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Application for Certification

Puente Power Project (P3)
Oxnard, CA

Volume I



Submitted to:
The California Energy Commission



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LIST OF ACRONYMS AND ABBREVIATIONS

AAQS	ambient air quality standards
AB	Assembly Bill
AC	alternating current
ACC	air-cooled condenser
acfm	actual cubic feet per minute
ACHE	air-cooled heat exchanger
ACM	asbestos-containing material
ACSR	Aluminum Conductor Steel Reinforced
ADT	Average Daily Traffic
ADT	Average Daily Trip
AERMOD	AMS/USEPA Regulatory Model
AF	acre-feet
AFC	Application for Certification
AFY	acre-feet per year
ASHERA	Asbestos Hazard Emergency Response Act
ALOHA	Areal Location of Hazardous Atmospheres
AMR	American Medical Response
ANSI	American National Standards Institute
AP Act	Alquist-Priolo Earthquake Fault Zoning Act
APCD	Air Pollution Control District
APCO	Air Pollution Control Officer
APN	assessor's parcel number
AQIA	air quality impact analysis
AQMD	air quality management district
ASCI	Asbestos Standards for the Construction Industry
ASME	American Society for Mechanical Engineers
AST	aboveground storage tank
ATC	Authority to Construct
ATCM	airborne toxic control measure
AWPF	Advanced Water Purification Facility
BACT	best available control technology
BaP	benzo (a) pyrene
BC	Beach Crest
BCCB	Boiler Chemical Cleaning Basin
bgs	below ground surface
bhp	brake horsepower
BLM	U.S. Bureau of Land Management
BMP	best management practice
BOE	Board of Equalization
BOP	balance of plant
BPIP-PRIME	Building Profile Input Program – Plume Rise Model Enhancements
Btu	British thermal units
Btu/kWh	British thermal units per kilowatt-hour
Btu/scf	British thermal units per standard cubic foot
C	carbon
°C	degrees Celsius
C&D	construction and demolition
Ca	calcium
CAA	Clean Air Act
CAAQS	California ambient air quality standards

CaCO ₃	calcium carbonate
CAD	computer-aided design
CAISO	California Independent System Operator
Cal/EPA	California Environmental Protection Agency
CAL/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAM	Compliance Assurance Monitoring
CAPCOA	California Air Pollution Control Officer's Association
CARB	California Air Resources Board
CAS	Chemical Abstract Service
CBC	California Building Code
CC	California Code of Regulations
CCC	California Coastal Commission
CCH	Consortium of California Herbaria
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permits
CE	California Energy Commission
CEC	California Energy Commission
CEMS	Continuous Emissions Monitoring System
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response and Liability Act
CESA	California Endangered Species Act
CFATS	Chemical Facility Anti-Terrorism Standards
CFR	Code of Federal Regulations
cfs	cubic foot per second
CH ₄	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CHSC	California Health and Safety Code
CHWCL	California Hazardous Waste Control Law
CIWMA	California Integrated Waste Management Act
Cl	chlorine
CLUP	Coastal Land Use Plan
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CO-CAT	Coastal and Ocean Working Group of the California Climate Action Team
CPM	Compliance Project Manager
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRMMP	Cultural Resources Monitoring and Mitigation Plan
CRR	Cultural Resources Report
CRS	cultural resources specialist
CSLC	California State Lands Commission
CT	combustion turbine generator

CTG	combustion turbine generator
Cu	copper
CUPA	Certified Unified Program Agency
CURB	City Urban Restriction Boundary
CWA	Clean Water Act
CWC	California Water Code
CZO	Coastal Zoning Ordinance
3D	three-dimensional
DAR	Dial-a-Ride
dB	decibel
dBA	A-weighted decibels
DC	direct current
DCS	distributed control system
dd	day
DEM	Digital Elevation Model
DHS	U.S. Department of Homeland Security
DMV	Department of Motor Vehicles
DNL [L _{dn}]	Day-Night Average Sound Level
DOC	Determination of Compliance
DOQQ	digital orthophoto quarter quadrangle
DOT	United States Department of Transportation
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EAF	equivalent availability factor
EC	EC Coastal Energy Facility
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
EMF	electromagnetic field
EMT	Emergency Medical Technician
EO	Executive Order
EPC	engineering, procurement, and construction
EPRG	Emergency Response Planning Guideline
EPRI	Electric Power Research Institute
EPS	Emissions Performance Standard
ESA	Endangered Species Act
ESA	Environmental Site Assessment
F	fluoride
°F	degrees Fahrenheit
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FCGMA	Fox Canyon Groundwater Management Agency
FDOC	final Determination of Compliance
Fe	iron
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FLM	Federal Land Managers
FMMP	Farmland Mapping and Monitoring Program
gal/hr	gallons per hour
GE	General Electric
GEP	Good Engineering Practice

