TITLE: **BIG SANDY ENERGY PROJECT**
ENVIRONMENTAL IMPACT STATEMENT

Draft (X) Final ( )

EIS NUMBERS: BLM/AZ/PL-01/004
DOE/EIS-0315

LEAD AGENCIES: U.S. Department of Energy, Western Area Power Administration
U.S. Department of the Interior, Bureau of Land Management

COOPERATING AGENCIES: Arizona Department of Transportation
Arizona Department of Water Resources
Arizona Game and Fish Department
Hualapai Tribe
Mohave County (through the Planning and Zoning Department)
U.S. Department of the Interior, Fish and Wildlife Service

ABSTRACT

Caithness Big Sandy LLC (Caithness) proposes to construct and operate a 720-megawatt (MW) natural gas-fired, combined-cycle power plant and ancillary facilities on private land about 4 miles southeast of Wikieup, in the southeastern portion of Mohave County, Arizona. The power plant would be interconnected to the regional electric transmission grid through an existing 500-kilovolt (kV) transmission line owned and operated by the Western Area Power Administration (Western) and others which passes through the power plant site. The plant would be a "merchant plant", which means that it would not be owned by a utility. There is currently no long-term commitment or obligation by any utility to purchase the capacity and energy generated by the power plant. Caithness has applied to interconnect its proposed power plant with the existing Mead-Phoenix Project 500-kV transmission line. Construction of segments of the access road, natural gas pipeline, and water pipelines and electric and control lines would require a grant of right-of-way across Federal lands administered by the Bureau of Land Management (BLM). Water necessary for power plant and agricultural operations would be provided from wells drilled on private land in the vicinity of the proposed power plant site. The proposed access road to the power plant and well field would extend eastward to the proposed power plant site from U.S. Highway 93, crossing approximately 2 miles of public and private lands. The high-pressure natural gas pipeline would extend approximately 39 miles across private and public lands to the site from existing pipelines owned by several natural gas suppliers located along the Interstate 40 corridor. Agricultural development would occur on private lands adjacent to the access road immediately southwest of the proposed power plant site. The EIS describes existing environmental conditions as well as potential direct, indirect, and cumulative effects of the proposed action. BLM will be deciding whether or not whether or not to authorize rights-of-way on public lands administered by the BLM for portions of the proposed natural gas pipeline, access road, water pipelines and electric and control lines. Western will be deciding whether or not to execute an agreement with Caithness for interconnection with the Mead-Phoenix Project.

Comments on this Draft EIS should be sent only to Western Area Power Administration at the address below and must be postmarked no later than ***August 6, 2001***.

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LIST OF ACRONYMS

Acronym	Definition
°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	Microgram(s) per cubic meter
AAAQG	Arizona Ambient Air Quality Guidelines
ACEC	Area of Critical Environmental Concern
ac-ft	acre-foot (feet)
ac-ft/yr	acre-foot (feet) per year
ACHP	Advisory Council on Historic Places
ADA	Arizona Department of Agriculture
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AGFD	Arizona Game and Fish Department
APP	Aquifer Protection Permit
AQRV	air quality related values
ARPA	Archaeological Resources Protection Act
ASLD	Arizona State Land Department
AUM	animal unit month
AWQS	aquifer water quality standards
BA	Biological Assessment
BACT	best available control technology
BADCT	best available demonstrated control technology
BLM	U.S. Bureau of Land Management
BMPs	best management practices
BO	Biological Opinion
BTU	British Thermal Unit(s)
Caithness	Caithness Big Sandy, L.L.C. (project proponent)
CATEF	California Air Toxics Emission Factors
CEQ	Council on Environmental Quality
cfm	cubic feet per minute
CFR	Code of Federal Regulations
cfs	cubic feet per second
cm/sec	centimeters per second
CO	carbon monoxide
CO_2	carbon dioxide
COE	U.S. Army Corps of Engineers
CT	combustion turbine
CTQ	Community Tolerance Quotient
dB	decibel
dBA	A-weighted decibel
DOE	U.S. Department of Energy
DSWR	Western Area Power Administration Desert Southwest Regional Office
EIS	environmental impact statement
ELF-EMF	extremely-low-frequency electric and magnetic field
EMF	electric and magnetic field

