Environmental Assessment

Lowman Energy Center Unit 3
Washington County, Alabama

U.S Department of Agriculture Rural Utilities Service

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List of Abbreviations

Abbreviation	Term/Phrase/Name
ACHP	Advisory Council on Historic Preservation
ADEM	Alabama Department of Environmental Management
AHC	Alabama Historic Commission
ALDCNR	Alabama Department of Conservation and Natural Resources
APCo	Alabama Power Company
AADT	Annual Average Daily Traffic
APE	area of potential effect
BACT	best available control technology
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
CAA	Clean Air Act
CFR	Code of Federal Regulations
CBMPP	Construction Best Management Practices Plan
CGP	Construction General Permit
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
CR	County Road
CSAPR	Cross State Air Pollution Rule
CWA	Clean Water Act
dBA	A-Weighted Decibels
D.C.	District of Columbia
DLN	dry low-NO_X
DSM	Demand-side management
EGU	Electric Generating Units
EMF	electromagnetic fields
EA	Environmental Assessment
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	U.S. Federal Emergency Management Agency

Abbreviation	Term/Phrase/Name
FIRM	Flood Insurance Rate Map
GMC	Goodwyn Mills Cawood, LLC
GSA	Geological Survey of Alabama
HAP	hazardous air pollutant
HCHO	formaldehyde
HHV	higher heating valve
IPaC	USFWS Information for Planning and Consulting
kV	kilovolt
LEC	Lowman Energy Center
MACT	Maximum Achievable Control Technology
MMBtu/hr	million British thermal units per hour
MW	megawatt
NAAQS	National Ambient Air Quality Standards
NLCD	National Land Cover Database
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFHL	National Flood Hazard Layer
NGCC	natural gas combined cycle
NGCT	natural gas-fired simple-cycle combustion turbine generator
NHD	USGS National Hydrography Dataset
NRHP	National Register of Historic Places
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NRCS	USDA Natural Resources Conservation Service
NSA	Noise sensitive area
NS	Norfolk Southern Railway Company
NSPS	New Source Performance Standards
NWI	National Wetlands Inventory
NWP	Nationwide Permit
OA/AAA	Obstruction Evaluation / Airport Airspace Analysis
OSHA	Occupational Safety and Health Administration
PAD-US	Protected Areas Database of the US
Pb	lead

Abbreviation	Term/Phrase/Name
PCN	Pre-Construction Notification
PEM	palustrine emergent
PFO	palustrine forested
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PowerSouth	PowerSouth Energy Cooperative
PPA	Power Purchase Agreement
Project	The construction and operation of a new natural gas-fired simple cycle combustion turbine generator and associated facilities
PSD	Prevention of Significant Deterioration
ROW	right-of-way
RUS	Rural Utilities Service
SCR	selective catalytic reduction
SER	Significant Emission Rate Thresholds
SHPO	State Historic Preservation Office
SIL	significant impact level
Site	Lowman Energy Center
SO_2	sulfur dioxide
sqft	square feet
SSURGO	Soil Survey Geographic Database
TGEA	TG Earnest and Associates
THPO	Tribal Historic Preservation Officers
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	volatile organic compound
WOTUS	Waters of the United States

1.0 Introduction

PowerSouth Energy Cooperative (PowerSouth) is a generation and transmission cooperative formed in 1941 to supply wholesale power to its member-owners. PowerSouth's member-owners, located in central and south Alabama and northwest Florida, consist of 18 distribution cooperatives and four municipal members. Each of the distribution cooperatives and municipal members distributes the power purchased from PowerSouth to end-users, most of whom are individual residential accounts.

In 2020, PowerSouth retired three coal-fired units at the former Charles R. Lowman Power Plant and renamed the site the Charles R. Lowman Energy Center (LEC). To replace the retired capacity, PowerSouth constructed a new 720-megawatt (MW) one-on-one natural gas-fired combined cycle unit, which began operations in 2023 on the existing LEC. Subsequently, PowerSouth has identified the need for additional capacity during peak periods and now intends to further expand LEC's permanent generation capacity with an additional electric generating unit.

