

TABLE OF CONTENTS

Section **Page No.**

VOLUME 1 of 2

ACRONYMS AND ABBREVIATIONS.....ACR-1

ES EXECUTIVE SUMMARY ES-1

ES.1 Introduction..... ES-2

 ES.1.1 Changes made to the Draft EIR/EIS ES-3

ES.2 Agency Use of the Document..... ES-6

 ES.2.1 California Public Utilities Commission..... ES-7

 ES.2.2 Bureau of Land Management..... ES-7

 ES.2.3 Responsible/Cooperating Agencies ES-7

ES.3 Project Overview/Objectives ES-9

ES.4 Areas of Controversy/Public Scoping Issues ES-12

 ES.4.1 Scoping ES-12

 ES.4.2 Comments on the Draft EIR/EIS ES-14

ES.5 Project Alternatives..... ES-18

 ES.5.1 Range of Alternatives Considered ES-18

 ES.5.2 Alternatives Carried Forward ES-19

ES.6 Summary of Environmental Analysis..... ES-23

 ES.6.1 ECO Substation Project ES-24

 ES.6.2 Tule Wind Project ES-26

 ES.6.3 ESJ Gen-Tie Project..... ES-28

ES.7 Anza-Borrego Desert State Park..... ES-29

ES.8 Environmentally Superior Alternative/Agency-Preferred Alternative ES-32

 ES.8.1 CEQA Environmentally Superior Alternative/
 Agency-Preferred Alternative ES-32

 ES.8.2 BLM-Preferred Alternative..... ES-35

ES.9 Issues to be Resolved ES-35

A. INTRODUCTION/OVERVIEW..... A-1

A.1 Background..... A-1

A.2 Overview of the Proposed Project A-3

A.3 Purpose and Need A-5

 A.3.1 BLM Purpose and Need..... A-5

 A.3.2 Ewiiapaayp Band of Kumeyaay Indians Project Purpose..... A-8

A.4 Project Objectives A-8

 A.4.1 Requirements for Procurement of Renewable Energy..... A-8

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
A.4.2 Statement of Objectives	A-9
A.5 Agency Use of this Document and Permits Required	A-12
A.5.1 CPUC	A-12
A.5.2 BLM.....	A-12
A.5.3 Responsible/Cooperating Agencies	A-13
A.5.4 Other Agencies.....	A-15
A.6 Reader’s Guide to EIR/EIS	A-20
A.6.1 Incorporation by Reference.....	A-20
A.6.2 EIR/EIS Organization	A-21
A.7 References	A-23
B. PROJECT DESCRIPTION	B-1
B.1 Introduction.....	B-1
B.2 Overview of the Proposed Project	B-1
B.2.1 SDG&E’s ECO Substation Project.....	B-3
B.2.2 PacificTule Wind Development’s, LLC’s Tule Wind Project.....	B-4
B.2.3 Energia Sierra Juarez U.S. Transmission, LLC’s ESJ Gen-Tie Project.....	B-5
B.2.4 Other Wind Energy Projects	B-5
B.3 ECO Substation Project	B-6
B.3.1 Project Components.....	B-7
B.3.2 ECO Substation Project Construction.....	B-17
B.3.3 ECO Substation Project Operations and Maintenance	B-37
B.3.4 ECO Substation Project Applicant Proposed Measures	B-41
B.4 Tule Wind Project.....	B-48
B.4.1 Project Components.....	B-48
B.4.2 Tule Wind Project Construction	B-61
B.4.3 Tule Wind Project Operations and Maintenance and Decommissioning.....	B-70
B.4.4 Tule Wind Project Applicant Proposed Measures	B-73
B.5 ESJ Gen-Tie Project.....	B-89
B.5.1 ESJ Gen-Tie Project Components	B-89
B.5.2 ESJ Gen-Tie Project Construction.....	B-95
B.5.3 ESJ Gen-Tie Project Operations and Maintenance.....	B-98
B.5.4 ESJ Gen-Tie Project Applicant Proposed Measures.....	B-98
B.6 References	B-101

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
C. ALTERNATIVES	C-1
C.1 Alternatives Development and Screening Process	C-1
C.2 Alternatives Screening Methodology	C-3
C.2.1 Consistency with Project Objectives	C-4
C.2.2 Feasibility.....	C-4
C.2.3 Potential to Eliminate Environmental Effects.....	C-5
C.3 Summary of Screening Results	C-6
C.3.1 Alternatives Analyzed in the EIR/EIS	C-6
C.3.2 Alternatives Eliminated from EIR/EIS Consideration.....	C-22
C.4 Alternatives Evaluated in this EIR/EIS.....	C-24
C.4.1 ECO Substation Project Alternatives.....	C-24
C.4.2 Tule Wind Project Alternatives	C-29
C.4.3 ESJ Gen-Tie Project Alternatives	C-35
C.5 Alternatives Eliminated from Full EIR/EIS Evaluation	C-37
C.5.1 ECO Substation Project Alternatives.....	C-37
C.5.2 Tule Wind Project Alternatives	C-50
C.5.3 ESJ Gen-Tie Project Alternatives	C-54
C.5.4 Other Energy Alternatives	C-55
C.6 No Project/No Action Alternatives.....	C-59
C.6.1 No Project Alternative 1—No ECO, Tule, ESJ Gen-Tie, Campo, Manzanita, or Jordan Wind Energy Projects	C-59
C.6.2 No Project Alternative 2—No ECO Substation Project	C-60
C.6.3 No Project Alternative 3—No Tule Wind Project.....	C-60
C.6.4 No Project Alternative 4—No ESJ Gen-Tie Project.....	C-60
C.7 References.....	C-60
D. ENVIRONMENTAL ANALYSIS	D.1-1
D.1 Introduction to Environmental Analysis	D.1-1
D.1.1 Introduction/Background	D.1-1
D.1.2 Environmental Assessment/Analysis CEQA/NEPA Methodology ...	D.1-7
D.1.3 References.....	D.1-9
D.2 Biological Resources	D.2-1
D.2.1 Environmental Setting/Affected Environment	D.2-1
D.2.2 Applicable Regulations, Plans, and Standards.....	D.2-100
D.2.3 Environmental Effects	D.2-113
D.2.4 ECO Substation Project Alternatives.....	D.2-184

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.2.5	Tule Wind Project Alternatives D.2-203
D.2.6	ESJ Gen-Tie Project Alternatives D.2-226
D.2.7	No Project/No Action Alternatives D.2-238
D.2.8	Mitigation Monitoring, Compliance, and Reporting D.2-240
D.2.9	Residual Effects D.2-280
D.2.10	References D.2-282
D.3	Visual Resources D.3-1
D.3.1	Environmental Setting/Affected Environment D.3-1
D.3.2	Applicable Regulations, Plans, and Standards D.3-37
D.3.3	Environmental Effects D.3-49
D.3.4	ECO Substation Project Alternatives D.3-91
D.3.5	Tule Wind Project Alternatives D.3-103
D.3.6	ESJ Gen-Tie Project Alternatives D.3-124
D.3.7	No Project/No Action Alternatives D.3-129
D.3.8	Mitigation Monitoring, Compliance, and Reporting D.3-130
D.3.9	Residual Effects D.3-150
D.3.10	References D.3-154
D.4	Land Use D.4-1
D.4.1	Environmental Setting/Affected Environment D.4-1
D.4.2	Applicable Regulations, Plans, and Standards D.4-23
D.4.3	Environmental Effects D.4-63
D.4.4	ECO Substation Project Alternatives D.4-78
D.4.5	Tule Wind Project Alternatives D.4-86
D.4.6	ESJ Gen-Tie Project Alternatives D.4-105
D.4.7	No Project/No Action Alternatives D.4-109
D.4.8	Mitigation Monitoring, Compliance, and Reporting D.4-110
D.4.9	Residual Effects D.4-114
D.4.10	References D.4-115
D.5	Wilderness and Recreation D.5-1
D.5.1	Environmental Setting/Affected Environment D.5-1
D.5.2	Applicable Regulations, Plans, and Standards D.5-14
D.5.3	Environmental Effects D.5-26
D.5.4	ECO Substation Project Alternatives D.5-46
D.5.5	Tule Wind Project Alternatives D.5-53
D.5.6	ESJ Gen-Tie Project Alternatives D.5-67
D.5.7	No Project/No Action Alternatives D.5-72

TABLE OF CONTENTS (Continued)

<u>Section</u>		<u>Page No.</u>
D.5.8	Mitigation Monitoring, Compliance, and Reporting	D.5-73
D.5.9	Residual Effects	D.5-75
D.5.10	References.....	D.5-75

