

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1	INTRODUCTION	ES-1
2	DESCRIPTION OF PROPOSED PROJECT AND ALTERNATIVES	ES-1
2.1	Proposed Project.....	ES-1
2.2	Alternatives.....	ES-2
3	PUBLIC PARTICIPATION AND AREAS OF CONTROVERSY	ES-8
3.1	EIR Scoping Process.....	ES-8
3.1.1	Notice of Preparation	ES-9
3.1.2	Scoping Meetings.....	ES-9
3.1.3	Public Notification of Scoping Period	ES-9
3.1.4	Scoping Report.....	ES-9
3.1.5	Areas of Controversy	ES-10
3.2	Public Notification of Draft EIR Release and Comment Period.....	ES-10
3.2.2	Newsletter	ES-10
3.2.3	Notice of Release of Draft EIR and Property Owner Notification	ES-10
3.3	Public Review Period	ES-11
3.3.1	Informational Meetings and Public Hearings.....	ES-11
3.3.2	EIR Information and Repository Sites.....	ES-12
4	ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	ES-12
4.1	Introduction	ES-12
4.2	Air Quality	ES-13
4.3	Biological Resources.....	ES-13
4.4	Cultural Resources	ES-15
4.5	Geology, Soils, and Paleontology.....	ES-16
4.6	Hydrology and Water Quality	ES-17
4.7	Land Use and Recreation.....	ES-18
4.8	Noise	ES-20
4.9	Public Health, Safety and Nuisance	ES-21
4.10	Socioeconomics, Public Services, and Utilities	ES-23
4.11	Traffic and Transportation	ES-25
4.12	Visual Resources	ES-26
4.13	Analysis of Other Alternatives	ES-28
4.14	Other CEQA Considerations.....	ES-30
4.14.1	Growth Inducing Effects.....	ES-30
4.14.2	Significant Irreversible Changes.....	ES-32
4.14.3	Cumulative Scenario	ES-32
4.14.4	Cumulative Impact Analysis	ES-34
5	COMPARISON OF ALTERNATIVES	ES-37
5.1	Comparison Methodology	ES-37
5.2	Environmentally Superior “Build” Alternative	ES-38
5.2.1	Pleasanton Area.....	ES-38
5.2.2	North Livermore Area	ES-39
5.2.3	Dublin/San Ramon Area.....	ES-40
5.2.4	Tesla Connection/Phase 2	ES-41

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

5.2.5	Combination of “Build” Alternatives.....	ES-42
5.2.6	Illustration of Environmentally Superior “Build” Scenario	ES-44
5.3	No Project Alternative Compared with the Environmentally Superior “Build” Scenario.....	ES-47
6	MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM	ES-48
7	IMPACT SUMMARY TABLES.....	ES-48
A.	INTRODUCTION/OVERVIEW	
A.1	HISTORY AND OVERVIEW OF PROPOSED PROJECT.....	A-1
A.2	PURPOSE AND NEED FOR THE PROPOSED PROJECT	A-5
A.2.1	Electricity Demand in the Area	A-6
A.2.2	The Electric System in the Tri-Valley Area	A-8
A.2.2.1	Existing Transmission System.....	A-8
A.2.2.2	Existing Distribution System.....	A-11
A.2.3	Regional Transmission Overview and Planning Criteria	A-12
A.2.4	Electric Power System Requirements	A-12
A.2.5	Regional Generation Supply	A-16
A.2.6	Local Generation Alternatives To The Project.....	A-18
A.2.7	Arroyo 230/60kV Substation	A-19
A.2.8	Interruptible Load Program	A-19
A.3	AGENCY USE OF THIS DOCUMENT	A-20
A.4	READER’S GUIDE	A-21
A.4.1	Incorporation by Reference	A-21
A.4.2	Organization of this EIR.....	A-21
B	DESCRIPTION OF PROPOSED PROJECT AND ALTERNATIVES	
B.1	INTRODUCTION	B-1
B.2	DESCRIPTION OF THE PROPOSED PROJECT.....	B-1
B.2.1	Overview of the Proposed Project	B-1
B.2.2	Proposed Project Components.....	B-4
B.2.2.1	Pleasanton Area Project Components.....	B-7
B.2.2.2	Dublin/San Ramon Area Project Components	B-12
B.2.2.3	North Livermore Area Project Components.....	B-14
B.2.2.4	Phase 2 Project Components.....	B-19
B.3	PROPOSED PROJECT CONSTRUCTION	B-19
B.3.1	Construction Workforce and Equipment	B-19
B.3.2	Transmission Line (Overhead and Underground) and Substation Construction... ..	B-21
B.3.2.1	Pleasanton Area Construction.....	B-21
B.3.2.2	North Livermore and Dublin Substation Construction	B-31
B.3.2.3	Phase 2 Construction (North Livermore to Tesla Substation).....	B-36
B.3.3	Service Interruption During Construction	B-36
B.4	PROPOSED PROJECT OPERATION AND MAINTENANCE PROCEDURES	B-37
B.4.1	General System Monitoring and Control.....	B-37
B.4.2	Facility Inspection.....	B-37