GHG	greenhouse gases
GIS	geographic information systems
GO	General Order
GPCD	gallons per capita per day
gpm	gallons per minute
GPS	global positioning systems
gr/100 scf	grain per 100 standard cubic feet
GSU	generator step-up
GT	gas turbine
GWP	global warming potential
H&SC	Health and Safety Code
HAP	hazardous air pollutant
HARP2	Hotspots Analysis and Reporting Program, Version 2
HazMat	Hazardous Materials
HDPE	high-density polyethylene
hh:mm	hour:minute
HHV	higher heating value
HMBP	Hazardous Material Business Plan
HRA	health risk assessment
HRSG	heat recovery steam generator
HSC	Health and Safety Code
HSP	health and safety plan
HV	high voltage
HVAC	heating, ventilation, and air conditioning
I&C	instrumentation and control
I/O	input/output
IBC	International Building Code
ICC	International Code Council, Inc.
ICS	Infrastructure and Community Services
ICU	Intersection Capacity Utilization
ID	Identification
IEEE	Institute of Electrical and Electronics Engineers
IEPR	Integrated Energy Policy Report
IFC	International Fire Code
IIPP	Injury and Illness Prevention Program
ISO	International Organization of Standardization
JHA	job hazard analysis
K	potassium
ka	thousands of years before present in geologic time
kg N·ha ⁻¹ ·yr ⁻¹	kilograms of Nitrogen per hectare per year
KOP	Key Observation Point
kV	kilovolt
kW	kilowatt
L ₁₀	the noise levels equaled or exceeded during 10 percent of the measured time interval
L ₅₀	the noise levels equaled or exceeded during 50 percent of the measured time interval
L ₉₀	the noise levels equaled or exceeded during 90 percent of the measured time interval
LACM	Natural History Museum of Los Angeles County
LAER	lowest achievable emission rates
LAPL	Los Angeles Public Library
LARWQCB	Los Angeles Regional Water Quality Control Board
Layfield	Layfield Group, Limited
lb/hr	pounds per hour

LBNL	Lawrence Berkeley National Laboratory
LBP	lead-based paint
lbs/MMBtu	pounds per million British thermal units
LCP	Local Coastal Plan
L _{dn} [DNL]	Day-Night Average Sound Level
LEED	Leadership in Energy and Environmental Design
LEPC	local emergency planning committee
L _{eq}	equivalent sound level
L _{max}	Maximum noise level
L _{min}	Minimum noise level
LORS	laws, ordinances, regulations, and standards
LOS	level of service
LT	Long-Term
L _w [PWL]	Sound Power Level
MCC	motor control centers
MCE	Maximum Credible Earthquake
MEI	Maximum Exposed Individual
MEIR	Maximally Exposed Individual Resident
MEIW	maximum exposed individual worker
Mg	magnesium
mg/kg-d	milligrams per kilogram day
mg/L	milligrams per liter
µg/m ³	microgram per cubic meter
mg/m ³	milligrams per cubic meter
mgd	million gallons per day
MGS	Mandalay Generating Station
MICR	Maximum Incremental Cancer Risk
MLGS	Marsh Landing Generating Station
MLLW	mean lower low water
mm	month
M _{max}	Maximum Moment Magnitude
MMBtu	million British thermal units
MMBtu/hr	million British thermal units per hour
µmhos	micromhos
Mn	manganese
MOA	Memorandum of Agreement
MOE	Measure of Effectiveness
mph	miles per hour
MT	metric ton
MW	megawatt
MWh	megawatt-hour
N ₂ O	nitrous oxide
Na	sodium
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NAIP	National Agriculture Imagery Program
NAVD88	North American Vertical Datum of 1988
ND	not detected
NERC	North American Electric Reliability Council
NESHAP	National Emission Standards for Hazardous Air Pollutant
NFPA	National Fire Protection Association
NH ₃	ammonia

