹⁵.

Overview

SMUD is committed to provide a safe work environment and an injury free workplace by developing programs that encourage safe behaviors by employees, contractors, and the public. Continued focus on safe work practices will help SMUD achieve its strategic directives and maintain its core safety values.

¹⁵ SMUD Board strategic directives (SD-6)

Operating Plan Elements

Implementation of a Safety Management System Establishes a Culture of Safety

SMUD's Safety Management System includes a management commitment to safety issues, safety targets and accountability, employee safety committees to provide feedback or test processes and development of safety action plans. Each SMUD business unit has been provided the resources to develop safety strategies that best meet their needs.

Safety Initiatives Promote Safe Work Practices

The following are some of the safety initiatives being implemented:

- Behavior Based Safety Process: The process is a systematic approach to reducing injury by reducing risk. Critical safety behaviors are identified and reinforced through peer observation and feedback. The process encourages safety by preventing accidents.
- Safety Training Observation Program (STOP): STOP teaches supervisors to accept responsibility for safety in their work areas and requires them to meet with employees individually in order to reinforce safe work behavior and practices. STOP also trains employees to be responsible and accountable for working safely.
- Smith System Driver Safety Program: Encourages safe driving behaviors that can result in Zero Preventable Vehicle Accidents.
- Continuous Safety Improvement Program: Reduces exposure to and risk for musculoskeletal disorder injuries.
- Job Safety Analysis Program: Reviews high-risk job classifications to address specific concerns, identifies safety-restricted work areas at all power plants (Facilities Safety Program), and re-enforces job pre-planning to emphasize safety as part of the routine work effort.

F. Core Value: Environmental Protection

Performance Measure

- Full compliance with all applicable federal, state and local laws, ordinances, regulations and standards related to environmental protection.¹⁶

Key Values

- Set a goal of meeting 10% of the District's load with renewables by 2006 and 20% of its load with renewables by 2011, and thus meet or exceed the statewide RPS standard.
- Emphasize local and regional environmental benefits over global benefits.
- Develop and employ cost effective, clean distributed generation. As part of this policy, SMUD shall continue to be a leader in solar power.
- In addition to Public Goods energy efficiency programs, invest in energy efficiency that is cost effective and verifiable when compared with other energy supply alternatives.¹⁷

¹⁶ SMUD Board strategic directives (SD-7)

Overview:

Unlike an investor-owned corporation, SMUD is a not-for-profit, customer-owned, locally governed municipal utility. The Board intends for SMUD to be a good community neighbor and to promote a good quality of life for its customers, to include improving the local environment and promoting economic health. The Board has adopted core values articulated in this section of the strategic plan to reflect their concern for environmental protection and economic development.

Environmental stewardship involves resource conservation and management, pollution prevention, waste minimization, recycling, and environmental justice. Energy production, distribution, and consumption impact the air, water, land, and other environmental resources shared by the local community. Therefore, the Board has adopted appropriate core and key values that reflect SMUD's commitment to good environmental stewardship.

The objectives of these environmental protection policies and values are to:

- Encourage environmentally responsible decisions and management
- Reduce the impact of SMUD operations on the environment
- Improve the local environment, including reducing local sources of air pollution
- Advance development of new and emerging technologies
- Conserve fossil fuels

The Environmental Protection Agency (EPA) has designated the Sacramento region as a non-attainment area in meeting health standards for ground-level ozone. Non-attainment will limit and possibly prohibit siting of new local energy resources and may place additional restrictions on existing resources to serve the growing Sacramento region. The Board is evaluating new strategies to address non-attainment and other specific community environmental issues, programs for new technology research and development, and energy efficiency projects that compete with energy supply alternatives to help meet customers' energy needs. The Board will continue to evaluate these issues as necessary to manage changing energy alternatives and address community needs.

Operating Plan Elements:

Reduce Impact of Fossil Fuel Consumption

Procure Renewable Resources to Achieve or Exceed Statewide RPS goals

SMUD released a Request for Information and Qualification for renewable energy supplies in July, 2004, that solicits detailed information on renewable energy opportunities. In 2004, SMUD will also solicit information and qualifications to explore options for SMUD ownership of new renewables.