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

B.5	ALTERNATIVES OVERVIEW AND SCREENING	B-37
B.5.1	CEQA Requirements for Alternatives	B-37
B.5.2	Alternatives Screening Methodology	B-38
B.5.2.1	Project Objectives	B-39
B.5.2.2	Significant Environmental Effects of the Proposed Project	B-39
B.5.2.3	Feasibility	B-39
B.5.3	Summary of Screening Results	B-40
B.5.4	Alternatives Eliminated From Further Consideration	B-41
B.5.4.1	Pleasanton Area Alternatives Eliminated	B-41
B.5.4.2	Dublin/San Ramon Alternatives Eliminated	B-44
B.5.4.3	North Livermore Area Alternatives Eliminated	B-45
B.5.4.4	Tesla Connection/Phase 2 Alternatives Eliminated	B-47
B.6	DESCRIPTION OF PROJECT ALTERNATIVES ANALYZED IN THIS EIR	B-48
B.6.1	Pleasanton Area Alternatives	B-49
B.6.1.1	Alternative S1: Vineyard-Isabel-Stanley	B-49
B.6.1.2	Alternative S2: Vineyard Avenue	B-50
B.6.1.3	Alternative S4: Eastern Open Space	B-50
B.6.1.4	Local Generation	B-54
B.6.2	Dublin Area Alternatives	B-55
B.6.2.1	Alternative D1: South Dublin	B-55
B.6.2.2	Alternative D2: Dublin – San Ramon	B-55
B.6.3	North Livermore Area Alternatives	B-59
B.6.3.1	Underground Alternatives to the Proposed Project in North Livermore Area	B-59
B.6.3.2	Alternative L1: Raymond Road	B-59
B.6.3.3	Alternative L2: Hartman	B-60
B.6.4	Phase 2: Tesla Connection	B-64
B.6.4.1	Brushy Peak Alternative Segment	B-64
B.6.4.2	Stanislaus Corridor	B-64
B.6.5	Switching Station	B-65
B.7	NO PROJECT ALTERNATIVE	B-66
B.7.1	No Action Taken by PG&E Co.	B-66
B.7.2	Reasonably Foreseeable Actions by PG&E Co.	B-66
C	ENVIRONMENTAL ANALYSIS	
C.1	INTRODUCTION	C.1-1
C.1.1	Introduction/Background	C.1-1
C.1.2	Contents of Part C	C.1-1
C.1.3	Assessment Methodology	C.1-2
C.1.3.1	Environmental Baseline	C.1-2
C.1.3.2	Environmental Consequences	C.1-2
C.1.4	Impact Significance Categories	C.1-3

TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

C.2 AIR QUALITY

C.2.1	Environmental Baseline and Regulatory Setting	C.2-1
C.2.1.1	Environmental Setting	C.2-6
C.2.1.2	Applicable Regulations, Plans, and Standards.....	C.2-8
C.2.2	Environmental Impact Analysis and Applicant Proposed Measures	C.2-8
C.2.2.1	Introduction.....	C.2-8
C.2.2.2	Definition and Use of Significance Criteria.....	C.2-8
C.2.2.3	Applicant Proposed Measures	C.2-10
C.2.3	Environmental Impacts and Mitigation Measures: Pleasanton Area	C.2-10
C.2.3.1	Proposed Project.....	C.2-10
C.2.3.2	Alternative S1: Vineyard-Isabel-Stanley	C.2-14
C.2.3.3	Alternative S2: Vineyard Avenue	C.2-16
C.2.3.4	Alternative S4: Eastern Open Space	C.2-16
C.2.4	Environmental Impacts and Mitigation Measures: Dublin Area	C.2-16
C.2.4.1	Proposed Project.....	C.2-16
C.2.4.2	Alternative D1: South Dublin.....	C.2-17
C.2.4.3	Alternative D2: Dublin-San Ramon	C.2-17
C.2.5	Environmental Impacts and Mitigation Measures: North Livermore Area	C.2-18
C.2.5.1	Proposed Project.....	C.2-18
C.2.5.2	P1 Variant Alternative	C.2-18
C.2.5.3	P2 Variant Alternative	C.2-20
C.2.5.4	Alternative L1: Raymond Road	C.2-20
C.2.5.5	Alternative L2: Hartman Road	C.2-22
C.2.6	Environmental Impacts and Mitigation Measures: Tesla Connection (Phase 2)	C.2-22
C.2.6.1	Proposed Project - Phase 2.....	C.2-22
C.2.6.2	Brushy Peak Alternative.....	C.2-22
C.2.6.3	Stanislaus Corridor	C.2-23
C.2.7	Mitigation Monitoring Program.....	C.2-23
C.2.8	References	C.2-25

C.3 BIOLOGICAL RESOURCES

C.3.1	Environmental Baseline and Regulatory Setting	C.3-1
C.3.1.1	Regional Overview and Regulatory Setting.....	C.3-1
C.3.1.2	Applicable Regulations, Plans, and Standards.....	C.3-49
C.3.2	Environmental Impacts Analysis and Applicant Proposed Measures	C.3-51
C.3.2.1	Introduction.....	C.3-51
C.3.2.2	Definition and Use of Significance Criteria.....	C.3-51
C.3.2.3	Impact Assessment Methodology.....	C.3-54
C.3.2.4	Applicant Proposed Measures	C.3-55
C.3.2.5	Impact Overview.....	C.3-60
C.3.3	Environmental Impacts and Mitigation Measures: Pleasanton Area	C.3-64
C.3.3.1	Proposed Project – South Area	C.3-64
C.3.3.2	Alternative S1: Vineyard-Isabel-Stanley	C.3-84
C.3.3.3	Alternative S2: Vineyard Avenue	C.3-85
C.3.3.4	Alternative S4: Eastern Open Space	C.3-86

TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

C.3.4	Environmental Impacts and Mitigation Measures: Dublin Area.....	C.3-88
C.3.4.1	Proposed Project – North Area.....	C.3-88
C.3.4.2	Alternative D1: South Dublin	C.3-91
C.3.4.3	Alternative D2: Dublin – San Ramon	C.3-91
C.3.5	Environmental Impacts and Mitigation Measures: North Livermore Area	C.3-95
C.3.5.1	Proposed Project – North Area.....	C.3-95
C.3.5.2	P1 Variant Alternative	C.3-97
C.3.5.3	P2 Variant Alternative	C.3-97
C.3.5.4	Alternative L1: Raymond Road	C.3-97
C.3.5.5	Alternative L2: Hartman Road	C.3-99
C.3.6	Environmental Impacts and Mitigation Measures: Tesla Connection (Phase 2)	C.3-101
C.3.6.1	Proposed Project – North Area.....	C.3-101
C.3.6.2	Brushy Peak Alternative Segment.....	C.3-102
C.3.6.3	Stanislaus Corridor	C.3-103
C.3.7	Mitigation Monitoring Program.....	C.3-104
C.3.8	References.....	C.3-109
C.4	CULTURAL RESOURCES	
C.4.1	Environmental Baseline and Regulatory Setting	C.4-1
C.4.1.1	Resource Definition	C.4-1
C.4.1.2	Applicable Cultural Resource Laws and Regulations	C.4-1
C.4.1.3	Environmental Setting	C.4-4
C.4.2	Environmental Impact Analysis and Proposed Mitigation Measures	C.4-9
C.4.2.1	Introduction.....	C.4-10
C.4.2.2	Significance Criteria for Cultural Resources	C.4-10
C.4.2.3	Applicant Proposed Measures	C.4-10
C.4.2.4	General Project Impacts and Proposed Mitigation Measures.....	C.4-11
C.4.3	Environmental Impacts And Mitigation Measures: Pleasanton	C.4-14
C.4.3.1	Proposed Project.....	C.4-14
C.4.3.2	Alternative S1: Vineyard-Isabel-Stanley	C.4-14
C.4.3.3	Alternative S2: Vineyard Avenue	C.4-15
C.4.3.4	Alternative S4: Eastern Open Space	C.4-15
C.4.4	Environmental Impacts and Mitigation Measures: Dublin/San Ramon Area ...	C.4-15
C.4.4.1	Proposed Project.....	C.4-15
C.4.4.2	Alternative D1: South Dublin.....	C.4-15
C.4.4.3	Alternative D2: Dublin-San Ramon.....	C.4-16
C.4.5	Environmental Impacts and Mitigation Measures: North Livermore Area	C.4-16
C.4.5.1	Proposed Project.....	C.4-16
C.4.5.2	Proposed Project Variant P1	C.4-17
C.4.5.3	Proposed Project Variant P2	C.4-17
C.4.5.4	Alternative L1: Raymond Road	C.4-17
C.4.5.5	Alternative L2: Hartman Road	C.4-17
C.4.6	Environmental Impacts and Mitigation Measures: Tesla Connection (Phase 2)	C.4-17
C.4.6.1	Proposed Project.....	C.4-17