NMFS	National Marine Fisheries Service
NO	nitric oxide
NO ₂	nitrogen dioxide
NO ₃	nitrate
NOAA	National Oceanic and Atmospheric Administration
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRA	National Resources Agency
NRC	National Research Council
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSCR	non-selective catalytic reduction
NSPS	National Standards of Performance for New Stationary Sources
NSR	New Source Review
NSR	noise-sensitive receivers
NTC	noise threshold criteria
NTU	nephelometric turbidity units
O ₂	oxygen
OBCF	octave band center frequency
OCA	Offsite Consequence Analysis
OCC	Oxnard City Code
OEHHA	Office of Environmental Health Hazard Assessment
OFD	Oxnard Fire Department
OHP	Office of Historic Preservation
OLM	Ozone Limiting Method
OSHA	Occupational Safety and Health Administration
OSW	Oxnard Shores West
OTC	once-through cooling
OWS	oil-water separator
OWWTP	Oxnard Wastewater Treatment Plant
P3	Puente Power Project
PAA	Project Area of Analysis
PAH	polycyclic aromatic hydrocarbon
Pb	lead
PDOC	preliminary Determination of Compliance
PG&E	Pacific Gas and Electric Company
PGA	peak ground acceleration
PLC	programmable logic controller
PM	particulate matter
PM ₁₀	particulate matter with aerodynamic diameter less than or equal to 10 microns
PM _{2.5}	particulate matter with aerodynamic diameter less than or equal to 2.5 microns
PMI	Point of Maximum Impact
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
ppmv	parts per million by volume
ppmvc	parts per million vinyl chloride
ppmvd	parts per million by volume, dry basis
PRC	Public Resources Code
PRM	paleontological resource monitor
PRMMP	Paleontological Resources Monitoring and Mitigation Plan

PRR	Paleontological Resources Report
PRS	Paleontological Resource Specialist
PSD	Prevention of Significant Deterioration
PSM	Process Safety Management
PTE	potential to emit
PTO	Permit to Operate
PWL [L _w]	Sound Power Level
RAPA	Resource Adequacy Purchase Agreement
RBS	rated breaking strength
RC	Coastal Recreation
RCRA	Resource Conservation and Recovery Act of 1976
REC	recognized environmental condition
REC	Recreation
REL	Reference Exposure Level
RERC	Riverside Energy Resource Center
RFO	Request for Offer
RMP	Risk Management Plan
RO	reverse osmosis
ROC	reactive organic compound
RP	Resource Protection
RUSLE	Revised Universal Soil Loss Equation
RWQCB	Regional Water Quality Control Board
s/veh	seconds per vehicle
SARA	Superfund Amendments and Reauthorization Act of 1968
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCCAB	South Central Coast Air Basin
SCCIC	Southern Central Coast Information Center
SCE	Southern California Edison
SCEDC	Southern California Earthquake Data Center
scf	standard cubic feet
SCR	selective catalytic reduction
SDG&E	San Diego Gas & Electric
SDS	Safety Data Sheets
SERC	state emergency response commission
SF ₆	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officer
SHRA	screening health risk assessment
SIL	significance impact level
SIP	State Implementation Plan
SJVUAPCD	San Joaquin Valley Unified Air Pollution Control District
SLM	sound-level meter
SLR	Sea-Level Rise
SN	Serial Numbers
SNCR	selective non-catalytic reduction
SO ₂	sulfur dioxide
SO ₄	sulfate
SOAR	Save Open Space and Agricultural Resources
SoCalGas	Southern California Gas Company
SO _x	sulfur oxides

SPCC	Spill Prevention, Control, and Countermeasures
SPL	Sound Pressure Level
SPPE	Small Power Plant Exemption
ST	Short-Term
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TBD	to be determined
TCP	Traffic Control Plan
TIBL	thermal inversion boundary layer
TPY	tons per year
TQ	Threshold Quantity
TRA	Tax Rate Area
TSDf	treatment, storage, and disposal facility
TSP	total suspended particulates
U.S. 101	U.S. Highway 101
U.S. EPA	U.S. Environmental Protection Agency
U2A	Urea to Ammonia
UCSB	University of California, Santa Barbara
UFC	Uniform Fire Code
ULN	ultra-low nitrogen
UPRR	Union Pacific Railroad
UPS	uninterruptible power supply
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCS	Unified Soil Classification System
USDA	U.S. Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator Projection
UWCD	United Water Conservation District
UWMP	Urban Water Management Plan
V	vanadium
V/C	Volume-to-Capacity
VAC	Visual Absorption Capability
VCAILG	Ventura County Agricultural Irrigated Lands Group
VCAPCD	Ventura County Air Pollution Control District
VCRR	Ventura County Railroad
VCTC	Ventura County Transportation Commission
VOC	volatile organic compound
VPHPL	vehicles per hour per lane
VSOI	Visual Sphere of Influence
VWRF	Ventura Water Reclamation Facility
WDR	Waste Discharge Requirement
WRCC	Western Regional Climate Center
WSA	water supply assessment
yy	year
ZLD	zero liquid discharge