UTILITY UNDERGROUNDING TASK FORCE

REPORT TO

THE SAN FRANCISCO BOARD OF SUPERVISORS

JANUARY 26, 2007

Utility Undergrounding Task Force Report

Table of Contents

About the Utility Undergrounding Task Force

HISTORY

Board of Supervisors Resolution No. 706-04, creating the Utility Undergrounding Task Force, was approved on November 23, 2004. The Task Force was charged with providing input to the Board of Supervisors on the future of utility wire undergrounding within San Francisco by studying and making recommendations on:

- Improved procedures for legislating underground utility districts
- Best practices for allocation of available resources
- Alternate funding resources
- Options for reduction of utility undergrounding costs
- Coordination of utility undergrounding with other excavation projects
- Alternative tax options, e.g., formation of special benefit districts

The Task Force consisted of fifteen voting members, one from each supervisorial district and four appointed by the Mayor. In addition, the resolution specified that each of the following agencies appoint a representative: Department of Public Works, Public Utilities Commission, Pacific Gas & Electric Company, AT&T Communications, Comcast and RCN.

The writing of this report was a collaborative effort of Task Force members. The final draft was circulated among all members, including the appointed representatives of the utilities and City departments, for their review and commentary. There were no objections or disagreements on the content and recommendations of the final draft. It was approved by a unanimous vote at the last meeting of the Task Force on December 11, 2006.

The life of the Task Force was extended twice by resolutions of the Board and officially terminated on January 31, 2006.

MEMBERSHIP

Voting Members	*Affiliation*	*Voting Members*	*Affiliation*
Vacant	District 1	Josh Crandall	District 9
John Brooke	District 2	Richard Millet	District 10
Eric Freeman	District 3	Steve Currier	District 11
Stephen Gorski	District 4	Steve Aronowitz	Mayor
Charles Wixson	District 5	John Bitterman	Mayor
Jane Martin	District 6	John Newlin	Mayor
Chris Coghlan	District 7	Dan Weaver	Mayor
Bob Macray	District 8		

Non-voting Members		*Staff*	
Lynn Fong	DPW	Dan McKenna	DPW
Gino Graziani	Comcast	Barbara Moy	DPW/BSM
David Hankin	RCN	Jill Lerner	City Administrator
Jimi Harris	PG&E		
Marla Jurosek	PUC		
Bob Pickard	AT&T		

Executive Summary

CURRENT SITUATION and FINDINGS

Utility wire undergrounding in San Francisco is coming to a halt. When the current 45.8-mile plan ends in 2008, undergrounding will cease for the next twelve years unless we create new ways to fund and implement the program. In this report, the Utility Undergrounding Task Force (UUTF) proposes a citywide program to underground all remaining overhead wires in San Francisco within the next fifty years.

To achieve this goal, additional financial resources and operational efficiencies must be brought to bear. Fortunately the City of San Diego has developed a successful undergrounding program, authorized by the California Public Utilities Commission (CPUC) that may serve as a model for the City and County of San Francisco.

The actual costs of undergrounding in San Francisco under the current CPUC funding program (Rule 20A) have most recently averaged $3.97 million per mile, up from the estimate of $1 million per mile on which the 45.8-mile plan was based. Due to these cost increases, San Francisco has borrowed against 20A funds for approximately twelve years into the future. The main obstacle in continuing to underground the City's utilities is a lack of funding.

The current undergrounding program, although carefully and objectively planned, must be significantly revised. To date, the majority of undergrounding has been implemented in the northeast quadrant of the City. Projects have not been implemented utilizing a citywide plan that includes all neighborhoods equally. In addition, Rule 20A construction projects do not allow for unified construction management or review, thus leading to cost overruns and project delays.

An efficient and cost effective plan for San Francisco utility wire undergrounding with a detailed master planning process must be devised now.

Areas undergrounded to date have benefited from past City-funded or Rule 20A-funded undergrounding efforts. However, during the current program, 20A funds have been mortgaged into the future at a significant cost to the City's neighborhoods with overhead utility wires. These areas will not see any undergrounding activity for at least twelve years. This is not an equitable situation.

The UUTF has identified this inequity as one among other issues to be resolved. UUTF members have conducted research and held discussions with City departments and utility company representatives. The accompanying report identifies some of the program's endemic problems and recommends solutions for accomplishing future undergrounding.

GOALS:

- A comprehensive master plan must be drafted to ensure effective management of undergrounding resources.
- Funding should come from utility ratepayers of San Francisco regardless of their current underground or overhead utility service status. A combination of funding resources may be necessary and alternatives should be fully evaluated.
- The funding stream should be sufficient to achieve full undergrounding in San Francisco within fifty years or less.
- Those districts with the highest percentage of overhead wires should receive the highest percentage of overhead projects. However, all districts should receive some additional undergrounding projects during the course of the program. .

Over 3000 San Francisco residents responded to a survey on the UUTF website, and the vast majority expressed a desire for more undergrounding. More than 90% of the respondents stated they would be willing to pay a utility bill surcharge to support further undergrounding. (See **Appendix A, UUTF Survey**, for complete results.)

RECOMMENDATIONS:

For a program of this scope and complexity, secure and predictable funding sources must be in place. There are two types of funding programs available for 20A and 20B undergrounding projects.

Rule 20A Funding Facts:

- The 300% increase in 20A costs has resulted in a 300% increase in the schedule for 20A undergrounding completion. San Francisco cannot depend exclusively on 20A funding to achieve undergrounding in the City.
- San Francisco receives approximately $6 million in 20A funds annually (2005 dollars), which is enough for about 1.5 miles of undergrounding utility wires at current costs.
- 90% of the costs are paid for by the utilities; the electric utility company costs are passed on to ratepayers as capital improvements through the CPUC.
- 10% of the costs (dedicated new streetlights as required) is paid for by the City, property owners or the utility company.
- Telephone and cable 20A undergrounding costs are paid by each participating utility.
- The 20A program does not cover the seventy miles of rear easement overhead wires.

Rule 20B Funding Facts:

- 20B undergrounding is paid by utilities and by property owners, usually in a special assessment Mello-Roos District.
- San Francisco has not used the 20B program in the past, but it does provide an alternative to continue undergrounding in the absence of 20A funding.
- The property owner share of 20B project costs may be paid by the City if funding is available from other sources such as a utility surcharge dedicated to undergrounding.

Potential Model and Benefits:

- San Diego implemented a 3.5% surcharge on its residents' electric bills to collect 20B funds and speed up undergrounding. San Diego collects and spends approximately $50 million per-year from the surcharge and 20A funding.

Benefits of a 20B surcharge program are:

- An increased and constant funding stream is provided.
- Efficient, planning and program management.
- Costs are equitably distributed throughout the City, including the areas already undergrounded.
- Efficiency of the planning, design and construction phases is maximized through a citywide, strategic program.
- All local costs can be paid for through the program including required connections to buildings in undergrounding districts. Problems with non-compliant building owners are minimized.
- All overhead utility wires, including rear feed wires, can be undergrounded.

Additional benefits of a citywide Rule 20B or 20A/B program identified through UUTF research:

- Construction contracts can be competitively bid for undergrounding projects instead of the current situation in Rule 20A projects where the electric utility controls the contracting process.
- Undergrounding resources can be assigned to districts on an objective basis (i.e. percentage of overhead wires in the district).
- Continuous audits and ongoing management can increase efficiency and lower the cost-per-mile.
- The program can address road repaving, tree planting and sidewalk curb cuts for disabled pedestrian access as required or requested in undergrounding districts.

Undergrounding Scenarios for San Francisco

The estimates are in 2006 dollars, utilizing the cost of $5.7 million per mile. (See Chapter 3, "Rule 20B Undergrounding Costs in San Francisco.

1. No changes. Will result in discontinuing programmatic under-grounding within the City for at least twelve years.

2. Rule 20B Projects Only. Privately sponsored Rule 20B projects could yield modest success for the next twelve years if promoted by the City and various civic groups.

3. Rule 20A/B: With Electric Surcharge.

a. A 5.0% surcharge will yield $29 million annually (2006 dollars) and assuming a construction cost of $5.7 million/mile, 5.09 miles could be completed each year. This also assumes that the surcharge would not be reduced when Rule 20A funds become available to the City. After an estimated twelve years, Rule 20A dollars could become available. Therefore, a total of 6% of electric revenues ($34.8 million) could be available. About sixty-one miles would be undergrounded for the first twelve yrs, 409 miles would remain. At 6.10 miles per year, it would take approximately eighty years for completion.

b. A 3.5% surcharge will yield $20.3 million annually. Assuming a construction cost of $5.7 million/mile, 3.56 miles could be completed each year. Assume, as above, that the surcharge would not be reduced when Rule 20A funds become available to the City in twelve years. In the first twelve years, 42.7 miles would be completed, with 427.3 miles remaining. After Year Twelve, a 4.5% revenue stream would yield $26.1 million per year. At 4.6 miles per year, it would take approximately one hundred and five years to complete.

4. Rule 20A/20B: City/State Electric and Natural Gas Surcharge.

A 5% electric revenue surcharge on the electric revenue total of $580 million would provide $29 million (in 2006 dollars) yearly. Pacific Gas & Electric's ("PG&E") San Francisco 2005 gas revenues were $264 million. A 5% electric and gas surcharge would raise $42.2 million; this revenue would accomplish 7.4 miles per year in 20B undergrounding. In twelve years, about eighty-nine miles would be accomplished and about 381 miles would remain. After Year 12, Rule 20A could contribute one percent more for a total 6% electric and 5% gas surcharge. With this scenario, $48 million would be available and at 8.42 miles/year, utility wire undergrounding would be done in approximately fifty-seven years.

To accomplish this fifty-year goal in 2006 dollars would require 9.4 miles per year at a 2005 cost of $5.7 million per year or $53.6 million on average per year.

These estimates do not account for possibly cheaper costs by using alternative competitive contractors and possible economies that can be achieved utilizing a well

managed, rationally planned undergrounding program (see **Chapter 1 Goals**). Also, with a regular income stream from a utility bill surcharge, revenue bonds could be sold to speed up the process. Other funding streams in lieu of the electric surcharge, or in addition to it, would increase the rate of undergrounding in San Francisco.

CONCLUSION

Utility Undergrounding Task Force Recommendations:

1. Develop a long-term master plan and a properly funded program to underground all utility wires within fifty years.

2. Create a transparent community process that involves residents in the decision-making process.

3. Request the CPUC to approve an electric/natural gas surcharge for San Francisco residents.

4. Seek alternative funding sources for utility undergrounding.

5. Establish a City policy of no new overhead utility wires.

6. Implement a utility undergrounding program that reduces current project timelines by 50% and project costs by 25%.

CHAPTER 1

Operations

CURRENT SITUATION AND FINDINGS

In 1996, the San Francisco Board of Supervisors legislated the undergrounding of forty-two miles of overhead utility wires. (The program was subsequently expanded to 45.8 miles.) This was the first step in a lengthy process that is required by the California Public Utilities Commission (CPUC) in order to receive funding under the Rule 20A Undergrounding Program. These forty-two miles were selected utilizing criteria found in the CPUC Rule 20A Guidelines and from various neighborhood groups that had submitted petitions.

San Francisco has approximately 920 miles of dedicated streets and approximately seventy miles of rear yard feed overhead wires. At the completion of the current 45.8 mile program, San Francisco will have undergrounded 520 miles of overhead wires out of 990 miles, leaving 470 miles remaining (400 miles of street side overhead utility wires and about seventy miles of rear yard overhead utility wires remaining. At that time, estimated to be 2008, San Francisco will then have undergrounded 52.5% of its overhead utility wire system, leaving 47.5% for the future.