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

C.4.6.2	Brushy Peak Alternative	C.4-18
C.4.6.3	Stanislaus Corridor	C.4-18
C.4.7	Mitigation Monitoring Program	C.4-19
C.4.8	References	C.4-24
C.5	GEOLOGY, SOILS, AND PALEONTOLOGY	
C.5.1	Environmental Baseline and Regulatory Setting	C.5-1
C.5.1.1	Physiography and Topography	C.5-1
C.5.1.2	Geology Overview	C.5-3
C.5.1.3	Faults and Seismicity	C.5-9
C.5.1.4	Soils	C.5-16
C.5.1.5	Mineral Resources	C.5-21
C.5.1.6	Paleontologic Resources	C.5-23
C.5.1.7	Applicable Regulations, Plans, and Standards	C.5-23
C.5.2	Environmental Impact Analysis and Applicant Proposed Measures	C.5-24
C.5.2.1	Definition and Use of Significance Criteria	C.5-24
C.5.2.2	Applicant Proposed Measures	C.5-25
C.5.3	Environmental Impacts and Mitigation Measures	C.5-26
C.5.3.1	Construction Impacts for All Alternatives	C.5-27
C.5.4	Mitigation Monitoring Program	C.5-31
C.5.5	References	C.5-33
C.6	HYDROLOGY AND WATER QUALITY	
C.6.1	Environmental Baseline and Regulatory Setting	C.6-1
C.6.1.1	Environmental Setting	C.6-1
C.6.1.2	Principal Hydrologic Features In Project Areas	C.6-8
C.6.1.3	Applicable Regulations, Plans, and Standards	C.6-17
C.6.2	Environmental Impact Analysis and Applicant Proposed Measures	C.6-20
C.6.2.1	Introduction	C.6-20
C.6.2.2	Definition and Use of Significance Criteria	C.6-20
C.6.2.3	Applicant Proposed Measures	C.6-22
C.6.3	Environmental Impacts and Mitigation Measures: Pleasanton Area	C.6-23
C.6.3.1	Proposed Project	C.6-23
C.6.3.2	Alternative S1: Vineyard-Isabel-Stanley	C.6-33
C.6.3.3	Alternative S2: Vineyard Avenue	C.6-36
C.6.3.4	Alternative S4: Eastern Open Space	C.6-36
C.6.4	Environmental Impacts and Mitigation Measures: Dublin Area	C.6-37
C.6.4.1	Proposed Project	C.6-37
C.6.4.2	Alternative D1: South Dublin	C.6-40
C.6.4.3	Alternative D2: Dublin-San Ramon	C.6-42
C.6.5	Environmental Impacts and Mitigation Measures: North Livermore Area	C.6-43
C.6.5.1	Proposed Project	C.6-43
C.6.5.2	North Livermore Variant P1	C.6-45
C.6.5.3	P2 Variant Alternative	C.6-45
C.6.5.4	Alternative L1: Raymond Road	C.6-47

TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

C.6.5.5	Alternative L2: Hartman Road	C.6-49
C.6.6	Environmental Impacts and Mitigation Measures: Tesla Connection.....	C.6-51
C.6.6.1	Proposed Project - Phase 2	C.6-51
C.6.6.2	Brushy Peak Alternative	C.6-52
C.6.6.3	Stanislaus Corridor Alternative (Transmission Line to and Connection to Tesla Substation).....	C.6-53
C.6.7	Mitigation Monitoring Program.....	C.6-54
C.6.8	References	C.6-61
C.7	LAND USE AND RECREATION	
C.7.1	Environmental Baseline and Regulatory Setting	C.7-1
C.7.1.1	Environmental Setting	C.7-1
C.7.1.2	Applicable Regulations, Plans, and Standards.....	C.7-15
C.7.2	Environmental Impact Analysis and Applicant Proposed Measures	C.7-40
C.7.2.1	Introduction.....	C.7-40
C.7.2.2	Definition and Use of Significance Criteria.....	C.7-40
C.7.2.3	Applicant Proposed Measures	C.7-41
C.7.3	Environmental Impacts and Mitigation Measures: Pleasanton Area	C.7-42
C.7.3.1	Proposed Project.....	C.7-46
C.7.3.2	Alternative S1: Vineyard-Isabel-Stanley	C.7-46
C.7.3.3	Alternative S2: Vineyard Avenue	C.7-50
C.7.3.4	Alternative S4: Eastern Open Space	C.7-51
C.7.4	Environmental Impacts and Mitigation Measures: Dublin Area.....	C.7-52
C.7.4.1	Proposed Project.....	C.7-52
C.7.4.2	Alternative D1: South Dublin.....	C.7-53
C.7.4.3	Alternative D2: Dublin-San Ramon.....	C.7-54
C.7.5	Environmental Impacts and Mitigation Measures: North Livermore Area	C.7-55
C.7.5.1	Proposed Project.....	C.7-55
C.7.5.2	P1 Variant Alternative	C.7-58
C.7.5.3	P2 Variant Alternative	C.7-58
C.7.5.4	Alternative L1: Raymond Road	C.7-58
C.7.5.5	Alternative L2: Hartman Road	C.7-60
C.7.6	Environmental Impacts and Mitigation Measures: Tesla Connection.....	C.7-61
C.7.6.1	Proposed Project—Phase 2	C.7-61
C.7.6.2	Brushy Peak Alternative	C.7-62
C.7.6.3	Stanislaus Corridor	C.7-62
C.7.7	Mitigation Monitoring Program.....	C.7-64
C.7.8	References	C.7-70
C.7.8.1	Persons Contacted	C.7-70
C.7.8.2	Bibliography.....	C.7-71
C.8	NOISE	
C.8.1	Environmental Baseline and Regulatory Setting	C.8-1
C.8.1.1	Environmental Setting	C.8-1
C.8.1.2	Regulatory Setting	C.8-10

