

SECTION 3.0

Purpose and Need

Purpose and Need

3.1 Introduction

The San Francisco Electric Reliability Project (SFERP) is needed, as part of a portfolio, to maintain systems reliability and provide for the closure of existing power plants. The SFERP will consist of three combustion turbines with a total combined output of 145 megawatts (MW).

3.2 Policy Overview

For over four years, closure of the Hunters Point Power Plant has been a City objective. More recently, the City's interest in closing down the Hunters Point Power Plant has been extended to limiting use of and eventually closing down the Potrero Power Plant.

On July 9, 1998, the City entered into an agreement with Pacific Gas and Electric Company (PG&E) that provided for the shutdown of the Hunters Point Power Plant "as soon as the facility is no longer needed to sustain electric reliability in San Francisco and the surrounding area and the FERC authorizes PG&E to terminate the Reliability Must Run agreement for the facility" (CCSF, 1998).

On May 21, 2001, the Board of Supervisors passed Ordinance 124-01, which set forth conditions for the siting of new generation at the Potrero Power Plant in Southeast San Francisco. This ordinance requires closure of Hunters Point Power Plant; cleanup and limitations on use of Potrero units 4, 5, and 6; and cleanup and eventual closure of Potrero Unit 3.

On November 21, 2002, the Board of Supervisors passed Resolution No. 827-02. In this resolution, the Board of Supervisors adopted the Electricity Resource Plan developed by the City's Public Utilities Commission and the Department of Environment (SF Electricity Resource Plan) "as a policy guideline to be used in proposing and implementing specific actions, subject to the requirements necessary to comply with environmental laws, including an analysis of alternatives and mitigations."

The SF Electricity Resource Plan establishes the following priorities (SFPUC and San Francisco Department of Environment, 2002):

- Maximize Energy Efficiency
- Develop Renewable Power
- Assure Reliable Power
- Support Affordable Electric Bills
- Improve Air Quality and Prevent Other Environmental Impacts
- Support Environmental Justice
- Promote Opportunities for Economic Development
- Increase Local Control Over Energy Resources

To achieve these goals and allow for closure of existing within-City generation, the SF Electricity Resource Plan provides for development of a portfolio of new energy resources that includes energy efficiency improvements, renewable resources, distributed generation using renewable and clean technologies, transmission additions, and new highly-efficient and operationally flexible generation at appropriate sites. The SFERP is part of the generation component of the SF Electricity Resource Plan. The City remains committed to maximizing energy efficiency, developing renewable power, encouraging clean distributed generation and supporting needed transmission additions. Nonetheless, the siting of new generation is also necessary in order to enable the prompt closure of the Potrero Power Plant, and to meet reliability requirements.

In addition, by providing for improvements in reliability and facilitating improvements in air quality, the SF Electricity Resources Plan and the SFERP supports the general policy determinations of both the California Energy Commission's (CEC's) Integrated Energy Policy Report and the Energy Action Plan endorsed by the CEC, the California Public Utilities Commission, and California Power Authority.

3.3 Technical Background

The City and County of San Francisco (CCSF) is served by a combination of power imported over the high voltage transmission system and by power produced by generating units located within the City. There is insufficient transmission capacity or capability to reliably meet all of the City and peninsula's electrical loads. Therefore, both transmission and generation resources are necessary to reliably serve San Francisco and the peninsula.

3.3.1 Generation

In-City generation consists of two natural gas fired boiler-steam turbine-generator power plants, see Table 3-1. The 46-year-old, 163 megawatt (MW) Hunters Point Power Plant Unit 4 is owned by PG&E and the 39-year-old, 206 MW Potrero Power Plant Unit 3 is owned by Mirant. In addition, the Hunters Point Power Plant includes one 28-year-old, 52-MW, diesel-fuel-fired peaking turbine (Hunters Point 1). The Potrero Power Plant also includes three 28-year-old, 52-MW, diesel-fuel-fired, peaking turbines (Potrero 4, 5, 6). In combination, these plants provide 570 MW of local generation (SFPUC and San Francisco Department of Environment, 2002). In addition to the Hunters Point and Potrero power plants presented in Table 3-1, there is a 25 MW, combined-cycle combustion turbine generating unit on the northern peninsula, United Cogen.