In 1997, the Department of Public Works (DPW) and Pacific Gas & Electric Company (PG&E) agreed to collaborate in an ambitious effort to underground forty-two miles. Previously, due to failure of San Francisco's petition process Rule 20A system, undergrounding projects were completed at a rate of approximately one mile per year. Undertaking forty-two miles within four and one-half years was unheard of and proves to be unheard of even to this day. The ten miles per year goal of the current plan is also the goal of the Utility Undergrounding Task Force's fifty-year plan.

Property owners who submitted petitions were told they had to pay for connecting their buildings to the new utility services as well as the bill for the purchase and installation of new streetlights. When the plan was unveiled, owners were not required to pay for new streetlights. The 45-mile plan did not fully start until 2000. The issues that the DPW Utility Undergrounding Program, PG&E and the other utilities encountered are enumerated below and can be used as a tool to assist in the planning and implementation of future undergrounding projects.

Prior to the beginning of the current program, the Controller's Office of the City and County of San Francisco had established that PG&E failed to pay the City $132,494 in franchise fees from its sales of gas and electricity to the Presidio from 1991 through 1995. A settlement based on litigation between PG&E and the City was set forth in the "Master Settlement Agreement" and Ordinance No. 304-97, File No. 45-97-50. A major component of the Master Agreement addressed financial aspects of the forty-two mile plan (later expanded to 45.8 miles). The Agreement specified that PG&E would pay the City $12.8 million, $3.5 million for administration of the Utility Undergrounding Program

as well as $9 million for the design, materials and installation of approximately 1,800 new City-owned streetlights.

Additionally, the planned underground construction would be coordinated with a PG&E planned natural gas pipeline replacement program. The goal of this coordination was to reduce construction disruption to the community and lower expenses by integrating gas trench line work with the overhead wire undergrounding construction.

The following sections provide more details on the undergrounding project activities and estimated timelines, as well as information on Rule 20A funding programs.

Table 1

Duration / **Activity**	6 mos.	1 yr.	18 mos.	2 yrs.	30 mos.	3 yrs.	42 mos.	4 yrs.
Legislate District								
Design								
Design Review								
Permitting								
Street Light Design								
Street Light Outreach								
Street Light Des. Modifications								
Below Ground Construction								
Street Light Construction								
Property Owner Notification								
Cabling Pulling								
Energize								
Property Owner Conversions								
Abatements As-Needed								
Poles Removed								

Typical Project Timeline and Process

Efficiencies described in this report can significantly shorten this timeline.

Funding

Rule 20A Funding: PG&E allocates undergrounding resources to each city and town in its service area pursuant to the rules established in Rule 20A. (Additional utility wires undergrounding funding rules are established for Rule 20B and 20C programs by PG&E

pursuant to CPUC regulations.) The 20A funding allocation is paid off, entered into the rate base, when the undergrounding projects are completed. All electric ratepayers in the PG&E service area pay for the Rule 20A undergrounding program. The amount of undergrounding resources allocated to each city is based upon the number of overhead wire-fed meters according to a complicated formula (see **Appendix C**).

Undergrounding of telephone and cable wires under Rule 20A is not paid for in the same way. These companies pay for their undergrounding through their respective company resources, and to the extent that CPUC or local jurisdictions regulate these rates, costs may be incorporated into the rates of telephone and cable ratepayers.

In 1997, PG&E reported that the Rule 20A funding allocation for San Francisco had an unspent surplus of about $24 million that was in danger of being lost if not used. Additionally, San Francisco was expected to receive an estimated annual Rule 20A allotment of $4.5 million per year. This annual allotment from 1997 through 2001 amounted to $18 million. The total combined amount, $42 million, was estimated in 1997 to be sufficient to cover the costs for the forty-two miles for PG&E to design and construct their underground facilities, remove all their overhead facilities and provide a service lateral to each property.

During this period, an additional 3.84 miles were added on to the original forty-two miles due to DPW capital improvement projects such as Third St., Cesar Chavez, Chinatown alleys and Octavia Boulevard. This increased the total to 45.8 miles.

See Table 2 below for a summary of Rule 20A allocation credits and costs applied against the credits.

Table 2

Year	Accumulated Credits	Allocation	Expenditures
1995	23,483,993		
1996		4,271,474	2,888,311
1997		4,386,614	2,119,070
1998		4,511,625	2,422,982
1999		4,642,745	2,755,369
2000		4,785,112	4,988,584
2001		4,982,587	7,363,450
2002		5,143,770	19,521,981
2003		5,305,021	43,790,578
2004		5,650,052	29,348,986
Total		**67,162,993**	**115,199,311**

PG&E San Francisco Rule 20A Allocations and Underground Costs

Table 2 documents the funds received and expended in the current Rule 20A program.

Issues Encountered

1. Lack of Construction Resources. PG&E: PG&E did not have sufficient resources to design, coordinate and construct the current program at a rate that was initially expected to take approximately four years. Even though, as funds became available, and PG&E responded by hiring design staff and contractors to assist with design and construction, the current resources appear to be strained and may not meet the anticipated completion date of 2008.

Under the Rule 20A program at current funding levels and costs per mile, it would take more than six hundred years for San Francisco to underground the street side overhead wires; the seventy miles of rear easement overhead wires in San Francisco are not covered by the Rule 20A program.

Other Utility Companies: AT&T and Comcast do not receive 20A funds to design and construct their underground facilities or to remove their overhead facilities.

The San Francisco Department of Telecommunications (DTIS), San Francisco Department of Parking and Traffic (DPT), and the San Francisco Municipal Railway (MUNI) also have overhead wire facilities and do not receive Rule 20A funds. The utility companies and departmental agencies may sometimes have a difficult time keeping pace with PG&E. The lack of advanced planning and resource allocation adds to the delay in the current program schedule.

2. Site Selection Criteria Not Strategic. Seventeen miles out of the total 45.8 miles included community petitioning as a criterion for selecting and legislating underground districts. A majority of property-owner signatures for each block were required for the block to be considered. Blocks were often included or excluded by a petition process in arbitrary or irrational ways. Blocks situated between or near undergrounded districts often became stranded islands of overhead wires and poles. Often these overhead wire areas include Municipal Railway transit streets—streets that arguably should be the first to be undergrounded.

To exacerbate the situation, new utility riser poles are needed to continue feeding overhead wire areas immediately adjacent to undergrounded areas, and owners in areas with overhead utilities see additional poles installed along their blocks. The undergrounding program staff, utility companies and City Hall have received countless letters, emails, faxes and telephone calls from disgruntled property owners who resent having been excluded from the current program.

3. Street Lights. The San Francisco Department of City Planning's Urban Design Plan states that streetlights are a significant part of the urban streetscape and that the material design as well as the performance of streetlights is important. The plan also states that designs should be varied to help define San Francisco neighborhoods.

A new streetlight system must be installed in underground project districts when the wooden utility poles are removed because in most situations, the streetlights are attached to the wooden poles. Some projects do not require a new streetlight system because the existing streetlights are fed underground and/or are on separate poles. Examples include streetlights affixed to existing MUNI strain-wire poles, etc.

Neighborhood groups have requested that the program include a master plan for streetlight selections. Attempting to meet community desires at the last minute can burden the program with delays. Also, long-term increased maintenance costs result from the need to stock various types of fixtures and parts.

A significant portion of the streetlight funding for the current program is paid by funds from the Master Settlement Agreement. The requirement to provide for streetlights has hampered the San Francisco 20A program from its inception. The Rule 20A program does not cover the estimated 10% of the project cost for new streetlights if the municipality owns and operates the new lights. San Francisco has no reliable funding mechanism for new streetlights required in underground districts.

Construction Issues

1. Customer Conversions. The construction of the underground substructure lasts approximately six to nine months, depending on the location and size of the project. Once this construction is completed and the cable has been placed in the new underground conduit, utility companies convert each individual property from overhead service to the new underground service in a process called “cutting-over”. Poles and overhead wires cannot be removed from a district until all properties are cut over. Due to recalcitrant property owners, this part of the undergrounding project can take longer than two years, or more than half the duration of a project.

San Francisco’s old and densely constructed built environment does not provide outside connection points for each utility agency. Providing exterior connection points on building walls simplifies the conversion process, while also reducing costs. Providing exterior connection points may, however, create an aesthetic issue since these connection points may damage the façade or its appearance of older buildings in a more visible manner than the overhead wire system.

2. San Francisco’s Density. After New York City, San Francisco is the second densest city in the United States. With a little over forty-nine square miles and a population exceeding 770,000, the associated infrastructure and unique architecture make right-of-way construction projects more costly and take longer to complete than other metropolitan areas. Also, the City requires strict adherence to construction standards often not required in other cities. Aboveground infrastructure is often placed adjacent to the public right-of-way (PROW) or on private property through easements. San Francisco often requires that these installations be constructed below ground, adding to both the cost and length of each project.

3. Permit Fees. San Francisco’s Public Works Code regulates work in the PROW through permits and code compliance. As previously mentioned the City’s density and character require such regulations. However, San Francisco’s code requirements can drive up costs as compared to other municipalities with less stringent code requirements.

Permit fees are assessed to agencies working in the PROW. For example, a small undergrounding project averages $25,000 in fees not including police services, while a large project averages $50,000 in fees not including police services. This represents approximately less than .1% in overall undergrounding project costs. One significant component in determining the project’s fee structure is the project duration. Consequently, the shorter the project duration from start to finish, the more cost effective it is.

4. Utility Construction Agreements. PG&E operates under a labor agreement that requires a certain percentage of infrastructure maintenance and construction to be performed by its in-house labor team. The operating Memorandum Of Understanding (MOU) for these services may be considerably higher than competitively-bid

construction contracts submitted by private firms. On projects that have been led by either Comcast or AT&T, the project cost has resulted in savings in the hundreds of thousands of dollars for each project.

5. Regular Independent Engineering Reviews and Reports. Currently each construction project is conducted and completed without an overview of how the work is done. From project design to the completion of project punch lists, no independent engineer reviews are conducted. Mistakes are often repeated in future projects. Inefficiencies are not noted or necessarily corrected in a comprehensive manner.

6. Construction Practices and Requirements. Providing service laterals to within one foot of the building face is covered in the Rule 20A program in San Francisco. Providing such service laterals can increase construction costs in future Rule 20B projects. Restoration requirements related to pavement and the amount of area open to excavation at any onetime can also increase construction costs.

GOAL

To implement a utility undergrounding program that reduces current project timelines by 50% and project costs by at least 25%.

RECOMMENDATIONS

1. Identifying Sufficient Resources for All Agencies. In future undergrounding, funding must be identified by all utilities and City agencies. Prior to commencing the current program, all of the utilities prepared annual operating budgets expecting an average of one or two miles of undergrounding to occur in any given fiscal year; however, the plan called for 10 miles per year. An aggressive program must include long-term capital planning by all affected utility companies and City agencies.

Undergrounding impacts City agencies such as MUNI, DPT and DTIS. MUNI distribution lines and DTIS facilities may need to be undergrounded as well as DPT parking signs reinstalled. Proper coordination and planning must be incorporated into the undergrounding process. A reliable funding source for the relocation work of these City agency facilities needs to be identified.