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

C.8.2	Environmental Impacts and Mitigation Measures for the Proposed Project	C.8-13
C.8.2.1	Introduction.....	C.8-13
C.8.2.2	Definition and Use of Significance Criteria.....	C.8-13
C.8.2.3	Applicant Proposed Measures	C.8-14
C.8.3	Environmental Impacts and Mitigation Measures: Pleasanton Area	C.8-14
C.8.3.1	Proposed Project.....	C.8-14
C.8.3.2	Alternative S1: Vineyard-Isabel-Stanley	C.8-17
C.8.3.3	Alternative S2: Vineyard Avenue	C.8-17
C.8.3.4	Alternative S4: Eastern Open Space	C.8-18
C.8.4	Environmental Impacts and Mitigation Measures: Dublin Area.....	C.8-18
C.8.4.1	Proposed Project.....	C.8-18
C.8.4.2	Alternative D1: South Dublin.....	C.8-19
C.8.4.3	Alternative D2: Dublin-San Ramon.....	C.8-19
C.8.5	Environmental Impacts and Mitigation Measures: North Livermore Area	C.8-20
C.8.5.1	Proposed Project.....	C.8-20
C.8.5.2	P1 Variant Alternative	C.8-21
C.8.5.3	P2 Variant Alternative	C.8-21
C.8.5.4	Alternative L1: Raymond Road	C.8-22
C.8.5.5	Alternative L2: Hartman Road	C.8-23
C.8.6	Environmental Impacts and Mitigation Measures: Tesla Connection (Phase 2)	C.8-23
C.8.6.1	Proposed Project – Phase 2	C.8-23
C.8.6.2	Brushy Peak Alternative.....	C.8-23
C.8.6.3	Stanislaus Corridor	C.8-24
C.8.7	Mitigation Monitoring Project.....	C.8-24
C.8.8	References	C.8-24
C.9	PUBLIC HEALTH, SAFETY AND NUISANCE	
C.9.1	Environmental Baseline and Regulatory Setting	C.9-1
C.9.1.1	Overhead and Underground Power Systems.....	C.9-1
C.9.1.2	Electric and Magnetic Fields (EMF).....	C.9-2
C.9.1.3	Other Field Related Public Concerns	C.9-11
C.9.2	Environmental Impacts and Mitigation Measures for the Proposed Project	C.9-14
C.9.2.1	Definition and Use of Significance Criteria.....	C.9-14
C.9.2.2	Environmental Impacts and Mitigation Measures.....	C.9-16
C.9.2.3	Unavoidable Significant Impacts	C.9-19
C.9.3	Alternative Alignments and Substation Sites	C.9-20
C.9.3.1	Pleasanton Area Alternatives	C.9-20
C.9.3.2	Dublin Area Alternatives	C.9-20
C.9.3.3	Livermore Area Alternatives.....	C.9-21
C.9.4	Alternative to Phase 2.....	C.9-21
C.9.5	Mitigation Monitoring Program.....	C.9-22
C.9.6	References	C.9-24

TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

C.10 SOCIOECONOMICS AND PUBLIC SERVICES

C.10.1 Environmental Baseline and Regulatory Setting	C.10-1
C.10.1.1 Regional Overview	C.10-1
C.10.1.2 Environmental Setting	C.10-1
C.10.1.3 Applicable Regulations, Plans, and Standards.....	C.10-5
C.10.2 Environmental Impacts and Mitigation Measures for the Proposed Project	C.10-7
C.10.2.1 Introduction.....	C.10-7
C.10.2.2 Definition and use of Significance Criteria	C.10-8
C.10.2.3 Applicant Proposed Measures	C.10-10
C.10.2.4 Environmental Impacts and Mitigation Measures: Project and Alternatives.....	C.10-11
C.10.3 Environmental Impacts and Mitigation Measures: Pleasanton Area	C.10-12
C.10.3.1 Proposed Project.....	C.10-12
C.10.3.2 Alternatives S1, S2, and S4	C.10-13
C.10.4 Environmental Impacts and Mitigation Measures: Dublin Area.....	C.10-14
C.10.4.1 Proposed Project.....	C.10-14
C.10.4.2 Alternatives D1 and D2.....	C.10-15
C.10.5 Environmental Impacts and Mitigation Measures: North Livermore Area	C.10-15
C.10.5.1 Proposed Project and P1 and P2 Variant Alternatives	C.10-15
C.10.5.2 Alternatives L1 and L2	C.10-16
C.10.6 Environmental Impacts and Mitigation Measures: Tesla Connection Proposed Project – Phase 2 and Alternative.....	C.10-17
C.10.6.1 Construction	C.10-17
C.10.6.2 Operation and Maintenance	C.10-17
C.10.7 Mitigation Monitoring Program.....	C.10-17
C.10.8 References	C.10-19