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
VOLUME 2 of 2	
D.6	Agriculture D.6-1
D.6.1	Environmental Setting/Affected Environment D.6-1
D.6.2	Applicable Regulations, Plans, and Standards..... D.6-4
D.6.3	Environmental Impacts/Environmental Effects..... D.6-7
D.6.4	ECO Substation Project Alternatives..... D.6-15
D.6.5	Tule Wind Project Alternatives D.6-23
D.6.6	ESJ Gen-Tie Project Alternatives D.6-34
D.6.7	No Project/No Action Alternatives D.6-38
D.6.8	Mitigation Monitoring, Compliance, and Reporting D.6-40
D.6.9	Residual Effects D.6-40
D.6.10	References..... D.6-40
D.7	Cultural and Paleontological Resources D.7-1
D.7.1	Environmental Setting/Affected Environment D.7-1
D.7.2	Applicable Regulations, Plans, and Standards..... D.7-55
D.7.3	Environmental Effects D.7-70
D.7.4	ECO Substation Project Alternatives..... D.7-105
D.7.5	Tule Wind Project Alternatives D.7-114
D.7.6	ESJ Gen-Tie Project Alternatives D.7-126
D.7.7	No Project/No Action Alternatives D.7-131
D.7.8	Mitigation Monitoring, Compliance, and Reporting D.7-132
D.7.9	Residual Effects D.7-154
D.7.10	References..... D.7-155
D.8	Noise D.8-1
D.8.1	Environmental Setting/Affected Environment D.8-1
D.8.2	Applicable Regulations, Plans, and Standards..... D.8-7
D.8.3	Environmental Effects D.8-12
D.8.4	ECO Substation Project Alternatives..... D.8-37
D.8.5	Tule Wind Project Alternatives D.8-44
D.8.6	ESJ Gen-Tie Project Alternatives D.8-55
D.8.7	No Project/No Action Alternatives D.8-58
D.8.8	Mitigation Monitoring, Compliance, and Reporting D.8-60
D.8.9	Residual Effects D.8-63
D.8.10	References..... D.8-64

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.9	Transportation and Traffic D.9-1
D.9.1	Environmental Setting/Affected Environment D.9-1
D.9.2	Applicable Regulations, Plans, and Standards..... D.9-10
D.9.3	Environmental Effects D.9-17
D.9.4	ECO Substation Project Alternatives..... D.9-45
D.9.5	Tule Wind Project Alternatives D.9-57
D.9.6	ESJ Gen-Tie Project Alternatives D.9-72
D.9.7	No Project/No Action Alternatives D.9-80
D.9.8	Mitigation Monitoring, Compliance, and Reporting D.9-81
D.9.9	Residual Effects D.9-87
D.9.10	References..... D.9-87
D.10	Public Health and Safety..... D.10-1
D.10.1	Environmental Setting/Affected Environment D.10-1
D.10.2	Applicable Regulations, Plans, and Standards..... D.10-9
D.10.3	Environmental Effects D.10-22
D.10.4	ECO Substation Project Alternatives..... D.10-68
D.10.5	Tule Wind Project Alternatives D.10-77
D.10.6	ESJ Gen-Tie Project Alternatives D.10-89
D.10.7	No Project/No Action Alternatives D.10-94
D.10.8	Electric and Magnetic Fields D.10-95
D.10.9	Other Field-Related Public Concerns D.10-119
D.10.10	Mitigation Monitoring, Compliance, and Reporting D.10-132
D.10.11	Residual Effects D.10-153
D.10.12	References..... D.10-153
D.11	Air Quality D.11-1
D.11.1	Environmental Setting/Affected Environment D.11-1
D.11.2	Applicable Regulations, Plans, and Standards..... D.11-8
D.11.3	Environmental Effects D.11-16
D.11.4	ECO Substation Project Alternatives..... D.11-43
D.11.5	Tule Wind Project Alternatives D.11-50
D.11.6	ESJ Gen-Tie Project Alternatives D.11-62
D.11.7	No Project/No Action Alternatives D.11-67
D.11.8	Mitigation Monitoring, Compliance, and Reporting D.11-70
D.11.9	Residual Effects D.11-74
D.11.10	References..... D.11-76

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.12 Water Resources	D.12-1
D.12.1 Environmental Setting/Affected Environment	D.12-1
D.12.2 Applicable Regulations, Plans, and Standards.....	D.12-10
D.12.3 Environmental Effects	D.12-15
D.12.4 ECO Substation Project Alternatives.....	D.12-41
D.12.5 Tule Wind Project Alternatives	D.12-56
D.12.6 ESJ Gen-Tie Project Alternatives	D.12-73
D.12.7 No Project/No Action Alternatives	D.12-82
D.12.8 Mitigation Monitoring, Compliance, and Reporting	D.12-83
D.12.9 Residual Effects	D.12-97
D.12.10 References.....	D.12-97
D.13 Geology, Mineral Resources, and Soils.....	D.13-1
D.13.1 Environmental Setting/Affected Environment	D.13-1
D.13.2 Applicable Regulations, Plans, and Standards.....	D.13-12
D.13.3 Environmental Effects	D.13-16
D.13.4 ECO Substation Project Alternatives.....	D.13-31
D.13.5 Tule Wind Project Alternatives	D.13-40
D.13.6 ESJ Gen-Tie Project Alternatives	D.13-53
D.13.7 No Project/No Action Alternatives	D.13-58
D.13.8 Mitigation Monitoring, Compliance, and Reporting	D.13-60
D.13.9 Residual Effects	D.13-66
D.13.10 References.....	D.13-66
D.14 Public Services and Utilities	D.14-1
D.14.1 Environmental Setting/Affected Environment	D.14-1
D.14.2 Applicable Regulations, Plans, and Standards.....	D.14-7
D.14.3 Environmental Effects	D.14-12
D.14.4 ECO Substation Project Alternatives.....	D.14-30
D.14.5 Tule Wind Project Alternatives	D.14-38
D.14.6 ESJ Gen-Tie Project Alternatives	D.14-54
D.14.7 No Project/No Action Alternatives	D.14-58
D.14.8 Mitigation Monitoring, Compliance, and Reporting	D.14-59
D.14.9 Residual Effects	D.14-62
D.14.10 References.....	D.14-62
D.15 Fire and Fuels Management.....	D.15-1
D.15.1 Environmental Setting/Affected Environment	D.15-1
D.15.2 Applicable Regulations, Plans, and Standards.....	D.15-23

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.15.3	Environmental Effects D.15-38
D.15.4	ECO Substation Project Alternatives D.15-78
D.15.5	Tule Wind Project Alternatives D.15-85
D.15.6	ESJ Gen-Tie Project Alternatives D.15-99
D.15.7	No Project/No Action Alternatives D.15-104
D.15.8	Mitigation Monitoring, Compliance, and Reporting D.15-106
D.15.9	Residual Effects D.15-125
D.15.10	References D.15-126
D.16	Social and Economic Conditions D.16-1
D.16.1	Environmental Setting/Affected Environment D.16-1
D.16.2	Applicable Regulations, Plans, and Standards D.16-8
D.16.3	Environmental Effects D.16-11
D.16.4	ECO Substation Project Alternatives D.16-19
D.16.5	Tule Wind Project Alternatives D.16-24
D.16.6	ESJ Gen-Tie Project Alternatives D.16-31
D.16.7	No Project/No Action Alternatives D.16-33
D.16.8	Mitigation Monitoring, Compliance, and Reporting D.16-35
D.16.9	Residual Effects D.16-35
D.16.10	References D.16-35
D.17	Environmental Justice D.17-1
D.17.1	Environmental Setting/Affected Environment D.17-1
D.17.2	Applicable Regulations, Plans, and Standards D.17-2
D.17.3	Environmental Effects D.17-3
D.17.4	ECO Substation Project Alternatives D.17-6
D.17.5	Tule Wind Project Alternatives D.17-7
D.17.6	ESJ Gen-Tie Project Alternatives D.17-8
D.17.7	No Project/No Action Alternatives D.17-9
D.17.8	Mitigation Monitoring, Compliance, and Reporting D.17-10
D.17.9	Residual Effects D.17-11
D.17.10	References D.17-11
D.18	Climate Change D.18-1
D.18.1	Environmental Setting/Affected Environment D.18-2
D.18.2	Applicable Regulations, Plans, and Standards D.18-6
D.18.3	Environmental Effects D.18-12
D.18.4	ECO Substation Project Alternatives D.18-21
D.18.5	Tule Wind Project Alternatives D.18-25

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.18.6 ESJ Gen-Tie Project Alternatives	D.18-31
D.18.7 No Project/No Action Alternatives	D.18-34
D.18.8 Mitigation Monitoring, Compliance, and Reporting	D.18-35
D.18.9 Residual Effects	D.18-36
D.18.10 References	D.18-36
E. COMPARISON OF ALTERNATIVES.....	E-1
E.1 Regulatory Requirements for Alternatives Comparison.....	E-2
E.1.1 California Environmental Quality Act.....	E-2
E.1.2 National Environmental Policy Act.....	E-2
E.2 Comparison of the Proposed ECO Substation Project and Alternatives	E-2
E.2.1 ECO Substation Site Alternative	E-3
E.2.2 ECO Partial Underground 138 kV Transmission Route Alternative....	E-9
E.2.3 ECO Highway 80 138 kV Transmission Route Alternative.....	E-9
E.2.4 ECO Highway 80 Underground 138 kV Transmission Route Alternative	E-9
E.2.5 Overall Ranking ECO Substation Site Alternatives	E-10
E.3 Comparison of Alternatives to the Tule Wind Project.....	E-11
E.3.1 Tule Alternative 1 Gen-Tie Route 2 with Collector Substation/Operations and Maintenance (O&M) Facility on Rough Acres Ranch	E-12
E.3.2 Tule Alternative 2 Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch.....	E-13
E.3.3 Tule Alternative 3 Gen-Tie Route 3 with Collector Substation/ O&M Facility on Rough Acres Ranch.....	E-14
E.3.4 Tule Alternative 4 Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch.....	E-23
E.3.5 Tule Alternative 5 Reduction in Turbines	E-23
E.3.6 Overall Ranking Tule Wind Project Site Alternatives.....	E-24
E.4 Comparison of ESJ Gen-Tie Alternative	E-26
E.4.1 ESJ Gen-Tie Alternative Undergrounding 230 kV Gen-Tie Transmission Line.....	E-26
E.4.2 ESJ Gen-Tie Alternative Overhead Gen-Tie Transmission Line Alignment	E-27
E.4.3 ESJ Gen-Tie Alternative Underground Gen-Tie Transmission Line Alignment	E-27