2. Streetlight Improvements. Currently the Master Settlement Agreement and the San Francisco Public Utilities Commission (SFPUC) fund streetlight construction associated with the Undergrounding Program. Funding has been established to complete the current legislated districts, but if undergrounding is to continue and accelerate, a dedicated funding source must be identified.

In addition, the community process to select the type of streetlight for each project should be streamlined by limiting the number and type of models available. After a community vetting process prior to the commencement of a new undergrounding program, a palette of streetlight choices should be created based upon neighborhood

definitions. The choices will then be offered to residents based upon their neighborhood for each new project.

Any requests for a variance should be prohibited or if allowed, the additional expense borne by the community sponsors. San Francisco currently has no process for passing through the additional costs of special street lighting requests. Such a funding mechanism should be adopted.

3. Site Selection. Future projects must be selected on the basis of efficiencies gained through constructing a strategic grid system based upon the (primarily electric) utility distribution system designs and economies of scale. Sites will always be selected based upon outside influences, but the majority of sites should maximize construction and system efficiencies. This should be the first priority, and all other considerations should be tiered below this consideration.

4. Customer Conversions. Based upon the San Diego model (see **Appendix B**), future San Francisco undergrounding programs should fund the cost of customer conversions and maximize efficiency through the use of a single competitively bid contract. Access to properties should be scheduled well in advance of the conversion process and strict adherence to schedule will save considerable construction time.

If a new plan does not fund property conversions, sufficient funds for low-income residents should be identified and a process to streamline all grant applications should be implemented.

5. San Francisco's Density. San Francisco will not change its architectural character or become less dense. Construction practices and code restrictions must be analyzed to allow for efficient construction in the existing City environment. Permit restrictions must be reviewed with the goal of improving efficiency while maintaining public safety. Likewise, construction practices that currently require specific construction designs must also be reviewed to decrease construction timelines and associated costs

6. Permit Fees and Regulations. As previously stated, City agencies currently charge fees for any excavation in the PROW. A review of those fees in relationship to the overall goals of the program should be considered and if warranted a mechanism to waive the fees or a portion of the fees should be considered. The Public Works Code and excavation regulations govern working in the public right-of-way. (See **www.sfgov.org/dpw**)

7. Competitive Construction Contracts. The majority of 20A undergrounding projects are not competitively bid. All projects should be bid competitively, and the City should review and approve the contracts based upon existing contract award policies and procedures. However, this practice should be reviewed within the first year of implementation to determine if actual cost savings are realized. The goal should be to minimize construction costs to maximize available funds.

8. Program Review. Annual program reviews utilizing an independent auditing firm or the Board of Supervisors Budget Analyst should be conducted for all projects. A summary report should be presented to the Board of Supervisors with associated process improvement recommendations. In addition, a biannual overall program audit should be conducted that focuses on a comprehensive evaluation of the program from project conception through completion. This audit should also be presented to the Board of Supervisors for review and program adjustment. The Task Force recognizes that the 20A program has no such auditing requirements; this is a significant difference between the PG&E Rule 20A program and the Rule 20B or 20A-B surcharge model program as established by the City of San Diego.

9. Non-profit Program Management. San Francisco might consider the establishment of a non-profit corporation to conduct its undergrounding programs if it is found that such an organization can do a better job than the City. All plans and programs of such an organization should be subject to public review and approval processes specified in this report.

CHAPTER 2

Site Selection and Master Plan Framework

CURRENT SITUATION and FINDINGS

DPW, in coordination with PG&E, identified approximately fifty-five miles of streets as eligible for undergrounding. Of the fifty-five miles, forty-two miles were selected. The criteria utilized to determine potential districts are delineated in the Rule 20A guidelines. (See **www.cpuc.ca.gov/ and Public Works Code, Article 18 [www.sfgov.org/dpw]**)

The major criteria are enumerated below:

1. Such undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric facilities. The street or road or right of way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic.

2. The street or road or right of way is considered an arterial street or major collector as defined in the Governor's Office of Planning and Research General Plan Guidelines.

3. The street or road or right of way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public.

4. An ordinance creating an underground district has been legislated.

5. The area is scheduled for a public street improvement, street reconstruction, street widening or realignment.

6. In addition to the criteria outlined above, all areas included into the original forty-two miles were areas designated for the PG&E gas main pipeline replacement project. Areas were selected because: neighborhood residents had submitted previously verified petitions; major street reconstruction programs were planned; or because they were prime areas for undergrounding.

These petition districts were originally subject to the assessment process to pay for required new streetlights in undergrounding districts. At the time the forty-two mile plan was adopted by the Board of Supervisors, the requirement for all petition district property owners to pay for the streetlights was dropped.

The petitions required the signatures of property owners. If a property is held in common, all parties listed on the County Assessor's records must sign. Each district included a minimum of four contiguous blocks. Only petitions with signatures of owners representing over 65% of the assessed footage of a block were considered for an undergrounding district.

GOALS

Develop and implement a comprehensive site selection policy that incorporates:

- Technical strategies,
- Policy/political decisions
- Equitable distribution of resources.

RECOMMENDATIONS:

1. Develop a Master Plan Process. An undergrounding master plan process is the key to an efficient and cost-effective utility undergrounding program in San Francisco. On an annual or biannual basis, the undergrounding plan for each two-year period should be established by the program manager and approved by the Board of Supervisors. A five-year plan framework for undergrounding should also be available for funding, planning and design purposes.

The five-year master plan must prioritize undergrounding projects within available funding resources in an objective and understandable manner. The plan must be a living document that accounts for improving the process, public input, new priorities and changing fund levels.

2. Develop a Plan for Allocation of Resources by Districts. Utility wire undergrounding should be allocated by geopolitical districts. Although there are many purposes for which the City is divided into districts, the best-known and most equitable in distribution of population is the division of the City into eleven supervisorial districts. Divisions, such as police districts are also well known and perhaps more stable. However, the Board of Supervisors, as the City's legislative decision-making body, is best suited to allocating undergrounding resources. This would help to assure that their constituents would receive an equitable distribution of undergrounding resources.

Undergrounding should be allocated by supervisorial districts according to the percent of total citywide overhead electric utility wire feeds in each district. The more overhead wire feeds a district has, the more undergrounding resources it should be assigned. An annual mayoral allocation of 20% or less for projects of citywide importance, as required, can also be a part of the undergrounding program in any particular year.

These Mayoral allocations should be included in the two-year plan when introduced. When not needed, the Mayoral allocations should be reallocated among the 80% district allocation. One could argue that this Mayoral allocation is disruptive to proper planning in that it demonstrates that capital projects planning is not known as far in advance as utility wire undergrounding planning. The Mayoral allocation should be considered a contingency to account for emergency conditions and should be used as little as possible because it interferes with the five year planning horizon proposed here.

New additions should be sent to a Board of Supervisors hearing on the five-year underground plan in January, before DPW finalizes the upcoming plan, and if possible in the previous June or before to hear public comments on the draft plan.

3. Identify Joint Trenching, Joint Paving and Other Cost Saving Opportunities.
The City should take advantage of all opportunities to lower undergrounding costs by joint trenching or joint paving. An example of a joint trenching opportunity is gas main placement and underground utility wire conduit placement in the same trench. An example of joint paving opportunity is utility wire undergrounding combined with the repaving of concrete streets, curbs and sidewalks on steep hillside slopes as required by the Excavation Code. The DPW five-year plan should be utilized as a planning tool and all work coordinated through the plan.

Significant cost savings are expected when undergrounding districts are designed and constructed in a strategic and cost-effective manner and when construction of underground systems are competitively bid. Construction and financial audits of undergrounding projects should be done on a regular basis.

4. Overhead Wires Policy. No additional overhead utility wires should be constructed in San Francisco. All new wiring should be installed underground.

5. Review Undergrounding Priorities. In establishing undergrounding priorities within districts, streets with a heavy concentration of overhead wires or vehicular traffic and streets with transit services that include overhead wires such as streetcar or trolley bus routes should be priorities. The Rule 20A guidelines also specify additional undergrounding priorities that may be utilized. It is important to minimize underground/overhead utility interfaces through strategic planning with existing and proposed underground districts. Small isolated underground districts should be discouraged for both cost and aesthetic reasons.

6. Establish an Annual Undergrounding Capacity. As part of the two-year and five-year undergrounding plan, the total undergrounding capacity in San Francisco for those years and the amount of undergrounding capacity that cannot be funded in the current and subsequent years by 20A and/or 20B City-funded surcharge projects should be identified annually.

When excess undergrounding capacity is identified, the City should establish an expedient process to allow property owners to form districts and pay the non-utility cost

of a 20B undergrounding project. This option should not be allowed when the City's undergrounding capacity is filled by a combination of 20A and/or City-funded 20B projects.

CHAPTER 3

RESOURCES

CURRENT SITUATION and FINDINGS

CPUC Rule 20A permits a city to mortgage up to five years of its Rule 20A allocations, i.e., a city can proceed with projects without having immediate funds dedicated to cover the associated costs. Because of the Master Settlement Agreement, the City and County of San Francisco has mortgaged, about twelve years of expected future 20A allocations. This was necessitated by cost overruns associated with completing the current plan mandated by the Master Settlement Agreement and the 3.84 miles added to the program by the City.

Unless additional funding sources are identified and utilized, or projects undertaken under 20B or 20C, no additional undergrounding can occur in the City and County of San Francisco for at least twelve years after the current 45.8-mile program is completed.

Concerns about Rule 20A and PG&E

No audit has ever been done to determine if San Francisco has been correctly allocated its share of Rule 20A funds. No audit of PG&E's handling of the underground conversion program has been undertaken. If audits were to be conducted it is possible that additional funding for underground work would become available.

An additional concern relates to the extraordinary cost difference between San Francisco and other California cities, such as San Diego. PG&E has charged about $4 million per mile ($5.7/mile fully loaded) to create the underground structure and to remove its overhead facilities. The City of San Diego reports that the average cost to achieve the same result in that city costs $1.7-$1.9 million per mile. (See **Appendix B**)

Rule 20B Undergrounding Costs in San Francisco

The UUTF requested and was provided by PG&E an estimate of the current cost of Rule 20B undergrounding in San Francisco. This estimate included four sample projects in the current Rule 20A program that have been completed and converts the costs to 20B estimates. The average cost per trench foot is $540; component costs are shown in Table 3 below. To calculate cost per mile, the trench ft cost is doubled because trenching almost always occurs on both sides of a street. Therefore, 10,560 or twice the 5280-feet-per-mile number multiplies the trench foot cost.

Table 3

Agency	Per/Linear ft.
PGE	$311
City Departments	$104
Other Utilities	$125
Total	$540

Rule 20B Estimated Cost Per Trench Foot (2006 dollars)

Cost for a 25-foot lot (excluding conversion costs) is $13,500. This cost does not take into account corner properties, side-yards along streets or the width of intersections; however these costs are incorporated into individual underground district design estimates provided by PG&E and thereby are incorporated into the UUTF 20B cost estimates. The 20B fully loaded local share estimated cost per mile (2006 dollars) is calculated to be $5.7 million.

GOAL

To provide a stable funding source(s) for the timely completion of undergrounding all overhead utility wires in San Francisco in an efficient and cost effective manner.