Due to environmental restrictions, the operation of each of the diesel fuel-fired, peaking turbines in San Francisco is limited to no more than 877 hours per year. The steam generating units, Potrero Unit 3 and Hunters Point Unit 4, have been required to meet increasingly stringent NO_x restrictions under Bay Area Air Quality Management District (BAAQMD) regulations. Specifically, each generation owner's Bay Area fleet of fossil-fueled power plants has been required to meet the following average NO_x emission levels:

Jan. 1, 2002 - 47 parts per million (ppm)

Jan. 1, 2004 - 31 ppm

Jan. 1, 2005 - 15 ppm

For Potrero Unit 3 to continue to operate in compliance with BAAQMD NO_x limits in 2005 and beyond, Mirant had to either install selective catalytic reduction (SCR) equipment or run the unit at reduced load in conjunction with operation of lower NO_x emitting plants. Potrero Unit 3 is currently undergoing the SCR retrofit and is expected to be back online in June 2005. To continue operation of Hunters Point Unit 4 and remain in compliance with maximum BAAQMD NO_x emissions levels, PG&E intends to use interchangeable emission reduction credits (IERCs) and thus temporarily avoid the installation of SCR equipment. In the context of an appeal to the BAAQMD Hearing Board regarding the issuance of IERCs, PG&E has reached a settlement with community groups for use of IERCs through 2005. IERCs may be available for limited operation of Hunters Point Unit 4 for short periods beyond 2005. However, if Hunters Point Unit 4 is to continue to operate over a longer term, it will require substantial NO_x emission control equipment retrofits.

Table 3-1 below describes the existing power generation in San Francisco.

TABLE 3-1
In-City Generation, Output, and Fuel Type

Plant	Unit	Size (MW)	Fuel Type	In Service Date
Potrero	3	207	Natural Gas	1965
	4	52	Diesel	1976
	5	52	Diesel	1976
	6	52	Diesel	1976
Hunters Point	4	163	Natural Gas	1958
	1	52	Diesel	1976

3.3.2 Transmission System

The transmission system that supplies electricity to the peninsula and San Francisco is insufficient and incapable of serving the load in these areas without some in-area generation. There are four major constraints to the physical importation of electric power to San Francisco from other areas of the State. The first constraint is a restriction of the import capability into the Greater Bay Area (GBA). The second constraint is a restriction on the amount of power that can be transmitted to the peninsula from the East Bay. The third constraint is a restriction in the amount of power that can be supplied to the northern peninsula, including the City. And the fourth constraint involves capacity limitations on the 115-kV underground cable transmission system north of Martin Substation into the City (R.W. Beck et al., 2002).

The GBA transmission system consists primarily of four major outlying 500/230-kV substations (PG&E's Vaca-Dixon, Tesla and Metcalf substations and Western's Tracy substation) and a network of 230-kV "import" circuits across the boundary. The capability of the 500/230-kV transformer banks and 230-kV lines determine how much power can be imported into the GBA. The limited capacity of these facilities requires support from generation located within the GBA to meet GBA load requirements. Consequentially, the CAISO is forced to enter into RMR agreements to secure a large amount of generating capacity within the GBA. These RMR agreements allow the CAISO to dispatch generators or obtain load reductions when necessary to maintain local area reliability. In September 2004,

the CAISO calculated that for 2005, 3,493 MW of RMR capacity was needed in the GBA, even considering the requirements met by municipal and Qualifying Facility generation that can already be relied upon to be online when needed (Kott, 2004).

A further constraint to serving San Francisco's electrical load arises from the limited transmission capacity from the East Bay into the San Mateo substation. There are only two sets of 230-kV transmission lines (and two sets of smaller 115-kV transmission lines) that interconnect the San Mateo substation with the East Bay. One 230 kV line crosses the Bay parallel to the San Mateo Bridge. The other 230-kV line crosses the Bay parallel to the Dumbarton Bridge. Due to capacity limitations on these lines, some peninsula-based generation must be operated during peak load and contingency conditions to prevent overloading these lines.

An additional limiting condition currently exists north of the San Mateo substation. To prevent overloading the transmission lines serving the upper peninsula and San Francisco at certain load levels and maintenance conditions, a minimum level of generation must be operating at Hunters Point Power Plant and/or Potrero.