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
E.4.4 Overall Ranking ESJ Gen-Tie Alternatives	E-27
E.5 Environmentally Superior Alternative/Agency-Preferred Alternative	E-33
E.5.1 CEQA Environmentally Superior Alternative	E-33
E.5.2 BLM-Preferred Alternative.....	E-35
F. CUMULATIVE SCENARIO AND IMPACTS.....	F-1
F.1 Introduction and Methodology	F-1
F.2 Applicable Cumulative Projects and Projections.....	F-4
F.2.1 Project Approach	F-4
F.2.2 Plans and Projections	F-6
F.2.3 Specific Projects.....	F-6
F.3 Cumulative Impact Analysis.....	F-25
F.3.1 Biological Resources	F-26
F.3.2 Visual Resources.....	F-51
F.3.3 Land Use	F-66
F.3.4 Wilderness and Recreation	F-75
F.3.5 Agriculture	F-85
F.3.6 Cultural and Paleontological Resources	F-92
F.3.7 Noise and Vibration	F-103
F.3.8 Transportation and Traffic	F-112
F.3.9 Public Health and Safety.....	F-125
F.3.10 Air Quality	F-141
F.3.11 Water Resources	F-152
F.3.12 Geology, Mineral Resources, and Soils.....	F-164
F.3.13 Public Services and Utilities	F-174
F.3.14 Fire and Fuels Management.....	F-186
F.3.15 Social and Economic Conditions.....	F-202
F.3.16 Environmental Justice.....	F-212
F.3.17 Climate Change.....	F-217
F.4 References.....	F-225
G. REQUIRED CEQA/NEPA TOPICS	G-1
G.1 Growth-Inducing Effects	G-1
G.1.1 Growth Caused by Direct and Indirect Employment.....	G-2
G.1.2 Growth Related to Provision of Additional Electric Power.....	G-2
G.2 Irreversible and Irretrievable Commitment of Resources and Environmental Changes	G-3

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
G.3	Adverse Environmental Effects That Cannot be Avoided..... G-4
G.4	Short-Term Use Versus Long-Term Productivity of the Environment G-10
G.5	Compliance with Applicable Federal Environmental Regulations and Policies ... G-10
G.6	References..... G-11
H.	MITIGATION MONITORING AND REPORTING H-1
H.1	Authority for the Mitigation Monitoring, Compliance, and Reporting Program..... H-1
H.1.1	California Public Utilities Commission..... H-1
H.1.2	Bureau of Land Management..... H-2
H.1.3	Responsible Agencies H-3
H.2	Organization of the Final Mitigation Monitoring Program H-3
H.3	Enforcement Responsibility..... H-4
H.4	Mitigation Compliance Responsibility H-4
H.5	General Monitoring Procedures H-5
H.5.1	Environmental Monitors H-5
H.5.2	Construction Personnel H-5
H.6	Mitigation Monitoring Program Table..... H-6
H.7	References..... H-6
I.	PUBLIC PARTICIPATION I-1
I.1	Public Scoping Process I-1
I.1.1	Notice of Preparation/Notice of Intent..... I-1
I.1.2	Public Scoping Meetings I-2
I.1.3	Scoping Report..... I-3
I.1.4	Follow-Up Agency Consultation I-5
I.2	Public Notice and Participation I-5
I.2.1	Public Notification I-6
I.2.2	Public Review Period..... I-6
I.2.3	EIR/EIS Information and Repository Sites..... I-7
I.3	Distribution of the EIR/EIS <u>and Public Information Meetings</u> I-7
I.3.1	Draft EIR/EIS Distribution <u>and Public Information Meetings</u> I-7
I.3.2	Final EIR/EIS Preparation and Distribution I-8
I.3.3	<u>After Final EIR/EIS Completion</u> I-9
I.4	Consultation with Agencies I-10
I.4.1	Federal, State, and Local Agencies..... I-10
I.4.2	Non-Governmental Organizations I-12

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
I.4.3 Native American Tribes	I-14
I.5 References	I-17
J. REPORT PREPARATION.....	J-1

LIST OF APPENDICES (*Provided on Enclosed CD*)

1	Special-Status Species Detected or Potentially Occurring on the Project Site
2	Jurisdictional Impact Tables
3a	Visual Resources Methodologies and Assumptions
3b	Visual Resource Inventory Summary
4	Visual Contrast Rating Sheets
5	Landscape Concept Plans
6	Visual Resource Consistency Tables
7	Land Use Consistency Tables
8	Air Quality and Greenhouse Gas Revisions to Applicant's Environmental Information
<u>9</u>	<u>Biological Opinions for the East County Substation and Tule Wind Projects</u>
<u>10</u>	<u>Section 106 Draft Memorandums of Agreement for the ECO Substation and Tule Wind Projects</u>

TABLE OF CONTENTS (Continued)

Section **Page No.**

LIST OF FIGURES

VOLUME 1 of 2

ES-1	Regional Map.....	ES-77
ES-2A	Vicinity/Overview Map	ES-79
ES-2B	Vicinity/Overview Map	ES-81
A-1	NREL Wind Resource Map	A-27
B-1	Regional Map.....	B-105
B-2A	Vicinity/Overview Map	B-107
B-2B	Vicinity/Overview Map	B-109
B-3	ECO Substation Temporary and Permanent Footprint	B-111
B-4	ECO Substation Site Plan	B-113
B-5	ECO Substation Profile.....	B-115
B-6	ECO Substation Project SWPL Loop-In Structure Typical Drawing.....	B-117
B-7	ECO Substation Project Overhead 138 kV Transmission Line	B-119
B-8	ECO Substation Project Overhead 138 kV Transmission Line	B-121
B-9A	ECO Substation Project Overhead 138 kV Transmission Line	B-123
B-9B	ECO Substation Project Overhead 138 kV Transmission Line	B-125
B-10	ECO Substation Project 138 kV Steel Pole Typical Drawing	B-127
B-11	ECO Substation Project Typical Wooden Distribution Pole	B-129
B-12	ECO Substation Project Steel Cable Rise Pole Typical Drawing.....	B-131
B-13	ECO Substation Project Underground 138 kV Concrete Duct Bank Typical Drawing	B-133
B-14A	ECO Substation Project Boulevard Substation Temporary and Permanent Footprint.....	B-135
B-14B	ECO Substation Project Boulevard Substation Temporary and <u>Permanent Footprint.....</u>	<u>B-137</u>
B-15A	ECO Substation Project Boulevard Substation Rebuild	B-139
B-15B	ECO Substation Project Boulevard Substation Rebuild	B-141
B-16	Boulevard Substation Profile	B-143
B-17	ECO Substation and SWPL Loop-In Temporary Workspace Areas	B-145

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
B-18	ECO Substation Aboveground Conductor Installation Procedure Typical DrawingB-147
B-19A	Tule Wind Project OverviewB-149
B-19B	Tule Wind Project OverviewB-151
B-20A	Tule Wind ProjectB-153
B-20B	Tule Wind ProjectB-155
B-21A	Tule Wind ProjectB-157
B-21B	Tule Wind ProjectB-159
B-22A	Tule Wind ProjectB-161
B-22B	Tule Wind ProjectB-163
B-23	Tule Wind Project Typical Turbine SiteB-165
B-24	Tule Wind Project Typical Turbine Tower DesignB-167
B-25	Tule Wind Project Typical Underground Collector Cable System TrenchB-169
B-26a	Tule Wind Project Typical 34.5 kV Overhead Collector Cable System Transmission Pole- Single <u>Double</u> CircuitB-171
B-26b	Tule Wind Project Typical 34.5 kV Overhead Collector Cable System Transmission Pole- Double <u>Single</u> CircuitB-173
B-27	Tule Wind Project Plan View of a Typical Collector SubstationB-175
B-28	Tule Wind Project Typical Collector Substation ProfileB-177
B-29	Tule Wind Project Typical Operations and Maintenance Facility SiteB-179
B-30	Tule Wind Project Profile Views of <u>Typical</u> Operations and Maintenance BuildingB-181
B-31A	Tule Wind Project Typical 138 kV Steel Tangent PoleB-183
B-31B	Tule Wind Project Typical 138 kV Tangent/Small Angle Double Circuit PoleB-185
B-31C	Tule Wind Project Typical 138 kV Double Deadend Double Circuit PoleB-187
B-32	ESJ Gen-Tie Site PlanB-189
B-33	ESJ Gen-Tie Project and Off-Site Well LocationB-191
C-1A	ECO Substation Project and ESJ Gen-Tie Alternatives MapC-63
C-1B	ECO Substation Project and ESJ Gen-Tie Alternatives MapC-65
C-2A	Tule Wind Project Alternatives MapC-67
C-2B	Tule Wind Project Alternatives MapC-69
C-3A	ESJ Gen-Tie Overhead Alternative Alignment RoutesC-71
C-3B	ESJ Gen-Tie Overhead Alternative Alignment RoutesC-73

