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**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

In the Matter of the Application of SIERRA
PACIFIC POWER COMPANY (U903-E) for
a Permit to Construct Electrical Facilities With
Voltages Between 50 kV and 200 kV: The 625
and 650 Line Upgrade Project

A1008024

Application 10-08-____
(Filed August 30, 2010)

**APPLICATION OF SIERRA PACIFIC POWER COMPANY FOR A PERMIT TO
CONSTRUCT ELECTRICAL FACILITIES WITH VOLTAGES BETWEEN 50
kV AND 200 kV: THE 625 AND 650 LINE UPGRADE PROJECT
(Portions of Volume II: Proponent's Environmental Assessment have been redacted
due to their confidential nature)**

Volume I: Application

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Dated: August 30, 2010

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STATE OF CALIFORNIA**

In the Matter of the Application of SIERRA
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kV AND 200 kV: THE 625 AND 650 LINE UPGRADE PROJECT**

I. INTRODUCTION

Pursuant of California Public Utilities Commission (Commission) General Order 131D (GO 131D), Sierra Pacific Power Company (Sierra or SPPCo) respectfully submits this application (Application) for a Permit to Construct (PTC) authorizing SPPCo to construct the 625 and 650 Line Upgrade Project (the Project). The Project consists of (1) Rebuilding the existing 60 kV 625 transmission line from Kings Beach to Tahoe City as a 120 kV facility in a new right-of-way paralleling the Mount Watson Road; (2) rebuilding most of the existing 60 kV 650 transmission line from Truckee to Kings Beach as a 120 kV facility largely within the existing right-of-way; (3) converting the existing Northstar 650 tap into a fold; (4) constructing the new Kings Beach 120 kV substation in the Kings Beach Diesel Generation Facility and decommissioning the existing Brockway Substation; (5) reconstructing the Tahoe City Substation as a 120 kV Substation; and, (6) modifying the existing North Truckee Switching Station, Northstar Substation, and Squaw Valley substation to accommodate the conversion of 60 kV system to a 120 kV system.

II. BACKGROUND AND SUMMARY OF REQUEST

The North Lake Tahoe transmission system is a loop comprised of a series of 60-kV and 120-kV transmission lines running from Truckee south to Squaw Valley continuing south to Tahoe City, then east to Kings Beach and then north back to Truckee. Specifically, the following lines comprise this loop:

- One 60-kV transmission line (609 Line) and one 120-kV transmission line (132 Line) from Truckee to Squaw Valley;
- One 60-kV transmission line from Squaw Valley to Tahoe City (629 Line);
- One 60-kV transmission line from Tahoe City to Kings Beach (625 Line);
and
- One 60-kV transmission Line from Kings Beach to Truckee (650 Line).

All of these transmission lines combined can supply a maximum of 88 megavolt-amperes (MVA) of electricity to the North Lake Tahoe area.

The purpose of the Project is to maintain a safe and reliable transmission system for the North Lake Tahoe area, while accommodating current and projected future growth. Presently, the North Lake Tahoe transmission system does not have single-contingency reliability; therefore, if one of several critical lines is lost during an intense storm event, a severe power outage could occur. Currently, the 625 Line experiences the most outages in the North Lake Tahoe transmission system due to snow loading and downed trees. Additionally, because the present line is constructed of wood poles, fire danger is an ever-present concern. Single-contingency reliability can be achieved by

upgrading the 625 Line and the 650 Line to 120-kV conductors and insulators. Utilizing steel poles will further enhance the reliability of the lines.

A Proponent's Environmental Assessment (PEA) prepared for the Project is attached to this Application. The PEA will be referenced in the Application, where appropriate, as the source of information required in an Application for a PTC pursuant to GO 131D, Section IX.B. Additional required information not discussed in the PEA, including Sierra's Balance Sheet, Income Statement, and Articles of Incorporation, are attached as appendices to this Application. A complete project description can be found in Chapter 3 of the PEA. A statement of purpose and need for the Project can be found in Chapter 2 of the PEA.

Construction of the Project is scheduled to begin May 1, 2012 and to be completed by October 15, 2014. A schedule for the project is included in this Application as Appendix C: "The 625 and 650 Line Upgrade Project Schedule". The estimated cost of the Project is \$23,472,578.00.

Upon completion of its review of the Application and preparation of the Initial Study, SPPCo requests that the Commission issue and certify an appropriate environmental document and issue a PTC authorizing SPPCo to construct the Project as set forth in this Application and the attached PEA within the timelines set forth in Section III.H of this Application.

III. STATUTORY AND PROCEDURAL REQUIREMENTS

A. Applicant

The applicant, Sierra Pacific Power Company, is an electric public utility company incorporated in Nevada and authorized to do business in California and Nevada.

SPPCo's principle place of business is 6100 Neil Road, Reno, Nevada 89511. Please address correspondence or communications regarding to this Application to:

with a copy to:

Christopher A. Hilen
Associate General Counsel
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6100 Neil Road
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Phone: (775) 834-5696
Fax: (775) 834-4811
e-mail: chilien@nvenergy.com

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Phone: (775) 834-4020
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e-mail: eweldon@nvenergy.com

B. Articles Of Incorporation

A copy of SPPCo's Restated Articles of Incorporation, certified by the California Secretary of State, was filed with the Commission with Application No. A. 92-05-040 and is incorporated herein by reference; pursuant to Rule 2.2 of the Commission's Rules of Practice and Procedure.

C. Balance Sheet and Statement of Income

Appendix A to this Application contains copies of SPPCo's balance sheet as of June 30, 2010 and the statement of income for the period ending June 30, 2010.

D. Description of Sierra Pacific Power Company

Sierra's is a wholly-owned subsidiary of NV Energy, Inc., a holding company whose principal subsidiaries are Nevada Power Company, the electric utility for most of southern Nevada, and Sierra Pacific Power Company, the electric utility for most of northern Nevada and the Lake Tahoe area of California. Sierra also distributes natural gas in the Reno-Sparks area of northern Nevada.

E. Service Territory

Sierra's service territory includes six California counties - Alpine, El Dorado, Plumas, Placer, Sierra, and Nevada Counties - and thirteen counties in Nevada. A list of counties and municipalities service by the project is attached hereto in Appendix B.

F. Location Of Items Required In a Permit To Construct Pursuant To GO 131D, Section IX.B

Nearly all of the information required to be included in a PTC application pursuant to GO 131D, Section IX.B is found in the Proponents Environmental Assessment.

Information as required for a PTC application has been cross-referenced to the PEA in the following text. The PTC application requirements of GO 131D, Section IX.B are in italics, and the PEA reference to each requirement follows in plain text.

- a. *A description of the proposed power line or substation facilities, including the proposed power line route; proposed power line equipment, such as tower design and appearance, heights, conductor sizes, voltages, capacities, substations, switchyards, etc., and a proposed schedule for authorization, construction, and commencement of operation of the facilities.*
 - Descriptions of the Project are found in the Executive Summary, Chapter 1, Chapter 2, Chapter 3, and throughout Chapter 4 of the PEA.
 - Descriptions of the proposed transmission lines can be found in Chapter 3.5.0 with detailed drawings found on Figures 3-4, Attachment 3-A, and Attachment 3-C.

- Description of the proposed modification to substations can be found in Chapter 3.5.1 with detailed drawings found in Attachment 3-D.
 - A detailed substation equipment list can be found in Table 3-3.
 - The project schedule is attached to this Application as Appendix C.
- b. *A map of the proposed power line routing or substation location showing populated areas, parks, recreational areas, scenic areas, and existing electrical transmission or power lines within 300 feet of the proposed route or substation.*
- A Project Vicinity Map can be found on Figure 3-1. Existing and Proposed transmission route maps can be found on Figures 3-3 and 3-4. Resource specific maps of the project can be found throughout Chapter 4 of the PEA.
- c. *Reasons for adoption of the power line route or substation locations selected, including comparison with alternative routes or locations, including the advantages and disadvantages of each.*
- Reasons for the adoption of selected routes, including alternative comparisons, can be found in Chapter 5.2 of the PEA.
- d. *A listing of governmental agencies with which the proposed power line route or substation location reviews have been undertaken, including a written agency response to applicant's written request for a brief position statement by that agency. In the absence of a written agency position statement, the utility may submit a statement of its understanding of the position of such agencies.*

- Sierra met with Ms. Chloe Lukins and Mr. Michael Rosauer with the Commission's Energy Division on September 19, 2007 to discuss the initial North Tahoe 625/ 650 Project in order to assess the Commission's concerns regarding the Project. The initial proposed Project included rebuilding both transmission lines in their current right-of-ways.
- Sierra met with Mr. Bob Rodman of the US Forest Service-Lake Tahoe Basin Management Unit (USFS-LTBMU) on September 25, 2007 to discuss the initial North Tahoe 625 / 650 Project in order to assess the agency's concerns regarding the Project. Project included rebuilding both transmission lines in their current right-of-ways.
- Sierra Pacific Power met with the USFS-LTBMU in March 2008 in preparation of submitting the Project's Preliminary Plan of Development for the Project. The USFS-LTBMU objected to the Project's proposal of a permanent access road along the existing 625 transmission line right-of-way and asked SPPCo to relocate the transmission line towards the Mount Watson Road in order to satisfy SPPCo's need for permanent access to the transmission line. This action prompted a partial redevelopment, design, and survey of the 625 line portion of the project.
- SPPCo met with the USFS-LTBMU's resource specialists in October of 2008 on a field trip along the 650 transmission line and the newly proposed 625 line relocated towards the Mount Watson Road in order to determine any fatal flaws with the proposed new right-of-way.

- In a joint meeting, SPPCo met with resource specialist and planners with the USFS-LTBMU and the Tahoe Regional Planning Agency (TRPA) on 2/2/2009 regarding the Project and to determine visual resource simulation locations to be incorporated into the various environmental documents to be produced for the PEA.
 - In a joint field trip, SPPCo met with resource specialist and planners with the USFS-LTBMU and the Commission on September 16 and 17, 2009 to discuss impacts to resources and to facilitate a better understanding of the project with both lead agencies.
 - SPPCo met with the U.S. Army Corps of Engineers – Martis Valley/Engelbright Lake Park on February 28, 2010 to discuss the project and the Corps’ concerns regarding the project as it crosses a portion of the Martis Valley Park.
- e. *A PEA or equivalent information on the environmental impact of the project in accordance with the provisions of CEQA and this Commission’s Rules of Practice and Procedure 17.1 and 17.3. If a PEA is filed, it may include the data described in Items a through d above.*
- A PEA is attached to this application.

G. Compliance With GO 131D, Section X

GO 131D, Section X requires applications for a PTC to describe measure taken to reduce potential exposure to electric and magnetic fields (EMF) generated by the propose facilities. A complete description of EMF-related issues is contained in SPPCo’s Electric

and Magnetic Fields document for this Project, which is attached as Appendix F to the Application.

H. Compliance with Rule 2.1 (c)

In compliance with Rule 2.1(c) of the Commissions' Rules of Practice and Procedure (California Code of Regulations, Title 20), SPPCo is required to state in the Application "[t]he proposed category for the proceeding, the need for hearing, the issues to be considered, and a proposed schedule." SPPCo proposes to categorize the Application as a rate-setting proceeding, and SPPCo anticipates that a hearing will not be necessary. This proceeding involves the Commission's: (1) environmental review of the Project in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code §21000 *et seq.*) and the Commission's GO 131D; and (2) issuance of a PTC authorizing SPPCo to construct the Project.

To that end, SPPCo proposes the following procedural schedule for this Application:

August 31, 2010	Application filed.
September 25, 2010	Application accepted as complete.
October 2010	Initial Study issued.
July 2011	Draft CEQA-NEPA document (EIR/EIS) issued for comment.
November 2011	Draft decision issued.
March 2012	Final Commission decision issued and Final CEQA/NEPA document approved.

I. Statutory Authority

This Application is made pursuant to the provisions of CEQA, GO 131D, the Commission's Rules of Practice and Procedure, and prior orders and resolutions of the Commission.

J. Public Notice

Pursuant to GO 131D, Section XI.A, notice of this Application shall be given: (1) to certain public agencies and legislative bodies; (2) to owners of property located on or within 300 feet of the Project area; (3) by advertisement in a newspaper or newspapers in general circulations; and (4) by posting a notice on-site and offsite at the project location.

Sierra will give proper notice within the time limits prescribed in GO 131D. A copy of the Notice of Application for a Permit to Construct and list of newspapers which will publish the notice are contained in Appendix D. A copy of the Certificate of Service of Notice of Application for a Permit to Construct and a service list are contained in Appendix E.

K. Supporting Appendices and Attachments

Appendices A through E and the attached PEA listed below are made a part of this Application.

- Appendix A: Balance Sheet and Statement of Income as of July 31, 2009
- Appendix B: List of States, Counties, and Communities Served by this Project
- Appendix C: The 625 and 650 Line Upgrade Project Schedule
- Appendix D: Notice of Application for a Permit to Construct
- Appendix E; Certificate of Service of Notice of Application for a Permit to Construct
- Appendix F: Electric and Magnetic Field Document

- Attachment: Proponent's Environmental Assessment

L. Compliance with Rule 2.5

In accordance with Rule 2.5 of the Commission's Rules of Practice and Procedure, SPPCo is enclosing a deposit to be applied to the costs the Commission incurs to prepare an environmental impact report for the Project.

M. Request for Ex Parte Relief

Sierra requests that the relief requested in this Application be provided ex parte as provided for in GO 131D, Section IX.B.6.

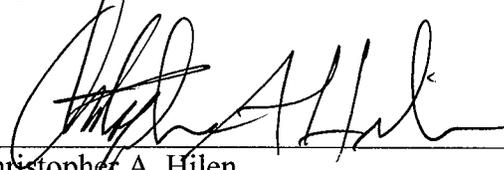
N. Request for Timely Relief

Sierra requests the Commission to issue a decision within the time limits prescribed by Government Code Section 65920 et seq. (the Permit Streamlining Act) as provided for in GO 131D, Section IX.B.6.

IV. CONCLUSION

Sierra Pacific Power Company, d/b/a NV Energy respectfully requests the Commission to issue a PTC authorizing SPPCo to construct The 625 and 650 Line Upgrade Project as described in this Application and the attached PEA. SPPCo further requests that the relief be provided ex parte and within the time limits prescribed by the Permit Streamlining Act.

Respectfully submitted,



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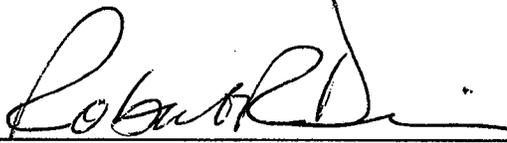
Dated: August 30, 2010

VERIFICATION

I am an officer of the applicant corporation herein, and am authorized to make the verification of its behalf. I am informed and believe that the matters stated in the foregoing document are true.

I declare under penalty of perjury that the forgoing is true and correct.

Executed this 30th day of August, 2010, at Las Vegas, Nevada

A handwritten signature in black ink, appearing to read "Roberto R. Denis", written over a horizontal line.

ROBERTO R. DENIS
SENIOR VICE PRESIDENT, ENERGY DELIVERY
SIERRA PACIFIC POWER COMPANY
Telephone: (702) 402-5660

**APPENDIX A: BALANCE SHEET AND STATEMENT OF INCOME AS
OF
June 30, 2010**

NV Energy, Inc.