Finally, a capacity limitation exists on the 115-kV underground cable transmission system from the Martin Substation into the City. This constraint limits the efficacy of transmission projects, such as the Jefferson-Martin line, in increasing the load-serving capability of the City.

The peak electrical load for San Francisco and the peninsula exceeds the load serving capability of the electric transmission system. For 2005, the CAISO designated all the units at Hunters Point Power Plant and the Potrero Power Plant as RMR units (Kott, 2004)¹. Operation of these units can relieve constraints on all the electrical paths to and within the GBA, the peninsula, and north of San Mateo as described above.

Given the significant transmission constraints in the area, since its inception, the CAISO has dedicated particular attention to studying the system in San Francisco and the peninsula and has identified numerous recommended transmission system improvements. Since 1999, the CAISO has been evaluating the need for an additional 230-kV line from the Peninsula into the City to relieve the constraint north of San Mateo substation. In 2002, the CAISO Governing board approved the Jefferson-Martin transmission line to transport additional power up the peninsula from the GBA. In 2004, PG&E obtained a certificate of public convenience and necessity (CPCN) from the California Public Utilities Commission (CPUC) for the Jefferson-Martin line which is scheduled to be in service in the first or second quarter of 2006. In the context of the 2003 and 2004 transmission planning processes, additional transmission projects have been identified that could improve the effectiveness of the Jefferson-Martin line and otherwise increase load servicing capability in the peninsula and San Francisco.

In addition, the CAISO is in the process of evaluating four transmission alternatives to meet planning criteria subsequent to the construction of the Jefferson-Martin line through 2018. The four alternatives include:

1. Reconductoring alternative. This alternative involves upgrading existing transmission lines through reconductoring.

¹ The CAISO released Hunters Point Power Plant units 2 and 3, which are synchronous condenser units, from the applicable RMR agreement for 2005.

2. New 230-kV Moraga to Potrero alternative. This alternative involves construction of a 230-kV transmission line from the Moraga substation in the East Bay to the Potrero substation in San Francisco.
3. New 230-kV Tesla to Potrero alternative. This alternative involves installing a new 230-kV circuit from Tesla substation to San Ramon substation, reconductoring the 230-kV circuits connecting San Ramon and East Shore substations, and installing a new 230-kV circuit from the East Shore to the Potrero substations.
4. New DC Pittsburg to Potrero alternative. This alternative involves installing a DC line from Pittsburg to Potrero, using a submarine cable for the portion of the line that is in the Bay.

The CAISO is also undertaking a study of the economic benefits of these alternatives.

Based on these evaluations, on April 28, 2005, the CAISO is expected to make a recommendation on the next phase for transmission expansion for San Francisco and the peninsula to the CAISO Governing Board.

The studies are not now envisioned, however, to consider RMR, reactive margin, or operational needs. Unless these requirements are addressed, there is no certainty that the transmission alternatives that are being evaluated will provide for release of the Potrero Power Plant from its RMR Agreement. The latest information on the need for generation within the city to meet operational needs is set forth in correspondence from PG&E to the CAISO in May 2004. This correspondence indicates that 200 MW of generation is needed north of San Mateo substation. Moreover, as described in the following section, the CAISO's Action Plan for San Francisco includes the SFERP and a small City generating facility to be located at the San Francisco International Airport among the elements necessary to terminate the RMR Agreement for units at the Potrero Power Plant.

Moreover, unlike transmission alternatives, the SFERP will add real power and reactive power into the electrical grid near the load. Thus, the SFERP will be available to provide voltage support, reduce system losses, and increase operational reliability and flexibility. These attributes are true whenever generation is sited close to load and the alternative sources of generation to serve that load must be transported over long and heavily-loaded transmission lines. This is especially true for new generation located within San Francisco as documented by CAISO and CEC Staff in their testimony that comprises the Final Local System Effects section of the FSA for the proposed Potrero 7 Power Plant. (00-AFC-4).

3.4 Benefits of SFERP and Consistency with City Energy Policy

3.4.1 Closure of In-City Generation

Construction of the SFERP, in combination with the construction of a number of planned transmission projects and the construction of a small generating facility at the San Francisco International Airport, will provide for the release of units at the Potrero Power Plant from the applicable RMR agreement. Release from the RMR agreement will eliminate an important source of revenue from continued operation of the units and will allow Mirant Potrero LLC to shut down the units. The City is committed to securing closure of the Potrero Power Plant through negotiations with Mirant or other means. Prior to the

construction of the SFERP, completion of the Jefferson-Martin transmission project, and a number of additional transmission projects that are currently either complete or in progress, will provide for closure of the Hunters Point Power Plant.