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
C-4A	ECO Substation Alternative SiteC-75
C-4B	ECO Substation Alternative SiteC-77
<hr/>	
D.2-1	ECO Substation Project Biological Resources Map 1 of 3..... D.2-299
D.2-2	ECO Substation Project Biological Resources Map 2 of 3..... D.2-301
D.2-3	ECO Substation Project Biological Resources Map 3 of 3..... D.2-303
D.2-4	ESJ Gen-Tie Project - Biological Resources Map D.2-305
D.2-5A	Tule Wind Project Biological Index D.2-307
D.2-5B	Tule Wind Project Biological Index D.2-309
D.2-6A	Tule Wind Project Existing Biological Resources..... D.2-311
D.2-6B	Tule Wind Project Existing Biological Resources..... D.2-313
D.2-7A	Tule Wind Project Biological Resource Map 2 of 3..... D.2-315
D.2-7B	Tule Wind Project Biological Resource Map 2 of 3..... D.2-317
D.2-8A	Tule Wind Project Biological Resource Map 3 of 3..... D.2-319
D.2-8B	Tule Wind Project Biological Resource Map 3 of 3..... D.2-321
D.2-9A	Key Wildlife Species D.2-323
D.2-9B	Key Wildlife Species D.2-325
<hr/>	
D.3-1	ECO Substation Project Viewshed Analysis D.3-161
D.3-2A	Tule Wind Project Viewshed Analysis D.3-163
D.3-2B	Tule Wind Project Viewshed Analysis D.3-165
D.3-3	ESJ Gen-Tie Project Viewshed Analysis..... D.3-167
D.3-4A	Visually Sensitive Land Uses and Key Observation Points (KOPs) D.3-169
D.3-4B	Visually Sensitive Land Uses and Key Observation Points (KOPs) D.3-171
D.3-5A	BLM Visual Resources Management Classifications..... D.3-173
D.3-5B	BLM Visual Resources Management Classifications..... D.3-175
D.3-6A	KOP 1–Existing Setting (ES)..... D.3-177
D.3-6B	KOP 1–Visual Simulation of Proposed ECO Substation Project (VS1) D.3-179
D.3-6C	KOP 1–Visual Simulation of Proposed ECO Substation (with Landscape Plan) Project (VS2) D.3-181
D.3-6D	KOP 1–Visual Simulation of Proposed ESJ Gen-Tie Project (VS3)..... D.3-183
D.3-7A	KOP 2– Existing Setting (ES)..... D.3-185
D.3-7B	KOP 2–Visual Simulation of Proposed ECO Substation Project (VS1) D.3-187
D.3-7C	KOP 2–Visual Simulation of Proposed ECO Substation (with Landscape Plan) Project (VS2) D.3-189

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.3-7D	KOP 2– Visual Simulation of ECO Substation Alternative Project (AVS1) ... D.3-191
D.3-7E	KOP 2–Visual Simulation of ECO Substation Alternative (with Landscape Plan) Project (AVS2)..... D.3-193
D.3-8A	KOP 3–Existing Setting: (ES1) D.3-195
D.3-8B	KOP 3–KOP 3–Existing Setting: (ES2) D.3-197
D.3-8C	KOP 3–Proposed ECO Substation Project Components Locations D.3-199
D.3-8D	KOP 3–Visual Simulation of Proposed ESJ Gen-Tie Project (VS1)..... D.3-201
D.3-8E	KOP 3–Visual Simulation of Proposed ESJ Gen-Tie Project (VS2)..... D.3-203
D.3-8F	KOP 3–Visual Simulation of Proposed ESJ Gen-Tie Project (VS3)..... D.3-205
D.3-8G	KOP 3–Visual Simulation of Proposed ESJ Gen-Tie Project (VS4)..... D.3-207
D.3-9A	KOP 4–Existing Setting (ES)..... D.3-209
D.3-9B	KOP 4–Visual Simulation of Proposed ECO Substation Project (VS) D.3-211
D.3-10A	KOP 5–Existing Setting (ES)..... D.3-213
D.3-10B	KOP 5–Visual Simulation of Proposed ECO Substation Project (VS) D.3-215
D.3-11A	KOP 6–Existing Setting (ES1)..... D.3-217
D.3-11B	KOP 6–Existing Setting (ES2)..... D.3-219
D.3-11C	KOP 6–Proposed ECO Substation Project Component Location..... D.3-221
D.3-11D	KOP 6–Visual Simulation of Proposed ESJ Gen-Tie Project (VS)..... D.3-223
D.3-12A	KOP 7–Existing Setting (ES)..... D.3-225
D.3-12B	KOP 7–Visual Simulation of Proposed ECO Substation Project (VS) D.3-227
D.3-12C	KOP 7–Visual Simulation of ECO Substation Alternative Project (AVS) D.3-229
D.3-12D	KOP 7–ECO Substation Alternative Project Components Locations D.3-231
D.3-13A	KOP 8–Existing Setting (ES)..... D.3-233
D.3-13B	KOP 8–Visual Simulation of Proposed ECO Substation Project (VS1) D.3-235
D.3-13C	KOP 8–Visual Simulation of Proposed ECO Substation Project (VS2) D.3-237
D.3-14A	KOP 9–Existing Setting (ES1)..... D.3-239
D.3-14B	KOP 9–Existing Setting (ES2)..... D.3-241
D.3-14C	KOP 9–Existing Setting (ES3)..... D.3-243
D.3-14D	KOP 9–Proposed ECO Substation Project Component Location..... D.3-245
D.3-14E	KOP 9–Visual Simulation of Proposed Tule Wind Project (VS) D.3-247
D.3-14F	KOP 9–ECO Substation Alternative Project Components Locations D.3-249
D.3-14G	KOP 9–Tule Wind Alternative Project Components Locations D.3-251
D.3-15A	KOP 10–Existing Setting (ES)..... D.3-253
D.3-15B	KOP 10–Visual Simulation of Proposed Tule Wind Project (VS)..... D.3-255
D.3-15C	KOP 10–Visual Simulation of Tule Wind Alternative Project (AVS)..... D.3-257
D.3-16A	KOP 11–Existing Setting (ES)..... D.3-259

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.3-16B KOP 11–Visual Simulation of Proposed Tule Wind Project (VS1).....	D.3-261
D.3-16C KOP 11–Visual Simulation of Proposed Tule Wind Project (VS2).....	D.3-263
D.3-17A KOP 12–Existing Setting (ES1).....	D.3-265
D.3-17B KOP 12–Existing Setting (ES2).....	D.3-267
D.3-17C KOP 12–Visual Simulation of Proposed Tule Wind Project (VS).....	D.3-269
D.3-17D KOP 12–Tule Wind Project Alternative Components Locations.....	D.3-271
D.3-18A KOP 13–Existing Setting (ES).....	D.3-273
D.3-18B KOP 13–Visual Simulation of Proposed Tule Wind Project (VS).....	D.3-275
D.3-19A KOP 14–Existing Setting (ES).....	D.3-277
D.3-19B KOP 14–Visual Simulation of Tule Wind Project (VS).....	D.3-279
D.3-19C KOP 14a–Existing Setting (ES).....	D.3-281
D.3-19D KOP 14a–Visual Simulation of Proposed Tule Wind Project (VS).....	D.3-283
D.3-19E KOP 14b–Existing Setting (ES).....	D.3-285
D.3-19F KOP 14b–Visual Simulation of Proposed Tule Wind Project (VS).....	D.3-287
D.3-19G KOP 14c–Existing Setting (ES).....	D.3-289
D.3-19H KOP 14c–Visual Simulation of Proposed Tule Wind Project (VS).....	D.3-291
D.3-20A KOP 15–Existing Setting (ES).....	D.3-293
D.3-20B KOP 15–Visual Simulation of Proposed Tule Wind Project (VS).....	D.3-295
D.3-20C KOP 15–Visual Simulation of Tule Wind Gen-Tie Route 2 Alternative Project (AVS1).....	D.3-297
D.3-20D KOP 15–Visual Simulation of Proposed Tule Wind Gen-Tie Route 3 Alternative Project (AVS2).....	D.3-299
D.3-21A KOP 16–Existing Setting (ES).....	D.3-301
D.3-21B KOP 16–Proposed Tule Wind Project Component Location.....	D.3-303
D.3-21C KOP 16–Proposed Tule Wind Project Alternative Component Location.....	D.3-305
D.3-22A KOP 17–Existing Setting (ES).....	D.3-307
D.3-22B KOP 17–Visual Simulation of ECO Substation Alternative Project Components Locations.....	D.3-309
D.3-23A KOP 18–Existing Setting (ES).....	D.3-311
D.3-23B KOP 18–Visual Simulation of Proposed ECO Substation and ESJ Gen-Tie Projects (VS).....	D.3-313
D.3-24A KOP 19–Existing Setting (ES).....	D.3-315
D.3-24B KOP 19–Visual Simulation of Proposed Campo and Jordan Jordan Wind Energy Projects (VS).....	D.3-317
D.3-25A KOP 20–Existing Setting (ES).....	D.3-319