Quarterly Balance Sheet

Period Ended	6/30/2010
	Update
	8/9/2010
In millions of USD (except for per share items)	
Cash & Equivalents	133.81
Cash and Short Term Investments	133.81
Accounts Receivable - Trade, Gross	452.89
Provision for Doubtful Accounts	-28.85
Accounts Receivable - Trade, Net	424.04
Receivables - Other	--
Total Receivables, Net	424.04
Fuel - Inventory	120.22
Total Inventory	120.22
Deferred Income Tax - Current Asset	166.24
Deferred Gas Cost	--
Other Current Assets	50.58
Other Current Assets, Total	216.82
Total Current Assets	894.89
Construction in Progress - Gross	871.86
Property / Plant / Equipment, Total - Gross	871.86
Property / Plant / Equipment, Total - Net	871.86
Utility Plant - Gross	10,965.77
Utility Plant Accumulated Depreciation	-2,995.75
Utility Plant, Net	7,970.03
Total Utility Plant, Net	7,970.03
LT Investments - Other	46.45
Long Term Investments	46.45
Pension Benefits - Overfunded	257.43
Defered Income Tax - Long Term Asset	1,241.34
Other Long Term Assets	431.4
Other Long Term Assets, Total	1,930.17
Total Assets	11,713.39
Accounts Payable	313.42
Accrued Expenses	129.99
Notes Payable / Short Term Debt	0

Current Portion of Long Term Debt / Capital Leases	357.16
Other Current Liabilities	415.9
Other Current liabilities, Total	415.9
Total Current Liabilities	1,216.47
Long Term Debt	5,242.44
Total Long Term Debt	5,242.44
Total Debt	5,599.61
Deferred Income Tax – Long Term Liability	1,171.76
Deferred Investment Tax Credit	21.1
Deferred Income Tax	1,192.86
Pension Benefits - Underfunded	140.62
Other Long Term Liabilities	710.24
Other Liabilities, Total	850.85
Total Liabilities	8,502.63
Common Stock	235.11
Common Stock, Total	235.11
Additional Paid-In Capital	2,703.30
Retained Earnings (Accumulated Deficit)	278.78
Other Equity	--
Other Comprehensive Income	-6.43
Other Equity, Total	-6.43
Total Equity	3,210.76
Total Liabilities & Shareholders' Equity	11,713.39
Shares Outstanding - Common Stock Primary Issue	235.11
Total Common Shares Outstanding	235.11
Total Current Assets less Inventory	774.66
Quick Ratio	0.64
Current Ratio	0.74
Net Debt	5,465.80
Tangible Book Value	3,210.76
Tangible Book Value per Share	13.66
Total Long Term Debt, Supplemental	5,536.45
Long Term Debt Maturing within 1 Year	0

Long Term Debt Maturing in Year 2	364
Long Term Debt Maturing in Year 3	293.67
Long Term Debt Maturing in Year 4	525
Long Term Debt Maturing in Year 5	355.04
Long Term Debt Maturing in 2-3 Years	657.67
Long Term Debt Maturing in 4-5 Years	880.04
Long Term Debt Maturing in Year 6 & Beyond	3,998.74

NV Energy, Inc.

Quarterly Income Statement

Period Ended	6/30/2010
	Update
	8/9/2010
In millions of USD (except for per share items)	
Electric Operations	785.36
Gas Operations	--
Other Utility Revenue	--
Revenue	785.36
Total Revenue	785.36
Purchased Power	165.32
Fuel Purchased for Resale	25.15
Cost of Revenue, Total	190.48
Fuel Expense	181.66
Operations & Maintenance	132.93
Depreciation	84.7
Depreciation / Amortization	84.7
Other Unusual Expense (Income)	--
Unusual Expense (Income)	--
Property & Other Taxes	15.94
Other Operating Expense	54.93
Other Operating Expenses, Total	70.87
Total Operating Expense	660.63
Operating Income	124.73
Interest Expense - Non-Operating	-86.7
Interest Expense, Net Non-Operating	-86.7
Investment Income - Non-Operating	--
Interest / Investment Income, Non-Operating	--
Interest Income (Expense), Net-Non-Operating, Total	-86.7
Allowance for Funds Used During Construction	13.06
Other Non-Operating Income (Expense)	2.75
Other, Net	2.75
Net Income Before Taxes	53.84
Provision for Income Taxes	16.9

Net Income After Taxes	36.95
Net Income Before Extraordinary Items	36.95
Net Income	36.95
Income Available to Common Excluding Extraordinary Items	36.95
Income Available to Common Stocks Including Extraordinary Items	36.95
Basic Weighted Average Shares	235
Basic EPS Excluding Extraordinary Items	0.16
Basic EPS Including Extraordinary Items	0.16
Dilution Adjustment	0
Diluted Net Income	36.95
Diluted Weighted Average Shares	236.13
Diluted EPS Excluding Extraordinary Items	0.16
Diluted EPS Including Extraordinary Items	0.16
DPS - Common Stock Primary Issue	0.11
Interest Expense, Supplemental	86.7
Depreciation, Supplemental	84.7
Total Special Items	--
Normalized Income Before Taxes	53.84
Effect of Special Items on Income Taxes	--
Income Taxes Excluding Impact of Special Items	16.9
Normalized Income After Taxes	36.95
Normalized Income Available to Common	36.95
Basic Normalized EPS	0.16
Diluted Normalized EPS	0.16
Reported Operating Profit	-124.73
Operating Margin	15.88

Pretax Margin	6.86
Effective Tax Rate	31.38
Net Profit Margin	4.7
Normalized EBIT	124.73
Normalized EBITDA	209.43
Interest Cost - Domestic	10.72
Service Cost - Domestic	4.73
Prior Service Cost - Domestic	-0.45
Expected Return on Assets - Domestic	-11.07
Actuarial Gains and Losses - Domestic	3.78
Curtailments & Settlements - Domestic	--
Transition Costs - Domestic	0
Domestic Pension Plan Expense	7.71
Interest Cost - Post-Retirement	2.18
Service Cost - Post-Retirement	0.62
Prior Service Cost - Post-Retirement	-0.97
Expected Return on Assets - Post-Retirement	-1.56
Curtailments & Settlements - Post-Retirement	0
Other Post-Retirement, Net	1.09
Post-Retirement Plan Expense	1.36
Total Pension Expense	9.06
Total Plan Interest Cost	12.9
Total Plan Service Cost	5.34
Total Plan Expected Return	-12.63
Total Plan Other Expense	1.09

**APPENDIX B: LIST OF STATES, COUNTIES & COMMUNITIES SERVED BY
PROJECT**

States:

Nevada
California

Counties:

Placer County
Nevada County
El Dorado County
Washoe County

Municipalities:

Truckee
The Village at Northstar
Kings Beach
Brockway
Crystal Bay
Incline Village
Tahoe Vista
Carnelian Bay
Cedar Flat
Lake Forest
Tahoe City
Tahoe Pines
Homewood
Tahoma
Chamberlands / Chamber's Landing
Meeks Bay
Rubicon
Alpine Meadows
Squaw Valley

APPENDIX C: THE 625 AND 650 LINE UPGRADE PROJECT PROPOSED SCHEDULE

August 31, 2010	Application filed.
September 25, 2010	Application accepted as complete.
October 2010	Initial Study issued.
July 2011	Draft CEQA/NEPA document (EIR/EIS) issued for comment.
November 2011	Draft decision issued.
March 2012	Final Commission decision issued. Final CEQA/NEPA document approved.
May 1, 2012	Begin Construction of the 650 Transmission Line and related substations and clearing of new 625 Transmission Line right-of-way.
May 1, 2013	Begin construction of new 625 Transmission Line and related substations.
December 31, 2013	Complete construction and conversion of system to 120kV
July 1, 2014	Begin removal of old 625 Transmission Line
October 15, 2014	Completion of Project

**APPENDIX D: NOTICE OF APPLICATION FOR A PERMIT TO
CONSTRUCT**

NOTICE OF APPLICATION FOR A PERMIT TO CONSTRUCT

THE 625 AND 650 LINE UPGRADE PROJECT

Date: August 31, 2010

Proposed Project: Sierra Pacific Power Company (SPPCo) has filed an application with the California Public Utilities Commission (CPUC) for a permit to construct (PTC) the 625 and 650 Line Upgrade Project (Proposed Project). The Proposed Project involves rebuilding the 625 and 650 transmission lines from 60 kV to 120 kV and related modifications to substations and other facilities. The Proposed Project is necessary to obtain single contingency reliability and provide for continued reliable electrical service to the projected electrical demand in the North Lake Tahoe areas of Kings Beach, Tahoe City, and surrounding communities.

The Proposed Project includes the following elements:

- Removal of the existing 60-kV 625 Line, which is comprised of approximately 15 miles of existing conductor and 341 wood poles;
- Construction of the new 120-kV 625 Line, comprised of approximately 300 steel poles and 16 miles of new 397.5 MCM AA conductor within a new 40-foot-wide permanent right of way;
- Rebuilding the existing 60-kV 650 Line to operate at 120 kV, which will involve the replacement of approximately 225 wood poles with steel poles and 21 span guy poles, as well as the installation of approximately 10 miles of new 397.5 MCM AA conductor;
- Rebuilding the existing 60-kV Northstar Tap into a fold, which will require the replacement of approximately 14 wood poles with steel poles and 0.5 mile of 397.5 MCM AA conductor in order to operate it at 120 kV;
- Rebuilding an approximately 1.6-mile-long portion of the existing 120-kV 132 Line to accommodate a double-circuit configuration with the 650 Line, which will require the replacement of approximately 30 existing wood poles with steel poles and reconductoring as needed with 397.5 MCM AA conductor; and
- Upgrading, modifying, and/or decommissioning six substations and switching stations for operation at 120 kV. The list of substations include: the Tahoe City, Brockway, Squaw Valley, and Northstar Substations and the North Truckee and Kings Beach Switching Stations.

Construction is scheduled to begin May 1, 2012 or immediately following receipt of all project approvals. The Projected Project is scheduled to be in operation at 120 kV by December 31, 2013 with the completion of the project, including the removal of the old 625 Line by October 15, 2014.

EMF Compliance: The CPUC requires utilities to employ “no cost” and “low cost” measures to reduce public exposure to electric and magnetic fields (EMF). In accordance with “California Transmission Line EMF Design Guidelines” filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, SPPCo would implement the following measure(s) for the Proposed Project:

- Combining two circuits contained within the same right of way into a single pole, double-circuit design;

- Selection of proper phasing arrangement can be an effective way to reduce fields for two circuits on the same structure within the same right of way;
- Obtaining additional right of way to increase the width of the corridor;
- When under building the transmission circuit with a distribution circuit, phasing of both circuits for potential field reduction; and
- Selecting a more compact, balanced-type pole configuration.

Environmental Assessment: The CPUC is responsible, under the California Environmental Quality Act (CEQA), for identifying the significant environmental impacts of the Proposed Project and for avoiding or mitigating them if feasible. This project will also be reviewed on a federal level by the U.S. Forest Service – Lake Tahoe Basin Management Unit (USFS-LTBMU) as well as the Tahoe Regional Planning Agency (TRPA).

SPPCo has prepared a Proponent’s Environmental Assessment (PEA), which includes an analysis of potential environmental impacts created by the construction, operation, and maintenance of the Proposed Project. Impacts from the Proposed Project for all resource categories except Air Quality can be reduced to less than significant with the implementation of Applicant Proposed Measures (APMs).

The Proposed Project would result in a significant and unavoidable, but temporary, air quality impact due to construction activities that would exceed local significance thresholds for NO_x and PM₁₀. Feasible APMs are proposed to reduce the air quality impacts to the greatest extent possible.

The CPUC will conduct an initial review of the Proposed Project’s potential environmental impacts. It is anticipated that the CPUC will issue a Notice of Preparation (NOP) of an Environmental Impact Report. Collectively the CPUC, the USFS-LTBMU, and the TRPA will develop a joint environmental review document for the Proposed Project. The public may participate in the environmental review by submitting comments on the NOP and the draft environmental review document, and by participating in any scoping meetings or public meetings that will be conducted.

Formal Protests: Formal protests to the application must comply with Article 1 and Rule 2.6 of the CPUC’s Rules of Practice and Procedure (posted on the CPUC’s website at www.cpuc.ca.gov). A formal protest must state the facts constituting the grounds for the protest, the effect of the application on the protestant, and the reasons the protestant believes the application, or a part of it, is not justified. If the protest requests a hearing, it must state the facts you would present at a formal evidentiary hearing to support your protest. Any affected party may, within 30 days of the date this notice is publicly posted, i.e. no later than October 6, 2010, protest and request that the CPUC hold hearings on the application.

Letters: If you wish to make your views known without participating formally, you may write to the CPUC at 505 Van Ness Avenue, San Francisco, CA 94102. Your communication will be directed to the Commissioners and the Administrative Law Judge for review, and will be placed in the proceeding’s formal Correspondence File.

Notice and CPUC Documents: To be added to the official service list as “Information Only” for service of all CPUC documents in this proceeding, e.g., notice of hearings, rulings, and decisions, contact the Process Office at the CPUC, 505 Van Ness Avenue, San Francisco, CA 94102 or by e-mail at process_office@cpuc.ca.gov.

For assistance, please call the CPUC's Public Advisor in San Francisco at (415) 703-2074
(public_advisor@cpuc.ca.gov).

To review a copy of SPPCo's Application, or to request further information, please contact:

Christopher A. Hilén
Associate General Counsel
Sierra Pacific Power Company
6100 Neil Road
Reno, Nevada 89511
Telephone: (775) 834-5696
Facsimile: (775) 834-4811
E-mail: chilen@nvenergy.com

Mr. Eric Weldon
Staff Environmental Scientist
Sierra Pacific Power Company
6100 Neil Road
Reno, Nevada 89511
Phone: (775) 834-4020
Fax: (775) 834-4020
E-mail: eweldon@nvenergy.com

**APPENDIX E: CERTIFICATE OF SERVICE OF NOTICE OF
APPLICATION FOR A PERMIT TO CONSTRUCT**

CERTIFICATE OF SERVICE

I, Taryn Ciardella, certify:

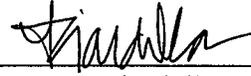
I am employed in the City of Reno, Nevada, am over eighteen years of age and am not a party to the within entitled cause. My business address is 6100 Neil Road, Reno, Nevada.

On August 30, 2010, I caused the following to be served:

NOTICE OF APPLICATION FOR A PERMIT TO CONSTRUCT

on the attached service list by electronic mail or, to parties for whom an electronic mail is not available, enclosed in a sealed envelope by first class mail.

Executed this 30th day of August 2010, at Reno, Nevada.



Taryn Ciardella

THE 625 AND 650 LINE UPGRADE PROJECT AGENCY SERVICE LIST

Mr. Iain Fisher
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Docket Clerk
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 9102

California Energy Commission
Ms. Melissa Jones, Executive Director
1516 Ninth Street, MS 3-39
Sacramento, CA 95814-5512

State Water Resources Control Board
Ms. Dorothy Rice, Executive Director
1001 "I" Street
Sacramento, CA 95814

Department of Fish and Game Headquarters
Mr. Don Koch
1415 Ninth Street
Sacramento, CA 95814

California Department of Transportation
District 3
Ms. Jody Jones, Director
703 B Street
P.O. Box 911
Marysville, CA 95901

California State Lands Commission
Mr. Paul Thayer, Executive Officer
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825-8202

Lahontan Regional Water Quality Control Board
Mr. Harold Singer, Executive Officer
2501 Lake Tahoe Blvd
South Lake Tahoe, CA 96150

Tahoe Regional Planning Agency
Ms. Wendy Jepson, Senior Planner
128 Market Street
Stateline, NV 89449

Town of Truckee
Mr. Tony Lashbrook, Town Manager
10183 Truckee Airport Road
Truckee, CA 96161

County of Nevada
Community Development Agency – Planning
Mr. Jory Stewert, Planning Director
950 Maidu Ave, Suite 170
Nevada City, CA 95959

County of Placer
Community Development Agency – Planning
Mr. Steve Buelna, Senior Planner
565 West Lake Blvd
Tahoe City, CA 96145

County of Placer
Air Pollution Control District
Mr. Todd Nishikawa
3091 County Center Drive, Suite 240
Auburn, CA 95603

US Forest Service – Truckee Ranger District
Ms. Joanne Roubique, District Ranger
9646 Donner Pass Road
Truckee, CA 96161

US Forest Service – LTBMU
Mr. Robert Rodman
35 College Drive
South Lake Tahoe, CA 96150

US Army Corps of Engineers
Reno Regulatory Field Office
Ms. Lynette Blanchard
300 Booth Street, Suite 2103
Reno, NV 89509

US Army Corps of Engineers
Martis Valley & Engelbright Lake Parks
Mr. William "Skip" Sivertsen
P.O. Box 6
Smartsville, CA 995977-0006

**THE 625 AND 650 LINE UPGRADE PROJECT
300' OWNERSHIP LISTING**

List of Property Owners within 300 feet of the North Tahoe Upgrade Project - Nevada County