C.11 TRANSPORTATION AND TRAFFIC

C.11.1 Environmental Baseline and Regulatory Setting	C.11-1
C.11.1.1 Environmental Setting	C.11-1
C.11.1.2 Applicable Laws, Regulations, and Standards.....	C.11-14
C.11.2 Environmental Impact Analysis and Applicant Proposed Measures	C.11-15
C.11.2.1 Introduction.....	C.11-15
C.11.2.2 Definition and Use of Significance Criteria.....	C.11-15
C.11.2.3 Applicant Proposed Measures	C.11-16
C.11.3 Environmental Impact and Mitigation Measures: Pleasanton Area	C.11-17
C.11.3.1 Proposed Project.....	C.11-17
C.11.3.2 Alternative S1: Vineyard-Isabel-Stanley	C.11-24
C.11.3.3 Alternative S2: Vineyard Avenue	C.11-25
C.11.3.4 Alternative S4: Eastern Open Space	C.11-26
C.11.4 Environmental Impact and Mitigation Measures: Dublin Area.....	C.11-26
C.11.4.1 Proposed Project.....	C.11-26
C.11.4.2 Alternative D1: South Dublin.....	C.11-27
C.11.4.3 Alternative D2: Dublin-San Ramon	C.11-28
C.11.5 Environmental Impact and Mitigation Measures: North Livermore Area.....	C.11-28

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

C.11.5.1 Proposed Project.....	C.11-28
C.11.5.2 P1 Variant Alternative	C.11-29
C.11.5.3 P2 Variant Alternative	C.11-29
C.11.5.4 Alternative L1: Raymond Road	C.11-30
C.11.5.5 Alternative L2: Hartman Road	C.11-30
C.11.6 Environmental Impact and Mitigation Measures: Tesla Connection (Phase 2)	C.11-31
C.11.6.1 Proposed Project – Phase 2	C.11-31
C.11.6.2 Brushy Peak Alternative.....	C.11-31
C.11.6.3 Stanislaus Corridor	C.11-32
C.11.7 Mitigation Monitoring Program	C.11-32
C.11.10 References.....	C.11-36

C.12 VISUAL RESOURCES

C.12.1 Environmental Baseline and Regulatory Setting	C.12-1
C.12.1.1 Regional Overview	C.12-1
C.12.1.2 Environmental Setting	C.12-2
C.12.1.3 Applicable Regulations, Plans, and Standards.....	C.12-18
C.12.2 Environmental Impact Analysis and Applicant Proposed Measures	C.12-19
C.12.2.1 Introduction.....	C.12-19
C.12.2.2 Visual Impact Analysis Methodology and Definitions and Use of Significance Criteria.....	C.12-20
C.12.2.3 Applicant Proposed Measures	C.12-22
C.12.2.4 Consistency with Applicable Regulations, Plans, and Standards	C.12-22
C.12.2.5 Short-Term Construction Impacts for the Proposed Project and Alternatives – All Areas	C.12-27
C.12.3 Environmental Impacts and Mitigation Measures: Pleasanton Area	C.12-28
C.12.3.1 Proposed Project.....	C.12-28
C.12.3.2 Alternative S1: Vineyard-Isabel-Stanley	C.12-29
C.12.3.3 Alternative S2: Vineyard Avenue	C.12-31
C.12.3.4 Alternative S4: Eastern Open Space Alternative.....	C.12-32
C.12.4 Environmental Impacts and Mitigation Measures: Dublin Area.....	C.12-33
C.12.4.1 Proposed Project.....	C.12-33
C.12.4.2 Alternative D1: South Dublin.....	C.12-34
C.12.4.3 Alternative D2: Dublin-San Ramon.....	C.12-35
C.12.5 Environmental Impacts and Mitigation Measures: North Livermore Area	C.12-36
C.12.5.1 Proposed Project.....	C.12-36
C.12.5.2 P-1 Variant Alternative	C.12-40
C.12.5.3 P-2 Variant Alternative	C.12-40
C.12.5.4 Alternative L1: Raymond Road	C.12-41
C.12.5.5 Alternative L2: Hartman Road	C.12-41
C.12.6 Environmental Impacts and Mitigation Measures: Tesla Connection (Phase 2)	C.12-42
C.12.6.1 Proposed Project – Phase 2	C.12-42
C.12.6.2 Brushy Peak Alternative.....	C.12-43
C.12.6.3 Stanislaus Corridor Alternative.....	C.12-44

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

C.12.7 Mitigation Monitoring Program.....	C.12-45
C.12.8 References.....	C.12-47
C.13 ANALYSIS OF OTHER ALTERNATIVES	
C.13.1 Switching Station Alternative to Phase 2.....	C.13-1
C.13.1.1 Switching Station Site 1.....	C.13-2
C.13.1.2 Switching Station Site 2.....	C.13-8
C.13.1.3 Switching Station Site 3.....	C.13-13
C.13.2 Local Generation.....	C.13-20
C.13.2.1 Enron Facility.....	C.13-20
C.13.3 Impacts of Proposed Mitigation Measures.....	C.13-25
C.13.3.1 P3 Alternative (Mitigation Measure A-6).....	C.13-26
C.13.3.2 S2A Alternative (Mitigation Measures V-1, L-7, L-10).....	C.13-26
C.13.3.3 Other Mitigation Reroute Measures.....	C.13-27
C.13.4 Impacts of the No Project Alternative.....	C.13-24
C.13.5 Mitigation Monitoring Program.....	C.13-31
C.13.6 References.....	C.13-31
D COMPARISON OF ALTERNATIVES	
D.1 INTRODUCTION.....	D-1
D.2 COMPARISON METHODOLOGY.....	D-1
D.3 ENVIRONMENTAL SUPERIOR “BUILD” ALTERNATIVE.....	D-2
D.3.1 Pleasanton Area.....	D-5
D.3.2 North Livermore Area.....	D-6
D.3.3 Dublin/San Ramon Area.....	D-7
D.3.4 Tesla Connection/Phase 2.....	D-8
D.3.5 Combination of “Build” Alternatives.....	D-9
D.3.6 Illustration of the Environmentally Superior “Build” Scenario.....	D-10
D.4 NO PROJECT ALTERNATIVE COMPARED WITH THE ENVIRONMENTALLY SUPERIOR “BUILD” SCENARIO.....	D-13
D.5 DETAILED COMPARISONS OF ALTERNATIVES.....	D-14
E OTHER CEQA CONSIDERATIONS	
E.1 GROWTH INDUCING EFFECTS.....	E-1
E.1.1 Growth Caused by Direct and Indirect Employment.....	E-1
E.1.2 Growth Related to Provision of Additional Electric Power.....	E-2
E.2 SIGNIFICANT IRREVERSIBLE CHANGES.....	E-4
E.3 CUMULATIVE SCENARIO.....	E-5
E.4 CUMUALTIVE IMPACT ANALYSIS.....	E-11
E.4.1 Air Quality.....	E-11
E.4.2 Biological Resources.....	E-11
E.4.3 Cultural Resources.....	E-11
E.4.4 Geology, Soils, and Paleontology.....	E-12
E.4.5 Hydrology and Water Quality.....	E-12
E.4.6 Land Use and Recreation.....	E-13

TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

E.4.7	Noise	E-14
E.4.8	Public Health, Safety, and Nuisance.....	E-14
E.4.9	Socioeconomics And Public Services.....	E-14
E.4.10	Traffic and Transportation	E-15
E.4.11	Visual Resources	E-16
F	MITIGATION MONITORING AND REPORTING	
F.1	AUTHORITY FOR THE MITIGATION MONITORING, COMPLIANCE AND REPORTING PROGRAM	F-1
F.2	ORGANIZATION OF THE FINAL MITIGATION MONITORING PLAN	F-1
F.2.1	MMCRP Introduction.....	F-2
F.2.2	Organization of the MMCRP	F-2
F.2.3	Roles and Responsibilities.....	F-2
F.2.4	General Monitoring Procedures	F-2
F.2.5	Project Description.....	F-2
F.2.6	Agency Jurisdictions	F-2
F.2.7	Mitigation Monitoring Programs.....	F-2
F.3	ROLES AND RESPONSIBILITIES	F-3
F.4	ENFORCEMENT RESPONSIBILITY	F-3
F.5	MITIGATION COMPLIANCE RESPONSIBILITY	F-4
F.6	DISPUTE RESOLUTION	F-4
F.7	GENERAL MONITORING PROCEDURES	F-5
F.7.1	Environmental Monitor.....	F-5
F.7.2	Construction Personnel	F-5
F.7.3	General Reporting Procedures.....	F-5
F.7.4	Public Access to Records.....	F-6
F.8	CONDITION EFFECTIVENESS REVIEW	F-6
F.9	MITIGATION MONITORING PROGRAM TABLES.....	F-6
G	PUBLIC PARTICIPATION	
G.1	INTRODUCTION	G-1
G.2	PUBLIC PARTICIPATION PROGRAM	G-1
G.2.1	EIR Scoping Process.....	G-1
G.2.1.1	Notice of Preparation	G-1
G.2.1.2	Scoping Meetings.....	G-1
G.2.1.3	Scoping Report.....	G-2
G.2.2	Public Notification	G-2
G.2.2.1	Notification for Scoping Meetings	G-2
G.2.2.2	Newsletter	G-2
G.2.2.3	Notice of Release of Draft EIR and Property Owner Notification	G-2
G.2.3	Informational Meetings and Public Hearings.....	G-3
G.2.4	EIR Information and Repository Sites.....	G-3
G.3	PUBLIC REVIEW PERIOD	G-4
H	GLOSSARY/ABBREVIATIONS/LIST OF PREPARERS	

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

H.1	GLOSSARY AND ABBREVIATIONS	H-1
H.2	PREPARERS OF EIR AND THEIR QUALIFICATIONS	H-14
H.3	DRAFT EIR DISTRIBUTION	H-15

APPENDICIES (Note: Appendices 2 & 3 are available as hard copies at the project repositories)

1	Land Use Policy Consistency Analysis	
2	Technology and Environmental Assessment Guide on Underground HV Power Transmission Year 2000 Update	
3	PG&E Co. Information on Underground Transmission Lines	

LIST OF TABLES

ES-1	Characteristics of Alternatives Evaluated (by Area)	ES-5
ES-2	Other Alternatives Addressed	ES-28
ES-3	Alternatives Comparison – Pleasanton Area Summary.....	ES-39
ES-4	Alternatives Comparison – North Livermore Area Summary.....	ES-40
ES-5	Alternatives Comparison – Dublin/San Ramon Area Summary	ES-41
ES-6	Alternatives Comparison – Tesla Connection/Phase 2 Summary	ES-42
ES-7	Mileage Comparison: Proposed Project vs. Environmentally Superior Build Scenario Impact Summary Tables	ES-44 ES-50
A.3-1	Permits Required.....	A-21
B-1	Summary Description of Project Facilities	B-4
B-2	Equipment Used During Construction	B-20
B.5-1	Summary of Alternative Screening Results	B-40
B.6-1	Characteristics of Alternatives Evaluated (by Area)	B-48
C.2-1	Monthly Temperature and Precipitation in Livermore	C.2-1
C.2-2	Wind Speed and Direction Statistics	C.2-3
C.2-3	National and California Air Quality Standards	C.2-4
C.2-4	Summary of Health Effects of the Major Criteria Pollutants.....	C.2-4
C.2-5	Bay Area Attainment Status	C.2-5
C.2-6	Air Quality Summary.....	C.2-5
C.2-7	Toxic Air Pollutant Measurements (Livermore Old First Street Air Monitoring Station)	C.2-6
C.2-8	BAAQMD Control Measures For Construction Emissions of PM ₁₀	C.2-9
C.2-9	Thresholds of Significance for Project Operations.....	C.2-10
C.2-10	Applicant Proposed Measures.....	C.2-10
C.2-11	Overhead Transmission Line Construction Equipment by Phase	C.2-11
C.2-12	Underground Transmission Line Construction Equipment by Phase.....	C.2-12
C.2-13	Estimated Construction Emissions (Daily and Total Project)	C.2-15
C.2-14	Mitigation Monitoring Program	C.2-24
C.3-1	Comparison of Plant Community Classifications.....	C.3-3
C.3-2	Regional Habitats and Associated Wildlife Use	C.3-11
C.3-3	Special Status Plant Species Known to Occur in the Region of the Proposed Project Right-of Way and/or Alternative Routes	C.3-18