RECOMMENDATIONS

1. Alternative Funding Sources. With the commitment of Rule 20A funding to payment of current undergrounding project costs for twelve or more years into the future, effectively blocking undergrounding for many years to come, alternative sources to fund new districts must be found if conversions are to continue in the interim. Typically, resources for public improvements such as underground conversion take one of two forms: user based taxes, fees and charges or property owner based assessments. Rule 20A funds, being charges added to electric service fees, are user-based, and similar taxes surcharges and fees determined by actual use of a utility's service would fall into the same category. The funding alternatives to those forms of revenue generation are generally property owner-based, being included as additional special taxes or assessments attached to the ownership of the property to which the service is provided.

There are those who believe it is fair that property owners alone should pay for undergrounding because, based on the belief that property values increase in areas when overhead wires are placed underground, property owners benefit from the conversion. Convincing counter-arguments can be made that just as property owners have no special stake in the current delivery system, they have no particular stake in an undergrounded system. Everyone who lives in an undergrounding district, not just property owners, shares the immediate benefit that comes from living in or passing through an area that has wire-free vistas.

2. User-Based Resources. By completing the undergrounding of more than twice the amount of mileage for every dollar spent, and by instituting alternative funding sources, the City of San Diego each year relocates underground approximately 30-35 miles of overhead utility service. Of the approximately $50 million spent each year by San Diego to achieve that result, $10 million is funded by Rule 20A tariffs, covering projects that meet 20A criteria, and an additional $40 million is spent completing projects that may or may not satisfy Rule 20A requirements, but instead are found in residential areas that typically do not meet any of the Rule 20A "public interest" criteria.

San Diego's additional $40 million of non-20A revenue is generated from a 3.53% undergrounding surcharge, which the CPUC considers to be a franchise fee and permits San Diego Gas & Electric ("SDG&E") to pass on to its ratepayers along with the regular 3% franchise fee charged SDG&E by the City of San Diego for General Fund revenues. The undergrounding surcharge adds approximately $3 to the typical residential customer's monthly electric bill. The surcharge is earmarked solely for undergrounding projects.[1]

The City of San Diego was able to negotiate the surcharge because its franchise agreement with SDG&E provided for renegotiation in January 2001, and both sides agreed to increase the fees to cover undergrounding expenditures. In contrast, the San Francisco franchise agreement with PG&E, dating from 1939, provides for a .5% fee and no renegotiation.

Upon approving the surcharge pass-through to SDG&E's customers, the CPUC found that use of the surcharge by the City of San Diego was not limited by Rule 20A criteria because it was a franchise fee that the CPUC had no authority to control, and it also determined that once the revenue was received by the City it was no longer ratepayer money and not under the auspices of the CPUC. As a municipality, the City was free to use the funds as it saw fit.

As appropriate, the CPUC took no position regarding whether the surcharge was a special tax that would require voter approval, noting instead that it is not for the CPUC to interpret state and local law regarding those issues.

Because the franchise fee the San Francisco charges PG&E is only one-half of one percent on electric revenues, City and PG&E could institute a surcharge as high as 6% and still not equal the franchise fees currently charged by the City of San Diego.

3. Utility Users Tax. San Francisco currently assesses a 7.5% Utility Users Tax (UUT) on monthly charges made for electric, gas and water service to commercial customers within San Francisco. The funds, collected by each utility company and remitted to the City monthly, are added to the General Fund. Also finding its way into the General Fund is a 7.5% User Tax charged on all cellular telephone usage billed in San Francisco, without regard to the characterization of the service as commercial or residential. The UUT rate has not changed since the 1993-1994 fiscal year. The UUT for the City of Los Angeles is 10%, the State mean rate is 7.6% and the median is 7.5%.

For the 2004-2005 fiscal year, the Controller's Office estimated that $66.29 million of UUT would be collected on commercial utility sales of $884 million. If the tax were increased by just 1%, in line with the State sales tax charged in San Francisco, and the revenue generated were earmarked to fund undergrounding, the amount that could be collected for undergrounding would be approximately $8.8 million. If the rate were increased to Los Angeles levels, again being earmarked exclusively for undergrounding, the amount would be approximately $22 million, providing undergrounding revenues sufficient to convert about 3.9 miles each year utilizing the Rule 20B estimated cost of $5.7 million per mile.

According to PG&E data, during 2005 Electric Residential Revenue was $172,892,984. If the 7.5% UUT were expanded to include residential customers, specifically to complete utility undergrounding, the revenue for undergrounding projects would be nearly $13 million.

As a special tax to provide funds to underground utilities, a change to the UUT would require approval of two-thirds of registered voters in the area affected. [2]

4. Utility Connection Fees. San Francisco currently charges a $2.75 per-month, per-telephone connection Emergency Response Fee. The total revenue from that source during the 2004-05 fiscal year was $36.7 million. [3] The Board of Supervisors could consider increasing that fee to supplement other revenue sources available to fund undergrounding projects. A $1 per month increase would generate undergrounding revenue of approximately $13.35 million per year.

The Board of Supervisors also might explore adding a similar utility connection fee for electric meters because of the direct connection between utility undergrounding and the means for providing electric service. According to PG&E sources, on average there were 359,930 electric customers in San Francisco during 2005. Assessing a $2.75 per-customer, per-month electric connection fee would generate annual undergrounding program revenue of approximately $11.9 million. The ease or difficulty of charging these fees depends on the impact and interpretation of Proposition 218.

While instituting specific voter approval requirements for particular taxes, assessments and fees, Proposition 218 left open to interpretation the definition of "property related fees." If a fee is "property related,"[4] its creation or adjustment requires approval of either a majority of property owners or two-thirds vote of the electorate. The Board of Supervisors could choose which of those groups to include in the voting process, and may weight ballots in proportion to fee liability. If an electric meter connection fee were determined to be not "property related" no vote would be required by Proposition 218 before it is instituted. Additionally, it is possible that the franchise agreement with PG&E, or other limitations, may affect the City's ability to charge an electric meter connection fee.

5. Property Owner-Based Resources. Before discussing alternative forms of property owner-based resources it might be useful to understand the actual amount that owner(s) of a single property would be asked to pay under any alternative which would assess a direct charge for utility conversion.

As presented above, an undergrounding district would need to pay the cost of constructing the sub-structure and removing the PG&E overhead facilities (those costs typically covered by 20A funding), the cost of new street light design and construction and the cost of administration and staffing. [5] The charge for most San Francisco homes with 25 feet of linear frontage, as explained at the top of this chapter, would be about $13,500.

6. Mello-Roos (Community Facilities) Districts. In 1982, in response to Proposition 13, the limitation of local public agencies to increase property taxes based on a property's assessed value, the Mello-Roos Community Facilities District Act[6] was enacted to allow counties, cities and special districts to establish Community Facilities Districts (CFD). Designed to encourage public improvements and services, the Act specifically permits utility undergrounding CFD's.[7]

Pursuant to Mello-Roos, San Francisco could establish a CFD to include the properties of owners who want overhead utility wires in their neighborhood undergrounded. Formation of a CFD is instituted by the written request of two members of the Board of Supervisors or by a petition signed by at least ten percent of the registered voters in the District or by owners representing at least ten-percent of the area of land in the District. If the Board of Supervisors decides to proceed with the CFD, the question is submitted to those registered voters within the district (only including the property owners if there are fewer than twelve registered voters). At least two-thirds of the registered voters in the proposed district must approve the CFD before it can be created. If the CFD is formed, a Special Tax Lien is placed on each property within the district, and a Special Tax is paid per property each year. The Special Tax is not determined by the value of the property, but is instead calculated using a mathematical formula taking into account characteristics of the property (e.g. use of the property, the lot size and the square footage of structures located on it).

If the amount needed to complete the purpose of the CFD exceeds the amount that can be funded in a short amount of time, municipal bonds may be sold by the CFD with the Special Tax being used to pay the bond interest and principal. In addition, rent received by the CFD from use by the utility companies of the installed facilities, or from sale of the facilities to the utility companies, could be used to pay bond interest or principal.

There are no restrictions on the size of a CFD, so it would be possible to create numerous single districts throughout the City, or to form one large district. It is likely, however, that efficiency of scale would indicate that a larger district is more cost effective than a number of smaller districts.

The CFD might also qualify for 20B funding. For that to occur, all property owners would need to approve the CFD. Possibly seeking 100% property owner approval could follow the two-thirds required voting if less than 100% approval is achieved in the initial approval election. Property owner conversion costs could be included in a Rule 20B District. In a 20B CFD or other district, the City could pay the property owner costs for undergrounding, or a portion of the costs such as the design costs, etc.

7. Community Benefit Districts.

A Community Benefit District (CBD), also known as a Business Improvement District, is a voluntary funding mechanism by which property owners are levied a special assessment to fund neighborhood improvements. This type of district is similar to the CFD, but it is formed by city ordinance rather than state law and results in the formation of an independent non-profit entity rather than a statutory district under local jurisdiction.

Improvements within a CBD may include beautification projects, clean and safe programs, graffiti removal, tree maintenance, marketing and district promotions, and special events such as farmers markets and street festivals. The Mayor's Office of Economic and Workforce Development, the City agency that works with neighborhoods to form these assessment districts, has indicated that a CBD can be created to fund neighborhood undergrounding programs and that it may be created in residential areas as well as along commercial corridors.

The cost of setting up a CBD is approximately $45,000, a cost that, per linear foot, would drop as the district grows in size. Under this mechanism, a non-profit entity is formed, if none already exists, to collect and hold funds and to contract to undertake the project for which the CBD has been formed. A number of CBD entities have been created for various purposes in San Francisco but to date none for utility undergrounding.

The normal life of a CBD is fifteen years, and during that time funds for the district's purpose can come directly from special property tax assessments, or they can be borrowed from commercial lending institutions or raised from issuance of tax-exempt bonds with principal and interest being paid by direct assessment tax collections. As with Mello-Roos, for a CBD, a special tax is attached to each property in the district based on factors other than property value. Unlike Mello Roos, which requires approval

by two-thirds of the district's property owners, a CBD ultimately requires only majority approval by the property owners in the district and subsequent approval by the Board of Supervisors. The CBD charges to property owners take the form of a line item on each property tax bill. As with other districts, 20B funding would require that 100% of the property owners in the district approve utility undergrounding.

Table 4

Name of District	Tenderloin	Fisherman's Wharf	Noe Valley	Castro	2500 Mission St.	Union Sq.
# of Properties	605	105	176	270	20	97
Total Assessment	$932,413	$591,000	$219,000	$392,000	$75,000	$985,622
District Budget	$981,487	$622,615	$230,128	$413,500	$75,000	$1,300,000

Existing San Francisco Community Benefit Districts

8. Transfer Tax Fee. During the 2005 calendar year, 30,550 transfers of real property were recorded in the City and County of San Francisco. If an additional fee of $10 was charged per transfer and the total amount were earmarked for utilities undergrounding the program would receive approximately $305,550 each year. A fee of $100 for undergrounding would generate approximately $3.05 million each year.

9. Transfer Tax Rate. Currently, San Francisco charges a tax on non-exempt transfers of real property located within the City. The rate for each property transfer is determined by the value of the transfer. If the transfer value is between $100 and $250,000 the rate is $2.50 per $500 of value (translated, this results in an overall tax rate of approximately .5%). For transfers valued between $250,000 and $1 million the rate is $3.40 for each $500 of value (.68%) and for transfers for $1 million or more the rate of tax is $3.75 per $500 of value (.75%). [8]

During fiscal year 2004-2005, the City collected $78.89 million on transfers in excess of $1 million dollars, $37.16 million on transfers between $250,000 and $1 million and $.65 million on transfers of less than $250,000. Those revenues for the 2005-06 fiscal year are projected to be $66.34 million, $37.47 million and $.69 million, respectively. [9] If the transfer tax rates were increased by one-quarter of one percent just on transfers in excess of $1 million, based on projected 2005-06 figures the revenue generated would be $22.11 million. If all transfers in excess of $250,000 were assessed an additional one-quarter of one percent transfer tax, the revenue generated would be $34.5 million.[10]

The transfer tax rates have remained the same since 1994 because attempts to increase them have been unsuccessful. However, if there is sufficient grass roots support for undergrounding in San Francisco, and the revenue generated by increasing the rates is earmarked for undergrounding and no other purpose, an increase might be more likely to win voter approval.