APN	Site Address	OWNER	Care of	Care of Name	Mailing Address	Mailing City	Mailing State	Mailing Zip Code
19-030-05	10310 TROUT CREEK ROAD	CLARIN MITCHELL T TRSTE			10396 DONNER PASS RD	TRUCKEE	CA	96161
19-030-13	10320 TROUT CREEK ROAD	CLARIN MITCHELL T TRSTE			10382 DONNER PASS RD	TRUCKEE	CA	96161
19-030-14	10305 TROUT CREEK ROAD	CLARIN MITCHELL T TRSTE			10396 DONNER PASS RD	TRUCKEE	CA	96161
19-110-04	Site Address Unknown	SOUTHERN PACIFIC TRANS CO	C/O	UNION PACIFIC CORP	POB 2500	BROOMFIELD	CO	80038-2500
19-420-06	10271 E MAIN STREET	TRUCKEE CEMETERY DISTRICT			POB 2803	TRUCKEE	CA	96160
19-420-12	10370 E JIBBOOM STREET	TRUCKEE CEMETERY DISTRICT			POB 2803	TRUCKEE	CA	96160
19-420-15	10739 GLENSHIRE DRIVE	POMBO ALFRED J & KARLA S TRSTES			POB 853	TRUCKEE	CA	96160
19-420-17	10275 E JIBBOOM STREET	TRUCKEE CEMETERY DISTRICT			POB 2803	TRUCKEE	CA	96160
19-420-18	10365 E JIBBOOM STREET	REGAN JOHN X & MARTHA			5666 ARBORETUM DR	LOS ALTOS	CA	94024
19-420-41	Site Address Unknown	BUCKHORN LLC			POB 3694	TRUCKEE	CA	96160
19-420-43	Site Address Unknown	PEORIA-SUNNYSIDE LLC	C/O	RICHARD A BARSELL	POB 9520	RANCHO SANTA FE	CA	92067
19-420-45	Site Address Unknown	SOUTHWEST GAS CORP			5241 SPRING MOUNTAIN RD	LAS VEGAS	NV	89150
19-420-69	Site Address Unknown	TRUCKEE DEVELOPMENT ASSOCIATES LLC	C/O	PACIFIC COAST CAPITAL PARTNERS	150 CALIFORNIA ST 22ND FL	SAN FRANCISCO	CA	94111
19-420-70	Site Address Unknown	TRUCKEE DEVELOPMENT ASSOCIATES LLC	C/O	PACIFIC COAST CAPITAL PARTNERS	150 CALIFORNIA ST 22ND FL	SAN FRANCISCO	CA	94111
19-440-72	Site Address Unknown	TRUCKEE SANITARY DISTRICT			12304 JOERGER DR	TRUCKEE	CA	96161-3312
19-440-78	10765 E RIVER STREET	AL POMBO INC			PO BOX 1102	TRUCKEE	CA	96160
19-450-14	10793 BROCKWAY ROAD	TRUCKEE DONNER P U D			POB 309	TRUCKEE	CA	96160
19-450-15	10040 REYNOLD WAY	PGC PARTNERSHIP	C/O	CHARLOTTE HIMSL	POB 729	TRUCKEE	CA	96160
19-450-17	11070 BROCKWAY ROAD	KEITH FAMILY LIMITED PARTNERSHIP			1425 LEIMERT BLVD #300	OAKLAND	CA	94602
19-450-29	10948 BROCKWAY ROAD	ROSSI RHONDA M TRSTE	C/O	PATTY BAIRD/PB&J HOSPITALITY	10918 BROCKWAY RD	TRUCKEE	CA	96161
19-450-33	Site Address Unknown	KEITH FAMILY LIMITED PARTNERSHIP			1425 LEIMERT BLVD #300	OAKLAND	CA	94602
19-450-35	10010 ESTATES DRIVE	TRUCKEE-DONNER REC & PARK DISTRICT			10046 CHURCH ST	TRUCKEE	CA	96161
19-450-40	Site Address Unknown	KEITH FAMILY LIMITED PARTNERSHIP			1425 LEIMERT BLVD #300	OAKLAND	CA	94602
19-450-45	10022 RIVER VIEW DRIVE	TRUCKEE DONNER P U D			PO BOX 309	TRUCKEE	CA	96160
19-450-47	10020 ESTATES DRIVE * Unit A	OREGON INVESTORS X LTD PARTNERSHIP			87460 CEDAR FLAT RD	SPRINGFIELD	OR	97478
19-450-48	10880 BROCKWAY ROAD	GOESCHL DANIEL G TRSTE ETAL			11689 ALDER HILL RD	TRUCKEE	CA	96161
19-450-49	10870 BROCKWAY ROAD	ROSS MARK R			POB 10128	TRUCKEE	CA	96162
19-450-54	10695 BROCKWAY ROAD	TRUCKEE DONNER P U D						
19-450-63	10918 Brockway Road	CEDAR HOUSE OF TRUCKEE THE			10918 BROCKWAY RD	TRUCKEE	CA	96161
19-450-65	10918 Brockway Road	CEDAR HOUSE OF TRUCKEE THE			10918 BROCKWAY RD	TRUCKEE	CA	96161
19-670-12	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-670-13	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-670-14	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-670-15	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-670-16	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161

List of Property Owners within 300 feet of the North Tahoe Upgrade Project - Nevada County

APN	Site Address	OWNER	Care of	Care of Name	Mailing Address	Mailing City	Mailing State	Mailing Zip Code
19-670-17	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-670-19	Site Address Unknown	PIONEER COMMERCE CENTER OWNERS ASSN			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-680-02	Site Address Unknown	EAST RIVER SUBDIVISION OWNERS ASSN			POB 819	TRUCKEE	CA	96160
19-680-03	Site Address Unknown	EAST RIVER SUBDIVISION OWNERS ASSN			POB 819	TRUCKEE	CA	96160
19-680-07	10719 E RIVER STREET	HAYDON ROBERT C & CONSTANCE W TRSTES			1500 MILLERTOWN RD	AUBURN	CA	95603-9493
19-680-08	10721 E RIVER STREET	CRARY JOHN L TRSTE			181 2ND AVE STE 565	SAN MATEO	CA	94401
19-680-09	10727 E RIVER STREET	GEE HOMER T & DEBORAH M TRSTES			6320 OAK HILL DR	GRANITE BAY	CA	95746
19-680-10	10733 E RIVER STREET	MATLEY PLAZA LP			1537 KLOSTERS CT	ALPINE MEADOWS	CA	96146
19-680-11	10739 E RIVER STREET	BIANCHI PAUL J JR TRSTE			1433 OAK HILL WAY	ROSEVILLE	CA	95661
19-680-12	10741 E RIVER STREET	TRSTES MCGINITY JOSEPH L & SHELLEY A	C/O	MCGINITY FAMILY TRUST OF 1996	POB 686	TRUCKEE	CA	96160
19-680-13	10747 E RIVER STREET	TRSTES MCGINITY JOSEPH L & SHELLEY A	C/O	MCGINITY FAMILY TRUST OF 1996	POB 686	TRUCKEE	CA	96160
19-680-14	10753 E RIVER STREET	HARTWELL CLIFFORD G & JOAN L TRSTES			POB 2465	TRUCKEE	CA	96160
19-680-15	10759 E RIVER STREET	HARTWELL CLIFFORD G & JOAN L TRSTES			POB 2465	TRUCKEE	CA	96160
19-690-02	Site Address Unknown	RIVERVIEW TOWNHOMES OWNERS ASSN			POB 348600	SACRAMENTO	CA	95834
19-690-03	10025 NICOLAS DRIVE * #A Unit 1	ALLEN WALTER E			1853 MACARTHUR BLVD	OAKLAND	CA	94602
19-690-04	10025 NICOLAS DRIVE * #B Unit 2	KIRBY JOHN J ETAL			426 FOXBORO	MOUNTAIN VIEW	CA	94041
19-690-05	10035 NICOLAS DRIVE * #A Unit 1	LACATIVO NEAL A & ELIZABETH J			19536 HEYER HEIGHTS	CASTRO VALLEY	CA	94546
19-690-06	Site Address Unknown	RICHARDS LILLIAN M			POB 1846	TRUCKEE	CA	96160
19-690-07	10035 NICOLAS DRIVE * #C Unit 3	PHELPS WILLIAM T & DEBRA P			1435 DROLETTE WAY	BENICIA	CA	94510
19-690-08	10035 NICOLAS DRIVE * #D Unit 4	JACOBSON JEFFREY L & JOAN D ETAL	C/O	ALSCHNER PROPERTY MANAGEMENT	15165 BUNDY DR STE 207	LOS ANGELES	CA	90025
19-690-19	10036 NICOLAS DRIVE * #D Unit 1	BARBER ARDIS I			1316 APOLLO CR	RAPID CITY	SD	57701
19-690-20	10036 NICOLAS DRIVE * #C Unit 2	KELLEY STEVEN S & KARIN L ETAL			1655 N MAIN ST STE 365	WALNUT CREEK	CA	94596
19-690-21	10036 NICOLAS DRIVE * #B Unit 3	SUMMIT PINES LP			1571 SUMMIT AVE	CARDIFF	CA	92007
19-690-22	10036 NICOLAS DRIVE * #A Unit 4	OTTLEY DAVID & ANNE			1175 ARROWHEAD DR	WEST CHESTER	PA	19382
19-690-23	Site Address Unknown	PENNOTT PETER G			POB 3926	TRUCKEE	CA	96160
19-690-24	10026 NICOLAS DRIVE * #A Unit 2	SMIDT WILLIAM P & LINDA L			10026 NICOLAS DR #A	TRUCKEE	CA	96161
19-690-26	Site Address Unknown	RIVERVIEW TOWNHOMES OWNERS ASSN	C/O	RIVERVIEW TRUCKEE LLC	5006 SUNRISE BLVD STE 102	FAIR OAKS	CA	95628
19-690-27	Site Address Unknown	APGAR FRANK A & ELSIE C ETAL			7764 WINDING WAY	FAIR OAKS	CA	95628
19-690-28	Site Address Unknown	GROVER JOHN ETAL			96 EMERY BAY DR	EMERYVILLE	CA	94608
19-690-29	Site Address Unknown	DEPALLENS PHILIPPE & KAREN TRSTES			716 VAQUERO DR	MOUNTAIN VIEW	CA	94043
19-690-30	Site Address Unknown	SOARES DAVID P & CARLA			69 LAURIE DR	NOVATO	CA	94947

List of Property Owners within 300 feet of the North Tahoe Upgrade Project - Nevada County

APN	Site Address	OWNER	Care of	Care of Name	Mailing Address	Mailing City	Mailing State	Mailing Zip Code
19-690-31	Site Address Unknown	ZINMAN ROBERT H & JOANEL TRSTES ETAL			70 BATES BLVD	ORINDA	CA	94563
19-690-32	Site Address Unknown	DAVIS JACK S & MARY E TRSTES			10085 NICHOLAS, UNIT B	TRUCKEE	CA	96161
19-690-43	Site Address Unknown	HASHIMOTO RAYMOND T & SHARON G			2815 PONDEROSA WAY	SANTA CLARA	CA	95051
19-690-44	Site Address Unknown	FRIEDLI MICHAEL & CYNTHIA			10086 NICOLAS DR UNIT A	TRUCKEE	CA	96161
19-690-45	Site Address Unknown	PRUSKI DIANA			10096 NICOLAS DR #D	TRUCKEE	CA	96161
19-690-46	Site Address Unknown	PALOMINO LEONARD J & LORI J TRSTES			4418 ROCK ISLAND DR	ANTIOCH	CA	94509
19-690-47	Site Address Unknown	JIMENEZ JUAN ETAL			POB 9472	TRUCKEE	CA	96162
19-690-48	Site Address Unknown	LUEBKE MARGARET			POB 2260	TRUCKEE	CA	96160
19-690-49	Site Address Unknown	RIVERVIEW TOWNHOMES OWNERS ASSN	C/O	CAMCO	900 NORTHSTAR DR	TRUCKEE	CA	96161
19-690-50	Site Address Unknown	BEAN DAVID			10102 KUDU CT #A	TRUCKEE	CA	96161
19-690-51	Site Address Unknown	SCHLOSSER MARK S & SAINNA M			POB 8428	TRUCKEE	CA	96162
19-690-52	Site Address Unknown	HUANG IVAN J ETAL			1030 HANCOCK CT	PLEASANTON	CA	94566
19-700-15	Site Address Unknown	MANCUSO CIRO TRSTE			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-700-16	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-700-17	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-700-18	Site Address Unknown	MANCUSO CIRO TRSTE			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-700-19	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-700-20	Site Address Unknown	HIDDEN LAKE PROPERTIES INC			10825 PIONEER TRAIL #102	TRUCKEE	CA	96161
19-700-21	Site Address Unknown	JCL ENTERPRISES LLC			POB 8928	TRUCKEE	CA	96162
19-700-22	Site Address Unknown	RACCOON ENTERPRISES LLC			10642 PIONEER TR	TRUCKEE	CA	96161
19-810-01	Site Address Unknown	TRUCKEE DONNER LAND TRUST	C/O	TRUCKEE PARTNERS INC	POB 2819	TRUCKEE	CA	96160
19-820-02	Site Address Unknown	WINTER CREEK OWNERS' ASSN	C/O	TRUCKEE PARTNERS INC	POB 2819	TRUCKEE	CA	96160
19-820-06	Site Address Unknown	TRUCKEE PARTNERS INC			POB 2819	TRUCKEE	CA	96160
19-920-02	10005 TRAILS END ROAD	KANE STEVEN A & LINDA S TRSTES			POB 2616	TRUCKEE	CA	96160
19-920-17	11020 TRAILS END COURT	KELLY BROTHERS PAINTING INC			POB 6512	TAHOE CITY	CA	96145
19-920-18	11000 TRAILS END COURT	VIERRA MARK & LINDA ETAL			POB 3014	OLYMPIC VALLEY	CA	96146
19-970-03	Site Address Unknown	STONERIDGE-IN-TRUCKEE LLC			10101 PINE CONE RD	TRUCKEE	CA	96161
19-970-04	Site Address Unknown	STONERIDGE-IN-TRUCKEE LLC			10101 PINE CONE RD	TRUCKEE	CA	96161
19-970-05	Site Address Unknown	STONERIDGE-IN-TRUCKEE LLC			10101 PINE CONE RD	TRUCKEE	CA	96161
19-970-55	Site Address Unknown	COOK ROBERT E			2301 RIDGE FIELD TRAIL	RENO	CA	89523
19-970-56	Site Address Unknown	STONERIDGE-IN-TRUCKEE LLC			10101 PINE CONE RD	TRUCKEE	CA	96161
19-970-57	Site Address Unknown	STONERIDGE-IN-TRUCKEE LLC			10101 PINE CONE RD	TRUCKEE	CA	96161
19-970-58	Site Address Unknown	REED THOMPSON L ETAL			POB 325	PHILO	CA	95466
19-970-59	Site Address Unknown	PIZIALI RITA L			6975 SILVER BELL DR	SAN JOSE	CA	95120-3120
19-970-68	Site Address Unknown	YOUMANS DONALD W & HARRIET K TRSTES			256 HORIZON CR	GRASS VALLEY	CA	95945-9712
19-970-69	Site Address Unknown	HERZOG MITCHELL & VIVIAN			4982 STUCKEY DR	SAN JOSE	CA	95124
19-970-70	Site Address Unknown	CARROLL KELLEY R TRSTE ETAL			10572 MANCHESTER DR	TRUCKEE	CA	96161
19-970-71	Site Address Unknown	GULLICKSON AIDAN W			10363 STONERIDGE DR #104	TRUCKEE	CA	96161

List of Property Owners within 300 feet of the North Tahoe Upgrade Project - Nevada County