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

LIST OF TABLES, CONTINUED

C.3-4	Special Status Wildlife Species That May Occur Within The Proposed Project Right-Of-Way and Alternatives.....	C.3-22
C.3-5	Special status species with moderate or high potential to occur in the Pleasanton Area (See Tables C.3-3 and C.3-4 for species information)	C.3-32
C.3-6	Plant Communities and Other Areas along the Proposed Transmission Line South Area route	C.3-33
C.3-7	Plant Communities and Other Areas along the S1 Alternative Alignment.....	C.3-34
C.3-8	Plant Communities and Other Areas along the S2 Alternative Alignment.....	C.3-35
C.3-9	Plant Communities and Other Areas along the S4 Alternative Alignment.....	C.3-35
C.3-10	Plant Communities and Other Areas along the Dublin Area Portion of the Proposed North Area Transmission Line Route.....	C.3-37
C.3-11	Plant Communities and Other Areas along the D1 Alternative Alignment.....	C.3-38
C.3-12a	Plant Communities and Other Areas along the D2 Alternative Alignment: Underground Section from the Proposed Dublin Substation to the San Ramon Substation.....	C.3-39
C.3-12b	Plant Communities and Other Areas along the Aboveground Section from the San Ramon substation to the Pittsburg substation (D2 Alternative).....	C.3-39
C.3-13	Plant Communities and Other Areas along the North Livermore Area Portion of the Proposed North Area Transmission Line Route.....	C.3-42
C.3-14	Plant Communities and Other Areas along the L1 Alternative Alignment	C.3-43
C.3-15	Plant Communities and Other Areas along the L2 Alternative Alignment	C.3-44
C.3-16	Plant Communities and Other Areas along the Proposed Transmission Line North Area Route (Phase 2).....	C.3-45
C.3-17	Plant Communities and Other Areas along the Brushy Peak Alternative	C.3-46
C.3-18	Plant Communities and Other Areas along the Stanislaus Corridor Alternative Alignment.....	C.3-47
C.3-19	Applicant Proposed Measures.....	C.3-56
C.3-20	Avoidance and Buffer Requirements for Reducing Impacts to Special Status Species.	C.3-71
C.3-21	Mitigation Monitoring Program	C.3-106
C.4-1	The Chartkoff and Chartkoff (1984) Model of Cultural Periods in California.....	C.4-6
C.4-2	Comparison of California Cultural Period with Temporal Phases of Central California (Allen 1999)	C.4-8
C.4-3	Mitigation Monitoring Plan.....	C.4-20
C.5-1	Fault Activity Known Active and Potentially Active Faults Within 50-mile (80-kilometer) Radius	C.5-13
C.5-2	Applicant Proposed Measures.....	C.5-25
C.5-4	Mitigation Monitoring Program for Geology and Soils	C.5-32
C.6-1	Mitigation Monitoring Program	C.6-55
C.7-1	EBRPD Trails Adjacent to Project or Alternatives	C.7-22
C.7-2	Applicant-Proposed Measures for Land Use Impacts.....	C.7-41
C.7-3	Mitigation Monitoring Program – Land Use and Recreation Impacts.....	C.7-65
C.8-1	Examples of Protective Noise Levels Recommended by U.S.EPA	C.8-11
C.8-2	Land Use Compatibility for Community Noise Environment	C.8-12

TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

LIST OF TABLES, CONTINUED

C.8-3	Normally Acceptable Noise Levels Per Land Use Category	C.8-12
C.8-4	Applicant Proposed Measures for Noise.....	C.8-14
C.8-5	Noise Characteristics of Construction Equipment.....	C.8-15
C.9-1	Typical Electric Field Values for Appliances, at 12 inches.....	C.9-5
C.9-2	Magnetic Field from Household Appliances.....	C.9-5
C.9-3	EMF Regulated Limits (by State)	C.9-8
C.9-4	Mitigation Monitoring Program	C.9-23
C.10-1	Tri-Valley Employment Trends: 1990-2020	C.10-2
C.10-2	Tri-Valley Population Trends: 1990-2020.....	C.10-2
C.10-3	Tri-Valley Population, Race, Hispanic Origin: 1990.....	C.10-3
C.10-4	Tri-Valley Housing Characteristics: 1990.....	C.10-3
C.10-5	Mitigation Monitoring Program Socioeconomics	C.10-18
C.11-1	Summary of Study Area Roadway Characteristics Along Proposed Project and Alternative Transmission Line Routes	C.11-2
C.11-2	Public Bus Service Near Proposed Transmission Line Routes.....	C.11-10
C.11-3	Bicycle Facility Classifications.....	C.11-13
C.11-4	Applicant Proposed Measures for Impacts to Traffic/Transportation	C.11-17
C.11-5	Mitigation Monitoring Program	C.11-33
C.12-1	Regulations, Plans and Standards Applicable to Visual Resources.....	C.12-19
C.12-2	General Guidance for Determination of Impact Significance.....	C.12-21
C.12-3	Applicant Proposed Measures for Visual Resources.....	C.12-23
C.12-4	Consistency with Applicable Regulations, Plans, and Standards	C.12-24
C.12-5	Mitigation Monitoring Plan.....	C.12-46
C.12-6	Visual Analysis Summary	C.12-48
C.13-1	Alternatives Addressed in Section C.13	C.13-1
C.13-2	Site 2 Impacts and Mitigation Measures for Biological Resources	C.13-2
C.13-3	Site 3 Impacts and Mitigation Measures for Biological Resources	C.13-14
C.13-4	Impacts of Mitigation Measures Requiring New Rights-of-Way.....	C.13-24
C.13-5	Impacts of Mitigation Measures Requiring Route Changes or Additional Undergrounding	C.13-28
C.13-6	Mitigation Monitoring Program for Alternatives Evaluated in Section C.13	C.13-31
D-1	Alternatives Comparison – Pleasanton Area Summary.....	D-5
D-2	Alternatives Comparison – North Livermore Area Summary.....	D-6
D-3	Alternatives Comparison - Dublin/San Ramon Area Summary	D-7
D-4	Alternatives Comparison – Tesla Connection/Phase 2 Summary	D-8
D-5	Mileage Comparison: Proposed Project vs. Environmentally Superior Build Scenario ..	D-10
D.5-1	Pleasanton Area Comparison of Alternatives	D-15
D.5-2	Dublin/San Ramon Area Comparison of Alternatives	D-22
D.5-3	North Livermore Area Comparison of Alternatives	D-28
D.5-4	Tesla Connection/Phase 2 Comparison of Alternatives	D-37
E.3-1	Cumulative Projects	E-6