3.4.1.1 The Action Plan for San Francisco

Over the past two years, the City and other stakeholders have worked with the CAISO to extensively study the physical and operational requirements of the San Francisco and peninsula electric transmission systems. The studies assessed the requirements to maintain system reliability and, at the same time, shut down aging in-City generation. This effort culminated in presentation to the CAISO Board of an Action Plan for San Francisco on September 10, 2004. After stakeholder review and input, the CAISO revised the Action Plan for San Francisco and on November 5, 2004, the revised plan was adopted by the CAISO Board (the SF Action Plan). The SF Action Plan defines the new facilities that are necessary to release all existing in-City generation at the Hunters Point and Potrero Power Plants from the applicable RMR agreements. The requirements set forth in the SF Action Plan are summarized in the following subsections.

3.4.1.2 Release Hunters Point Power Plant from the Applicable RMR Agreement

The SF Action Plan describes the requirements to release all four units at the Hunters Point Power Plant from the applicable RMR agreement. Units 2 and 3 of the Hunters Point Power Plant, which have been operating as synchronous condensers to provide local VAR support, can be removed from service once PG&E completes the installation of a new static VAR compensator. The CAISO did not renew the RMR agreement for Units 2 and 3 in 2005.

The remaining two units, Units 1 and 4, can be released from the applicable RMR agreement when 9 system improvements, including the Jefferson Martin line, are completed. These projects are listed in Table 3-2. As indicated in Table 3-2, all items required for the release of Hunters Point Power Plant from the applicable RMR agreement are scheduled for completion by March 2006. Once the plant is released from the RMR agreement, PG&E is required to close it down consistent with the 1998 agreement between the City and PG&E.

TABLE 3-2

Requirements for the Release of Hunters Point Units 1 and 4 from the RMR Agreement

	Project	Estimated Completion Date
1	San Mateo-Martin No. 4 Line Voltage Conversion from 60 to 115 kV	Completed
2	Ravenswood 2 nd 230/115 kV Transformer Project	Completed
3	San Francisco Internal Cable Higher Emergency Ratings to be used in conjunction with Jefferson-Martin Line	Completed
4	Reconductor Tesla-Newark No. 2 230-kV line	May 2005
5	Reinforcement of Ravenswood-Ames 115-kV lines	May 2005
6	San Mateo 230-kV Bus Insulator Replacement	May 2005
7	Install Potrero-Hunters Point (AP-1) 115-kV Cable	December 2005
8	Install Jefferson-Martin 230-kV Line	March 2006
9	Potrero Unit 3 SCR retrofit	June 2005

3.4.1.3 Release Potrero Power Plant Unit 3 from the Applicable RMR Agreement

With the projects described in Table 3-2 completed, the SF Action Plan specifies that Potrero Power Plant Unit 3 can be released from the applicable RMR agreement once the three combustion turbines that comprise the SFERP and a fourth combustion turbine that the City intends to locate at the San Francisco International Airport, are operational. The commercial operating date for these units is June 2007.

3.4.1.4 Release Potrero Power Plant Units 4, 5 and 6 from the Applicable RMR Agreement

The SF Action Plan further indicates that, once the conditions are in place for release of Potrero Power Plant Unit 3 from the applicable RMR agreement, including construction of the SFERP, the remaining generation located at the Potrero Units 4, 5 and 6, can be released from the applicable RMR agreement once the transmission projects listed in Table 3-3 are completed. The projects should be completed by 2007.

TABLE 3-3
Requirements for the Release of Potrero Units 4,5 and 6 from the RMR agreement

	Project	Estimated Completion Date
1	Upgrade the Newark-Dumbarton 115-kV line	May 2006
2	Upgrade the Blair-Belmont 115-kV line	May 2007
3	Upgrade the Metcalf-Hicks and Metcalf-Vascona 230-kV lines	May 2007
4	Add Voltage Support at the Ravenswood substation	May 2007

3.4.2 The SFERP Will Facilitate the Reduction of NO_x Emissions and Thereby Reduce Other Environmental Effects and Support Environmental Justice

Currently, the Potrero and Hunters Point Plants are the largest stationary sources of oxides of nitrogen (NO_x) in San Francisco.