APN	Site Address	OWNER	Care of	Care of Name	Mailing Address	Mailing City	Mailing State	Mailing Zip Code
19-970-72	Site Address Unknown	HIGHAM J ROBERT & NANCY C TRSTES			35505 WALLACE RD	SANTA ROSA	CA	95404
19-970-73	Site Address Unknown	LABARBERA PATRICIA TRSTE			5510 TWIN CREEK DR	RENO	NV	89523
19-970-74	Site Address Unknown	BAIRD THOMAS K			10268 PINE CONE RD	TRUCKEE	CA	96161
19-970-75	Site Address Unknown	SPRINGER-DAVIS BRENDAN			POB 1785	TRUCKEE	CA	96160-1785
97-120-87	Site Address Unknown	GRAFF MARGARETTA SPECIAL NEEDS TRUST			POB 2404	TRUCKEE	CA	96160
97-120-88	Site Address Unknown	VELASCO RAFAEL V & OTILIA J			POB 1251	TRUCKEE	CA	96160
97-120-89	Site Address Unknown	POWELL REX & SANDRA			POB 1683	TRUCKEE	CA	96160
97-120-90	Site Address Unknown	ONEAL DEANNA			11070 BROCKWAY RD SP 100	TRUCKEE	CA	96161
97-120-91	Site Address Unknown	REVAI ROBERT J & DOROTHY J			POB 1941	TRUCKEE	CA	96160
97-120-92	Site Address Unknown	MENDOZA OSWALDO ETAL			POB 8812	TRUCKEE	CA	96162
97-120-93	Site Address Unknown	SUMMERS DONALD L & AGNES M			POB 1634	TRUCKEE	CA	96160-1634
97-120-94	Site Address Unknown	BAUMANN HANS K & KELLY D			11070 BROCKWAY RD #104	TRUCKEE	CA	96161
97-120-95	Site Address Unknown	SALAS FELIPE ETAL			11070 HWY 267 #105	TRUCKEE	CA	96161
97-120-97	Site Address Unknown	LAYMAN THOMAS M & SUZANNE A			POB 1959	TRUCKEE	CA	96160
97-120-98	Site Address Unknown	NICHOLSON ROCKY ETAL			11070 BROCKWAY RD SPACE 108	TRUCKEE	CA	96161
97-120-99	Site Address Unknown	GOFF EUGENE S & DEBRA J			POB 8758	TRUCKEE	CA	96162
97-121-01	Site Address Unknown	KUHLEMEIER SHANNA D & DENNIS F			11070 HWY 267 MH #110	TRUCKEE	CA	96161
97-121-02	Site Address Unknown	KUHLEMEIER DENNIS			POB 8682	TRUCKEE	CA	96162
97-121-03	Site Address Unknown	MANETTA EVELYN			POB 8595	TRUCKEE	CA	96162
97-121-04	Site Address Unknown	SHORTRIDGE LYNN			POB 10565	TRUCKEE	CA	96162
97-121-05	Site Address Unknown	MANGALIN EILEEN			11070 BROCKWAY RD #114	TRUCKEE	CA	96161
97-121-06	Site Address Unknown	SANCHEZ DAVID & LUCINA			11070 HWY 267 #115	TRUCKEE	CA	96161
97-121-07	Site Address Unknown	DEANE MICHAEL H			POB 702	CRYSTAL BAY	CA	89402
97-121-08	Site Address Unknown	SETTLE DEAN S & NANCY C			11070 BROCKWAY RD #117	TRUCKEE	CA	96161
97-121-09	Site Address Unknown	MEJIA RAMON S & RAMONA V			POB 9923	TRUCKEE	CA	96162
97-121-10	Site Address Unknown	MAGANA-VALENCIA JOSE A			11070 HWY 267 SP 29	TRUCKEE	CA	96161

List of Property Owners within 300 feet of the North Tahoe Upgrade Project (650) - Placer County

APN	Site Address	OWNER	Care of	Care of Name	Mailing Address	Mailing City	Mailing State	Mailing Zip Code
109-200-001-000		LAHONTAN GOLF CLUB			12700 LODGETRAIL	TRUCKEE	CA	96161
109-220-007-000	301 BOB HASLEM	WASHINGTON MUTUAL BANK			7255 BAYMEADOWS WAY	JACKSONVILLE	FL	32256
109-220-008-000	307 BOB HASLEM	HOOK PETER E			520 LEEWARD AVE	BEACH HAVEN	NJ	08008-1329
109-220-009-000	312 BOB HASLEM	ROOPE CALEB			226 WINDING RIDGE DRIVE	HORSESHOE BEND	ID	83629
109-220-010-000	306 BOB HASLEM	HATCH JEFFREY K & TAMARA GROSVENOR TRUSTEES			306 BOB HASLEM	TRUCKEE	CA	96161
109-220-011-000		BROAD GARY S	C/O	FAMILY OFFICE FINANCIAL SERVICES	10900 WILSHIRE BLVD 12TH FLOOR	LOS ANGELES	CA	90024
110-010-015-000		NORTHSTAR COMMUNITY SERVICE DISTRICT			908 NORTHSTAR DR	TRUCKEE	CA	96161
110-010-016-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-010-017-000		TRUCKEE DONNER LAND TRUST			PO BOX 8816	TRUCKEE	CA	96162
110-010-018-510		TRUCKEE DONNER LAND TRUST			PO BOX 8816	TRUCKEE	CA	96162
110-010-019-510		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-010-020-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-010-021-000		TRUCKEE DONNER LAND TRUST			PO BOX 8816	TRUCKEE	CA	96162
110-030-022-000	5303 NORTSHORE BLVD	CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-030-027-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-030-030-000	168 BASQUE	CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-030-039-000		JONES TRACY R	C/O	GIFFORD JACK	2440 SAND HILL RD STE 400	MENLO PARK	CA	94025
110-030-040-000		MARTIS CREEK ESTATES LLC	C/O	SUNDANCE PROPERTIES	3825 ATHERTON RD #115	ROCKLIN	CA	95765
110-030-041-000		MARTIS CREEK ESTATES LLC	C/O	SUNDANCE PROPERTIES	3825 ATHERTON RD #115	ROCKLIN	CA	95765
110-030-042-000		MARTIS CREEK ESTATES LLC	C/O	SUNDANCE PROPERTIES	3825 ATHERTON RD #115	ROCKLIN	CA	95765
110-030-050-000		SIERRA PACIFIC INDUSTRIES	C/O	JACK FROST	P O BOX 496014	REDDING	CA	96049-6014
110-030-051-000	5300 NORTSHORE BLVD	CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-030-069-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-050-011-000		SIERRA PACIFIC INDUSTRIES	C/O	FROST JACK G	P O BOX 496014	REDDING	CA	96049
110-060-023-000	19900 MARTIS PEAK RD	SIERRA PACIFIC INDUSTRIES			P O BOX 496014	REDDING	CA	96049-6014
110-060-024-000		SIERRA PACIFIC INDUSTRIES			P O BOX 496014	REDDING	CA	96049-6014
110-060-025-000		SIERRA PACIFIC INDUSTRIES			P O BOX 496014	REDDING	CA	96049-6014
110-060-037-000		SIERRA PACIFIC INDUSTRIES			P O BOX 496014	REDDING	CA	96049-6014
110-060-038-000		SIERRA PACIFIC INDUSTRIES			P O BOX 496014	REDDING	CA	96049-6014
110-081-001-000	100 NORTHSTAR DR	CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-081-002-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-081-004-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-081-007-000	54 TRIMONT LN	NORTHSTAR COMMUNITY SERVICES DISTRICT			908 NORTHSTAR DR	TRUCKEE	CA	96161
110-081-008-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-081-009-000	51 TRIMONT LN	NORTHSTAR COMMUNITY SERVICE DISTRICT			908 NORTHSTAR DR	TRUCKEE	CA	96161
110-081-010-000	50 TRIMONT LN	CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-081-014-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
111-010-005-000		NORTH TAHOE PUBLIC UTILITY DISTRICT			PO BOX 139	TAHOE VISTA	CA	96148

List of Property Owners within 300 feet of the North Tahoe Upgrade Project (650) - Placer County

APN	Site Address	OWNER	Care of	Care of Name	Mailing Address	Mailing City	Mailing State	Mailing Zip Code
111-010-006-000		CALIFORNIA STATE OF						
111-010-013-000		NORTH TAHOE PUBLIC UTILITY DISTRICT			PO BOX 139	TAHOE VISTA	CA	96148
111-010-014-000		NORTH TAHOE PUBLIC UTILITY DISTRICT			PO BOX 139	TAHOE VISTA	CA	96148
111-070-047-000		OPEN DOOR ASSOCIATION	C/O	WESTERN PORTFOLIO MANAGEMENT	COMMON AREA	VALUE PRORATED T	U	ITS -0000
111-080-001-000	1300 REGENCY WAY	KINGS RUN			COMMON AREA	VALUE PRORATED T	U	ITS -0000
111-080-002-000	1300 REGENCY WAY	KINGS RUN			COMMON AREA	VALUE PRORATED T	U	ITS -0000
111-080-003-000	1300 REGENCY WAY	OPEN DOOR ASSOCIATION			P O BOX 7296	INCLINE VILLAGE	NV	89452
111-080-023-000	1300 REGENCY WAY	KINGS RUN			COMMON AREA	VALUE PRORATED T	U	ITS -0000
111-080-024-000	1300 REGENCY WAY	GODSOE WILLIAM ARTHUR & ELIZABETH BUES			1335 GRAND AVE	PACIFICA	CA	94044
111-110-005-000	7591 FOREST GLENN DR	GREEN DONALD EUGENE TRUSTEE			765 HARVARD AVE	SUNNVVALE	CA	94087
111-110-006-000	7583 FOREST GLENN DR	GREEN GARY MICHAEL & CINDY KEYE			P O BOX 492478	REDDING	CA	96049
111-110-007-000	7575 FOREST GLENN DR	ADAMS SHAWN E & LAURA L			P O BOX 181	KINGS BEACH	CA	96143
111-110-008-000	7563 FOREST GLENN DR	MIELKE CARL A ET AL			P O BOX 1083	CARNELIAN BAY	CA	96140
111-110-009-000	7549 FOREST GLENN DR	HANKS HARRY M & URSULA E			86 PIZARRO AVE	NOVATO	CA	949496148
111-110-010-000	7531 FOREST GLENN DR	KINGSWOOD RESIDENTS ASSOC						
111-110-011-000	7511 FOREST GLENN DR	HANSEN DONNA L TRUSTEE			P O BOX 1497	KINGS BEACH	CA	96143-1497
111-140-001-000	1015 CANTERBURY DR	MARSH SPENCER & DEANNA			P O BOX 244	KINGS BEACH	CA	96143-0244
111-140-002-000	1055 CANTERBURY DR	GREENE BRADLEY H & DONNA R TRUSTEES			P O BOX 1288	KINGS BEACH	CA	96143
111-140-003-000	1065 CANTERBURY DR	PETERSEN ARLENE D			5034 BROOK HOLLOW CT	CONCORD	CA	94521
111-140-004-000	215 STEWART WAY	NALEWAY JAMES TTEE			P O BOX 121	TAHOE VISTA	CA	96148
111-140-005-000	225 STEWART WAY	SIMS EVELYN K TTEES			P O BOX 1827	KINGS BEACH	CA	96143
111-140-006-000	230 STEWART WAY	KUZMICKY ZENON A TRUSTEE			780 MESA WAY	RICHMOND	CA	94805
111-140-007-000	220 STEWART WAY	LAYTON JUDITH M			P O BOX 39	KINGS BEACH	CA	96143
111-140-008-000	1085 CANTERBURY DR	PALAIS NORMAN T JR & MARY I			P O BOX 1307	KINGS BEACH	CA	96143
111-140-009-000	1095 CANTERBURY DR	QUIRIE WILLIAM F JR & NANCY TRUSTEES			3085 20TH AVE	SAN FRANCISCO	CA	94132
111-140-010-000	1105 CANTERBURY DR	NYBORG K I F & HELEN N TRUSTEES			2255 SHOWERS DR #385	MOUNTAIN VIEW	CA	94040
111-140-011-000	1125 CANTERBURY DR	BRISKE LYNN C			702 PINNACLE DR	HAINES CITY	FL	33844
111-140-012-000	205 RUNNYMEADE LN	LENACK ROGER D & DENISE			20357 TUBA ST	CHATSWORTH	CA	91311
111-140-013-000	305 RUNNYMEADE LN	SPILIOPOULOS SUSAN ET AL			756 HAMILTON WAY	PLEASANTON	CA	94566
111-140-014-000	405 RUNNYMEADE LN	KAWAHARA JOHN T & BARBARA J TRS ET AL			1564 PEREGRINO WAY	SAN JOSE	CA	95125
111-140-015-000	505 RUNNYMEADE LN	RICHARDSON SHIRLEY K			400 CAROL LN E	QUINCY	CA	95971
111-140-016-000	500 RUNNYMEADE LN	DONNELLY DAVID C & ELLEN E TRUSTEES			1891 PARKVIEW DR	SAN BRUNO	CA	94066
111-140-018-000	300 RUNNYMEADE LN	LUNAS ROBERT L & DARLENE J TRUSTEES			2560 SHADY LANE	LAKEPORT	CA	95453
111-140-019-000	200 RUNNYMEADE LN	ANZELC MARTIN & JOYCE A TRUSTEES			121 ARBOR LN	MOSS BEACH	CA	94038
111-140-020-000	100 RUNNYMEADE LN	SASSON AARON & BARBRO TRUSTEES			448 RED WING DR	ALAMO	CA	94507

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111-140-028-000	1090 CANTERBURY DR	SILVERIA ROBERT J & KIMBERLEE G			P O BOX 189188	SACRAMENTO	CA	95818
111-140-029-000	1080 CANTERBURY DR	HYLEN ELLEN BRICKER TRUSTEE	C/O	FLAMINGO MOBILE	P O BOX 1427	MEDFORD	OR	97501-0106
111-140-030-000	1070 CANTERBURY DR	EILDERS BRIAN L		MANOR	P O BOX 1607	CRYSTAL BAY	NV	89402
111-140-031-000	1060 CANTERBURY DR	PICKERING NORMA			P O BOX 395	KINGS BEACH	CA	96143
111-140-032-000	1050 CANTERBURY DR	PRIEBE FRED V & BARBARA M TRUSTEES			1884 MESA RIDGE	WESTLAKE VILLAGE	CA	91362
111-140-033-000	1040 CANTERBURY DR	PUCCINELLI SERGIO & GRACE TRUSTEES			548 YALE ST	SAN FRANCISCO	CA	94134
111-140-034-000	1030 CANTERBURY DR	WATSON ROBERT W & LINDA A TTEE			1441 CEDARWOOD DR	SAN MATEO	CA	94403
111-140-035-000	1020 CANTERBURY DR	COLLINS RODNEY C ET AL			768 DEERBROOKE TRL	AUBURN	CA	95603
111-140-036-000	1010 CANTERBURY DR	VANMETER WILLIAM A & VICTORIA M			5745 WEDEKIND RD	SPARKS	NV	89431
111-140-037-000	1000 CANTERBURY DR	BRYANT TIMOTHY			P O BOX 1563	KINGS BEACH	CA	96143
111-150-001-000	1175 CANTERBURY DR	KINGSWOOD RESIDENTS ASSOC			OPEN SPACE	VALUE INC IN SUB	L	TS -0000
111-150-002-000	1185 CANTERBURY DR	COHEN MARTIN A & JANE C TTEES			17514 N HORSESHOE DR	SURPRISE	AZ	85374
111-150-003-000	1195 CANTERBURY DR	PARKER MARJORIE R TRUSTEE			4272 CALLE DE VIDA	SAN DIEGO	CA	92124
111-150-004-000	205 SUFFOLK PL	LYON JAMES M TTEE ET AL			3011 GREY EAGLE DR	WALNUT CREEK	CA	94595
111-150-005-000	305 SUFFOLK PL	LYON JAMES M TTEE ET AL			605 PHEASANT RUN DR	DIXON	CA	95620
111-150-006-000	400 SUFFOLK PL	HUFF DOUGLAS ALAN & MELONIE TODD			P O BOX 1864	KINGS BEACH	CA	96143
111-150-007-000	300 SUFFOLK PL	CARNEY NEAL J & KATHLEEN B			111 VERONA CT	LOS GATOS	CA	95030
111-150-008-000	200 SUFFOLK PL	LUGO ALFONSO J & MARIA A TRUSTEES			704 W ORANGE AVE	SO SAN FRANCISCO	CA	94080
111-150-009-000	1225 CANTERBURY DR	LUGO ALFONSO J & MARIA A TRUSTEES			704 W ORANGE AVE	SO SAN FRANCISCO	CA	94080
111-150-010-000	1235 CANTERBURY DR	JONES KEVIN TTEE ET AL			1624 CHURCH ST	MORGAN HILL	CA	95037
111-150-011-000	1245 CANTERBURY DR	DOIGNON JEAN PIERRE & SYLVIA			P O BOX 1053	KINGS BEACH	CA	96143
111-150-012-000	1255 CANTERBURY DR	SCHWALBE MARY R TRUSTEE ET AL			9044 CABIN CREEK TRL	RENO	NV	89523
111-150-013-000	1265 CANTERBURY DR	CAVANAUGH GINA			P O BOX 1966	KINGS BEACH	CA	96143
111-150-014-000	1267 CANTERBURY DR	YOKOMIZO CLIFFORD & DONNA M			11455 RAMPART DR	DUBLIN	CA	94568
111-150-015-000	1260 CANTERBURY DR	ANDERSON RONALD R & SHIRLEY M			P O BOX 2540	KINGS BEACH	CA	96143
111-150-016-000	1250 CANTERBURY DR	STEVENS MITCHELL A ET AL			225 W J ST	BENICIA	CA	94510-3132
111-150-017-000	1240 CANTERBURY DR	RICHARDSON EDWARD JOE & LINDA JEAN TRUSTEES			15907 NW MILITARY DR	SAN ANTONIO	TX	78231
111-150-018-000	1230 CANTERBURY DR	LONG ZACHARY ET AL			5116 PONDEREX RD	AUBURN	CA	95602
111-150-019-000	1220 CANTERBURY DR	MEARNS JOHN G & SALLY			638 PRINCETON DR	SUNNYVALE	CA	94087
111-160-001-000	1320 COMMONWEALTH DR	MILLER MARTIN & NINA C			P O BOX 545	TAHOE VISTA	CA	96148
111-160-002-000	1285 CANTERBURY DR	SAKHUJA SANJAY & JANET M WOODS TRUSTEES			117 OLD CASTLE LN	ALAMEDA	CA	94502
111-160-003-000	1295 CANTERBURY DR	SAKHUJA SANJAY & JANET M WOODS TRUSTEES			117 OLD CASTLE LN	ALAMEDA	CA	94502
111-160-004-000	1305 CANTERBURY DR	KINGSWOOD RESIDENTS ASSOC			OPEN SPACE	VALUE INC IN SUB	L	TS -0000
111-160-005-000	1309 CANTERBURY DR	MCKENZIE PATRICK A & LYDIA C			8347 EAGLE CROSSING	SARASOTA	FL	34241
111-160-006-000	1313 CANTERBURY DR	JACKSON TODD W			P O BOX 2720	KINGS BEACH	CA	96143-2720
111-160-007-000	1315 CANTERBURY DR	DANIEL THOMAS E & SAHLANEY LEE A			4036 26TH ST	SAN FRANCISCO	CA	94131