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.3-25B KOP 20–Visual Simulation of Proposed Campo, Manzanita, Jorden <u>Jordan</u> Wind Energy Projects and Tule Wind Turbines (VS)	D.3-321
D.3-26A KOP 21–Existing Setting (ES).....	D.3-323
D.3-26B KOP 21–Visual Simulation of Proposed Manzanita and Jorden <u>Jordan</u> Wind Energy Projects and Tule Wind Turbines (VS)	D.3-325
D.3-27A KOP 22–Existing Setting (ES).....	D.3-327
D.3-27B KOP 22–Visual Simulation of Proposed Manzanita and Jorden <u>Jordan</u> Wind Energy Projects and Tule Wind Turbines (VS)	D.3-329
D.4-1 <u>A</u> Vicinity/Overview Map	D.4-119
D.4-1 <u>B</u> Vicinity/Overview Map	D.4-121
D.4-2 <u>A</u> Existing General Plan – Overview Map	D.4-123
D.4-2 <u>B</u> Existing General Plan – Overview Map	D.4-125
D.4-3 <u>A</u> BLM Lands Available for Renewable Energy Development	D.4-127
D.4-3 <u>B</u> BLM Lands Available for Renewable Energy Development	D.4-129
D.4-4 <u>A</u> Zoning Overview Map	D.4-131
D.4-4 <u>B</u> Zoning Overview Map	D.4-133
D.4-5a ECO Substation Project Existing Land Uses	D.4-135
D.4-5b ECO Substation Project Existing Land Uses	D.4-137
D.4-5c <u>A</u> ECO Substation Project Existing Land Uses	D.4-139
D.4-5c <u>B</u> ECO Substation Project Existing Land Uses	D.4-141
D.4-6 <u>A</u> ECO Substation Project General Plan Land Use Designation Map	D.4-143
D.4-6 <u>B</u> ECO Substation Project General Plan Land Use Designation Map	D.4-145
D.4-7 <u>A</u> ECO Substation Project Zoning Map	D.4-147
D.4-7 <u>B</u> ECO Substation Project Zoning Map	D.4-149
D.4-8 <u>A</u> Tule Wind Project Existing Land Uses Overview	D.4-151
D.4-8 <u>B</u> Tule Wind Project Existing Land Uses Overview	D.4-153
D.4-8a <u>A</u> Tule Wind Project Existing Land Uses.....	D.4-155
D.4-8a <u>B</u> Tule Wind Project Existing Land Uses.....	D.4-157
D.4-8b <u>A</u> Tule Wind Project Existing Land Uses.....	D.4-159
D.4-8b <u>B</u> Tule Wind Project Existing Land Uses.....	D.4-161
D.4-8c <u>A</u> Tule Wind Project Existing Land Uses.....	D.4-163
D.4-8c <u>B</u> Tule Wind Project Existing Land Uses.....	D.4-165
D.4-9 <u>A</u> Tule Wind General Plan Land Use Designations	D.4-167
D.4-9 <u>B</u> Tule Wind General Plan Land Use Designations	D.4-169

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.4-10A Tule Wind Project Zoning Map	D.4-171
D.4-10B Tule Wind Project Zoning Map	D.4-173
D.4-11 ESJ Gen-Tie Project Existing Land Uses	D.4-175
D.4-12 ESJ Gen-Tie Project General Plan Land Use Designation Map.....	D.4-177
D.4-13 ESJ Gen-Tie Project Zoning Map.....	D.4-179
D.5-1A Wilderness and Recreation Overview Map	D.5-81
D.5-1B Wilderness and Recreation Overview Map	D.5-83
D.5-2A BLM Special Recreation Management Areas and Recreation Management Zones	D.5-85
D.5-2B BLM Special Recreation Management Areas and Recreation Management Zones.....	D.5-87
D.5-3 ECO Substation Project Wilderness and Recreation Map.....	D.5-89
D.5-4A Tule Wind Project Wilderness and Recreation Areas.....	D.5-91
D.5-4B Tule Wind Project Wilderness and Recreation Areas.....	D.5-93
D.5-5A Tule Wind Project Wilderness and Recreation Areas.....	D.5-95
D.5-5B Tule Wind Project Wilderness and Recreation Areas.....	D.5-97

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
VOLUME 2 of 2	
D.6-1A	Department of Conservation Farmland Mapping and Monitoring Overview Map D.6-43
D.6-1B	Department of Conservation Farmland Mapping and Monitoring Overview Map D.6-45
D.6-2A	Department of Conservation Farmland Mapping and Monitoring ECO Project Components D.6-47
D.6-2B	Department of Conservation Farmland Mapping and Monitoring ECO Project Components D.6-49
D.6-3A	Williamson Act and Grazing Lands..... D.6-51
D.6-3B	Williamson Act and Grazing Lands..... D.6-53
D.8-1A	Noise Measurement Locations..... D.8-67
D.8-1B	Noise Measurement Locations..... D.8-69
D.9-1A	Transportation Facilities in the Project Area D.9-91
D.9-1B	Transportation Facilities in the Project Area D.9-93
D.12-1A	Surface Water Resources Occurring in the Proposed PROJECT Area D.12-103
D.12-1B	Surface Water Resources Occurring in the Proposed PROJECT Area D.12-105
D.13-1	Geologic Hazards..... D.13-71
D.13-2A	Soils Overview Map D.13-73
D.13-2B	Soils Overview Map D.13-75
D.13-3A	Mineral Resources within Project Vicinity..... D.13-77
D.13-3B	Mineral Resources within Project Vicinity..... D.13-79
D.14-1A	County of San Diego Subregions..... D.14-67
D.14-1B	County of San Diego Subregions..... D.14-69
D.14-2A	Public Services in the Project Area..... D.14-71
D.14-2B	Public Services in the Project Area..... D.14-73

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.15-1A Fire Hazard Severity Zones Map	D.15-133
D.15-1B Fire Hazard Severity Zones Map	D.15-135
D.17-1A Mountain Empire Census County Division (CCD) Area – Census Tract 211..	D.17-13
D.17-1B Mountain Empire Census County Division (CCD) Area – Census Tract 211..	D.17-15
E-1A Environmentally Superior Alternative for the ECO Substation Project	E-37
E-1B Environmentally Superior Alternative for the ECO Substation Project	E-39
F-1A Cumulative Projects Map.....	F-231
F-1B Cumulative Projects Map.....	F-233
F-2A Wilderness and Recreation Cumulative Projects Overview Map.....	F-235
F-2B Wilderness and Recreation Cumulative Projects Overview Map.....	F-237
F-3A Department of Conservation Farmland Mapping and Monitoring Cumulative Project Map	F-239
F-3B Department of Conservation Farmland Mapping and Monitoring Cumulative Project Map	F-241

TABLE OF CONTENTS (Continued)

Section **Page No.**

LIST OF TABLES

VOLUME 1 of 2

ES-1	Comparison of the Draft EIR/EIS versus Modified Tule Wind Project	ES-3
ES-2	Agency Jurisdiction of Project Components.....	ES-8
ES-3	Summary of Comments Received on the Draft EIR/EIS	ES-14
ES-4	Environmentally Superior Alternative	ES-33
ES-5	Summary of Impacts and Mitigation for the Proposed Project.....	ES-37
ES-6	Comparison of Impacts for the Proposed ECO Substation Project and Alternatives	ES-59
ES-7	Comparison of Impacts for the Proposed Tule Wind Project and Alternatives.....	ES-65
ES-8	Comparison of Impacts for the Proposed ESJ Gen-Tie Project and Alternatives .	ES-73
A-1	Agency Jurisdiction of Project Components.....	A-14
A-2	Permits or Other Actions Required Prior to Construction	A-15
B-1	Overview of the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects	B-1
B-2	Summary of ECO Substation Project Components	B-8
B-3	ECO Substation Project Proposed Construction Schedule	B-17
B-4	ECO Substation Project Peak Construction Personnel	B-28
B-5	ECO Substation Project Typical Construction Equipment by Activity	B-29
B-6	ECO Substation Project Applicant Proposed Measures for Each Issue Area.....	B-41
B-7	ECO Substation Project Applicant Proposed Measures as Proposed in the PEA	B-42
B-8	Summary of Tule Wind Project Components.....	B-50
B-9	Proposed Tule Wind Project Construction Schedule.....	B-62
B-10	Construction Equipment Associated with the Tule Wind Project	B-69
B-11	Tule Wind Project Applicant Proposed Measures for Each Issue Area	B-73
B-12	Tule Wind Project Applicant Proposed Measures	B-73
B-13	Summary of ESJ Gen-Tie Project Components.....	B-91
B-14	Design Parameters of ESJ Gen-Tie 500 kV and 230 kV Interconnections	B-93
B-15	Construction Equipment Associated with the ESJ Gen-Tie Project.....	B-97
B-16	ESJ Gen-Tie Project Applicant Proposed Measures.....	B-99