In addition, SMUD is pursuing expansion of the Solano Wind Farm in 2004, along with purchases of geothermal energy from the Geysers Power Plant in Northern California, and a landfill gas fired generation at the Kiefer Landfill. With these resources available,

¹⁷ SMUD Board strategic directives (SD-9)

SMUD will be able to exceed 10 percent of its load with renewable energy by 2006. These resources contribute significantly to meeting the 20 percent goal by 2011.

Improve Local Air Quality

SMUD will continue to promote technology advances that will contribute to improved air quality in the Sacramento region. For example, SMUD has developed an Electric Vehicle Program that includes a fleet of electric vehicles to improve local air quality and to increase awareness of the benefits of electric vehicles. Other projects include EV charging stations, forklift electrification, replacing ground vehicles at the Sacramento International Airport with clean fuel models, and the Truck Stop Anti-idling project. In addition, SMUD encourages carpooling and mass transit by subsidizing costs for employees. SMUD also has promoted the trade-in of gas-powered lawn mowers for electric models that have the same performance but without direct air emissions.

SMUD, in a multi-year demonstration project, is testing hydrogen-powered fuel cell vehicles in conjunction with a hydrogen refueling station. The purpose of the demonstration project is to increase the public's awareness of hydrogen refueling, fuel cell vehicles and their benefits, and to collect vehicle performance data.

Greenergy Rate Option

The Greenergy rate options give small commercial and residential customers the opportunity to purchase, for an additional monthly fee, up to 100% of their energy needs from certified "green" resources. SMUD uses contributions by program participants to fund the purchase and development of new "green" or renewable resources to meet the needs of program participants. Greenergy has continued to expand as customers become increasingly aware of the environmental and economic issues involved in energy production and consumption.

Improve the Local Environment

Promote Clean Distributed Generation

SMUD's Advanced Renewable and Distributed Generation Technologies (AR&DGT) program includes research and development, installation and commercialization of biomass, solar PV, wind, and combined cooling, heating and power (CHP) systems. SMUD has partnered with numerous developers and research institutions, such as UC Davis and Oak Ridge National Laboratory, to share knowledge and funding to ensure that advanced research activities become commercially available in the marketplace. In addition, SMUD is partnering with the CEC in the Public Interest Energy Program (PIER). This project assesses whether or not developing renewable distributed generation projects on SMUD's grid would be cost effective from both an operational and economic perspective.

Environmental Procurement Policy

The purpose of this policy is to minimize the negative environmental impact of SMUD's procurement practices by reducing solid waste, conserving natural resources, materials and energy, reducing toxicity, reducing air pollution, maximizing recycling and recycled content, and maximizing the use of remanufactured products where feasible. SMUD has a goal to recycle 50% of its waste by recycling office paper and other recyclable materials. When purchasing materials and equipment for SMUD use, contracts will be evaluated based on their environmental impact, availability and price.

Promote “Zero Energy Home” Residential Communities

SMUD has partnered with several housing developers to promote the “Zero Energy Home.” These homes are equipped with the latest advancements in energy efficient appliances, lighting and building materials, and feature a rooftop PV system. SMUD is currently conducting research on participants’ energy use patterns and on the overall energy efficiency of these houses.

Implement Cost Effective Energy Efficiency Programs

The Board has adopted a new key value to encourage the development and implementation of cost effective energy efficiency. Currently, energy efficiency programs do not compete with traditional energy supply resources and are funded primarily through SMUD’s public goods funding. However, the new policy allows energy efficiency to compete as an alternative to traditional supply and to be funded through sources other than public goods. In addition, SMUD is implementing new evaluation and assessment techniques to measure energy efficiency savings and compare energy efficiency with traditional supply resources.