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111-160-008-000	1317 CANTERBURY DR	OMALEKI SAMUEL L & PATRICIA A			1605 W EDMUNDSON AVE	MORGAN HILL	CA	95037
111-160-009-000	1319 CANTERBURY DR	BRESCIA BARRY			548 CLAIRE ST	HAYWARD	CA	94541
111-160-010-000	1325 CANTERBURY DR	LOGAN AGNES KAREN	C/O	DAUFFENBACH ROGER E	P O BOX 1894	CRYSTAL BAY	NV	89402
111-160-011-000	1335 CANTERBURY DR	GOLOMBIK BARRY L ET AL			1083 MILL CREEK	INCLINE VILLAGE	NV	89451
111-160-012-000	1345 CANTERBURY DR	NORTHLAKE LP	C/O	LARRY ORLANDO	PO BOX 1054	CRYSTAL BAY	NV	89402
111-160-013-000	1355 CANTERBURY DR	WILLIAMS BRETT C & MICHELLE L TTEES			P O BOX 1736	CARNELIAN BAY	CA	96140
111-160-014-000	1365 CANTERBURY DR	JOHNSON ALAN CRALL TRUSTEE			222 W 6TH STREET STE 1010	SAN PEDRO	CA	90731
111-160-015-000	1360 CANTERBURY DR	CACCAMO ALDO M TRUSTEE ET AL			1201 CALIFORNIA ST APT 1601	SAN FRANCISCO	CA	94109
111-160-016-000	1350 CANTERBURY DR	KINGSWOOD RESIDENTS ASSN INC	C/O	BARNETT EDMUND S	P O BOX 6931	INCLINE VILLAGE	NV	89450
111-160-017-000	1340 CANTERBURY DR	ARNETT KENNETH R			P O BOX 336	CRYSTAL BAY	NV	89402
111-160-018-000	1330 CANTERBURY DR	FINK TIM ET AL			48 RANCH RD	SAN RAFAEL	CA	94903
111-160-019-000	1320 CANTERBURY DR	BARTLETT PAUL A ET AL			6435 SWAINLAND RD	OAKLAND	CA	94611
111-160-020-000	1310 CANTERBURY DR	MCGINNIS MICHAEL			P O BOX 9241	SOUTH LAKE TAHOE	CA	96158
111-160-021-000	1300 CANTERBURY DR	KINGSWOOD RESIDENTS ASSOC			OPEN SPACE	VALUE INC IN SUB	L	TS -0000
111-160-023-000	1290 CANTERBURY DR	COWAN WAYNE ELLIOTT & SANDRA K			P O BOX 1394	KINGS BEACH	CA	96143-1394
111-160-024-000	1310 COMMONWEALTH DR	PEEBLES PATRICIA L TRUSTEE			16191 SERENADE LN	HUNTINGTON BEACH	CA	92647
111-160-025-000	1300 COMMONWEALTH DR	DREW DON JR & BARBARA A TRUSTEES			799 COLLEEN DR	SAN JOSE	CA	95123
111-160-026-000	1305 COMMONWEALTH DR	MARDESICH MICHAEL J & KIM L			7493 FALLENLEAF LN	CUPERTINO	CA	95014
111-160-027-000	1315 COMMONWEALTH DR	FUNTANELLAS GEORGINA TTEE ET AL			4822 SULLIVAN WAY	SANTA ROSA	CA	95409
111-160-028-000	1305 COMMONWEALTH DR	SANTINA PETER F & BARBARA A TRUSTEES			1923 WHITCLIFFE WAY	WALNUT CREEK	CA	94596
111-160-029-000	1275 CANTERBURY DR	HARRISON DONALD C & LAURA M TR			9250 OLD INDIAN HILL RD	CINCINNATI	OH	45243
111-170-001-000	1370 CANTERBURY DR	KINGSWOOD RESIDENTS ASSN INC	C/O	BARNETT EDMUND S	P O BOX 6931	INCLINE VILLAGE	NV	89450
111-170-002-000	1380 CANTERBURY DR	RAMIREZ AGUSTIN E & MARGARET S TRUSTEES			601 CARIBBEAN WAY	SAN MATEO	CA	94402-3418
111-170-003-000	1400 CANTERBURY DR	BOXETH GARY LEE & PATRICIA D TRUSTEES			P O BOX 935	KINGS BEACH	CA	96143-0935
111-170-004-000	1390 CANTERBURY DR	UNDERWOOD ELBERT R & JUNE M TRUSTEES			P O BOX 429	KINGS BEACH	CA	96143
111-170-005-000	1105 CAMBRIDGE DR	KINGSWOOD RESIDENTS ASSOC INC	C/O	BARNETT EDMUND S	P O BOX 6931	INCLINE VILLAGE	NV	89450
111-170-006-000	1095 CAMBRIDGE DR	PETERS THOMAS JOHN & DIXIE LEE ET AL			P O BOX 460	TAHOE VISTA	CA	96148
111-170-007-000	1085 CAMBRIDGE DR	MAZALIN REBECCA S			P O BOX 481	TAHOE VISTA	CA	96148
111-170-010-000		KINGSWOOD RESIDENTS ASSOC			OPEN SPACE	VALUE INC IN SUB	L	TS -0000
111-170-011-000	1070 CAMBRIDGE DR	GEE DAVID & MARLENA T			49 NORWOOD AVE	KENSINGTON	CA	94707
111-170-019-000		KINGSWOOD RESIDENTS ASSOC			OPEN SPACE	VALUE INC IN SUB	L	TS -0000
111-170-020-000	1090 CAMBRIDGE DR	ENRIGHT CHERYL J			30 PATTON PL	HILLSBOROUGH	CA	94010
111-190-002-000	500 BROCKWAY CT	KINGSWOOD RESIDENTS ASSN INC	C/O	BARNETT EDMUND S	P O BOX 6931	INCLINE VILLAGE	NV	89450
111-190-003-000	400 BROCKWAY CT	KINGSWOOD RESIDENTS ASSN INC	C/O	BARNETT EDMUND S	P O BOX 6931	INCLINE VILLAGE	NV	89450

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111-190-038-000	305 BROCKWAY CT	MALIN SARAH A TTEES			P O BOX 1392	KINGS BEACH	CA	96143
111-190-039-000		KINGSWOOD RESIDENTS ASSOC	C/O	OPEN SPACE	VALUE PRORATED TO LOTS	N/A		
111-250-001-000		KINGSWOOD VILLAGE UNIT 3			COMMON AREA	VALUE PRORATED T	U	ITS -0000
111-270-013-000	1360 COMMONWEALTH DR	BOYLE RAYMOND & HELEN TTEES			230 SAN BENITO WAY	SAN FRANCISCO	CA	94127
111-270-014-000	1350 COMMONWEALTH DR	BOYLE HELEN TRUSTEE			230 SAN BENITO WAY	SAN FRANCISCO	CA	94127
111-270-015-000	1005 BRISTOL CIR	TEUBNER RICHARD C			P O BOX 469	TAHOE VISTA	CA	96148
111-270-016-000	1025 BRISTOL CIR	CARRILLO PHILIP HENRY SR & SUSAN LYNDELL TTEE			PO BOX 1916	KINGS BEACH	CA	96143
111-270-017-000	1045 BRISTOL CIR	KRUEGER LOIS K TRUSTEE			408 BLACK OAK DR	MICHIGAN CITY	IN	46360
111-270-018-000	1075 BRISTOL CIR	JOHNSON HAYES Q & MELINDA J TRUSTEES			PO BOX 2509	KINGS BEACH	CA	96143
111-270-029-000	1070 BRISTOL CIR	ZIEGLER LINDSEY ET AL			PO BOX 519	KINGS BEACH	CA	96143
111-270-030-000	1060 BRISTOL CIR	BRADLEY ROGER PETER TRUSTEE ET AL			4330 WHISPERING OAKS CIR	GRANITE BAY	CA	95746
111-270-031-000	1050 BRISTOL CIR	KRAUSS CLAY W			PO BOX 1120	KINGS BEACH	CA	96143
111-270-032-000		KINGSWOOD RESIDENTS ASSOC			OPEN SPACE	VALUE INC IN SUB	L	TS -0000
111-270-033-000	1040 BRISTOL CIR	WATSON MELVIN T TTEES			1390 BONUM WY	BRENTWOOD	CA	94513
111-270-034-000	1030 BRISTOL CIR	STARBAR MARY K ET AL			P O BOX 1801	KINGS BEACH	CA	96143
111-270-035-000	1020 BRISTOL CIR	SERGI RONALD J & SUZANNE TRUSTEES			P O BOX 278	KINGS BEACH	CA	96143
111-270-036-000	1010 BRISTOL CIR	ROSENBERG RUTH ANN & KRICKX GUIDO A TTEE			1015 WINDSOR DR	LAFAYETTE	CA	94549
111-270-037-000	1000 BRISTOL CIR	MCCURDY JOHN ROBERT & LAURIE FRANCES TRS			2015 E ARMSTRONG RD	LODI	CA	95240
111-270-038-000	1005 TRENT LN	NELSON GEORGIA K TRUSTEE ET AL			6975 SANDY CREEK CT	GRANITE BAY	CA	95746
111-270-039-000	1015 TRENT LN	WILLIAMS KENNETH R & LYNN A			P O BOX 3640	INCLINE VILLAGE	NV	89450
111-270-040-000	1025 TRENT LN	FENIMORE DAVID H TRUSTEE			P O BOX 2623	TRUCKEE	CA	96160
111-270-041-000	1035 TRENT LN	LEWICKI LESTER R & CHRISTINA E			P O BOX 1374	KINGS BEACH	CA	96143
111-270-042-000	1045 TRENT LN	LEWICKI LESTER R & CHRISTINA E WILLOUGHBY DON M & ELEANOR TRUSTEES			P O BOX 1374	KINGS BEACH	CA	96143
111-270-043-000	1047 TRENT LN				P O BOX 2686	KINGS BEACH	CA	96143
111-270-044-000	1055 TRENT LN	JOHNSON WILLIAM M JR ET AL			P O BOX 1334	CRYSTAL BAY	NV	89402
111-270-045-000	1057 TRENT LN	SUNSERI EDWARD W & PATRICIA			P O BOX 669	KINGS BEACH	CA	96143
111-270-046-000	1059 TRENT LN	MORRIS PETER W ET AL			P O BOX 1292	KINGS BEACH	CA	96143
111-270-047-000	1065 TRENT LN	BEAUMAN GALEN M			P O BOX 25	KINGS BEACH	CA	96143-0025
111-270-048-000	1067 TRENT LN	CAMPBELL LAUREN F & BETSY L TRUSTEES			P O BOX 2630	KINGS BEACH	CA	96143
111-270-054-000	1035 WINDSOR DR	GREEN SHERI WOODS			P O BOX 425	TAHOE VISTA	CA	96148
111-270-055-000	1025 WINDSOR DR	TROVINGER RUSSELL & CAROL TRUSTEES			1126 UPPER HAPPY VALLEY RD	LAFAYETTE	CA	94549
111-270-056-000	1015 WINDSOR DR	CAPRINI EVA O TTEE ET AL			301 MINOREA WAY	MILBRAE	CA	94030
111-270-057-000	1007 WINDSOR DR	RIENSTRA JAMES F & DIANE			P O BOX 784	KINGS BEACH	CA	96143
111-270-058-000	1005 WINDSOR DR	BRENES BERNIE A & LILLY A			P O BOX 291	TAHOE VISTA	CA	96148