10. Landscaping and Lighting Act of 1972. The Landscaping and Lighting Act of 1972 (LALA) [11] permitted a city to create assessment districts to fund landscaping and lighting projects. Funded by Special Taxes added to property tax bills with amounts calculated based on the property's size, square footage of structures and use, not on its value. As with a Commercial Benefit District, a LALA district requires approval by a majority of the property owners.

CHAPTER 4

Outreach

CURRENT SITUATION and FINDINGS

DPW, the Board of Supervisors and various utilities have engaged in communication and outreach with many individuals and groups about utility undergrounding. This outreach has been effective but limited. Due to the complexity and scope of undergrounding issues and the high level of interest, there remains significant misinformation about the current program and future undergrounding.

1. High level of Interest. Utility undergrounding continues to generate a high level of interest among members of the public. Inquiries to the Board of Supervisors and the DPW are common. Many residents want to know more about how to get their neighborhood included in the undergrounding program or want to understand why they are not currently being undergrounded.

2. Misinformation Abounds. Unfortunately, a high level of misinformation matches the high level of interest in utility undergrounding. Because the last round of undergrounding selection was not transparent, there remains confusion over what streets are on the list to be undergrounded and why certain streets were or were not selected.

A quasi-private and potentially secret petitioning process in past site selection programs has been a major concern to public officials, departmental staff and the general public.

One particular problem centers on the “interest list” maintained by DPW. This is a list of approximately 600 people who have expressed interest in having utilities on their streets undergrounded or sought out information on the program. There is a mistaken belief that this list will have some sort of priority in the next round of undergrounding. Some residents on the list believe that they have “signed up” for undergrounding. This type of misinformation creates unrealistic expectations, frustration and confusion. According to DPW staff, the list was created to inform interested members of the public about future opportunities related to undergrounding.

3. DPW is Disseminating Good Information. DPW is disseminating good information and attempting to educate the public about undergrounding. DPW maintains a comprehensive web site with background information for people interested in undergrounding. As mentioned above, DPW also has an undergrounding interest list of people, who have called, written, or emailed with questions about undergrounding. DPW also has a presentation about undergrounding they make to neighborhood groups

and others interested in learning more. PG&E has an undergrounding brochure and web site outlining the different types of undergrounding.

GOALS

Strong communication with all stakeholders in the utility undergrounding process is an important part of a successful utility undergrounding plan. The UUTF identified three communication and outreach goals:

1. An Open and Transparent Process. Utility undergrounding involves challenging policy choices that have a direct impact on residents, property owners, taxpayers and the general public. These choices benefit from public debate and discussion.

By creating a process whereby the public is informed of the process and decisions are made in open meetings, we can increase perceived fairness and legitimacy. Some of the utility undergrounding choices will require broad public support. Without an open process, public support will be difficult to build.

In the previous site selection process, the distribution of undergrounding resources has not been on an equal basis among city neighborhoods. Future site selection processes must address this inequality if the program is to be widely accepted as open, transparent and fair.

2. A Well-informed Public. Utility undergrounding is a confusing project. Misinformation can create problems in the future by reducing support for undergrounding projects. Public education should focus on the undergrounding site selection process, how the program is funded, and how implementation takes place.

3. Public Interaction with Decision-makers During the Process. From selecting which streets to underground to actually removing the overhead system, it is important that decision-makers interact with the public and listen to feedback from stakeholders.

Decision makers include: the Board of Supervisors on policy decisions; DPW, other impacted City agencies and utility companies on operational decisions; and any others involved in the planning and implementation of undergrounding. There should be opportunities for personal interaction, as well as solicitation of written feedback through the Internet and traditional mail.

RECOMMENDATIONS

There are many ways to create an open and transparent process, a better-informed public and more interaction with decision-makers. This type of process will increase public support and understanding of the undergrounding program.

1. Updates on current projects. DPW should continue to keep the public informed about the current undergrounding projects, especially in areas where undergrounding is taking place. Neighborhood residents experiencing undergrounding have many questions about which streets will be undergrounded and what type of construction to expect during the project. They also need to know about the expenses and scheduling associated with the conversion process and any other streetscape projects that may be completed at the same time.

2. Information about new projects selection and timing. People are very concerned with how the next round of undergrounding will be selected and when it will occur. As soon as a proposed selection process is ready for discussion, DPW, the Board of Supervisors and the utilities should distribute the information widely. Special attention should be paid to informing people on the DPW information list who have expressed interest in this project.

3. Communication with Board of Supervisors on the undergrounding process. The Board of Supervisors handles a high volume of questions and complaints about utility undergrounding. By educating Board aides, DPW can ensure the right information is being distributed. A briefing for aides on undergrounding and updates on progress or delays can help keep the public informed as well.

4. Community meetings before and after the next phase selection. Before any decisions are made about what streets to underground, there should be general community meetings to discuss the process and get public input and buy-in to whatever method is chosen. It is important that the public have a chance to provide input, instead of being presented with a list of already selected streets. The public should have an opportunity to give feedback about the selection process and criteria, not just the individual streets or the final selections. These meetings could take place in each Board of Supervisors District and be co-sponsored by neighborhood groups interested in undergrounding.

After the selection process is established, it will be important to do another round of public meetings before the selections are finalized. The public should have a chance to comment on the selected streets and give feedback on how the selection process was implemented, how the selection criteria were applied, and any perceived problems.

5. Inserts in PG&E mailings. An easy way to reach many of the undergrounding stakeholders is through utility bills. An insert in the monthly PG&E bill would inform many of the people most interested in undergrounding of any changes to the program. Multiple inserts may be cost prohibitive. However, a few well-timed mailings in advance

of the next phase of undergrounding, with references to additional information resources could go a long way toward keeping the public informed.

6. Policy Makers. The undergrounding program needs the support of the City's policy makers to ensure a long-term goal oriented program. The support should take the form of outreach via each Board of Supervisor member that results in input and communication. This will result in cost savings and provide clear direction for City staff.

7. Citizens Advisory Committee (CAC). A Utility Undergrounding Citizens Advisory Committee (CAC) should be established to advise City departments involved in future undergrounding programs.

8. Citizens How to Kit. The City should prepare an information packet to assist citizens in determining how to best move undergrounding forward in their neighborhood. The Kit should contain the legal requirements, advice on how to organize neighborhoods for a 20B project, estimated resources and agency contact information.

FOOTNOTES

[1] CPUC Resolution E-3788, May 14, 2002

[2] Articles XIII C and D of the California Constitution, added Proposition 218, the "Right to Vote on Taxes Act," November, 1996.

[3] Office of the Treasurer of the City and County of San Francisco

[4] Except for those related to water, sewer or refuse collection.

[5] For this discussion, it is assumed that property owners will separately pay for the conversion of their property, as they do now, and that the non-electric utility companies will pay their share of the costs. To the extent any of those costs are also allocated to an assessment district, the cost per linear foot will increase accordingly.

[6] California Government Code Section 53311 et seq.

[7] Government Code Section 53313.5

[8] Example: a non-exempt sale of property for $1 million currently generates a transfer tax of $7,500. The non-exempt sale of property for $500,000 would generate a transfer tax of $3,400.

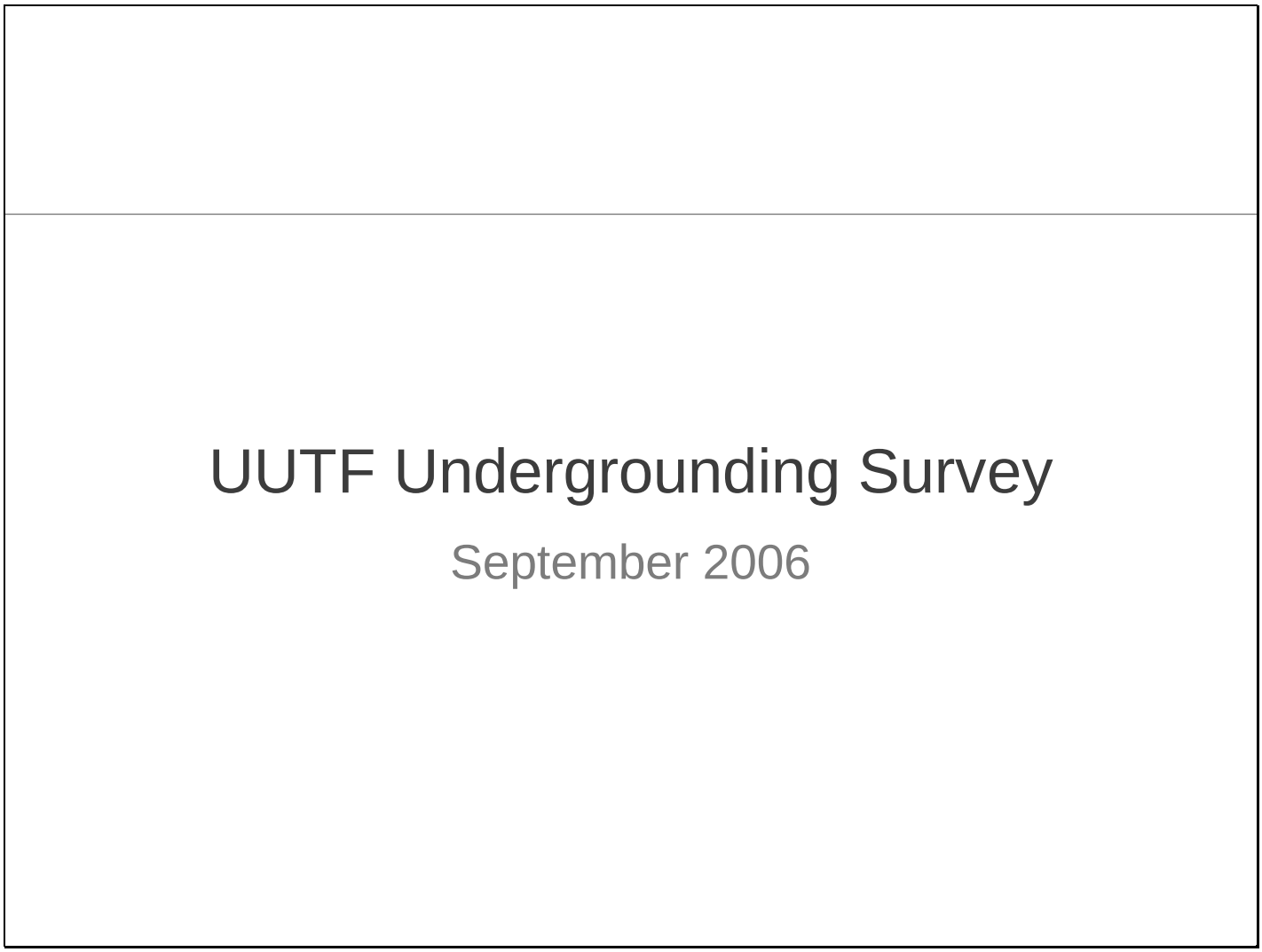
[9] Controller's Office. FY2005-06 Six-Month Budget Status Report, page 14.