G. Core Value: Employee Relations

Performance Measure:

Maintaining a high quality, diverse workplace in which employees treat one another with dignity and respect is a core value of the District. Therefore the District shall:

- Build, foster and sustain a workplace that supports diversity and is reflective of the community we serve.
- Maintain and communicate written policies that define procedures and expectations for staff and provide for effective handling of grievances.¹⁸

Overview:

SMUD values its employees highly and offers competitive pay and benefit packages to recruit and retain qualified employees. SMUD has enjoyed low turnover rates and positive responses on employee surveys. However, over 50% of SMUD’s employees will be over the age of 55 within the next 7 years, requiring SMUD to focus on the recruitment, training, and development of skilled new employees as well as applying new technologies to maximize employee efficiency. Given these needs, SMUD has an opportunity to strengthen employee diversity: to hire employees with an appropriate mix of knowledge, skills, and abilities and to apply new technology to continue to improve productivity.

Operating Plan Elements:

Recruit and Retain Employees to Ensure Diversity of Skills That Meet Customer Needs

Given the expected turnover of SMUD employees over the next 5 to 7 years, SMUD’s management is developing hiring parameters that capture the benefits of improved technology and efficiency while attracting employees who are both qualified and reflect Sacramento’s diverse community. SMUD is also focused on retaining skilled employees that can meet the diverse needs of Sacramento’s population. SMUD is implementing a new diversity program that will help ensure that SMUD’s recruiting reaches the best

¹⁸ SMUD Board strategic directives (SD-8)

candidates and that employees have the proper training and skills necessary to meet customer needs. In addition, with respect to human resource functions, new technology such as OASIS (Online Electronic Job Application System) and OpenHR (Employee and Position Data Management System) will facilitate a paperless environment and enhance efficiency to better serve employees and customers.

Improve Employee Health and Wellness to Moderate Health Care Cost Inflation

Health care costs for both active SMUD employees and retirees continue to escalate. SMUD has recently begun to focus on health and wellness programs available to both current and retired employees that assist them in achieving a healthful lifestyle. Improving the overall health of SMUD employees and retirees, in addition to improving productivity, will help reduce SMUD’s health care costs, thus leading to more affordable health insurance.

H. Core Value: Local Control

Performance Measure	Support for public power and preservation of local decision-making and control are core values of the District. Community-owned utilities are primarily accountable to customers-owners, not stockholders. Community citizens have a direct voice in utility decisions. Preservation of local decision-making and control are vital to ensure public power systems can provide solutions that best meet the needs of their customers. ¹⁹
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Overview:

SMUD is a municipal utility district organized in 1923 under the MUD Act, SMUD is different from other utilities in California in that SMUD does not sell stock and is not beholden to shareholder concerns and is governed by a local Board of Directors who are elected by customers within SMUD’s service territory. Given this structure, SMUD can be more flexible and responsive in its approach to electric service, is more directly accountable to customers through the Board, and is not for profit, returning all “profits” back to customers in the form of lower rates and better service. The citizens of the communities that SMUD serves can influence SMUD policy, have a voice in SMUD decision making, and are encouraged to take an active role in determining Sacramento’s energy future.

Operating Plan Elements:

Encourage Public Participation

SMUD holds regular public meetings to set policy, make changes to programs, allocate budgets, approve contracts, determine and interpret electric service rules and standards, and to set rates. These meetings allow SMUD’s constituents to be heard and help the Board become informed about public issues and customer needs. SMUD holds numerous community meetings to listen to customer’s concerns, respond to community issues, and inform customers of important electric service issues or upcoming policy decisions.

¹⁹ SMUD Board strategic directives (SD-11)

Preserve The Benefits Of Public Power For Customers

In addition to public meetings, SMUD participates in regulatory processes before the California Legislature, the U.S. Congress, the Federal Energy Regulatory Commission, the California Public Utility Commission, the California Energy Commission, and other state and federal agencies to advocate the interests of SMUD's customers and public power in general. SMUD's activities focus on preserving the benefits of public power for SMUD's customers while protecting local decision-making.

Economic Development (Policy Currently Being Developed by The Board)

Performance

Measure

- *Presently being considered by the Board*

Overview:

The Sacramento region has grown significantly over the last decade. Economic development can create jobs and improve business opportunities across all communities and groups within the Sacramento area. In 1994, the Board adopted an economic development program aimed at promoting new jobs, providing incentives for new load, retaining customers, and providing services that encourage existing firms to expand and/or relocate to SMUD's service territory. SMUD's economic development programs continue to evolve and the District anticipates creating new economic development policies and values to address changing energy markets and adapt to Sacramento's changing economy.