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111-270-059-000	1345 COMMONWEALTH DR	DATTOLA PHILIP			P O BOX 17	DUNCANS MILLS	CA	95430
111-270-060-000	1010 TRENT LN	COLLEY ROBERT L			P O BOX 1576	TAHOE CITY	CA	96145
111-270-061-000	1020 TRENT LN	YABUKI MARY S	C/O	KENT YABUKI	7111 FAY AVE	LA JOLLA	CA	92037
111-270-062-000	1030 TRENT LN	CURRAN DONALD JAMES & FLORENCIA MARIA			RT 3 BOX 149	LA HONDA	CA	94020
111-270-063-000	1040 TRENT LN	KAITA ROY S & EMIKO TRUSTEES			829 VIRGINIA ST	WATSONVILLE	CA	95076
111-270-064-000	1050 TRENT LN	SCHOENWETTER PHILLIP E & JANET			30511 PALOS VERDES DRIVE EAST	RANCHO PALOS VERDES	CA	90275-6351
111-270-065-000	1060 TRENT LN	LARSEN KEITH & SHERYL			P O BOX 508	TAHOE VISTA	CA	96148
112-180-024-000	855 NORTHSORE BLVD	LANG ASTRID ROSA TRUSTEE			3203 CRESCENT AVE	MARINA	CA	93933
112-180-026-000	7997 TIGER AVE	GILLISPIE DON M & MARIA TTEE			P O BOX 2035	KINGS BEACH	CA	96143
112-180-027-000	882 NORTHSORE BLVD	TRIMM CHRISTOPHER J & ADRIENE			P O BOX 1635	CRYSTAL BAY	NV	89450
112-180-028-000	8003 GRIFF LN	MARSHMAN STEVEN B ET AL			P O BOX 1825	TRUCKEE	CA	96160
112-180-029-000	8015 GRIFF LN	MARSHMAN STEVEN B ET AL			P O BOX 1825	TRUCKEE	CA	96160
112-180-030-000	8031 GRIFF LN	GILMORE GREGORY R			P O BOX 7738	TAHOE CITY	CA	96145
112-180-031-000	8051 GRIFF LN	PARKER SAUNDRA LEIGH TTEE			P O BOX 255	TAHOE VISTA	CA	96148
112-180-032-000	8026 GRIFF LN	JACKSON KRISTEN RICKER & TORY P			P O BOX 1605	KINGS BEACH	CA	96143
112-180-033-000	828 NORTHSORE BLVD	MULKEY C T			P O BOX 1595	CARNELIAN BAY	CA	96140
112-180-034-000	818 NORTHSORE BLVD	DOMINGUEZ ROSEANNE ET AL			1348 RIDGEWOOD DR	SAN JOSE	CA	95118
112-180-035-000	804 NORTHSORE BLVD	ANDERSON CLIFFORD D & VICTORIA M TTEE			PO BOX 552	CRYSTAL BAY	NV	89402
112-180-037-000		PLACER COUNTY OF			EXEMPT FROM TAXATION	SUR PROP NORTH S	OR	BLVD0000
112-180-038-000	796 NORTHSORE BLVD	ALLEN CHRISTINA L			2413 SHARON RD	MENLO PARK	CA	94025
112-180-039-000	788 NORTHSORE BLVD	GOOD MICHELE A			788 N SHORE BLVD	KINGS BEACH	CA	96143
112-180-040-000	7990 TIGER AVE	MCCORMICK ROBERT M			P O BOX 986	KINGS BEACH	CA	96143-0986
112-180-041-000	7992 TIGER AVE	MCCORMICK ROBERT M			P O BOX 986	KINGS BEACH	CA	96143-0986
112-180-075-000	798 NORTHSORE BLVD	PHARES LON & LAURA TRUSTEES			3415 CLARIDGE DR	DANVILLE	CA	94526
112-190-049-000	784 NORTHSORE BLVD	CAVALIERI BASIL & BARBARA M TTEES			28 CAMINO ALTO	MILLBRAE	CA	94030
112-190-050-000	780 NORTHSORE BLVD	MOTSENBOCKER KARL O ET AL			P O BOX 6900	TAHOE CITY	CA	96145
112-190-051-000	770 NORTHSORE BLVD	ELLS BRUCE D TTEE			P O BOX 123	TAHOE CITY	CA	96145
112-190-052-000	760 NORTHSORE BLVD	CARSON CRAIG K & PAULETTE K			2601 ANDERSON LN	BRENTWOOD	CA	94513
112-290-015-000	920 RUSTY RD	ALTICK HARRY P			30 LUCKY DR	GREENBRAE	CA	94904
112-290-016-000	930 RUSTY RD	OESCHGER JEAN DOROTHY TR ET AL	C/O	BEACH STEVEN W	P O BOX 70204	SUNNVVALE	CA	94086-0204
112-290-017-000		BROCKWAY TRACT ASSOC INC	C/O	OPPENHEIM PETER	OPEN SPACE	VALUE INC IN SUB	L	TS -0000
112-290-019-000	926 RUSTY RD	HESLET FREDERICK ELLIS & MARY LOU TRS	C/O	PATRICIA ROMA	229 BRANNAN ST #17D	SAN FRANCISCO	CA	94107
112-290-020-000	900 RUSTY RD	ROY DELWIN ADAMS & CORINNE EDA TTEES			530 GIORGIO WAY	APTOS	CA	95003

List of Property Owners within 300 feet of the North Tahoe Upgrade Project (625) - Placer County

APN	Site Address	Owner	Care Of	In Care of Name	Mailing Address	Mailing Street	Mailing State	Mailing Zip Code
090-030-017-000		ALLEN CHRISTINA L			2413 SHARON RD	MENLO PARK	CA	94025
090-030-018-000		MOTSENBOCKER KARL O ET AL			P O BOX 6900	TAHOE CITY	CA	96145
090-041-002-000	731 WOLF ST	THOMAS MICHAEL C & ANNE NICOL TRUSTEES			P O BOX 670	FORT BRAGG	CA	95437
090-041-005-000	8229 SPECKLED AVE	YANKTON BRUCE J & ALICE BOYD			P O BOX 2360	KINGS BEACH	CA	96143
090-041-009-000		RYE BRIAN J & DAWN C			P O BOX 550	TAHOE VISTA	CA	96148-0550
090-041-010-000	8197 SPECKLED AVE	BUCHER JOE			P O BOX 886	CRYSTAL BAY	NV	89402
090-041-026-000		TAHOE TRUCKEE DISPOSAL CO INC			P O BOX 135	TAHOE CITY	CA	96145
090-041-027-000		TAHOE TRUCKEE DISPOSAL CO INC			P O BOX 135	TAHOE CITY	CA	96145
090-041-028-000	710 WOLF ST	RYE BRIAN J & DAWN C			P O BOX 550	TAHOE VISTA	CA	96148-0550
090-041-029-000		YANKTON BRUCE J & ALICE BOYD			P O BOX 2360	KINGS BEACH	CA	96143
091-100-027-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
094-180-018-000		TAHOE CITY PUBLIC UTILITY DIST			EXEMPT FROM TAXATION	N/A	CA	00000
094-180-024-000	205 FAIRWAY DR 600 RIVER RD	BELL JUDITH A TTEE ET AL			815 ALSTON RD	SANTA BARBARA	CA	93108
094-180-045-000	RIVER RD	WILLIAMSON JAMES MARK			P O BOX 649	TAHOE CITY	CA	96145
094-190-004-000	205 RIVER RD	FULLER ELLIS W			P O BOX 1799	TAHOE CITY	CA	96145
094-190-005-000	195 RIVER RD	BELL JUDITH A TRUSTEE ET AL			815 ALSTON RD	SANTA BARBARA	CA	93108
094-190-006-000	165 RIVER RD	DAVIS GOTT LANDHOLDINGS LLC			P O BOX 7392	TAHOE CITY	CA	96145
094-190-007-000	135 RIVER RD	DIETZ WILLIAM & KELLY TRUSTEES			P O BOX 1823	TAHOE CITY	CA	96145
094-190-021-000	310 RIVER RD	RICKMAN STELLA TRUSTEE ET AL			PO BOX 5218	TAHOE CITY	CA	96145-5218
094-190-022-000		PLACER COUNTY OF	C/O	C/O EXEMPT FROM TAXATION	11444 B AV (DPW)	AUBURN	CA	95603
094-190-025-000	300 RIVER RD	C & J COX CORPORATION	C/O	COX CARL A	4431 STONERIDGE DR	PLEASANTON	CA	94588
094-190-026-000	200 RIVER RD	PLACER COUNTY OF	C/O	C/O EXEMPT FROM TAXATION	11444 B AVE (DPW)	AUBURN	CA	95603
094-540-013-000	221 FAIRWAY DR	TAHOE CITY PUBLIC UTILITY DISTRICT	C/O	EXEMPT FROM TAXATION	870 EMERALD BAY RD #1	SOUTH LAKE TAHOE	CA	96150
094-540-014-000	RIVER RD	TAHOE CITY PUBLIC UTILITY DISTRICT	C/O	EXEMPT FROM TAXATION	870 EMERALD BAY RD #1	SOUTH LAKE TAHOE	CA	96150
094-540-020-000	150 LAKE BLVD	CHOQUETTE NANCY H TTEE ET AL			11 NIDDEN	IRVINE	CA	92603
094-540-023-000	55 LAKE BLVD	BELLS RIVER PROPERTIES			P O BOX 7605	TAHOE CITY	CA	96145

List of Property Owners within 300 feet of the North Tahoe Upgrade Project (625) - Placer County

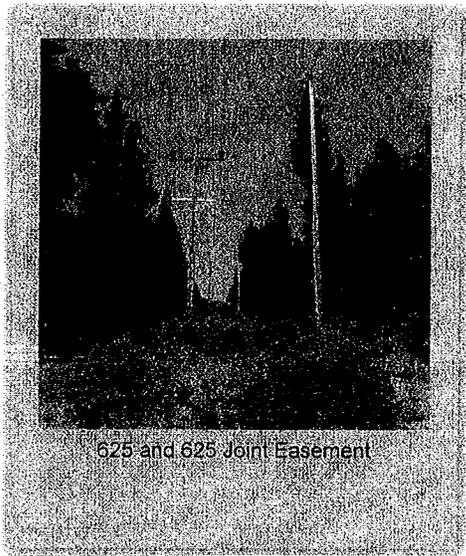
APN	Site Address	Owner	Care Of	In Care of Name	Mailing Address	Mailing Street	Mailing State	Mailing Zip Code
094-540-024-000	205 RIVER RD	FULLER ELLIS W			P O BOX 1799	TAHOE CITY	CA	96145
094-540-025-000	75 LAKE BLVD	BRIDGETENDER LLC			P O BOX 1799	TAHOE CITY	CA	96145
094-540-026-000		TAHOE CITY PUBLIC UTILITY DISTRICT	C/O	EXEMPT FROM TAXATION	P O BOX 33	TAHOE CITY	CA	96145
095-110-009-000	700 RIVER RD	DEVORE BRYAN ET AL			PO BOX 7894	TAHOE CITY	CA	96145
095-110-022-000	760 RIVER RD	FASSBENDER FRANZ & UTE			P O BOX 471	TAHOE CITY	CA	96145
095-110-023-000	718 RIVER RD	DEVORE BRYAN ET AL	C/O	ROBERT GEBHARDT	PO BOX 7894	TAHOE CITY	CA	96145
095-110-024-000	730 RIVER RD	DRILLER RONALD A & DIANNA C ET AL			P O BOX 675	TAHOE CITY	CA	96145
110-050-026-000		CNL INCOME NORTHSTAR LLC			450 S ORANGE AVE 12TH FL	ORLANDO	FL	32801
110-050-030-000		SIERRA PACIFIC INDUSTRIES	C/O	FROST JACK G	P O BOX 496014	REDDING	CA	96049
110-060-014-000		SIERRA PACIFIC INDUSTRIES			P O BOX 496014	REDDING	CA	96049-6014
111-270-012-000	1370 COMMONWEALTH DR	MARDESICH RICHARD N			20031 OLD SANTA CRUZ HWY	LOS GATOS	CA	95033
111-270-019-000	1085 BRISTOL CIR	FERGUSON ROBERT G & KARLEEN KAY TTEE			27 VIA BELLA	RANCHO MIRAGE	CA	92270
111-270-020-000	1095 BRISTOL CIR	LEGNON RICHARD A & KIMBERLY M			10320 MINLO OAKS CT	ELK GROVE	CA	95624
111-270-021-000	1105 BRISTOL CIR	VOGEL PAULETTE GOURSOU TRUSTEE			P O BOX 93	KINGS BEACH	CA	96143
111-270-022-000	1115 BRISTOL CIR	DANIELS DANNY & SUSAN			P O BOX 92	TAHOE VISTA	CA	96148
111-270-023-000	1100 BRISTOL CIR	SPOTTS JANA R			2538 POLK ST	SAN FRANCISCO	CA	94109
111-270-024-000	205 HASTINGS LN	OKERMAN E G & MARTHA D TRUSTEES			1224 LINDELL DR	WALNUT CREEK	CA	94595
111-270-025-000	305 HASTINGS LN	DEL CARLO ROBERT C & SUSAN J TRUSTEES			25 GARNER DR	NOVATO	CA	94947
111-270-026-000	200 HASTINGS LN	UOMINI ROBERT G			62 LENOX RD	KENSINGTON	CA	94707
111-270-027-000	1090 BRISTOL CIR	POTTER MARK H & LAURA PEART ET AL			1935 KNOLLWOOD LN	LOS ALTOS	CA	94024
111-270-028-000	1080 BRISTOL CIR	MINARIK MELANIE M ET AL			5380 SIMONS DR	RENO	NV	89523
111-280-008-000	1035 LAKE VISTA RD	DUITTO FAMILY LIMITED PARTNERSHIP			1857 GREENWICH ST	SAN FRANCISCO	CA	94123
111-280-009-000		NORTH TAHOE P U D			EXEMPT FROM TAXATION	N/A	CA	00000
111-280-010-000	1050 LAKE VISTA RD	DICKES TAHOE ESTATE LLC			P O BOX 4550	CLEARWATER	FL	337584550
111-280-011-000	1040 LAKE VISTA RD	MONROE JIM S & ANNE S TRS			42 MAGNOLIA PL	DANVILLE	CA	94506

List of Property Owners within 300 feet of the North Tahoe Upgrade Project (625) - Placer County

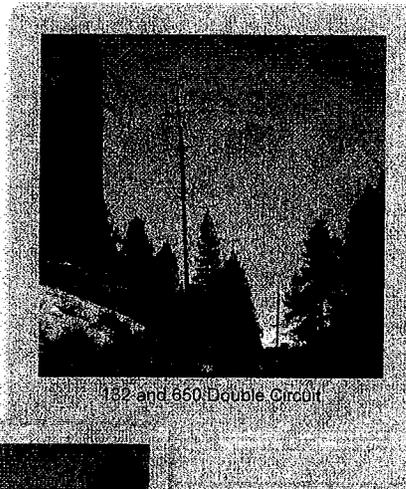
APN	Site Address	Owner	Care Of	In Care of Name	Mailing Address	Mailing Street	Mailing State	Mailing Zip Code
111-280-023-000	1035 SALISBURY LN	RUSSELL WILLIAM F & PATRICIA M			P O BOX 1237	KINGS BEACH	CA	96143
111-280-024-000	1045 SALISBURY LN	EHLERS RONALD & DORIS TRUSTEES			1527 ALTURAS DR	BURLINGAME	CA	94010
111-280-025-000	1055 SALISBURY LN	RUSO LEONARD J TTEE			1752 STONE CANYON DR	ROSEVILLE	CA	956614041
111-280-026-000	1059 SALISBURY LN	SHELL VAUGHN D & LAVERNE JEANENE TRUSTEES			3500 PICKWICK COURT	CARMICHAEL	CA	95608
111-280-027-000	1063 SALISBURY LN	SEYMOUR FRANK L III & BRENDA COLE TRS			439 ARKANSAS ST	SAN FRANCISCO	CA	94107
111-280-029-000	1060 SALISBURY LN	TAYLOR OWEN M & RENEE			8801 ROUNDTABLE CT	FAIR OAKS	CA	95628
111-280-030-000	1050 SALISBURY LN	BALZHISER ROBERT M & LYNN KATHRYN TRS			126 BURNT CREEK WAY	FOLSOM	CA	95630
111-280-031-000	1040 SALISBURY LN	GLOATES DANIEL GARY			695 BUTTE STREET	SAUSALITO	CA	94965
111-280-032-000	1110 BRISTOL CIR	YANG CHEH SUEI & ROSA L TRUSTEES ET AL			1442 CLUB VIEW TERRACE	LOS ALTOS	CA	94024

APPENDIX F: ELECTRIC AND MAGNETIC FIELDS

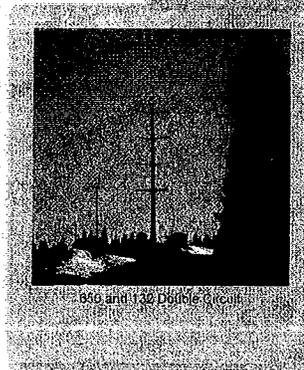
Field Management Plan
625 and 650 Line Upgrade Project
Sierra Pacific Power Company



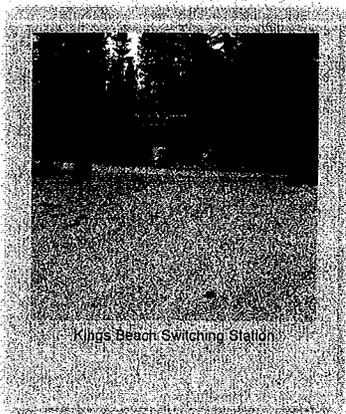
625 and 625 Joint Easement



652 and 650 Double Circuit



650 and 650 Double Circuit



Kings Beach Switching Station



625 Line

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Field Management Plan

625 and 650 Line Upgrade Project

The following examines potential public health and safety impacts related to the 625 and 650 Line Upgrade Project.

ELECTRIC AND MAGNETIC FIELDS

Electric and Magnetic fields exist everywhere.

The generation, delivery and use of electricity produce electric and magnetic fields (EMF). EMF is a term used to describe electric and magnetic fields that are created by electrical voltage (electric field) and electrical current (magnetic field). This document provides an overview of EMF and describes some of the typical public health issues related to transmission lines. An evaluation of potential health and safety impacts from the upgrade of the North Lake Tahoe 625 and 650 transmission lines is also included.