Table 3-4 presents the NO_x and PM₁₀ emissions per MWh for existing generating units in the City and the projected emissions per MWh of the SFERP. The table illustrates that the biggest emitters (per MWh) among the within-City generating units are the four peaking units in San Francisco, which have minimal emission controls for oxides of nitrogen and produce 25 times more of this pollutant per MWh than the SFERP. Table 3-4 also shows that the NO_x emissions per MWh from the SFERP are a little less than half of those of Potrero Unit 3, even after installation of SCR on that unit.

TABLE 3-4
Emissions Per Megawatt-Hour for Existing and Proposed Plants

Plant	NO _x (pounds per MW-hour)	PM ₁₀ (pounds per MW-hour)
Potrero 3	1.1	0.03
Hunters Point 4	0.7	0.03
Hunters Point and Potrero Peakers	2.4 to 2.9	0.4
Potrero 3 (retrofit)	0.2	0.03
SFERP	0.09	0.06*

* Rubenstein, 2004.

The PM₁₀ emissions per MWh for SFERP set forth in Table 3-4 are higher than those for Potrero Unit 3 and Hunters Point Unit 4. However, this is a reflection of the fact that the emission rate for Potrero 3 and Hunters Point 4 is their average emission rate, while the value for SFERP is the proposed permit limit, which is the maximum allowable level at any time, under any operating condition. There is no permit limit on the amount of PM₁₀ emitted by Potrero 3 and Hunters Point 4. It is likely that under actual operating conditions, SFERP will emit significantly less particulates per MWh than either Potrero 3 or Hunters Point 4.

Closure of the Hunters Point Power Plant in combination with retrofitting Potrero Power Plant Unit 3 with SCR technology would result in a substantial overall reduction of NO_x from in-City plants. Additional overall reductions would result to the extent the SFERP provides a basis for retiring the Potrero Power Plant Unit 3 and the Potrero Power Plant peakers (Potrero Units 4, 5, and 6).

The substantial reduction of air emissions resulting from the closure of the Hunters Point and Potrero power plants is particularly critical in responding to air quality concerns of the Hunters Point and Potrero communities. These communities share a common concern for public health, especially that of children and the elderly. Because all in-City generation has been located in Hunters Point and Potrero, these communities have borne a disproportionate impact from power generation in the City. The City also recognizes that, although the modeling shows that the SFERP is not expected to contribute significantly to cumulative regional or localized impacts of any pollutants, including NO₂ and PM₁₀ there will be PM₁₀ impacts from the SFERP in both Potrero and Bayview/Hunters Point. Although the impacts of toxic air contaminants from the project are below the levels considered to be significant by regulatory agencies, the City also recognizes that the highest acute health hazard index from the project will be in Bayview/Hunters Point. To address these concerns, the City is developing, with community input, a PM₁₀ mitigation/community benefits package. The City will target the mitigation to the areas affected by the impacts from the project.

3.4.3 The SFERP Will Improve Reliability

Maintaining reliability is one of the primary justifications for the SFERP. The SFERP will support reliable electric service in San Francisco and the peninsula by replacing old unreliable units nearing the end of their useful life with a new highly-reliable technology. The CAISO has already revised the planning standards that apply in the GBA to address the fact that the older, less reliable generating units in the GBA justify the application of a more stringent criteria for that area (CAISO, 2002). Nonetheless, the concern remains that the City's electric reliability is compromised by reliance on old, undependable generation to meet planning standards.

In 2003, the City evaluated the relative reliability of in-City generation as compared to the average reliability of other generating units within the CAISO system. This evaluation was based on publicly available information on the status of generating units posted four times a day on the CAISO website (The CAISO declined to provide hourly unit availability information to the City for this effort).

The evaluation used data from July 10, 2001 through September 20, 2003 and added the time periods when units were curtailed and the amount of the curtailment.² The results of these calculations were used to determine the average MW curtailed for each unit within the CAISO system during the time period reviewed, and the equivalent outage rate.