Operating Plan Elements:

Encourage Economic Growth Through Business Expansion

Provide Business Assistance and Economic Development Rate

SMUD assists new companies with site location assistance, electric billing analyses, and new service coordination. In addition, SMUD offers an economic development discounted electric rate to businesses who add new load or new jobs to Sacramento. Eligibility for the discount is limited to customers with Standard Industrial Classifications (SIC) in manufacturing, communications, business services and professional services or the equivalent new NAICS codes.

Small Business Assistance

SMUD in cooperation with other local organizations offers support and assistance to help local entrepreneurs form and grow local small businesses. This assistance ranges from training and consultation to access to venture capital.

SEED Program

SMUD is committed to achieving full and equal opportunity for ratepayers in contracting opportunities and has adopted this policy to promote the economic development of ratepayer businesses. The Supplier Emerging Enterprise Development (SEED) Program creates two opportunities for Ratepaying Emerging Business Enterprises (REBEs) wishing to contract with the District. To qualify, businesses must be certified and have been ratepayers for the past six months. The Sheltered Market program offers

REBEs exclusive bid opportunities for certain contracts up to \$50,000. On all other contracts REBEs receive a 5% price advantage. Non-REBEs may receive the price advantage if they utilize subcontractors who are REBEs.

Broad Outreach Efforts and MBE/WBE Incentives

SMUD encourages the participation of all businesses in SMUD contracting opportunities. SMUD requires a broad outreach effort be conducted by all prime contractors on large bid solicitations to ensure all qualified firms have opportunities to do business with SMUD. In addition, to further encourage participation by historically disadvantaged groups, SMUD offers scoring benefits to those firms owned by minorities or woman.

Provide Financing Options to Encourage Growth

Grow Sacramento Fund (GSF)

SMUD, in partnership with the Sacramento Housing and Redevelopment Agency, offers term loans to small businesses in Sacramento County. The purpose of these loans is to create or retain jobs available to low and moderate-income individuals or to energy related businesses.

State Loan Guarantee Program

SMUD partners with the State of California to offer loan guarantees on commercial bank loans to local small businesses that are “near bankable”. These can be for term loans or lines of credit.

New Technology Financing Program

SMUD in cooperation with McClellan Technology Incubator (MTI) has established a loan fund to assist local companies in the areas of advanced transportation, renewable technology, electric transportation, air quality improvement, and energy related products and services.

EnterFund

SMUD supports the EnterFund Micro-enterprise Loan Fund operated by California Capital Financial Development Corporation. This program offers loans up to \$25,000 for small and emerging businesses along with seminars and consultation on financial literacy and business technical assistance.

Contractors Assistance

SMUD offers qualifying District contractors and vendors a small business loan guarantee program and insurance services through the Providers Artisan Tradesman Activities (SPARTA) Insurance Program.

Appendix A: SMUD Core and Key Values

The following are SMUD's core and key values:

Core Values

A. Competitive rates

Maintaining competitive rates is a core value of SMUD. Therefore, the Board establishes a competitive system average rate target of at least 10 percent below Pacific Gas & Electric Company's system average rates. The Board reaffirms its commitment to maintaining competitive rates for each of its customer classes, while continuing to equitably allocate costs across and within customer classes.²⁰

B. Access to credit markets

Maintaining access to credit is a core value of SMUD. Therefore, SMUD shall comply with all bond indenture requirements and develop budgets in a fiscally sound manner.