ELECTRIC FIELDS OVERVIEW

The potential or voltage (electrical pressure) on an object causes electric fields. Any object with an electric charge on it has a voltage (potential) at its surface. Electric fields can exert a force on other electric charges at a distance. The change in voltage over distance is known as the electric field. The units describing an electric field are volts per meter or kilovolts per meter (kV/m). This unit is a measure of the difference in electrical potential or voltage that exists between two points one meter apart. The electric field becomes stronger near a charged object and decreases with distance away from the object.

All household appliances and other devices that operate on electricity create electric fields. Fields produced by electrical appliances that use alternating current reverse direction at a frequency of 60 cycles per second (60 Hertz, or Hz). The magnitude of the electric field decreases rapidly with distance from the device. The field caused by point source (compact, small-dimension) household appliances generally attenuates more rapidly with distance than line source fields (such as from power lines). Appliances need not be in operation to create an electric field. Just plugging an appliance into an electrical outlet creates an electric field around it.

Electrical Distribution and Transmission Lines

Electric power distribution and transmission lines create 60 Hz electric fields. These fields result from the voltage of the transmission line phase conductors with respect to the ground. Electric field strengths from a transmission line decrease with distance away from the outermost conductor,

typically at a rate of approximately one divided by the distance squared ($1/d^2$). As an example, in an unperturbed field, if the electric field strength were 1.0 kV/m at a distance of one meter away, it would be approximately 0.25 kV/m at two meters away and 0.0625 kV/m at four meters away. Electric field strength for a transmission line remains nearly constant over time because the voltage of the line is kept within bounds of about $\pm 5\%$ of its rated voltage.

Substations

Electric power substations also create electric fields due to voltage on station components. The equipment, or components of a substation, acts as point sources of an electric field, similar to appliances in a home. As the distance from these point sources becomes greater than the physical size of the equipment acting as a source, the field is greatly reduced; this is also true for substation components such as bus work. The electric fields of station equipment (e.g., transformers, circuit breakers, etc.) decrease external to a substation at a rate of approximately one divided by the distance cubed; unless an overhead power line is nearby. For example, a field of 1.0 kV/m at one meter away would be approximately 0.125 kV/m at two meters away; and 0.0156 kV/m at four meters away. Substation electric fields outside the fenced equipment area are typically very low because of shielding by metallic substation components themselves, as well as by the metal fencing surrounding the substation.

MAGNETIC FIELDS OVERVIEW

An electric current flowing in a conductor (e.g., electric equipment, household appliance, power circuits, etc.) creates a magnetic field. The most commonly used magnetic field intensity unit of measure is the gauss (G). For most practical applications, the gauss is too large, so a much smaller unit, the milligauss (mG), is used for reporting magnetic field magnitudes. A mG is one thousandth of a G. As a general reference, the earth has a natural static or direct current (DC) magnetic field of about 500 mG. As with electric fields, the magnetic fields from electric power facilities and appliances differ from static (or DC) fields because they are caused by the flow of 60 Hz alternating currents. Power frequency magnetic fields reverse direction at a rate of 60 cycles per second, corresponding to the 60 Hz operating frequency of the power systems in the United States (U.S.).

Since the magnetic field is caused by the flow of an electric current, a device must be operating to create a magnetic field. The Illinois Institute of Technology Research measured magnetic field strengths of a large number of common household appliances for the U.S. Navy (Gauger 1985), and by Enertech Consultants for the Electric Power Research Institute (Silva 1989). Typical magnetic field values for some appliances are presented in the table below to facilitate a better understanding of magnetic field strength values.

MAGNETIC FIELDS FROM HOUSEHOLD APPLIANCES

Magnetic Field (mG)		
Appliance	12 feet Away	Maximum
Electric Range	3 to 30	100 to 1,200
Electric Oven	2 to 25	10 to 50
Garbage Disposal	10 to 20	850 to 1,250
Refrigerator	0.3 to 3	4 to 15
Clothes Washer	2 to 30	10 to 400
Clothes Dryer	1 to 3	3 to 80
Coffee Maker	0.8 to 1	15 to 250
Toaster	0.6 to 8	70 to 150
Crock Pot	0.8 to 1	15 to 80
Iron	1 to 3	90 to 300
Can Opener	35 to 250	10,000 to 20,000
Mixer	6 to 100	500 to 7,000
Blender, Popper, Processor	6 to 20	250 to 1,050
Vacuum Cleaner	20 to 200	2,000 to 8,000
Portable Heater	1 to 40	100 to 1,100
Fans/Blower	0.4 to 40	20 to 300
Hair Dryer	1 to 70	60 to 20,000
Electric Shaver	1 to 100	150 to 15,000
Color TV	9 to 20	150 to 500
Fluorescent Fixture	2 to 40	140 to 2,000

Fluorescent Desk	6 to 20	400 to 3,500
Circular Saw	1 to 250	2,00 to 10,000
Electric Drill	25 to 35	4,000 to 8,000

Source: Falcon-Gonder 345kv Environmental Impact Statement

There are many sources of magnetic fields encountered in everyday activities. Two major research projects have been conducted to estimate public exposure to ambient 60 Hz magnetic fields. This work was done to identify typical levels encountered by people inside homes and elsewhere. In the first study, a large number of residences located throughout the U.S. were measured to determine the sources and characteristics of residential magnetic fields (Eneritech 1993). The following table summarizes the results of spot (point-in-time) magnetic field measurements made in the rooms of almost 1,000 residences. The average measured value for all rooms in this study was 0.9 mG.

Another comprehensive study of contemporary magnetic field exposure was recently performed for the U.S. Department of Energy (Eneritech 1998). The objective of this work was to characterize personal magnetic field exposure of the general population. This was accomplished by randomly selecting over 1,000 people throughout the U.S. and recruiting these people to wear a recording magnetic field meter during a typical 24-hour period, including all activity inside and away from the place of residence. The study population was selected in a manner to be representative of the general population. The measurement population (both genders) included about 874 adults and 138 children. The U.S. 24-hour average for all people in this study was 1.25 mG. The following tables summarize results for fractions of the U.S population that exceed selected magnetic field levels and the exposure levels measured for different occupations.

SUMMARY OF SPOT ROOM MEASUREMENTS IN THE UNITED STATES (992 RESIDENCES)- MG

Values Exceeded in:	Median	Average	ALL ROOMS		
			Kitchen	Bedroom (s)	Highest Room *
50 % of Residences	0.5	0.6	0.7	0.5	1.1
25 % of Residences	1.0	1.1	1.2	1.0	2.1
10 % of Residences	1.7	2.1	2.4	2.0	3.8
5 % of Residences	2.6	3.0	3.5	2.9	5.6
1 % of Residences	5.8	6.6	6.4	7.7	12.2

* Any room in which spot field measurement had the highest value

PERCENTAGE OF U.S. POPULATION WITH AVERAGE FIELD EXPOSURE EXCEEDING GIVEN VALUES

24-Hr Field	Est. Portion	95% Confidence Interval	Population Range
> 0.5 mG	76.3%	73.8 % - 78.9 %	197 - 211 million
> 1 mG	43.6%	41 % - 46.5 %	109 - 124 million
> 2 mG	14.3%	11.9 % - 17.2 %	31.8 - 45.9 million
> 3 mG	6.3%	4.8 % - 8.3 %	12.8 - 22.2 million
> 4 mG	3.35%	2.4 % - 4.7 %	6.4 - 12.5 million
> 5 mG	2.42%	1.67 % - 3.52 %	4.5 - 9.4 million
> 10 mG	0.43%	0.21 % - 0.90 %	0.56 - 2.4 million
> 15 mG	0.1%	0.02 % - 0.55 %	50 thousand - 1.5 million

AVERAGE MAGNETIC FIELD EXPOSURE DURING WORK FOR DIFFERENT OCCUPATIONS

Occupation	N	Avg. Field At Work
Managerial, professional, specialty	204	1.64 mG
Technical, sales, administrative, support	166	1.58 mG
Service: Protective, food, health, cleaning	71	2.74 mG
Farming, forestry, fishing	19	0.91 mG
Precision production, craft, repair, operators, Fabricators, laborers	128	1.73 mG
Electrical	16	2.15 mG

Transmission Lines

The current flowing on the phase conductors generates transmission line magnetic fields. Similar to the electric field, field strengths decrease with distance away from the line. Unlike electric fields that vary little over time, magnetic fields are not constant over time because the current on any power line changes in response to increasing and decreasing electrical load.

Substations

Electric power substations also create magnetic fields due to current flow on station components. Because a substation is a collection of components that can each be a magnetic field source, a substation complex is often treated as a single point source for external field measurements taken at a distance. External magnetic fields associated with the substation (e.g., the collection of equipment or components) can be considered separately from the magnetic fields associated with the power lines that serve the substation. The manner in which substation component magnetic fields attenuate with distance is similar to that from appliances, where the field strengths diminish rapidly as the distance from the source grows larger than the dimensions of the source itself (for example, a transformer). Therefore, at distances on the order of 50 feet or more from the substation fence, the external magnetic field would have decreased to a much lower level than the level inside the substation. In contrast to electric fields, the substation magnetic fields are not affected significantly (shielded) by most common objects.

OTHER FACTORS

LIGHTNING

Lightning has a tendency to strike tall conducting objects. Concern is sometimes expressed that transmission lines are unsafe in electrical storms or somehow attract lightning. However, transmission lines do not "attract" lightning. Atmospheric electricity strikes the earth at locations where localized charge in a cloud and surface conditions cause a lightning stroke to occur. A lightning strike usually hits the tallest object within the immediate area. If the transmission line were not present, some other object within the immediate area would still be struck by lightning.

PACEMAKERS

One area of concern related to the EMF of transmission lines has been the possibility of interference with cardiac pacemakers. The asynchronous pacemaker pulses at a predetermined rate. It is practically immune to interference because it has no sensing circuitry and is not exceptionally complex. The synchronous pacemaker, on the other hand, pulses only when its sensing circuitry determines that pacing is necessary. The concern is that interference could result from transmission line EMF, and cause a spurious signal in the pacemaker's sensing circuitry (Sastre 1997). However, when these pacemakers detect a spurious signal, such as an induced 60 Hz current, they are programmed to revert to an asynchronous or fixed pacing mode of operation and return to

synchronous operation within a specified time after the signal is no longer detected. The issue for pacemakers is if power line fields could adversely affect their operation.

The potential for pacemaker interference from power line fields depends on the manufacturer, model, and implantation method, among other factors. Typically, EMF levels at a transmission line right-of-way (ROW) edge are usually below interference levels, but within the ROW the electric field threshold for interference may be exceeded. Interference can cause some pacemakers to switch from a normal full function pacing mode to an "asynchronous" fixed pace mode. Some new pacemaker models can be more sensitive to external interference, while other models appear unaffected. The biological consequences of brief, reversible pacemaker malfunction are mostly benign. The EMF levels for the proposed project will be below the threshold levels established by the American Conference of Governmental Industrial Hygienists.

CORONA EFFECTS

One of the phenomena associated with all energized electrical devices, including high-voltage transmission lines, is corona. Under certain conditions, the localized electric field near an energized conductor can be sufficiently concentrated to ionize air close to the conductors. This can result in a partial discharge of electrical energy called a corona discharge, or corona. Several factors, including conductor voltage, shape and diameter, and surface irregularities such as scratches, nicks, dust, or water drops can affect a conductor's electrical surface gradient and its corona performance. Corona is the physical manifestation of energy loss, and can transform discharge energy into very small amounts of sound, radio frequency noise, heat, and chemical reactions of the air components. Corona from typical 120-kilovolt (kV) lines is of little consequence.

HUMAN HEALTH STUDIES

Possible health effects from exposure to EMF have been studied for more than a quarter century.

There have been a variety of health concerns that included a variety of diseases and other health endpoints such as reproductive outcome. The possible effect of EMF on human health was originally focused on electric fields, but much of the recent research has focused on magnetic fields. Some of the initial concern was raised by studies done in Denver that reported a positive association between cancer incidence and homes that were near certain power line configurations that were thought to produce high levels of magnetic fields (Wertheimer 1979, 1981). Since then, much research has been done to evaluate the potential for EMF exposure to affect human health.

Some of these studies have generally found no conclusive evidence of harmful effects from typical power line and substation EMF. However, some studies during this period did report the potential for harmful effects to humans. Complicating the resolution of this issue is the lack of knowledge as to what characteristics of EMF exposure (if any) need to be considered to assess human exposure effects. The exposure most often considered is intensity or magnitude of the field.

As discussed below, there is a consensus among the medical and scientific communities that there is insufficient evidence to conclude that EMF causes adverse health effects. Neither the medical nor the scientific communities have been able to provide any foundation upon which federal or state regulatory bodies could establish a standard or limit for exposure that is known to be either safe or harmful.

There is a large body of EMF health literature. Perhaps the best way to evaluate the potential for EMF exposure to affect human health is to consider some of the extensive scientific literature reviews of the extant research conducted by independent reviewer committees. The Oak Ridge Associated Universities (ORAU) established a panel at the request of The Committee on Interagency Radiation Research and Policy Coordination, to perform an independent scientific review and evaluate the reported health hazards of exposure to extremely low-frequency EMF.

The panel reviewed about 1,000 journal articles published within the last 20 years. The ORAU panel completed their EMF literature review and published a report (ORAU 1992) in 1992. In the conclusions to the report, the authors state (ORAU 1992: VIII-10-10-11-11):

This review indicates that there is no convincing evidence in the published literature to support the contention that exposures to extremely low frequency electric and magnetic fields (ELF-EMF) generated by sources such as household appliance, video display terminals, and local power lines are demonstrable health hazards.

It states later in the report:

Although exposure to ELF-EMF does not appear to constitute a public health problem, there is evidence that these fields may produce some biological effects, such as changes in the pattern of secretion of the hormone melatonin and enhancement of healing of bone fractures. These findings and those described elsewhere in the report suggest areas of some scientific interest and warrant consideration for further research.

The report concludes with:

This review does not provide justification for a major expansion of the national research effort to investigate the health effects of ELF-EMF. In the broad scope of research needs in basic science and health research, any health concerns of exposures to ELF-EMF should not receive a high priority.

American Medical Association

The American Medical Association (AMA) adopted recommendations of its Council on Scientific Affairs (CSA) regarding EMF health effects. The report was prepared as a result of a resolution passed at the 1993 annual meeting. The following statements were adopted and are based on the CSA's review of EMF epidemiologic and laboratory studies to date, as well as on several major literature reviews (AMA 1994: 12), as follows:

- That no scientifically documented health risk has been associated with the usually occurring levels of electromagnetic fields; nevertheless, the AMA should continue to monitor developments and issues related to the subject.
- That the AMA should encourage research efforts sponsored by agencies such as the National Institutes of Health, the U.S. Department of Energy (DOE), and the National Science Foundation to continue on exposures to electromagnetic fields and their effects, average public exposures, occupational exposures, and the effects of field surges and harmonics.
- That the AMA should support the meeting of an authoritative, multidisciplinary committee under the auspices of the National Academy of Sciences or the National Council on Radiation Protection and Measurements to make recommendations about exposure levels of the public and workers to electromagnetic fields and radiation.

AMERICAN CANCER SOCIETY

In the journal, *A Cancer Journal for Clinicians*, the American Cancer Society (ACS) reviewed EMF residential and occupational epidemiologic research in an article written by Dr. Clark W. Heath Jr., ACS's vice president of epidemiology and surveillance research. Dr. Heath reviews 13 residential epidemiologic studies of adult and childhood cancer and reported the following (ACS 1996:42):

The weakness and inconsistent nature of epidemiologic data, combined with the continued dearth of coherent and reproducible finding from experimental laboratory research, leave on uncertain and rather doubtful that any real biological link exists between EMF exposure and carcinogenicity.

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

The federal government has recently completed a \$60-million EMF research program managed by the National Institute of Environmental Health Sciences (NIEHS) and the U.S. DOE. This comprehensive EMF research program was called EMF RAPID (Research and Public Information Dissemination) Program. At the conclusion of this major effort, the NIEHS submitted a report to the U.S. Congress on their findings (NIEHS 1999).

Among other things, the NIEHS concluded that:

The NIEHS believes that the probability that ELF-EMF exposure is truly a health hazard is currently small. The weak epidemiological associations and lack of any laboratory support for these associations provide only marginal, scientific support that exposure to this agent is causing any degree of harm. (NIEHS 1999:36).