The analysis showed that the average outage rate for all units other than the San Francisco/peninsula units is 0.05 (i.e., they were unavailable 5 percent of the time); whereas the average outage rate for units in San Francisco and the peninsula is 0.14. Even without considering the Hunters Point Power Plant, the average outage rate for units in San Francisco is 0.11.³ This means that City/peninsula units, on average, are more than twice as likely to be unavailable to serve load than the units reported for other areas of the CAISO grid. Potrero Unit 3, by itself, has an average outage rate of 0.12, or more than twice the average outage rate of other units in the CAISO system.

The results of the evaluation are consistent with findings by the CEC reported in the 2003 Integrated Energy Policy Report published December 2003. In that report, the CEC indicated that, "Despite recent improvements in the electricity market as a whole, the Energy Commission is concerned about local reliability in San Diego and the San Francisco peninsula. Both areas experienced serious reliability problems during the energy crisis" (CEC, 2003).

The evaluation of unit outages coupled with the CEC data indicate that it is not necessarily sufficient to apply the CAISO Planning Standards to determine whether reliable electric service will be provided to electric consumers on the San Francisco and the peninsula. The data supports a further conclusion that additional resources are needed now to provide a level of reliability even close to that enjoyed in other areas of California.

In contrast to the old and unreliable generation that currently operates in the City, the SFERP involves new aeroderivative combustion turbine technology. This technology has a very high availability record. Replacing old generation that is more than twice as likely to be unavailable than the average, with this new highly reliable technology will substantially enhance San Francisco/peninsula electrical reliability.

3.4.4 The SFERP Complements a Portfolio of Energy Efficiency, Renewable Resources, and Clean Distributed Generation

The SFERP complements City efforts to develop energy efficiency improvements, renewable resources, and clean distributed generation. To provide for reliable operations, the transmission network in the City and the peninsula needs generation that is both dispatchable and properly located to benefit the network. The SFERP's size and configuration enables maximum deployment of energy efficiency improvements, renewable resources and clean distributed generation. Because of its flexibility, the SFERP can be used to complement intermittent renewable resources such as wind. Therefore, at the same time as it is developing the SFERP, the City is aggressively implementing programs to promote energy efficiency and renewable resources.

² The analysis excluded data from January 1, 2001 through July 9, 2001 because the data for these dates contained insufficient information and had formatting problems.

³ Hunters Point Unit 4 is the most unreliable of the City plants with an outage rate of 0.30, or six times the average outage rate of other units in the CAISO system.

The SFERP, energy efficiency improvements and renewable energy projects are all critical and compatible components of a portfolio of resources to serve San Francisco. The City is continuing to move forward aggressively with initiatives to fund, develop and implement energy efficiency and renewable resources as it develops the SFERP. In 2001, the City created the Mayor's Energy Conservation Account (MECA), which directed \$15 million to finance aggressive energy efficiency and renewable energy programs in city buildings and facilities. Since that time, an additional \$25 million has been allocated to the MECA fund. Completed energy efficiency projects include combined solar and energy efficiency improvements at the Moscone Convention Center project. A list of the projects completed through the MECA is set forth in Appendix 3.

The City, through the San Francisco Department of the Environment, is also working with PG&E to implement a \$16 million program, the San Francisco Peak Energy Pilot Program, to increase electric reliability by reducing peak energy demand in San Francisco by 16 MW by 2005. The program offers energy saving opportunities for residential and business customers in San Francisco.

As for renewables, the City has installed a 675 kW solar project on the Moscone Center in combination with energy efficiency measures. Projects are also planned for the Southeast Water Pollution Control Plant, Pier 96 and other locations. These projects are projected to result in a peak demand reduction of 1.1 MW. In addition, the City is implementing a new solar project called Generation Solar to support the development of the solar energy market. The program will provide at least 100 residential and commercial participants with turnkey installation and financing of photovoltaic systems and accompanying energy-conservation measures. The City also has installed 3 MW of renewable bio-gas cogeneration at its wastewater treatment plants.

The City is also supporting energy efficiency and renewables through its Environmental Justice grants program. The program provides funding to local non-profit organizations and businesses to promote energy efficiency, home weatherization and solar projects in the Potrero and Bayview-Hunters Point neighborhoods. With support from this program, forty solar systems have been installed and more than 400 homes, businesses and non-profit organizations have received weatherization and energy efficiency measures.