[10] The increase in transfer tax on a $1 million sale would be from $7,500 to $10,000 and on a $500,000 sale the transfer would increase from $3,400 to $4,650.

[11] California Streets and Highways Code Section 22500 et seq.

APPENDIX A

UUTF Survey



Introduction

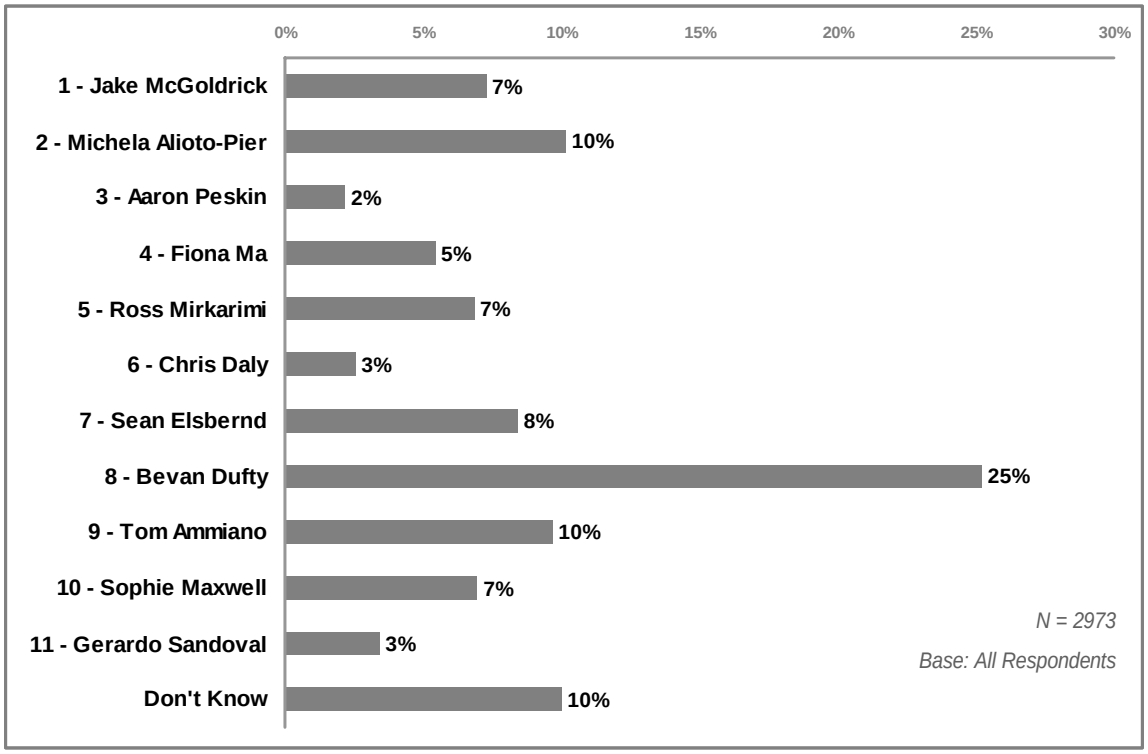
We surveyed 3013 San Francisco residents

- A custom survey instrument was designed to measure the interest of city residents in future utility wire undergrounding efforts
- The survey was conducted online, through a web based interviewing process from August 15 – September 15, 2006
- Outreach to residents was conducted via broad based email lists, supervisor newsletters, a DPW press release, and media coverage
- Sample was self-selected and not necessarily representative of all San Francisco residents

Survey Results

Supervisorial District of Residence

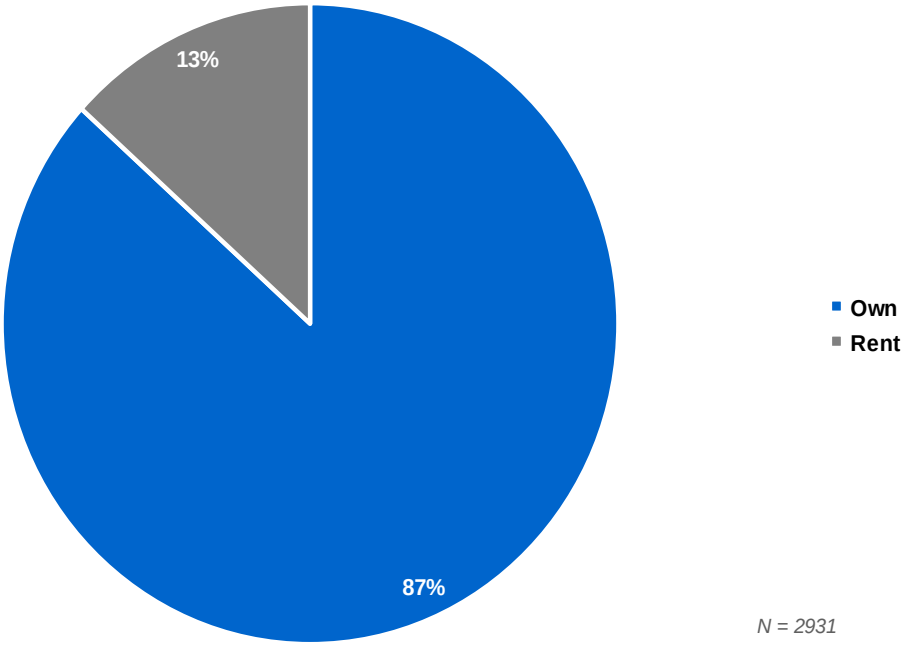
We collected a citywide sample that includes respondents from every district



Q: Which supervisorial district do you live in?

Own vs. Rent

87% of respondents own their residence



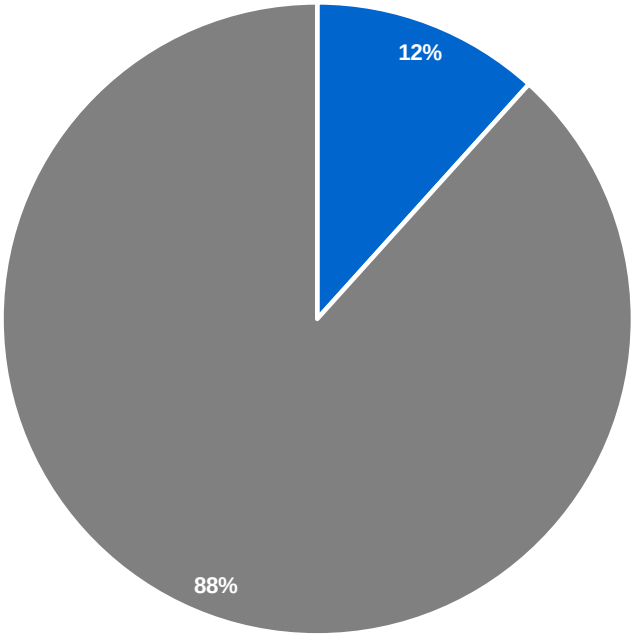
N = 2931

Base: All Respondents

Q: Do you own or rent your residence?

Underground vs. Overhead

88% live on streets with utility wires and poles aboveground



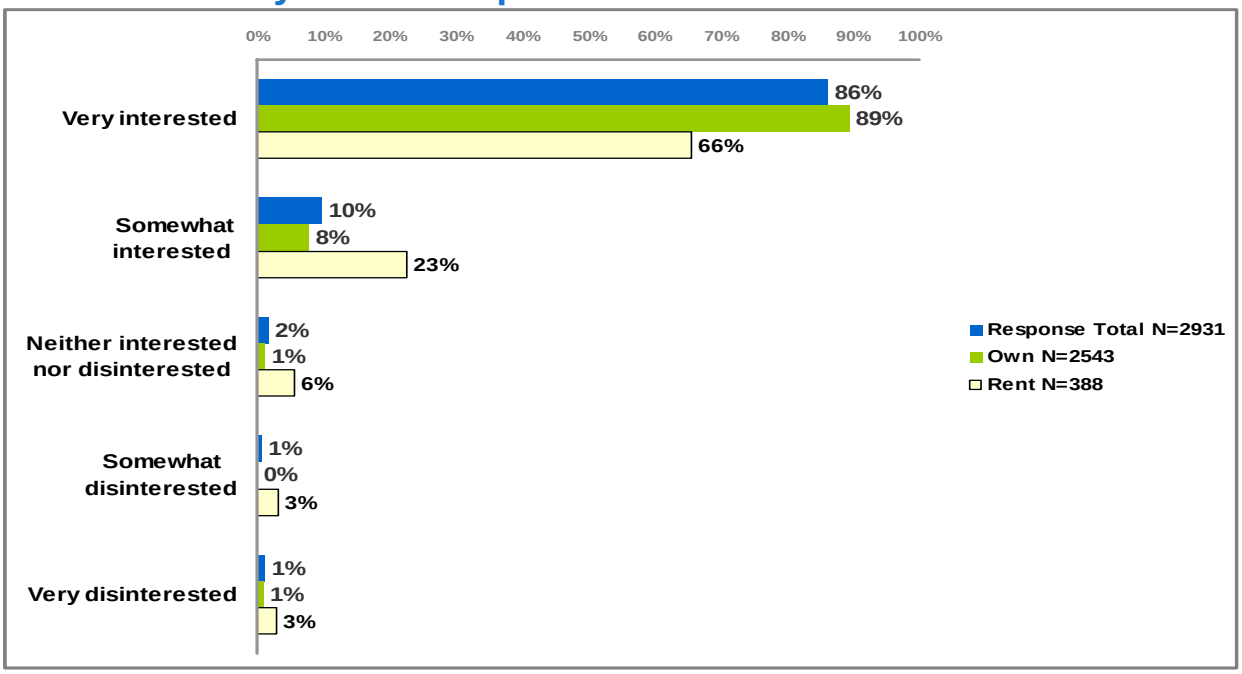
N = 2931

Base: All Respondents

Q: Are the utility wires on your street undergrounded? In other words are the utility wires buried and overhead wires and poles removed on your street?