The NIEHS report also included the following conclusions:

Epidemiological studies have serious limitations in their ability to demonstrate a cause and effect relationship whereas laboratory studies, by design, can clearly show that cause and effect are possible. Virtually all of the laboratory evidence in animals and humans and most of the mechanistic work done in cells fail to support a causal relationship between exposure to ELF-EMF at environmental levels and changes in biological function or disease status. The lack of consistent, positive findings in animal or mechanistic studies weakens the belief that this association is actually due to ELF-EMF, but it cannot completely discount the epidemiological findings. (NIEHS 1999:ii).

The NIEHS agrees that the associations reported for childhood leukemia and adult chronic lymphocytic leukemia cannot be dismissed easily as random or negative findings. The lack of positive findings in animals or in mechanistic studies weakens the belief that this association is actually due to ELF-EMF, but cannot completely discount the finding. The NIEHS also agrees with the conclusion that no other cancers or non-cancer health outcomes provide sufficient evidence of a risk to warrant concern. (NIEHS 1999:36).

The National Toxicology Program routinely examines environmental exposures to determine the degree to which they constitute a human cancer risk and produces the 'Report on Carcinogens' listing agents that are 'known human carcinogens' or 'reasonably anticipated to be human carcinogens.' It is our opinion that based on evidence to date, ELF-EMF exposure would not be listed in the 'Report on Carcinogens' as an agent 'reasonably anticipated to be a human carcinogen. This is based on the limited epidemiological evidence and the findings from the EMF-RAPID Program that did not indicate an effect of ELF-EMF exposure in experimental animals or a mechanistic basis for carcinogenicity. (NIEHS 1999:37).

The NIEHS suggests that the level and strength of evidence supporting ELF-EMF exposure as a human health hazard are insufficient to warrant aggressive regulatory actions; thus, we do not recommend actions such as stringent standards on electric appliances and a national program to bury all transmission and distribution lines. Instead, the evidence suggests passive measures such as a continued emphasis on educating both the public and the regulated community on means aimed at reducing exposures. NIEHS suggests that the power industry continue its current practice of siting power lines to reduce exposures and continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards. We also encourage technologies that lower exposures from neighborhood distribution lines provided that they do not increase other risks, such as those from accidental electrocution or fire. (NIEHS 1999:37-38).

HEALTH PROTECTION AGENCY – ADVISORY GROUP ON NON-IONIZING RADIATION (AGNIR)

In Britain, the Health Protection Agency – Advisory Group on Non-Ionizing Radiation concluded in its most recent report:

"Laboratory experiments have provided no good evidence the ELF electromagnetic fields are capable of producing cancer, no do human epidemiological studies suggest that they cause cancer in general. There is however some epidemiological evidence that prolonged exposure to higher levels of power frequency magnetic fields is associated with a small risk of leukemia in children. In practice, such levels of exposure are seldom encountered by the general public in the UK. In the absence of clear evidence of a carcinogenic effect in adults, or of a plausible explanation from experiments on animals or isolated cells, the epidemiological evidence is currently not strong enough to justify the firm conclusion that such fields cause leukemia in children. Unless, however, further research indicates that the finding is due to chance or some currently unrecognized artifact, the possibility remains that intense and prolonged exposures to magnetic fields can increase the risk of leukemia in children." (AGNIR Report, page 164, paragraph 15.)

WORLD HEALTH ORGANIZATION

The World Health Organization's International Agency for Research on Cancer (IARC) (2002) review found that:

- *"There is limited evidence in humans for the carcinogenicity of extremely low-frequency magnetic fields in relation to childhood leukemia."*
- *"There is inadequate evidence in humans for the carcinogenicity of extremely low-frequency magnetic fields in relation to all other cancers."*
- *"There is inadequate evidence in humans for the carcinogenicity of static electric or magnetic fields and extremely low-frequency electric fields."*
- *"There is inadequate evidence in experimental animals for the carcinogenicity of extremely low-frequency magnetic fields."*
- *Leading to the conclusion that: Extremely low-frequency magnetic fields are possibly carcinogenic to humans (Group 2B)"*
- *"Possible carcinogenic to humans" is a classification used to denote an agent for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence for carcinogenicity in experimental animals."*

THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES

The California Department of Health Services recently completed their EMF Risk Evaluation Report and they concluded that:

"To one degree or another, all three scientists are inclined to believe that EMF'S can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's disease, and miscarriage." .

"They strongly believe that EMF are not a universal carcinogen ,....." .

"To one degree or another they are inclined to believe that EMF'S do not increase the risk of breast cancer, heart disease, Alzheimer's disease, depression,"

CDHS differs from all other reviewing agencies in the likelihood it places on an EMF risk existing at all. Other agencies find EMF health risks "possible" but not probable. Those that have expressed an opinion as to the strength of evidence for a risk have not found EMF risk to be likely. Nor have they found the evidence strong. Up until now there has been amazing consistency among scores of EMF reviewers that have been conducted worldwide.

ELECTRIC and MAGNETIC FIELD STANDARDS and MAGNETIC FIELD REDUCTION MEASURES

EMF Standards in California

Like most states, the State of California does not have an EMF standard for electrical transmission lines. Instead the California Public Utilities Commission (CPUC) has adopted a precautionary "no-cost and low-cost" EMF policy based on the recognition that scientific research has not demonstrated that exposures to EMF cause health hazards and that it was inappropriate to set numeric standards. The CPUC has developed an overall benchmark of 4% of the total cost of the project to be directed towards the cost of EMF mitigation.

Transmission Design with Magnetic Field Reduction

The methods described here to reduce exposure to magnetic fields can also reduce exposure to electric fields; however, it is the intent of this plan to reduce the magnetic field.

Sierra Pacific Power Company (SPPCo) has identified several methods that can be incorporated into the design of the project to reduce the magnetic field associated with the 650 and 625 transmission lines and associated substations. These "low-cost / no-cost" measures have been incorporated throughout the entire project. For low cost mitigation, the EMF reduction will be 15% or greater at the utility ROW edge. Although this project involves the upgrading of existing transmission lines, SPPCo has identified the following sensitive EMF receptors, ordered in respect to prioritization for land use categories in determining how mitigation costs will be applied, in proximity of the existing lines:

- Schools and licensed day care centers
- Residential areas
- Commercial and industrial areas
- Recreational areas
- Agricultural areas

- Undeveloped areas

The following design standards will be incorporated into the project design, as appropriate, to reduce magnetic fields:

- Combining two circuits contained within the same ROW into a single pole, double-circuit design;
- Selection of proper phasing arrangement can be an effective way to reduce fields for two circuits on the same structure within the same ROW;
- Buying additional ROW to increase the width of the corridor;
- When under building the transmission circuit with a distribution circuit, phasing of both circuits for potential field reduction; and
- Selecting a more compact, balanced-type configuration.

625 AND 650 LINE UPGRADE PROJECT DESCRIPTION

The project consists of the following seven major components:

1. Removal of the existing 60-kV 625 Line, which is comprised of approximately 15 miles of existing conductor and 341 wood poles;
2. Construction of the new 120-kV 625 Line, comprised of approximately 300 steel poles and 16 miles of new conductor within a new 40-foot-wide permanent ROW;
3. Rebuilding the existing 60-kV 650 Line to operate at 120 kV, which will involve the replacement of approximately 225 wood poles with steel poles and 21 span guy poles, as well as the installation of approximately 10 miles of new conductor. A portion of the 650 Line will be underbuilt with a 14.4-kV distribution line. The majority of the transmission line is contained within a 30-foot-wide ROW. The ROW will generally be increased to 40 feet wide as a result of this project;
4. Rebuilding the existing 60-kV Northstar Tap into a fold, which will require the replacement of approximately 14 wood poles with steel poles and 0.5 mile of conductor in order to operate it at 120 kV;
5. Rebuilding an approximately 1.6-mile-long portion of the existing 120-kV 132 Line to accommodate a double-circuit configuration with the 650 Line, which will require the replacement of approximately 30 existing wood poles with steel poles and 0.5 mile of 397.5 thousand circular mil all-aluminum conductor in order to operate it at 120 kV;
6. Energizing the 629 line, currently built as a 120 kV line, but operating as a 60 kV Line; and

7. Upgrading, modifying, and/or decommissioning six substations and switching stations to accommodate the conversion of the 60 kV system to a 120 kV system. Upgrades to the substations are reflected in the following table:

Modifications
Brockway Substation
All equipment at the Brockway Substation will be removed during decommissioning of this substation. The site will be reclaimed.
Northstar Substation
A new 120/60/14.4-kV transformer will replace an existing out-of-service transformer
A new 14.4-kV regulator will replace the existing out-of-service regulator
Two new 120-kV circuit breakers will be installed
Squaw Valley Substation
A new 120-kV circuit breaker will be installed
A new 120-kV portal will be installed
Three new air switches will be installed
The 120-kV bus will be expanded
Tahoe City Substation
A new 120/60/14.4-kV transformer will be installed
A new 120-kV bus will be installed
Two new 120-kV portals will be installed
Two new 120-kV circuit breakers will be installed
Two new 120-kV circuit switchers will be installed
A new 15-kV metal-clad switchgear control enclosure will be installed
11 new air switches—nine 120-kV switches and two 15-kV switches—will be installed
Kings Beach Switching Station/Substation
Two new 120/60/14.4-kV transformers will be installed
A new 120-kV bus will be installed
Two new 120-kV portals will be installed
Two new 120-kV circuit breakers will be installed
Two new 120-kV circuit switchers will be installed
A new 15-kV metal-clad switchgear control enclosure will be installed
11 new air switches—nine 120-kV switches and two 15-kV switches—will be installed
North Truckee Switching Station
A new 120-kV circuit breaker will be installed

Modifications
A new 120-kV portal will be installed
A new air switch will be installed
The 120-kV bus will be expanded

The projected cost of the project is approximately \$36,000,000.

MAGNETIC FIELD REDUCTION MEASURES FOR THE 625 AND 650 LINE UPGRADE PROJECT

For the purpose of examining “magnetic field reduction” measures, this project can be divided into two parts:

- Part 1: Transmission Line Upgrades
 - 650/132 120-kV Double Circuit from the North Truckee Switching Station to Brockway Road
 - 650 Line from Martis Valley to north of Kings Beach
 - 650/625 Double Circuit in Kings Beach
 - 625 Line from north of Kings Beach to Tahoe City
 - 625/629 Double Circuit
 - 629 Line From Squaw Valley to Tahoe City
- Part II: Substation Upgrades
 - Kings Beach Substation
 - Tahoe City Substation
 - North Truckee Switching Station
 - Minor modification at the Squaw Valley Substation and Northstar Substation

Part I: Transmission Line Upgrades

650/132 Double Circuit from North Truckee Switching Station to Brockway Road

The present 650 line originates from the Truckee Substation. As a result of this project, the 650 line will originate from the North Truckee Switching Station located approximately 0.38 miles to the

northwest. From just outside the Truckee Substation, the 650 and 132 lines are double circuited in a single pole design for approximately 2.97 miles where the two lines diverge. This project will only be upgrading the first 1.13 miles as the remainder of the 650 line has been upgraded to 120 kV during a previous project. “Low-Cost” measures for EMF reduction include:

- Proper phasing arrangement of two circuits on the same structure within the same ROW and
- Standardizing the ROW to a width of 40 feet.

650 Line from Martis Valley to north of Kings Beach

Upgrading of the 650 line will begin four poles south of the Lahontan Underground Riser, proceeds across a portion of the Martis Valley to the intersection of State Route 267 and continues towards Kings Beach roughly paralleling the highway. This portion of the line is located in undeveloped wetland areas or in uninhabited forest. No EMF mitigation is required along this portion of the line. The 650 Line diverges from State Route 267 near Canterbury Drive. The 650 line enters a low density residential neighborhood for 0.58 miles until it intersects the 625 Line. “Low-Cost” measures for EMF reduction within the residential area include:

- Increasing the ROW to a standardize width of 40 feet,
- Proper phasing of the 120 kV circuit with the distribution underbuild, and
- Selecting a more compact, balanced-type of configuration.

650/625 Double Circuit into Kings Beach

At present, the 650 line and 625 line parallel each other from the northeastern most part of Canterbury Drive to the Kings Beach Switching Station within a common easement. The area to the west of the ROW corridor is a low-density residential area and the land to the west of the ROW is undeveloped forest land. “Low-Cost” measure for EMF reduction within this section of the project includes:

- Double-circuiting the two circuits on a common single-pole structure within the center of the common ROW. This will effectively increase the distance from the conductors and the edge of the ROW, and
- Selection of a proper phase arrangement to reduce the magnetic fields of both circuits.

625 Line from north of Kings Beach to the Intersection of the 629 Line.

The portion of the 625 line from intersection of the 650 line to the intersection of the 629 line is entirely located within undeveloped forest land. Although the transmission line parallels Mt. Watson Road and is intersected by a limited number of recreational trails, the area does not see considerable occupation; therefore, no EMF mitigation is required along this portion of the project.

625/625 Double Circuit to Tahoe City

The portion of the 625 circuit from the intersection with the 629 circuit to the Tahoe City Substation is approximately 0.55 mile long and crosses some small industrial areas and approximately 0.29 mile of the Truckee River into the Tahoe City Substation. The river section is considered a recreational area with no residential areas and a small section of commercial area. “Low-Cost” measures for EMF reduction within this section of project include:

- Proper phasing arrangement of two circuits on the same structure within the same ROW and
- Standardizing the ROW to a width of 40 feet.

629 Line from Squaw Valley Substation to the intersection of the 625 line

The 629 line originates at the Squaw Valley Substation and follows State Route 89 towards Tahoe City and terminates at the Tahoe City Substation. With the exception of the 625/629 double circuit portion, the 629 has been previously constructed as a 120 kV transmission line; however, it is currently operating at 60 kV. At the conclusion of the North Tahoe Upgrade Project, the line will be operated at 120 kV. The transmission line is entirely located on U.S. Forest Service land. No EMF mitigation is required for the switch over to 120 kV.

Part II: Substations

Construction of a new substation rate 50 kV and above or the major upgrade of an existing substation rated 50 kV and above requires the preparation of a substation Field Management Plan in the form of a checklist. Magnetic field modeling is not required.

Tahoe City Substation

The modifications to the Tahoe City Substation include the replacement of structures and electrical equipment with the exception of one transformer, which can be re-tapped to function at 120 kV. All modifications proposed are to be done within the existing substation footprint.

No.	No-Cost and Low-Cost Magnetic Field Reduction Measures Evaluated for a Substation Project	Measure Adopted? (Yes/No)	Reason(s) if not Adopted
1	Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines	Yes	--
2	For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical	No	No underground proposed
3	Locate new substation close to existing power lines to the extent practical.	Yes	--
4	Increase the substation property boundary to the extent	No	Not Feasible

	practical		
5	Other:	--	--

Kings Beach Substation

The Kings Beach Substation will replace the aging Brockway substation and will be located in the center of an approximately 23-acre parcel, which currently contains the Kings Beach Diesel Facility.

No.	No-Cost and Low-Cost Magnetic Field Reduction Measures Evaluated for a Substation Project	Measure Adopted? (Yes/No)	Reason(s) if not Adopted
1	Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines	Yes	--
2	For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical	No	No underground proposed
3	Locate new substation close to existing power lines to the extent practical.	Yes	--
4	Increase the substation property boundary to the extent practical	Yes	Not Feasible
5	Other:	--	--

North Truckee Switching Station

Modification of the North Truckee Switching Station involves the addition of a 120-kV portal into the existing ring bus.

No.	No-Cost and Low-Cost Magnetic Field Reduction Measures Evaluated for a Substation Project	Measure Adopted? (Yes/No)	Reason(s) if not Adopted
1	Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines	Yes	--
2	For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical	No	No underground proposed
3	Locate new substation close to existing power lines to the extent practical.	Yes	--
4	Increase the substation property boundary to the extent practical	No	Not Necessary
5	Other:	--	--

Minor Modifications

Modifications to the Squaw Valley Substation and the Northstar substation require minimal updates to portals and protection equipment and do not meet the definition of a major upgrade; therefore, an EMF Reduction checklist is not required.

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