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GLOSSARY

ACSR: concentrically stranded conductor composed of one or more layers of aluminum alloy wire stranded with a high-strength steel core. See conductor.

ACSR/AW: concentrically stranded conductor composed of one or more layers of aluminum alloy wire stranded with a high-strength aluminum clad steel core.

alluvial: sedimentary material transported and deposited by the action of flowing water, such as in a riverbed, flood plain, or delta.

attainment: applies to specific criteria pollutants of air quality, if air quality standards are achieved.

audible noise: produced by transmission line corona; sounds like a hissing, popping, crackling, or humming.

A-weighted Sound Level (dBA): the sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made. A-weighting de-emphasizes the low and very high frequency components of the sound in a manner similar to the response of the average human ear. A-weighted sound levels correlate well with subjective reactions of people to noise and are universally used for community noise evaluations.

bulk power: high voltage power that requires substation transformers to step the voltage down for distribution to serve local load.

bundled: two conductors per phase.

bus: a conductor or group of conductors that serves as a common connection for two or more circuits; used to interconnect equipment of the same voltage.

bus support structures: an assembly of bus conductors with associated connection joints and insulating supports.

buswork: a combination of bus structures.

circuit breaker: a switching device capable of making, carrying, and interrupting currents under normal circuit conditions and also making, carrying for a specified time, and interrupting currents under abnormal circuit conditions, such as those under faults or short circuits; the medium in which circuit interruption is performed may be designated, as in oil circuit breaker, air-blast circuit breaker, gas or sulfur hexafluoride circuit breaker, or vacuum circuit breaker.

community noise equivalent level (CNEL): the L_{eq} of the A-weighted noise level over a 24-hour period with a 5 dB penalty applied to noise levels between 7:00 p.m. and 10:00 p.m. and a 10 dB penalty applied to noise levels between 10:00 p.m. and 7:00 a.m.

conductor: 1) any metallic material, usually in the form of wire, cable or bar, suitable for carrying an electric current. 2) the wire cable strung between transmission towers; may be aluminum, bundle, expanded, non-specular, single, or stranded conductor.

control equipment: equipment used as part of a power system or a combination of systems to which a common generation control scheme is applied to match generation and load; often part of a facility from which a power system is monitored and regulated.

criteria pollutants: air pollutants pervasive in urban environments and closely monitored due to immediate public health issues. Permissible levels of these pollutants are standardized through health-based criteria (science-based guidelines). National and state Ambient Air Quality Standards (AAQS) have been established for such pollutants.

day-night sound level (L_{dn} or DNL): the L_{eq} of the A-weighted noise level over a 24-hour period with a 10 dB penalty applied to noise levels between 10:00 p.m. and 7:00 a.m.

decibel (dB): a measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, and sound intensity) with respect to a standardized quantity.

delta configuration: the physical geometry of power line conductors that most closely resembles an equilateral triangle.

disconnect switch: a power system switch, manually or motor operated, used for changing connections in a circuit (open or close) or for isolating a circuit or piece of equipment from the source of power. Also called a disconnecting switch.

double-circuit: structures that support two circuits; in the case of this project, one on either side.

duration of view: the amount of time spent viewing the subject landscape.

emissions: quantities released over a given period of time.

energy equivalent level (L_{eq}): the level of a steady noise that would have the same energy as the fluctuating noise level integrated over the period of interest. L_{eq} is widely used as a single-number descriptor of environmental noise. L_{eq} is based on the logarithmic or energy summation, and it places more emphasis on high noise level periods than does L_{50} or a straight arithmetic average of noise level over time. This energy average is not the same as the average sound pressure levels over the period of interest, but must be computed by a procedure involving summation or mathematical integration.

fully protected: under California state law, a classification that provides greater protection to animals than the federal or state endangered species acts; fully protected species cannot be killed

or possessed at any time; no licenses or permits may be issued for their take except for collecting species as necessary for scientific research or for relocation of bird species for the protection of livestock.

ground mat: a system of interconnected bare conductors arranged in a pattern or grid, normally buried below the surface of the earth, primarily to provide safety for workers by limiting voltage differences within its perimeter to safe levels. Also called a ground grid.

high visibility threshold: (0 to 500 feet), the distance at which fine details are obvious; texture and color are vivid and clear.

hydroseeding: a hydraulic planting method that is used for planting lawns, ground covers, and establishing plant material on slopes for erosion and dust control. All the materials, such as water, seed, fertilizer, tackifier (binding glue), and fiber mulching material are combined and mixed in a large tank, then sprayed through a high-pressure nozzle onto the ground.