Interest in Undergounding Efforts

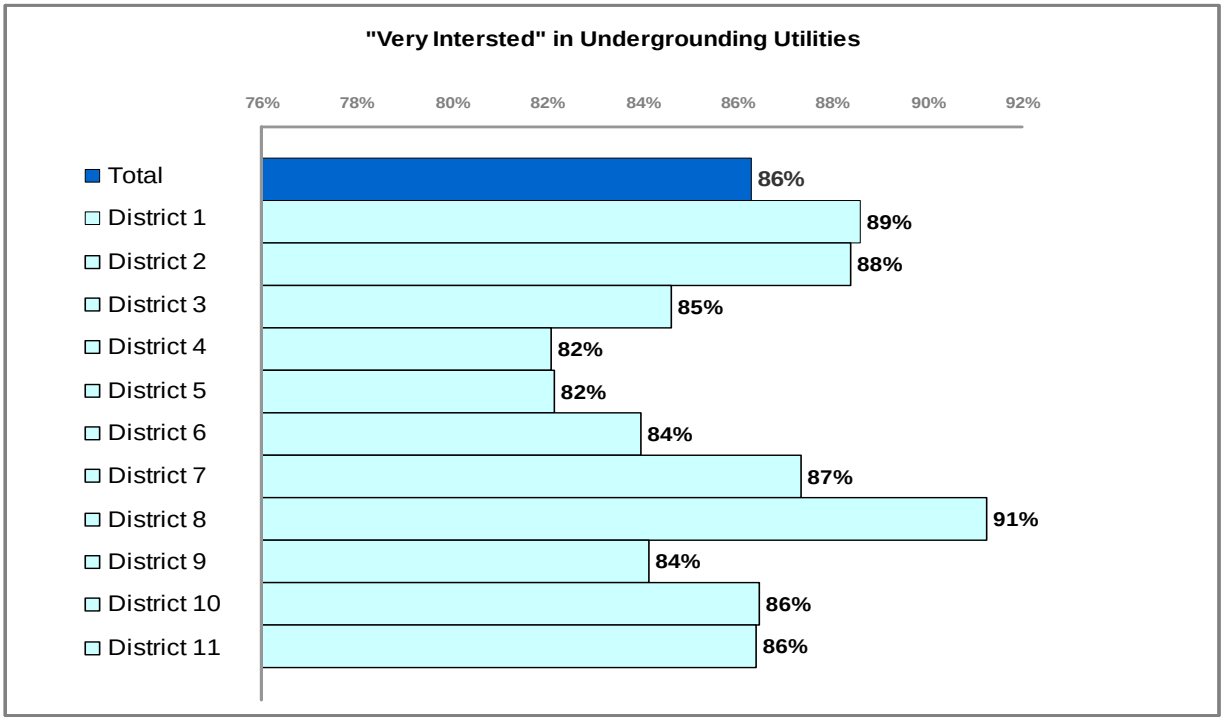
Owners and Renters are very interested in the City's efforts to remove utility wires and poles



Q: How interested are you in the city's efforts to remove overhead utility wires and utility poles in San Francisco?

Interest in Undergounding Efforts – by District

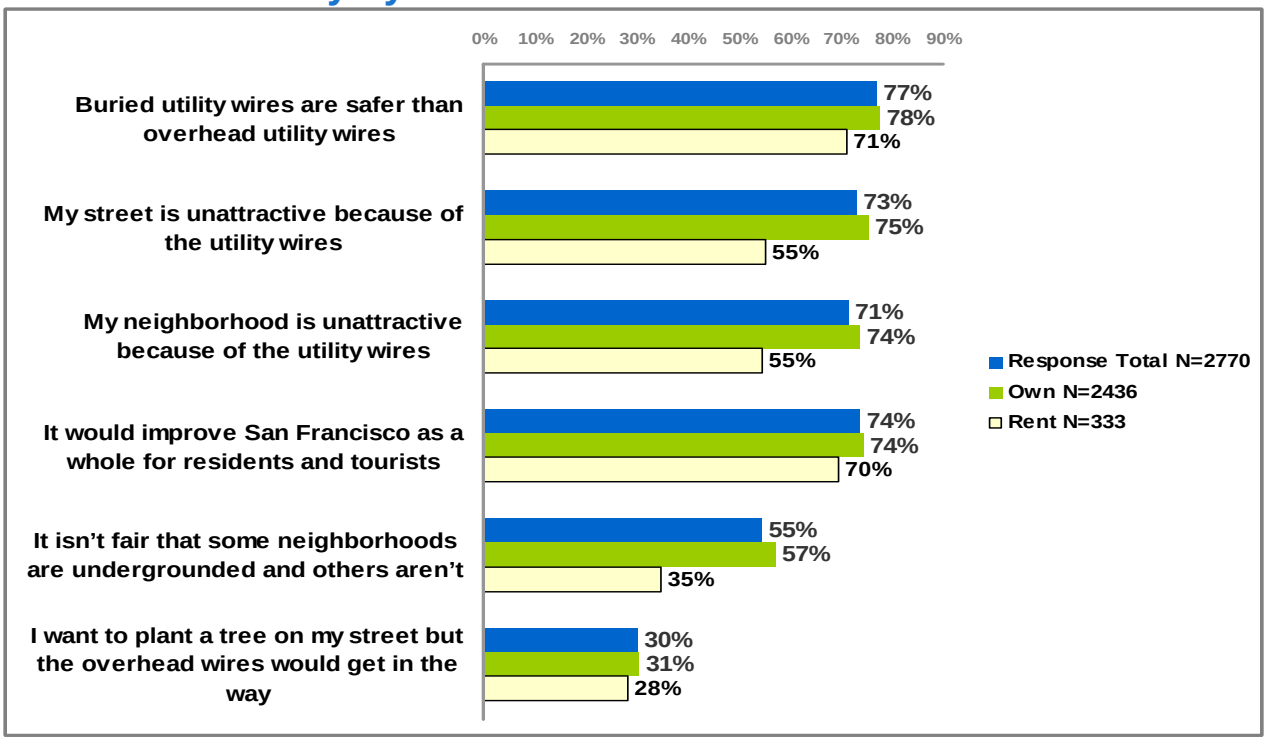
The vast majority of respondents from every district are "very interested" in undergrounding utilities



Q: How interested are you in the city's efforts to remove overhead utility wires and utility poles in San Francisco?

Reasons Why Undergrounding is Important

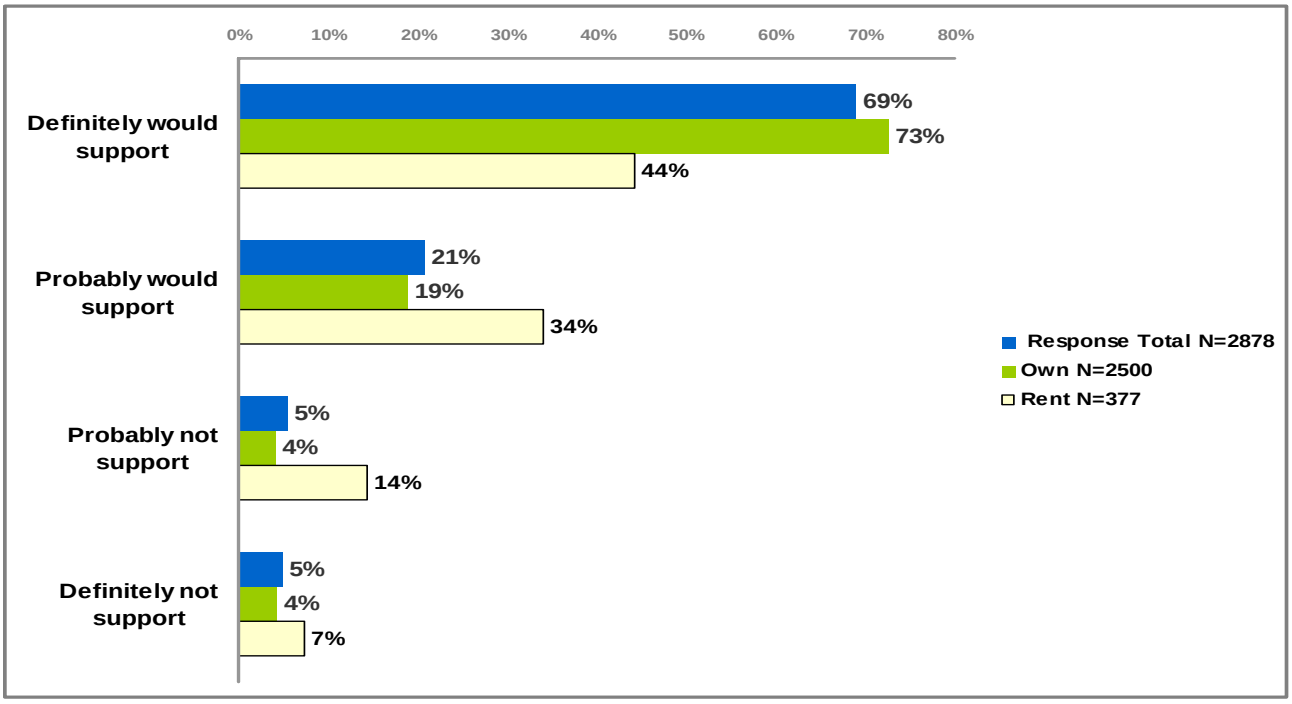
Safety (77%) is the most important reason for undergrounding followed closely by aesthetics



Q: Why is it important for San Francisco to underground its utility wires? Please rate each reason on a 5-point scale where "5" means "Very Important" and "1" means "Not Important at All." Select one per each row

Support Contribution for Undergrounding

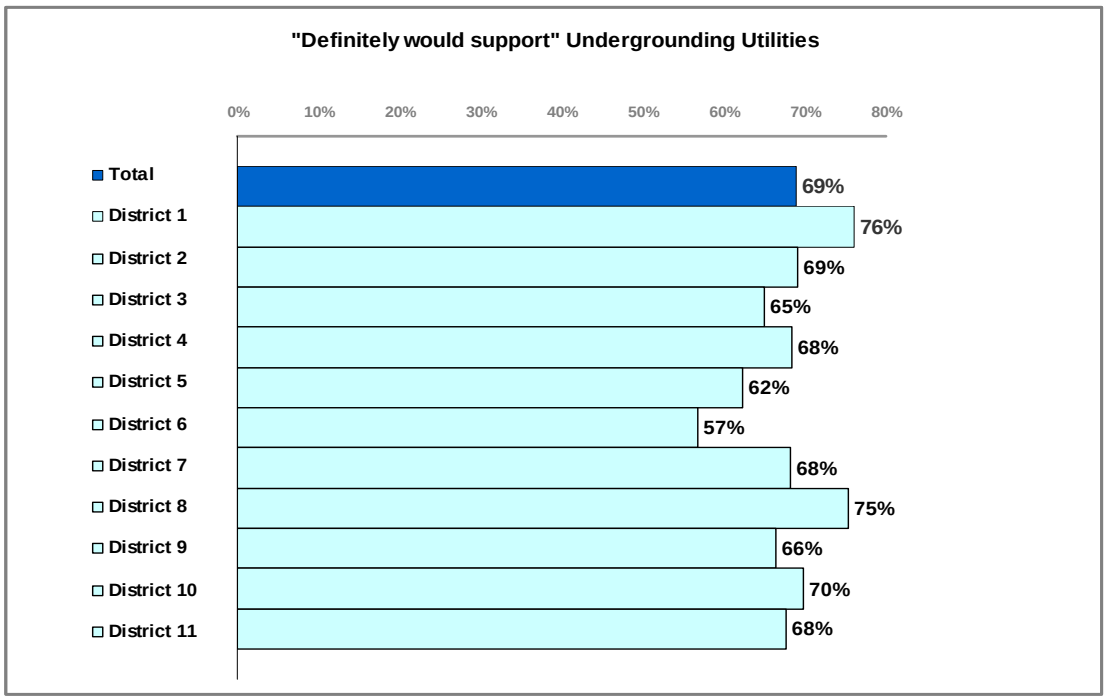
92% of owners and 78% renters would "definitely" or "probably" support the city in its efforts by contributing $2 - $4 per month



Q: If the city required all residents to contribute between $2 to $4 per month to a fund that would be used exclusively for the purpose of undergrounding utility wires for all of San Francisco neighborhoods would you be willing to support this effort?