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

LIST OF FIGURES

ES-1	Proposed Project and all EIR Alternatives	ES-3
ES-2	Environmentally Superior Components.....	ES-45
A-i	1988 FSEIR: Proposed Project and Alternatives, PG&E Vineyard 230 kV	A-4
A-1	Existing Regional Transmission System	A-9
A-2	Existing Tri-Valley Power Lines and Substations.....	A-13
B-1	Regional Project Location	B-3
B-2	Proposed Transmission Line Routes and Substations.....	B-5
B-3	Typical Lattice Steel Tower	B-8
B-4	Typical Transition Structure.....	B-10
B-5	Plan View of Dublin and North Livermore Substations.....	B-15
B-6	Typical Tubular Steel Pole	B-17
B-7	Typical Tubular Steel Pole with Underbuild.....	B-18
B-8	Diagram of Boring Procedures and Additional Description	B-25
B-9	Typical Underground Construction Process Within Roadways	B-27
B-10	Typical Duct Bank Installation of 230kV Double-Circuit Cable.....	B-30
B-11	Access Roads, Pull and Tension Sites	B-33
B-12	Proposed Project and All EIR Alternatives	B-51
B-13	Pleasanton Area Alternatives.....	B-53
B-14	Dublin-San Ramon Area Alternatives.....	B-57
B-15	D2 Reconductoring	B-61
B-16	North Livermore Area Alternatives	B-63
B-17	Typical Switching Station Layout	B-67
B-18	Switching Station Sites	B-69
C.2-1	Bay Area Air Basin with Project Monitoring Locations	C.2-2
C.2-2	Mitigation Measure A-5 (D2 reroute).....	C.2-19
C.2-3	Mitigation Measure A-6 (May School Road)	C.2-21
C.3-1A	Habitat Types.....	C.3-5
C.3-1A	Habitat Types D2 Reconductoring	C.3-7
C.5-1	Faults in the Tri-Valley Area.....	C.5-11
C.6-1	Waterbodies, Floodplains, and Flood Inundation Areas	C.6-3
C.6-2	Location of Potential Hazardous Material Sites	C.6-9
C.6-3	Springtown Alkali Sink	C.6-16
C.7-1	Jurisdictional Boundaries	C.7-3
C.7-2	Existing Land Use	C.7-5
C.7-3	State-Designated Important Farmland.....	C.7-9
C.8-1	Typical Range of Common Sounds Heard in the Environment	C.8-2
C.8-2	Outdoor Day/Night Sound Levels in Different Areas	C.8-3
C.11-1	Study Area Roadway Network and Transmission Line Paths	C.11-5
C.11-2	Average Daily Traffic Volumes Within Study Area.....	C.11-11
Note: Only figures C.12-1 and C.12-5c will available on the project website due to file size constraints.		
C.12-1	Key Viewpoint Locations	
C.12-2	Key Viewpoint 1 Proposed Project Route 84	
C.12-3A	Key Viewpoint 2 Proposed Project Hearst Drive	

**TRI-VALLEY 2002 CAPACITY INCREASE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

TABLE OF CONTENTS

LIST OF FIGURES, CONTINUED

C.12-3B	Key Viewpoint 2 Proposed Project Hearst Drive	
C.12-4	Key Viewpoint 3 S1 Vineyard – Isabel – Stanley Alternative	
C.12-5	Key Viewpoint 4 S1 Vineyard – Isabel – Stanley Alternative	
C.12-5C	Mitigation Measure V-3: Reroute of Proposed Transmission Line Route	
C.12-6	Key Viewpoint 5 S1 Vineyard – Isabel – Stanley Alternative	
C.12-7	Key Viewpoint 6 S2 Vineyard Alternative	
C.12-8	Key Viewpoint 7 S2 Vineyard Alternative	
C.12-9	Key Viewpoint 8 S4 Eastern Open Space Alternative	
C.12-10	Proposed Project Dublin Substation Site	
C.12-11	Key Viewpoint 9 D1 South Dublin Alternative	
C.12-12	Key Viewpoint 10 D1 South Dublin Alternative	
C.12-13	Key Viewpoint 11 D2 Dublin – San Ramon Alternative San Ramon Substation	
C.12-14A	Key Viewpoint 12 D2 Alternative Tassajara Road	
C.12-14B	Key Viewpoint 12 D2 Alternative Tassajara Road	
C.12-15	Key Viewpoint 13 Proposed Project North Livermore to Dublin Substation	
C.12-15c	Mitigation Measure V-3: Reroute of Proposed Transmission Line Route	
C.12-16A	Key Viewpoint 14 Proposed Project Manning Road	
C.12-16B	Key Viewpoint 14 Proposed Project Manning Road	
C.12-17	Key Viewpoint 15 Proposed Project Manning Road to North Livermore Avenue	
C.12-18A	Key Viewpoint 16 Proposed Project North Livermore Substation	
C.12-18B	Key Viewpoint 16 Proposed Project North Livermore Substation	
C.12-19	Proposed Project East of North Livermore Avenue	
C.12-20	Key Viewpoint 17 L1 Raymond Road Alternative	
C.12-21	Key Viewpoint 17 L1 Raymond Road Alternative	
C.12-22	Key Viewpoint 17 L1 Raymond Road Alternative	
C.12-23	Key Viewpoint 18 L2 Hartman Road Alternative	
C.12-24A	Key Viewpoint 19 Proposed Project Phase 2 Interstate 580 Span	
C.12-24B	Key Viewpoint 19 Proposed Project Phase 2 Interstate 580 Span	
C.12-25	Key Viewpoint 20 Phase 2 Brushy Peak Alternative	
C.12-26	Key Viewpoint 21 Tesla Connection Stanislaus Corridor Alternative	
C.13-a	Switching Station Sites	C.13-3
C.13-1	Switching Station Site No. 1, Tesla-Newark Corridor	C.13-5
C.13-2	Switching Station Site No. 2, Zone 7 Plant	C.13-9
C.13-3	Switching Station Site No. 3, Sycamore Grove Park	C.13-15
D-1	Proposed Project and All EIR Alternatives	D-3
D-2	Environmentally Superior Project	D-11
E.3-1	Cumulative Projects	E-9