instrument transformer: a transformer intended to reproduce in its secondary circuit, in a definite and known proportion, the current or voltage of its primary circuit with the phase relations substantially preserved.

insulators: a device, made of non-conducting material, used to give support to electrical conductors and shield them from ground or to the conductors. An insulator inhibits the flow of current from the conductor to the earth or another conductor.

kcmil: kilo (1,000) circular mils.

kilovolt (kV): one kilovolt equals 1,000 volts.

level of service (LOS): a qualitative measure describing operational conditions within a traffic stream and motorists' perception of those conditions. LOS ratings typically range from LOS A, which represents free flow conditions, to LOS F, which is characterized by forced flow, heavy congestion, stop and go traffic, and long queues forming behind breakdown points.

line trucks: vehicles used for the construction, operation, and maintenance of power lines.

low visibility threshold: (1,000 to 1,500 feet), the zone where details of foliage and fine textures cease to be perceptible, small features begin to appear as outlines or patterns, and the dominance of new features further diminishes.

man lifts: equipment used to lift personnel working on power lines.

mima mounds: small hillocks, up to 3 feet high and 90 feet in diameter that occur in concentrations up to 10,000 per square mile in portions of the western United States.

moderate visibility threshold: (500 to 1,000 feet), the threshold where changes in the landscape might be viewed in less detail; texture, form, and other aesthetic qualities of vegetation are normally perceived in this zone.

multi-locus cultural site: a site that contains more than one distinct activity area.

MW: megawatts, the electrical unit of power that is equal to 1,000 kilowatts or 1,000,000 watts.

Native American site cluster: a single geographic location that contains a high density of sites.

nonattainment: applies to specific criteria pollutants of air quality, if air quality standards are violated.

Pacific Flyway: One of four major North American Flyways, which are broad areas or corridor in which related bird migration routes are associated or blended in a definite geographic region. In this case located in the Pacific region of North America.

phase: 1) a conductor or conductors or piece of electrical equipment associated with one of three separate phases of an alternating-current power system, designated A-phase, B-phase and C-phase. 2) The stage or progress of a cyclic movement such as a current or voltage wave.

PM₁₀: particulate matter of 10 microns in size. Also called fugitive dust.

PM₁₀ standard: particulate matter nominally 10 microns and less

PSLF: Positive Sequence Load Flow, a computer model developed by General Electric (GE), software package, Version 11.0 (SDG&E, SCE, ISO, 2000) and used to conduct an electric transmission power flow analysis of the 500kV system alternatives.

reactive power: non-usable energy produced when inductive, capacitive, or nonlinear elements exist in the system. It can cause increased losses and excessive voltage peaks. The out-of-phase component of the total voltamperes in an electric circuit, usually expressed in var (voltamperes reactive). It represents the power involved in the electric fields developed when transmitting alternating-current power (the alternative exchange of stored inductive and capacitive energies in a circuit).

reactive power margin studies: studies conducted to determine the amount of reactive power produced by a power system relative to the amount of real (usable) power produced.

seismicity: the frequency, intensity, and distribution of earthquake activity in a given area.

seldom seen visibility threshold: (beyond 1,500 feet), areas of the landscape where elements are presented as outlines.

sensitive feature: a feature of the affected environment, such as a cultural site, wetland, or city park, designated as especially sensitive to disturbance.

sheave: 1) conductor stringing equipment (A) the grooved wheel of a traveler or rigging block. Travelers are frequently referred to as sheaves. (B) a shaft-mounted wheel used to transmit power by means of a belt, chain, band, etc. 2) rotating machinery; pulley.

shield wire: a protective wire strung above the conductors on a transmission line to shield the conductors from lightning; also called a ground wire or overhead ground wire.

shunt capacitor bank: an installation of capacitors with fuses and associated equipment; generally located in substations, and used to increase system voltage and to improve the power factor at the point of delivery.

sock line: polyester synthetic rope using either single- or double-braid construction.

split-phase: the existing conductors in a single circuit occupy both sides of the pole.

subconductor: one of the individual conductors that make up a conductor bundle.

take: according to the Endangered Species Act, to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

transformer: a device for transferring electrical energy from one circuit to another by magnetic induction, usually between circuits of different voltages; consists of a magnetic core on which there are two or more windings. In power systems, most frequently used for changing voltage levels.

transient stability studies: studies conducted to determine the ability of a power system to regain stability after an a periodic disturbance.

toxic air pollutants: air pollutants that occur at relatively low concentrations and are associated with carcinogenic or acute health effects. AAQS have not been established at the national or state level.

unclassifiable: applies to specific criteria pollutants of air quality, if there is not enough information available to determine whether a criteria pollutant is in “attainment” or “nonattainment” status.