Support Contribution for Undergrounding – by District

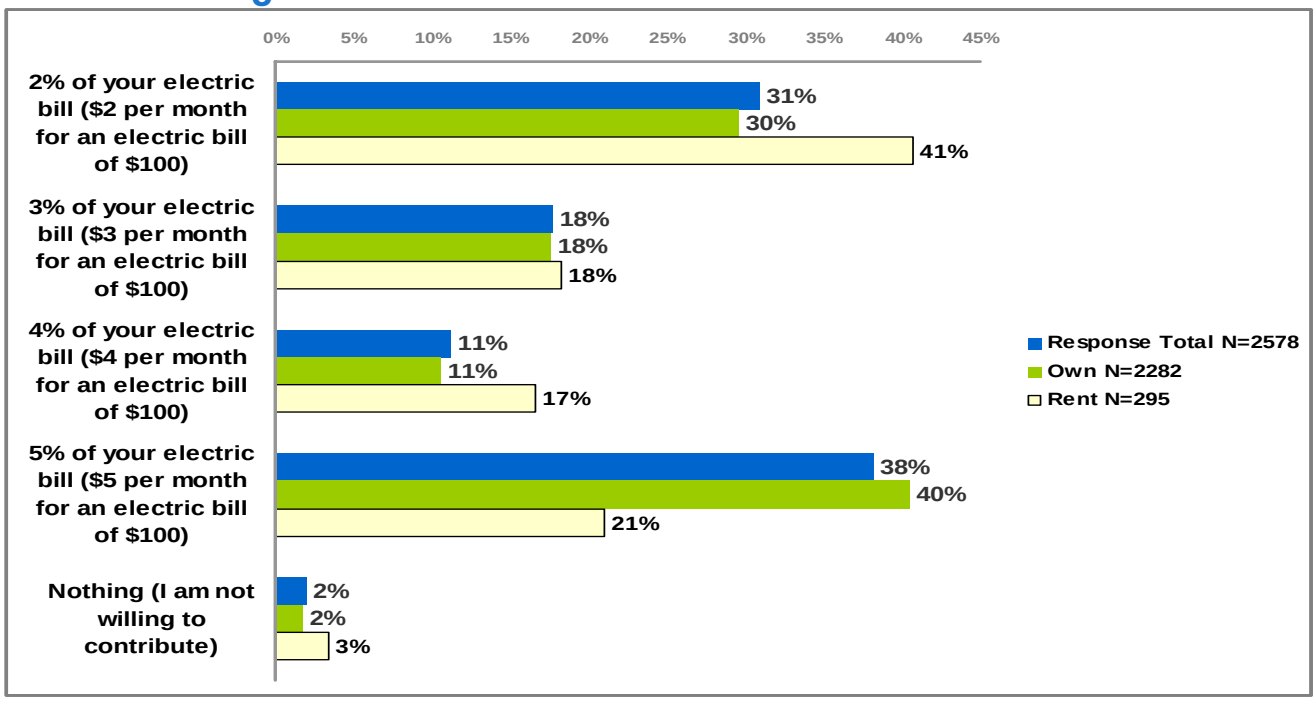
Support for undergrounding is high in every district



Q: If the city required all residents to contribute between $2 to $4 per month to a fund that would be used exclusively for the purpose of undergrounding utility wires for all of San Francisco neighborhoods would you be willing to support this effort?

Comfort with Surcharge Level

38% of respondents are comfortable with a 5% surcharge of their electric bill – only 2% of owners and 3% of renters surveyed are not willing to contribute



Q: To collect these funds PG&E would add a surcharge fee to your electric bill based on a percentage of your total electric bill. Again the funds would be used exclusively for the purpose of undergrounding utility wires for all San Francisco neighborhoods. How much as a percent of your utility bill would you be comfortable contributing per month?

UUTF Undergrounding Survey - City of San Francisco, September 2006.

12

Key Findings

There is significant interest in undergrounding utility wires and poles throughout San Francisco

- Over 3000 residents, citywide, completed the survey voluntarily

Interest and support for undergrounding utilities is shared by owners and renters

- Owners skew higher in both interest and level of support, but a significant majority (78%) of renters say they would “definitely” or “probably” support undergrounding efforts at a level between $2 – $4 per month

Even residents who live on streets that have underground utilities are interested and willing to support continued undergrounding efforts in San Francisco

- 91% are very interested or somewhat interested in undergrounding
- 75% say they would “definitely” or “probably” support undergrounding efforts at a level between $2 - $4 per month

APPENDIX B

SAN DIEGO MODEL SUMMARY:

Partners/Funding

The City of San Diego Underground Utilities Program is made up of City engineers and support staff who work with San Diego Gas and Electric (SDG&E), SBC and Cox Communications or Time Warner Cable (depending on the area of the city). We work as partners in removing certain overhead power and communication poles and wires that are currently above ground, and placing them below ground for the safety of pedestrians, for the improved appearance of neighborhoods, and for the increased reliability of electric and cable systems.

In 1967 the California Public Utilities Commission (CPUC) issued Decision 73708, Case 8209, which mandates that all electric utility companies, subject to regulation by the CPUC, annually budget funds for the undergrounding of overhead lines in the public right-of-way. The electric utility company, following priorities established by the local agencies within its service area, accomplishes this work. The ongoing process within San Diego is a response to decision 73078, Case 8209 which is more commonly referred to as Rule 20A. Approximately $10 million worth of Rule 20A projects are completed in the city each year. Under Resolution E-3788, the City spends an additional amount of money, approximately $44 million each year, on surcharge projects, which quadruples the pace of undergrounding throughout the city. The increased franchise fee authorized by the CPUC in Resolution E-3788 funds surcharge projects. Projects that fall into the surcharge category are typically found in residential areas that do not meet Rule 20A criteria.

Public Hearing Process

Prior to the commencement of any design work, the City Council must create an Underground Utility District. In accordance with the San Diego Municipal Code, the City Council holds public hearings in order to create an Underground Utility District. All residents and property owners within an Underground Utility District are mailed a Public Hearing Notice and a map of the proposed area to be converted to underground. The Public Hearing Notice informs property owners that they own property within an area the City Council is intending to underground. The notice explains what the possible impacts are to owning property within an Underground Utility District. Any member of the public may attend or speak at the Public Hearing. After the Public Hearing, all property owners within the Underground Utility District are sent a copy of the Council Resolution and a map of the newly created Underground Utility District.

Design Process

Once the City Council has created an Underground Utility District, the design process begins. This typically takes 12-24 months to complete. During this time,

residents may see engineers placing marks on the street, surveyors performing field surveys, or other professionals who are involved in the design process such as those who gather property information or who videotape existing field conditions. Construction of underground utility systems and the subsequent removal of overhead utility systems typically take between eighteen and thirty-six months for most large projects.

Notification Process

A public forum takes place once a month and people in affected communities are invited to attend to hear detailed information about the undergrounding work that will soon be taking place in their community, on their street and at their house or business. It also provides attendees the opportunity to ask process and procedure-related questions about the work that will be done.

All property owners receive notices prior to the start of construction. Property owners will receive an additional notice prior to any work occurring on private property.

Approximately 6 months prior to the start of construction, property owners will receive a request to enter into a written agreement allowing SDG&E onto their private property in order to perform the trenching and other related work that will prepare their property to receive underground utility service. This agreement is referred to as a Permit To Enter (PDF: 99K).

Approximately 3 weeks prior to the start of construction, a door hanger (PDF: 342K) from SDG&E will be placed on the doors of all residents. The door hanger will contain a name and phone number in order to contact the electrical contractor directly. A second door hanger is placed approximately 2 weeks prior to any work on individual private properties. This door hanger provides a contact name and phone number for the trenching contractor who will be working on the property.

Construction Process

Construction of underground utility systems and the subsequent removal of overhead utility systems typically take between 18 and 24 months for most large projects. This process consists of four phases: Trenching, cabling, cut-overs and pole removal.

Phase I: Trenching

In this phase, crews create a trench and install round plastic conduit below the surface of the roadway. The crews will also trench up to each of the homes and businesses at this time. This is the most community-impacted phase of construction and typically can be expected to last 9 to 12 months. On average, most trenching crews can perform 100 feet of trenching or more per day, so trenching operations can be expected to be in front of any particular home or business for just a few days. During this phase, a separate electrical contractor will be working on the electrical panels of the individual homes and businesses in order to prepare them to receive the new underground service.

Phase II: Cabling

In this phase, technicians place new utility lines within the new conduits. The new lines are then energized and brought into service. Residents will most likely hardly notice the few crews who perform this work as this work has very little community impact. This phase can be expected to last between 6 to 9 months.

During this phase, residents will probably notice the new transformer and cable boxes and pedestals being placed above ground near the curbs. These boxes are necessary for the underground system and cannot be placed underground for system reliability reasons.

Phase III: Cut-Overs

Once a new underground system is in place and energized, and all properties have been prepared to receive underground service, all properties are switched over from the overhead lines to the new underground systems. This phase will typically take one to two months.

Phase IV: Pole Removal

When 100% of properties have been switched over to the new underground system, the overhead systems are de-energized and removed. This phase can last two to three months.

Post Construction: Streetlights and Trees

Once the overhead utility lines are placed, there is still some work left to finish the projects. The streetlights that once were attached to the wooden poles must be replaced, the roadway must be resurfaced and, if applicable, street trees installed where necessary.

Street Lights

New concrete streetlight poles are installed in accordance with the City's current street light standards. In many cases residents will notice that the lighting locations have moved from their old locations and that additional lighting has been added. Since new lights cannot be placed until old poles are removed, there may be a short period without any street lighting. When property owners are notified of public hearings, they are provided with a map of the project including proposed lighting locations.

Trees

All reasonable steps are taken to protect trees while work is in progress. Where safety is a concern, a tree may need to be removed. All tree removals are performed according to City polices and permitting process.

The City will provide and plant a new tree for any property owner who is willing to water and care for the tree until it has become established. More information about this opportunity is provided to property owners through the mail prior to construction.

APPENDIX C

Rule 20A Allocation Formula:

The amount allocated to each city and county in 1990 shall be the highest of:

1) The amount allocated to the city or county in 1989, which amount shall be allocated in the same ratio that the number of overhead meters in such city or unincorporated area of any county bears to the total system overhead meters; or

2) The amount the city or county would receive if PG&E's total annual budgeted amount for undergrounding provided in 1989 were allocated in the same ratio that the number of overhead meters in each city or the unincorporated area of each county bears to the total system overhead meters based on the latest count of overhead meters available prior to establishing the 1990 allocations; or

3) The amount the city or county would receive if PG&E's total annual budgeted amount for undergrounding provided in 1989 were allocated as follows: Fifty percent of the budgeted amount allocated in the same ratio that the number of overhead meters in any city or the unincorporated area of any county bears to the total system overhead meters; and Fifty percent of the budgeted amount allocated in the same ratio that the total number of meters in any city or the unincorporated area of any county bears to the total system meters.

Except as provided above, the amount allocated for undergrounding within any city or the unincorporated area of any county in 1991 and later years shall use the amount actually allocated to the city or county in 1990 as the base, and any changes from the 1990 level in PG&E's total annual budgeted amount for undergrounding shall be allocated to individual cities and counties as follows:

1) Fifty percent of the change from the 1990 total budgeted amount shall be allocated in the same ratio that the number of overhead meters in any city or unincorporated area of any county bears to the total system overhead meters; and

2) Fifty percent of the change from the 1990 total budgeted amount shall be allocated in the same ratio that the total number of meters in any city or the unincorporated area of any county bears to the total system meters.

However, these provisions shall not apply to PG&E where the total amount available for allocation under Rule 20-A is equal to or greater than 1.5 times the previous year's statewide average on a per customer basis. In such cases, PG&E's total annual budgeted amount for undergrounding within any city or the unincorporated area of any county shall be allocated in the same ratio that the number of overhead meters in the city or unincorporated area of any county bears to the total system overhead meters.