- The Board establishes a target of an equity contribution to total SMUD capitalization of at least 20 percent by the end of 2007, which means that no more than 80 percent of SMUD's assets are financed using debt.
- SMUD's electric system, employees and board members shall be reasonably insured against risks and claims of liability.
- Intellectual property, information, and files shall be reasonably protected against loss, damage or theft.²¹

C. Reliability

Meeting customer load demand is a core value of SMUD. Therefore, the Board establishes the following reliability targets:

- SMUD will assure all customer load demand is met through the use of its generation resources and purchase power portfolio 100 percent of the time.
- SMUD will meet customer load demand through the use of its transmission assets to assure an overall availability of at least 99 percent.
- SMUD will achieve distribution system reliability by limiting the average frequency of outages to 1.16 or less per customer per year and by limiting the average duration of outages to less than 80.4 minutes per customer per year with no individual circuits exceeding these targets for more than two consecutive years.²²
- SMUD will maintain the electric system in good repair²³.

D. Customer Relations

Maintaining a high level of customer relations is a core value of SMUD. Therefore, the Board establishes an overall customer satisfaction target of 95 percent.²⁴

²⁰ SMUD Board strategic directives (SD-2)

²⁴ SMUD Board strategic directives (SD-3)

²² SMUD Board strategic directives (SD-3)

²³ SMUD Board strategic directives (SD-4)

- SMUD customers shall be treated in a respectful, dignified and civil manner.
- Only information necessary for SMUD's operations shall be collected from customers.
- Customer billing records and customer information collected or maintained by SMUD may contain information that is proprietary or relates to customer privacy interests. Consequently, reasonable precautions shall be taken to protect customer information against improper access. In addition, customer information shall not be disclosed to a third party unless: (i) the customer consents to the disclosure; (ii) disclosure is otherwise required by law; or (iii) disclosure furthers SMUD's business interests (e.g., collection of unpaid bills or debts, reporting to credit agencies, exchange of customer information with other utilities for collection purposes or determining customer creditworthiness, or cooperation with law enforcement). The non-disclosure requirements of this policy shall not apply to information in the public domain or aggregated customer information.
- SMUD shall communicate a procedure for customers who believe they have not received fair treatment from SMUD to be heard.

E. Safety

Creating a safe environment for workers and customers is a core value of SMUD. Therefore, the Board is committed to meeting all applicable laws and regulations, continuous safety improvement, and establishes a target to reduce 2002 SMUD safety incident rates by 50 percent by 2008.²⁵

F. Environmental protection

Environmental protection is a core value of SMUD. Therefore, the Board establishes a target of full compliance with all applicable federal, state and local laws, ordinances, regulations and standards related to environmental protection. Environmental protection is defined as resource conservation and stewardship, pollution prevention, waste minimization and recycling, and environmental justice.²⁶

G. Employee Relations

Maintaining a high quality, diverse workplace in which employees treat one another with dignity and respect is a core value of SMUD. Therefore, SMUD shall build, foster and sustain a workplace that supports diversity and is reflective of the community we serve. SMUD shall maintain and communicate written policies that define procedures and expectations for staff and provide for effective handling of grievances.

H. Local Control

Support for public power and preservation of local decision-making and control are core values of the District. Community-owned utilities are primarily accountable to customers-owners, not stockholders. Community citizens have a direct voice in utility decisions. Preservation of local decision-making and control are vital to ensure public power systems can provide solutions that best meet the needs of their customers.

²⁴ SMUD Board strategic directives (SD-5)

²⁵ SMUD Board strategic directives (SD-6)

²⁶ SMUD Board strategic directives (SD-7)

Key Values

A. Resource Planning

a) Local environmental benefits:

Emphasize local and regional environmental benefits over global benefits.

b) Peak shaving

Lower the cost to serve our customers by reducing per customer peak usage.

c) Renewable energy

Set a goal of meeting 10% of SMUD's load with renewables by 2006 and 20% of its load with renewables by 2011, and thus meet or exceed the statewide RPS standard.

d) Clean distributed generation

Develop and deploy cost effective, clean distributed generation. As part of this policy, SMUD shall continue to be a leader in solar power.

e) Energy efficiency

In addition to Public Goods energy efficiency programs, invest in energy efficiency that is verifiable and cost effective when compared with other energy supply alternatives.

B. Research and Development

To assure SMUD's long-term competitiveness and its ability to deliver innovative products and services, SMUD shall invest in research and development projects that support its core and key values, based on an analysis of the projects' relative risks and their potential benefits to SMUD customers