3.4.5 The SFERP Will Support Affordable Electric Bills

The SFERP could reduce costs from the operation of existing in-City generation. Because it is comprised of small flexible quick start units, the SFERP will eliminate the need to operate Potrero Unit 3 around the clock merely to ensure that a reliability unit is available to meet needs during peak hours.

3.4.6 The SFERP Will Increase Local Control Over Energy Resources

The City will own the SFERP. As the City is accountable to its citizens, this ownership model will increase local control of key energy resources. Further, local control should reduce the exposure of San Francisco ratepayers and more broadly the ratepayers of PG&E to the exercise of local market power from in-City generation. Pursuant to a 10-year power purchase agreement between the California Department of Water Resources and the City, the output of the SFERP will be used to serve all PG&E customers. This approach is preferable to having new strategically located generation in the hands of private entities

with a profit incentive. Absent local control, the market power of such entities would only be curbed by imperfect FERC-approved market power mitigation measures.

3.5 References

CAISO. 2002. California ISO Planning Standards. February 7.

CAISO. 2003a. San Francisco Peninsula Load Serving Capability, Draft Version 2.0. October 24.

CAISO. 2003b. Reliability Must-Run Study Report, Final Version: Appendix 5, Greater Bay Area. May 19.

City and County of San Francisco. 1998. Agreement Between the City and County of San Francisco and Pacific Gas and Electric Company to Close the Hunters Point Power Plant. July 9, 1998.

California Energy Commission (CEC). 2002. Potrero Power Plant Unit 7, Final Staff Assessment section 6.6-7, CEC docket 00-AFC-4. April 4.

California Energy Commission (CEC). 2003 Integrated Energy Policy Report. December.

DeShazo, Gary. 2003. Testimony of Gary DeShazo on behalf of the California Independent System Operator, CPUC docket A.02-09-043. October 10.

Edwards, Marcie. 2004a. Interim CEO, CAISO, memorandum to the CAISO Board of Governors: Action Plan for San Francisco, Options and Risks. September 10.

Edwards, Marcie. 2004b. Interim CEO, CAISO, memorandum to the CAISO Board of Governors: Board Endorsement of Revised Action Plan for San Francisco. November 5.

Kott, Robert. 2004. Manager of Reliability Contracts, CAISO, memorandum to the CAISO Board of Governors: RMR Designations for 2005. September 10.

Mirant Delta, LLC and Mirant Potrero, LLC. 2005. Offer of Partial Settlement, FERC Docket No. ER05-343-001. January 7.

PG&E. 2003a. Transmission and Generation Interconnection Projects status report, Item No. 84, filed in CPUC docket 00-11-001. September 2.

PG&E. 2003b. Transmission and Generation Interconnection Projects status report, Item No. 93, filed in CPUC docket 00-11-001. September 2.

PG&E. 2003c. Transmission and Generation Interconnection Projects status report, Item No. 78, filed in CPUC docket 00-11-001. September 2.

PG&E. 2003d. Direct Testimony of Pacific Gas and Electric Company Regarding the Need for the Jefferson-Martin 230-KV Transmission Project in CPUC Docket No. A02-09-043. October 10.

R.W. Beck, et al. 2002. Final Report Energy Services Study, San Francisco Local Agency Formation Commission. July 18.

Rubenstein, Gary. 2004. Personal communication with Jeanne Solé. Based on BAAQMD Data. February 20.

San Francisco Board of Supervisors. 2001. Ordinance No. 124-01 on human health and environmental protections for new electric generation. May 21.

San Francisco Board of Supervisors. 2002. Resolution No. 827-02: endorsing the electricity resource plan for San Francisco, December 9.

San Francisco Public Utilities Commission (SFPUC) and San Francisco Department of Environment. 2002. The Electricity Resource Plan: Choosing San Francisco's Energy Future, Revised December.

San Francisco Public Utilities Commission. 2003. White Paper: The San Francisco Electrical Reliability Power Project. July 31.

Winter, Terry M. 2003a. President and Chief Executive Officer, CAISO, Letter to Kevin Dasso and Theresa Mueller. April 18.

Winter, Terry M. 2003b. President and Chief Executive Officer, CAISO, Letter to Supervisor Sophie Maxwell. October 22.