µg/m³: Micrograms per cubic meter.

use volume: the number of visits to a particular site by the public.

user attitude: the expectation or level of concern an individual has toward a particular visual setting.

VAR: voltamperes reactive; the unit of measurement of reactive power in a circuit. Equal to the product of volts and amperes 90 degrees out of phase. (KVAR=kilovar or 1,000VAR; MVAR=megavar or 1,000 kilovar.)

ACRONYMS

Acronym/ Abbreviation	Definition
AAQS	Ambient Air Quality Standards
ACEC	Areas of Critical Environmental Concern
ACOE	U.S. Army Corps of Engineers
ACSR	aluminum conductor steel reinforced
ACSR/AW	aluminum conductor steel reinforced alumoweld
ACSS/AW	aluminum conductor steel support/alumoweld
AD	assessment district
AFC	application for certification
AM	amplitude modulation
AN	audible noise
APE	Area of Potential Effects
ARB	Air Resources Board
BGG	Border Generation Group
BIA	Bureau of Indian Affairs
BIL	basic insulation level
BLM	Bureau of Land Management
BMP	best management practices
BO	Biological Opinion
BPA	Bonneville Power Authority
CACD	Commission Advisory and Compliance Division (of the CPUC)
CADD	computer-aided design and drafting
CAISO	California Independent System Operator
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CCG	California Consensus Group
CDEQ	California Department of Environmental Quality
CDFG	California Department of Fish and Game

Acronym/ Abbreviation	Definition
CDWR	California Department of Water Resources
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compliance, and Liability Act
CESA	California Endangered Species Act
CLAMP	Committee for Land and Airspace Management Policy
CNDDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
Corps	U.S. Army Corps of Engineers
CPCN	Certificate of Public Convenience and Necessity
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSSC	California Special Species of Concern
CWA	Clean Water Act
dB	decibel
dBuV/m	decibels per microvolt/meter
dBA	A-weighted sound level
DOD	U.S. Department of Defense
DOT	U.S. Department of Transportation
DBH	diameter at breast height
DPLU	San Diego County Department of Planning and Land Use
DPR	San Diego County Department of Parks and Recreation
DRP	Demand Relief Program
ELF	extremely low frequency
EMF	electrical and magnetic fields
EMF-RAPID	Electric and Magnetic Fields Research and Public Information Dissemination Program

Acronym/ Abbreviation	Definition
EPA	Environmental Protection Agency
ESA	Endangered Species Act
F	Fahrenheit
FE	federally endangered
FERC	Federal Energy Regulatory Commission
FPE	federally proposed endangered
FT	federally threatened
G	Gauss
GIS	geographic information system
HCP	habitat conservation plan
Henwood	Henwood Energy Services, Inc.
IARC	International Agency for Research on Cancer
ISO	Independent System Operator
kcmil	1,000 circular mils
kV	kilovolt
KV/m	kilovolts per meter
L _{eq}	equivalent sound level
L _{dn}	day-night equivalent noise level
LOS	level of service
MBTA	Migratory Bird Treaty Act
mG	milligauss
MHCP	multiple habitat conservation plan
MHI	median household income
MHz	megahertz
Miramar	Marine Corps Air Station Miramar
MSCP	Multiple Species Preservation Program
msl	mean sea level
MVA	mega-volt-ampere
MW	megawatts

Acronym/ Abbreviation	Definition
M _w	general moment magnitude
MWD	Metropolitan Water District of Southern California
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Quality Act
NERC	North American Electrical Reliability Council
NIEHS	National Institute of Environmental Health Sciences
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NRPB	National Radiological Protection Board
NWI	National Wetland Inventory
OATT	open access transmission tariff
OHW	ordinary high water
ORA	Office of Ratepayer Advocates
OSHA	Occupational Safety and Health Administration
PEA	Proponent's Environmental Assessment
pphm	parts per hundred million
ppm	parts per million
project	Miguel–Mission 230kV #2 Project
PSI	Pollution Standards Index
PSLF	positive sequence load flow
RAS	remedial action scheme
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SCFF	self-contained, fluid-filled
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District

Acronym/ Abbreviation	Definition
SDG&E	San Diego Gas and Electric
SDWCA	San Diego County Water Authority
SE	state-listed endangered
SHPO	State Historic Preservation Office
SMS	Scenery Management System
ST	state-listed threatened
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCA	Transmission Control Agreement
TCP	traditional cultural properties
TL	tie line
UDC	utility distribution companies
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USMC	U.S. Marine Corps
V/m	volts per meter
VRM	visual resource management
WECC	Western Electric Coordinating Council
WHO	World Health Organization
XLPE	cross-linked polyethylene