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
C-1	ECO Substation, Tule Wind, and ESJ Gen-Tie Projects Summary of Alternatives Screening AnalysisC-7
C-2	Comparison of Project Components Proposed ECO Substation Project and AlternativesC-24
C-3	Comparison of Project Components Proposed Tule Wind Project and AlternativesC-30
C-4	Comparison of Project Components for Proposed ESJ Gen-Tie Project and AlternativesC-35
D.2-1	Existing Native Vegetation Communities <u>and Land Cover</u> within the Proposed PROJECT Area D.2-5
D.2-2	Biological Resource Impacts D.2-115
D.2-3	Native Vegetation Communities Impact Acreage for the ECO Substation Project D.2-118
D.2-4	Native Vegetation Communities Impact Acreage for the Tule Wind Project ... D.2-122
D.2-5	Native Vegetation Communities Impact Acreage for the ESJ Project D.2-125
D.2-6	Biological Resources Impacts Identified for ECO Substation Alternatives D.2-185
D.2-7	Native Vegetation Communities Impact Acreage for the ECO Substation <u>Alternative Site</u> D.2-188
D.2-8	Biological Resources Impacts Identified for Tule Wind Project Alternatives .. D.2-203
D.2-9	Native Vegetation Communities Impact Acreage for the Tule Alternative Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch D.2-207
D.2-10	Native Vegetation Communities Impact Acreage for the Tule Alternative Gen-Tie Route 3 with Collector Substation/ O&M Facility on Rough Acres Ranch D.2-215
D.2-11	Biological Resource Impacts Identified for ESJ Gen-Tie Project Alternatives..... D.2-228
D.2-12	Mitigation Monitoring, Compliance, and Reporting – ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Biological Resources D.2-240
D.2-13	Significant and Unmitigable Impacts – ECO Substation Project D.2-280
D.3-1	Applicable Regulations, Plans, and Standards by Project Component..... D.3-37
D.3-2	Visual Resource Impacts..... D.3-52
D.3-3	Visual Resource Impacts Identified for ECO Substation Project Alternatives..... D.3-92

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.3-4	Visual Resources Impacts Identified for Tule Wind Project Alternatives..... D.3-104
D.3-5	Visual Resources Impacts Identified for ESJ Gen-Tie Project Alternatives D.3-124
D.3-6	Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Visual Resources..... D.3-130
D.3-7	Significant and Unmitigable Impacts – ECO Substation Project D.3-151
D.3-8	Significant and Unmitigable Impacts – Tule Wind Project D.3-152
D.4-1	Agency Jurisdiction of Project Components..... D.4-3
D.4-2	Sample Draft General Plan Update Land Use Designations Occurring in Project Area D.4-6
D.4-3	Planned/Existing General Plan Land Use Designations D.4-6
D.4-4	Existing Zoning Classification Applicable to the Proposed PROJECT D.4-8
D.4-5	Existing and Designated Land Uses–ECO Substation Project D.4-9
D.4-6	Existing Residences within 1,000 Feet of the ECO Substation Project 138 kV Transmission Line..... D.4-13
D.4-7	Existing and Designated Land Uses–Tule Wind Project..... D.4-17
D.4-8	Existing Residences/Structures within Approximately 2,000 Feet of the Tule Wind Turbines D.4-18
D.4-9	Existing Residences within Approximately 1,000 Feet of Tule Wind 138 kV Transmission Line..... D.4-22
D.4-10	Existing and Designated Land Uses–ESJ Gen-Tie Transmission Project D.4-23
D.4-11	Applicable Regulations, Plans, and Standards by Project Component..... D.4-23
D.4-12	Land Use Impacts D.4-64
D.4-13	Land Use Impacts Identified for ECO Substation Project Alternatives D.4-78
D.4-14	Land Use Impacts Identified for Tule Wind Project Alternatives D.4-88
D.4-15	Land Use Impacts Identified for ESJ Gen-Tie Project Alternatives..... D.4-105
D.4-16	Mitigation Monitoring, Compliance, and Reporting – Proposed ECO Substation and Tule Wind Projects–Land Use D.4-111
D.5-1	Wilderness and Recreation Impacts D.5-27
D.5-2	Wilderness and Recreation Impacts Identified for ECO Substation Project Alternatives..... D.5-46
D.5-3	Wilderness and Recreation Impacts Identified for Tule Wind Project Alternatives..... D.5-53
D.5-4	Wilderness and Recreation Impacts Identified for ESJ Gen-Tie Project Alternatives..... D.5-68
D.5-5	Mitigation Monitoring, Compliance, and Reporting–Proposed ECO Substation and Tule Wind Project–Wilderness and Recreation D.5-73

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
VOLUME 2 of 2	
D.6-1	Agricultural Impacts D.6-9
D.6-2	Agricultural Resource Impacts Identified for ECO Substation Project Alternatives..... D.6-16
D.6-3	Agricultural Resource Impacts Identified for Tule Wind Project Alternatives..... D.6-23
D.6-4	Agricultural Resource Impacts Identified for ESJ Gen-Tie Project Alternatives..... D.6-34
D.7-1	Previously Recorded Sites within the Proposed ECO Substation Project APE..... D.7-14
D.7-2	New Sites and New Isolates within the Proposed ECO Substation Project D.7-16
D.7-3	Previously Recorded Sites within the Proposed ECO Substation 138 kV Transmission Line Corridor D.7-18
D.7-4	New Sites and New Isolates within the Proposed ECO Substation Project 138 kV Transmission Line Corridor, <u>Substation Southerly Access Road,</u> <u>and Old Highway 80 – Carrizo Gorge Road Reroute</u> D.7-21
D.7-5	Previously Recorded Sites within the Proposed Tule Wind Project APE and ROW D.7-27
D.7-6	New Archaeological Sites Recorded During the Tule Wind Intensive Survey (APE and ROW) D.7-32
<u>D.7-7</u>	<u>Historic Built Environment Within Indirect Effects APE</u> <u>D.7-45</u>
D.7-8	Recorded Archaeological Sites Documented During the Sunrise-Powerlink Transmission Line Project D.7-47
D.7-9	Sites and Isolates within the ESJ Gen-Tie Project Area of Potential Effect..... D.7-48
D.7-10	Cultural and Paleontological <u>Resource Impacts</u> D.7-74
<u>D.7-11</u>	<u>Archaeological Sites within Direct Impact Area and 50-foot Buffer</u> <u>D.7-85</u>
D.7-12	<u>Cultural and Paleontological Impacts Identified for ECO Substation</u> Project Alternatives..... D.7-105
D.7-13	Cultural and Paleontological Impacts Identified for Tule Wind Project Alternatives..... D.7-115
D.7-14	Cultural and Paleontological Impacts Identified for ESJ Gen-Tie Project Alternatives..... D.7-126
D.7-15	Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Cultural and Paleontological Resources D.7-133
D.7-16	Significant and Unmitigable Impacts..... D.7-155

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.8-1	Definitions of Technical Terms Related to Noise..... D.8-2
D.8-2	Typical Sound Levels Measured in the Environment and Industry..... D.8-2
D.8-3	Existing Noise-Level Summary D.8-6
D.8-4	San Diego County Noise Ordinance Sound-Level Limits D.8-10
D.8-5	Guidelines for Determining the Significance of Groundborne Vibration and Groundborne Noise Impacts D.8-12
D.8-6	Noise Impacts Identified for ECO Substation, Tule Wind, and ESJ Gen- Tie Projects D.8-15
D.8-7	Construction Equipment Noise Emission Levels D.8-16
D.8-8	Noise Level Results for Construction and Batch Plant Operation..... D.8-25
D.8-9	Barrier Reduction Results D.8-28
<u>D.8-10</u>	<u>Barrier Reduction and Time Constraint Results D.8-28</u>
D.8-11	Wind Turbine Noise Levels at Residences within 1 Mile of Proposed Turbine Locations D.8-34
D.8-12	Noise Impacts Identified for ECO Substation Project Alternatives..... D.8-38
D.8-13	Noise Impacts Identified for Tule Wind Project Alternatives D.8-44
D.8-14	Noise Level Results for Parcels South of I-8..... D.8-50
D.8-15	Noise Impacts Identified for ESJ Gen-Tie Project Alternatives D.8-55
D.8-16	Mitigation Monitoring and Compliance Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Noise D.8-60
D.8-17	Significant and Unmitigable Impacts..... D.8-63
D.9-1	Potential Affected Roadways within the ECO Substation Project Area..... D.9-3
D.9-2	Roadways Spanned by the Proposed ECO Substation 138 kV Transmission Line..... D.9-3
D.9-3	Roadways within the Tule Wind Project Area D.9-7
D.9-4	Transportation and Traffic Impacts D.9-19
D.9-5	Transportation and Traffic Impacts Identified for ECO Substation Project Alternatives..... D.9-46
D.9-6	Transportation and Traffic Impacts Identified for Tule Wind Project Alternatives..... D.9-58
D.9-7	Transportation and Traffic Impacts Identified for ESJ Gen-Tie Project Alternatives..... D.9-72
D.9-8	Mitigation Monitoring Compliance and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Transportation and Traffic D.9-82

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.10-1 Hazardous Materials and Public Health and Safety Impacts	D.10-25
D.10-2 Hazardous Materials Typically Used for Construction	D.10-27
D.10-3 Hazardous Materials Associated with Typical Wind Projects.....	D.10-33
D.10-4 Sempra Energy Corporate Contractor Herbicide Application Protocol	D.10-60
D.10-5 Hazards and Public Health/Safety Impacts Identified for ECO Substation Project Alternatives.....	D.10-69
D.10-6 Hazards and Public Health/Safety Impacts Identified for Tule Wind Project Alternatives.....	D.10-77
D.10-7 Hazards and Public Health/Safety Impacts Identified for ESJ Gen-Tie Project Alternatives.....	D.10-89
D.10-8 Typical Electric Field Values for Appliances at 12 Inches.....	D.10-99
D.10-9 Magnetic Field from Household Appliances	D.10-99
D.10-10 Occupational Threshold Limit Values for 60 Hz EMFs	D.10-105
D.10-11 EMF Regulated Limits (by State)	D.10-105
D.10-12 Safety and Non-Magnetic Field Electric Power Field Issue Impacts	D.10-122
D.10-13 Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Public Health and Safety.....	133
D.11-1 Local Ambient Air Quality Monitoring Data	D.11-6
D.11-2 Frequency of Air Quality Standard Violations	D.11-7
D.11-3 California and National Ambient Air Quality Standards.....	D.11-9
D.11-4 Attainment Status for Criteria Pollutants in the SDAB	D.11-11
D.11-5 SDAPCD Air Quality Significance Thresholds.....	D.11-17
D.11-6 Air Quality Impacts.....	D.11-20
D.11-7 ECO Substation Project San Diego County Estimated Daily Construction Emissions	D.11-22
D.11-8 ECO Substation Project Imperial County Estimated Daily Construction Emissions	D.11-23
D.11-9 Tule Wind Project Estimated Daily Construction Emissions	D.11-27
D.11-10 ESJ Gen-Tie Project Estimated Daily Construction Emissions.....	D.11-29
D.11-11 Proposed PROJECT San Diego County Estimated Daily C onstruction Emissions	D.11-30
D.11-12 Proposed PROJECT Imperial County Estimated Daily Construction Emissions	D.11-32
D.11-13 ECO Substation Project San Diego County Estimated Daily Operation and Maintenance Emissions	D.11-33