Acronym	Definition
EPA	U.S. Environmental Protection Agency
EPC	Engineering, Procurement and Construction
EPT	Ephemeroptera, Plecoptera, and Trichoptera taxa
ESA	Endangered Species Act of 1973
EWG	exempt wholesale generator
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FIRM	Flood Insurance Rate Map (FEMA)
FLAG	Federal Land Manager's Air Quality Related Values Workgroup
FLPMA	Federal Land Policy and Management Act
FMCPG	Ford Motor Company Proving Grounds
FPA	Federal Power Act
gpd	gallons(s) per day
gpd/ft	gallon(s) per day per foot
gpm	gallon(s) per minute
Greystone	Greystone Consultants (consultant to project proponent)
GIS	geographic information system
HAP	hazardous air pollutant
HBI	Modified Hilsenhoff Biotic Index
HDPE	high-density polyethylene
HMMSPC Plan	Hazardous Materials Management and Spill Prevention and Countermeasure Plan
HRSG	heat recovery steam generator
HSMS	Health and Safety Management System
Hz	hertz
I-40	Interstate 40
ISC3	Industrial Source Complex 3rd Version Short-Term Gaussian-plume model
IWAQM	Interagency Workgroup on Air Quality Modeling
JHA/THA	job/task hazard analysis
km	kilometer(s)
KOP	key observation point
kV	kilovolt(s)
kWh	kilowatt-hour
lbs/hr	pounds per hour
LCRS	leak collection and removal system
Ldn	Average Day-Night Noise Level
LDRS	leak detection and removal system
Leq	equivalent sound level
LOS	level of service
MAP	Mitigation Action Plan
MCEDA	Mohave County Economic Development Authority
MEC	Mohave Electric Cooperative
mg/L	milligram(s) per liter
MLA	Mineral Leasing Act
MMCF	million cubic feet
MMI	Modified Mercalli Intensity scale
MSL	mean sea level
MUTCD	U.S. Department of Transportation Manual on Uniform Traffic Control Devices
MW	megawatt(s)

Acronym	Definition
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
National Register	National Register of Historic Places
NEIS	National Earthquake Information Center
NEPA	National Environmental Policy Act
NESC	National Electric Safety Code
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NIEHS	National Institutes of Environmental Health Sciences
NO	nitrogen monoxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxide
NOA	Notice of Availability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NSPS	New Source Performance Standards
O_3	ozone
OHV	off-highway vehicle
OPGW	optical ground wire
PA	Programmatic Agreement
Pb	lead
PCB	polychlorinated biphenyls
PM_{10}	particulates with an aerodynamic diameter less than or equal to 10 microns (1×10^{-6} m)
ppm	part(s) per million
ppmvd	part(s) per million, by volume corrected to 15 percent oxygen and dry gas conditions
ppmw	parts per million by weight
PSD	prevention of significant deterioration
psi	pound(s) per square inch
PVC	polyvinyl chloride
RAPID	Research and Public Information Dissemination Program
RCRA	Resource Conservation and Recovery Act
RDA	Rural Development Area
RMP	Resource Management Plan
ROD	Record of Decision
ROMP	Reclamation Operation Maintenance Plan
RV	recreational vehicle
SARA	Superfund Amendments and Reauthorization Act
SCADA	Supervisory Control and Data Aquisition
SCR	selective catalytic reduction
SDA	Suburban Development Area
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasures

Acronym	Definition
SRP	Salt River Project
STG	steam turbine generator
SWPPP	Stormwater Pollution Prevention Plan
T15N, R12W	Township 15 North, Range 12 West
TDS	total dissolved solids
tpy	ton(s) per year
TSP	total suspended particulate
UBC	Uniform Building Code
UDA	Urban Development Area
URS	URS Corporation
US 93	U.S. Highway 93
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
V	volt(s)
VOC	volatile organic compound
VRM	Visual Resource Management
Western	Western Area Power Administration