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.11-14 Tule Wind Project San Diego County Estimated Daily Operation and Maintenance Emissions	D.11-34
D.11-15 Proposed PROJECT San Diego County Estimated Daily Operations and Maintenance Emissions	D.11-35
D.11-16 ECO Substation Project San Diego County Estimated Annual Construction Emissions	D.11-37
D.11-17 Tule Wind Project San Diego County Estimated Annual Construction Emissions	D.11-37
D.11-18 Air Quality Impacts Identified for ECO Substation Project Alternatives.....	D.11-43
D.11-19 Air Quality Impacts Identified for Tule Wind Project Alternatives	D.11-50
D.11-20 Air Quality Impacts Identified for ESJ Gen-Tie Project Alternatives	D.11-62
D.11-21 Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Air Quality	D.11-71
D.11-22 Significant and Unmitigable Impacts.....	D.11-74
D.12-1 Surface Water Resources	D.12-3
D.12-2 Water Resource Impacts	D.12-17
D.12-3 Water Resources Impacts Identified for ECO Substation Project Alternatives.....	D.12-41
D.12-4 Water Resources Impacts Identified for Tule Wind Project Alternatives	D.12-56
D.12-5 Water Resources Impacts Identified for ESJ Gen-Tie Project Alternatives	D.12-74
D.12-6 Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Water Resources	D.12-84
D.13-1 General Descriptions and Characteristics of the Soils	D.13-3
D.13-2 Classification of Resistivity	D.13-4
D.13-3 Historic Area Earthquakes	D.13-6
D.13-4 Area Active Faults	D.13-6
D.13-5 Geology and Mineral Resource Impacts.....	D.13-17
D.13-6 Geology, Mineral Resources, and Soils Impacts Identified for ECO Substation Project Alternatives.....	D.13-31
D.13-7 Geology, Mineral Resources, and Soils Impacts Identified for Tule Wind Project Alternatives.....	D.13-40
D.13-8 Geology, Mineral Resources, and Soils Impacts Identified for ESJ Gen-Tie Project Alternatives	D.13-52
D.13-9 Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind and ESJ Gen-Tie Projects–Geology, Mineral Resources, and Soils.....	D.13-59

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.14-1 Utility and Service Providers in the Project Area.....	D.14-2
D.14-2 Solid Waste Disposal Facilities in the Project Area	D.14-7
D.14-3 Public Services and Utilities Impacts	D.14-14
D.14-4 Public Services and Utilities Impacts Identified for ECO Substation Project Alternatives.....	D.14-30
D.14-5 Public Services and Utilities Impacts Identified for Tule Wind Project Alternatives.....	D.14-38
D.14-6 Public Services and Utilities Impacts Identified for ESJ Gen-Tie Project Alternatives.....	D.14-54
D.14-7 Mitigation Monitoring, Compliance, and Reporting–ECO Substation and Tule Wind Projects–Public Services and Utilities	D.14-60
D.15-1 Major Wildfires in San Diego County Larger than 5,000 Acres	D.15-6
D.15-2 Project Area Vegetation Fuel Types	D.15-18
D.15-3 Project Components for Each Project Area Fire Environment Interface.....	D.15-20
D.15-4 Fire and Fuels Management Impacts	D.15-40
D.15-5 Fire and Fuels Management Impacts Identified for ECO Substation Alternatives	D.15-72
D.15-6 Fire and Fuels Management Impacts Identified for Tule Wind Project Alternatives.....	D.15-80
D.15-7 Fire and Fuels Management Impacts Identified for ESJ Gen-Tie Substation Project Alternatives.....	D.15-93
D.15-8 Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Fire and Fuels Management.....	D.15-99
D.15-9 Significant and Unmitigable Impacts.....	D.15-107
D.16-1 Population Levels, Growth Rates, and Density	D.16-2
D.16-2 Housing Stock Characteristics (2006–2008)	D.16-3
D.16-3 San Diego County, California Personal Income, Employee Compensation, and Employment by Industry (2008)	D.16-4
D.16-4 Mountain Empire Subregion Employment by Industry (2000)	D.16-6
D.16-5 Growth in Per Capita Income 1990–2007 State of California and County of San Diego	D.16-7
D.16-6 Unemployment Rates, 1990–2009 County of San Diego, City of San Diego, El Cajon, and El Centro	D.16-8
D.16-7 Socioeconomic Impacts	D.16-12
D.16-8 Socioeconomic Impacts Identified for ECO Substation Alternatives.....	D.16-19
D.16-9 Socioeconomic Impacts Identified for Tule Wind Project Alternatives.....	D.16-24

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
D.16-10 Socioeconomic Impacts Identified for ESJ Gen-Tie Project Alternatives.....	D.16-31
D.17-1 Racial Composition and Poverty Level Status.....	D.17-2
D.17-2 Classification of Block Groups by Poverty and Minority Rates.....	D.17-4
D.17-3 Environmental Justice Impacts	D.17-5
D.17-4 Environmental Justice Impacts Identified for ECO Substation Alternatives.....	D.17-7
D.17-5 Environmental Justice Impacts Identified for Tule Wind Project Alternatives.....	D.17-8
D.17-6 Environmental Justice Impacts Identified for ESJ Gen-Tie Project Alternatives.....	D.17-9
D.18-1 Greenhouse Gas Sources in California	D.18-5
D.18-2 Climate Change Impacts	D.18-15
D.18-3 Estimated Construction Greenhouse Gas Emissions for the ECO Substation Project	D.18-16
D.18-4 Estimated Construction Greenhouse Gas Emissions for the Tule Wind Project	D.18-17
D.18-5 Estimated Construction Greenhouse Emissions for the ESJ Gen-Tie Project.....	D.18-19
D.18-6 Estimated Construction Greenhouse Gas Emissions for the Proposed PROJECT.....	D.18-20
D.18-7 Climate Change Impacts Identified for ECO Substation Project Alternatives.....	D.18-21
D.18-8 Climate Change Impacts Identified for Tule Wind Project Alternatives.....	D.18-26
D.18-9 Climate Change Impacts Identified for ESJ Gen-Tie Project Alternatives	D.18-31
E-1 Comparison of Impacts for the Proposed ECO Substation Project and Alternatives	E-4
E-2 Comparison of Impacts for the Proposed Tule Wind Project and Alternatives	E-15
E-3 Comparison of Impacts for the Proposed ESJ Gen-Tie Project and Alternatives	E-28
E-4 Environmentally Superior Alternative	E-33

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page No.</u>
F-1	Plans and Environmental Documents Consulted in Cumulative Impact Analysis F-5
F-2	Existing Projects Considered in the Cumulative Impact Analysis F-6
F-3	Cumulative Scenario – <u>Reasonably Foreseeable</u> Approved and Pending Projects..... F-7
F-4	Cumulative Impacts: Vegetation Communities F-28
F-5	Summary of Cumulative Visual Impacts, by Key Observation Point and Contributing Projects F-55
G-1	Summary of Proposed Project Adverse and Unavoidable Impacts F-G-5
G-2	Compliance with Applicable Federal Environmental Regulation and Policies F-G-10
J-1	List of Preparers J-1

ACRONYMS AND ABBREVIATIONS

<u>AAA</u>	<u>American Antiquities Act</u>
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
ACGIH	American Conference of Governmental Industrial Hygienists
ACOE	U.S. Army Corps of Engineers
ACSR/AW	Aluminum-Clad Steel Reinforced/Aluminum Wire
ADT	average daily traffic
<u>AHPA</u>	<u>American Historic Preservation Act</u>
ALJ	Administrative Law Judge
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
<u>AMR San Diego</u>	<u>AMR San Diego</u>
Amsl	above mean sea level
<u>ANSI</u>	<u>American National Standards Institute</u>
APCD	Air Pollution Control District
<u>APE</u>	<u>Area of Potential Effect</u>
API	American Petroleum Institute
APLIC	Avian Power Line Interaction Committee
APM	applicant proposed measure
A-P Zone	Alquist-Priolo Special Studies Zone
AQIA	Air Quality Impact Assessment
ARPA	Archaeological Resources Protection Act
ASTM	American Society for Testing and Materials
ATCM	Airborne Toxic Control Measure
AUM	animal units per month
<u>AVWS</u>	<u>audio-visual warning system</u>
BAFC	Border Agency Fire Council
BEA	Bureau of Economic Analysis
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	best management practice
<u>BMS</u>	<u>bedrock milling station</u>
BOE	Board of Equalization (State of California)
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection

ACRONYMS AND ABBREVIATIONS (Continued)

Cal/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CBP	Customs and Border Protection (U.S.)
CCD	Census County Division
CCR	California Code of Regulations
CDCA	California Desert Conservation Area
CDE	California Department of Education
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEDS	Community Economic Development Strategy
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFE	Comisión Federal de Electricidad
CFR	Code of Federal Regulations
CH ₄	methane
CHHSL	California Human Health Screening Levels
CMP	Congestion Management Program
CMU	Concrete Masonry Unit
CNEL	Community Noise Equivalent Level
CNF	Cleveland National Forest
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ E	carbon dioxide equivalent
COR	utility corridor
CPCN	Certification of Public Convenience and Necessity
CPUC	California Public Utilities Commission
<u>CRHR</u>	<u>California Register of Historic Resources</u>
CSLC	California State Lands Commission
CWA	Clean Water Act
CY	cubic yards
dB	decibel
dBA	A-weighted decibel (adjusted for human frequencies)
DEH	County of San Diego Department of Environmental Health

ACRONYMS AND ABBREVIATIONS (Continued)

DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DHS	Department of Homeland Security
DOC	California Department of Conservation
DOD	Department of Defense
DPLU	Department of Planning and Land Use
DTSC	Department of Toxic Substance Control
DU	dwelling unit
DWA	designated wilderness area
DWR	California Department of Water Resources
ECO	East County
EDR	Environmental Data Resources Inc.
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ELF	extremely low frequency
EMF	electromagnetic field
EMI	electromagnetic interference
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
ESA	Endangered Species Act
<u>ESA</u>	<u>Environmentally Sensitive Area</u>
ESDC	Eastern San Diego County
ESJ	Energia Sierra Juarez
FAA	Federal Aviation Administration
<u>FAHJ</u>	<u>Fire Authorities Having Jurisdiction</u>
FAR	Federal Aviation Regulations
FCC	Federal Communications Commission
FCD	San Diego County Flood Control District
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
FMMP	Farmland Mapping and Monitoring Program
FMP	Fire Management Plan
FMZ	Fire Management Zone
FPP	Fire Protection Plan
FPPA	Farmland Protection Policy Act
FRAP	Fire and Resource Assessment Program

ACRONYMS AND ABBREVIATIONS (Continued)

FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	Geographic information system
GWP	global warming potential
H ₂ O	water vapor
HFC	hydrofluorocarbon
HMBP	hazardous materials business plan
HMMD	San Diego County Department of Environmental Health Hazardous Materials Management Division
HMMP	Hazardous Materials Management Plan
<u>HPRD</u>	<u>historic period refuse deposit</u>
<u>HPTP-CRTP</u>	<u>Historic Properties-Cultural Resources Treatment Program</u>
HVAC	heating, ventilation, and air-conditioning
HWCL	California Hazardous Waste Control Law
Hz	Hertz
I-8	Interstate 8
IARC	International Agency for Research on Cancer
IBEW	International Brotherhood of Electronics Workers
IEEE	Institute of Electrical and Electronics Engineers
IRMP	Integrated Resource Management Plan
IRPA/INIRC	Non-Ionizing Radiation Committee of the International Radiation Protection Association
<u>JCSD</u>	<u>Jacumba Community Services District</u>
kcml	thousand circular mil
KOP	key observation point
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
L _{dn}	day-night average sound level
L _{eq}	equivalent level over a given time period
LAFCO	Local Agency Formation Commission
LBP	lead-based paint
LESA	Land Evaluation and Site Assessment
<u>LIDAR</u>	<u>light detection and ranging</u>
LMP	Land Management Plan
LOS	level of service
LRA	local responsibility area
LSE	load-serving entities

ACRONYMS AND ABBREVIATIONS (Continued)

LUA	Land Use Authorization
LUST	leaking underground storage tanks
MCD	Minor civil division
mG	milligauss
mg	milligram
MMCRP	Mitigation Monitoring, Compliance, and Reporting Program
MMTCO ₂ E	million metric tons of carbon dioxide equivalent
<u>MOA</u>	<u>Memorandum of Agreement</u>
MOU	Memorandum of Understanding
MP	milepost
mph	miles per hour
MRZ	mineral resource zone
MTBE	methyl tertiary butyl ether
MTCO ₂ E/yr	metric tons of CO ₂ per year
MTS	Metropolitan Transit Service
MUP	Major Use Permit
MVA	megavolt ampere
MVAR	megavolt ampere reactive
MW	megawatt
MWh	megawatt-hour
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
<u>NADB</u>	<u>National Archaeological Database</u>
<u>NAGPRA</u>	<u>Native American Graves Protection and Repatriation Act</u>
<u>NAHC</u>	<u>Native American Heritage Commission</u>
NCA	National Conservation Area
NCP	National Contingency Plan
NCTD	North County Transit District
NEE	net ecosystem exchange
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NESC	National Electrical Safety Code
NF ₃	nitrogen trifluoride
<u>NFPA</u>	<u>National Fire Protection Association</u>
NHPA	National Historic Preservation Act
NIEHS	National Institute of Environmental Health Sciences
NLCS	National Landscape Conservation System

ACRONYMS AND ABBREVIATIONS (Continued)

NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Department of Agriculture National Resources Conservation Service
NREL	National Renewable Energy Laboratory
<u>NRHP</u>	<u>National Register of Historic Places</u>
NSLU	Noise Sensitive Land Uses
NTIA	National Telecommunication and Information Administration
NWI	National Wetland Inventory
O&M	operations and maintenance
O ₃	ozone
OEM	Original equipment manufacturer
OHV	off-highway vehicle
<u>OPLA</u>	<u>Omnibus Public Lands Act</u>
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
<u>PA</u>	<u>Programmatic Agreement</u>
P&H	Patrick and Henderson
PAL	Project Activity Level
PCE	passenger car equivalent
<u>PDF</u>	<u>Project Design Feature</u>
PEA	Proponent's Environmental Assessment
PEIS	Programmatic Environmental Impact Statement
PFC	Perfluorocarbon
<u>PFYC</u>	<u>potential fossil yield classification</u>
PG&E	Pacific Gas & Electric
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns
PM ^{2.5}	particulate matter less than 2.5 microns
<u>PMTTP</u>	<u>Paleontological Monitoring and Treatment Plan</u>
POD	plan of development
PPA	Power Purchase Agreement
Ppm	parts per million
Ppv	peak particle velocity
PRC	California Public Resources Code

ACRONYMS AND ABBREVIATIONS (Continued)

<u>PRP</u>	<u>paleontological resources preservation</u>
<u>PRPA</u>	<u>Paleontological Resources Preservation Act</u>
Proposed PROJECT	East County Substation, Tule Wind, Energia Sierra Juarez Gen-Tie Projects (when considered collectively)
PTC	Permit to Construct
PV	photovoltaic
PVC	Polyvinylchloride
QCB	quino checkerspot butterfly
RAQS	Regional Air Quality Standards
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RDA	Rural Development Area
RMA	Resource Management Area
RMP	Resource Management Plan
RNE	Renewable Energy
ROA	La Rosita
ROD	record of decision
ROG	reactive organic gas
ROW	right-of-way
RPO	Resource Protection Ordinance
RPS	Renewable Portfolio Standard
RSA	rotor swept area
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCADA	supervisory control and data acquisition
<u>SCIC</u>	<u>South Coastal Information Center</u>
SD&AE	San Diego and Arizona Eastern (railway)
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
<u>SDCFA</u>	<u>San Diego County Fire Authority</u>
SDG&E	San Diego Gas and Electric Company
SDRFPD	San Diego Rural Fire Protection District
<u>SDSU</u>	<u>San Diego State University</u>
<u>SEIC</u>	<u>Southeast Information Center</u>

ACRONYMS AND ABBREVIATIONS (Continued)

SF ₆	sulfur hexafluoride
SFR	single-family residential
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SOC	Social
SODAR	sonic detecting and ranging
SPA	specific plan area
SPCC	Spill Prevention Control and Countermeasures
SPCC	Spill Prevention Control and Countermeasure Plan
SPS	Special Protection Schemes
SR	State Route
SRA	state responsibility area
SRMA	Special Recreation Management Areas
STLC	soluble threshold limit concentration
<u>SVP</u>	<u>Society of Vertebrate Paleontology</u>
SWPL	Southwest Powerlink
TAC	toxic air contaminant
<u>TCP</u>	<u>traditional cultural properties</u>
TDS	total dissolved solid
TJ	Tijuana
TPZ	timberland production zone
TSD	Treatment, Storage, and Disposal
TTLC	total threshold limit concentration
USAF	U.S. Air Force
USC	U.S. Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tanks
VAWT	verticle axis wind turbine
VDC	volts of direct current
VMT	vehicle miles travelled
VOC	volatile organic compound
VRM	visual resource management
WDR	Waste Discharge Requirement
WEST	Western EcoSystems Technology, Inc.
Ω	ohm
WHO	World Health Organization

ACRONYMS AND ABBREVIATIONS (Continued)

WRI	Western Research Institute
WUI	wildland–urban interface

ACRONYMS AND ABBREVIATIONS (Continued)

INTENTIONALLY LEFT BLANK