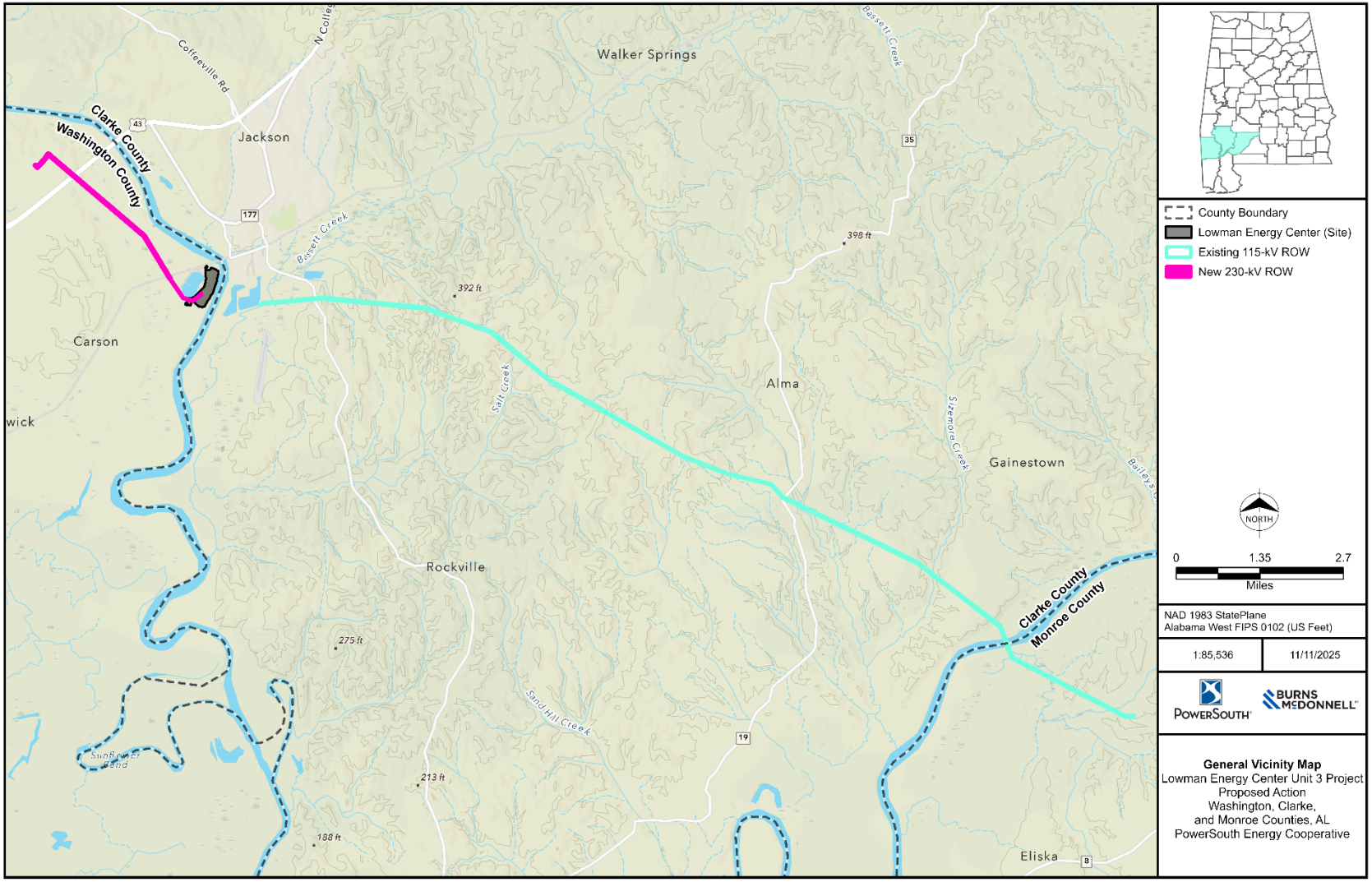
1.1 Project Description

1.1.1 Proposed Action

PowerSouth is requesting financing from the United States Department of Agriculture (USDA) Rural Utilities Service (RUS) to install one new natural gas-fired simple-cycle combustion turbine generator (NGCT) with a nominal capacity of 454 MW at LEC in Washington County, Alabama (Project). The NGCT will be a peaking generation resource, solely fired by natural gas.

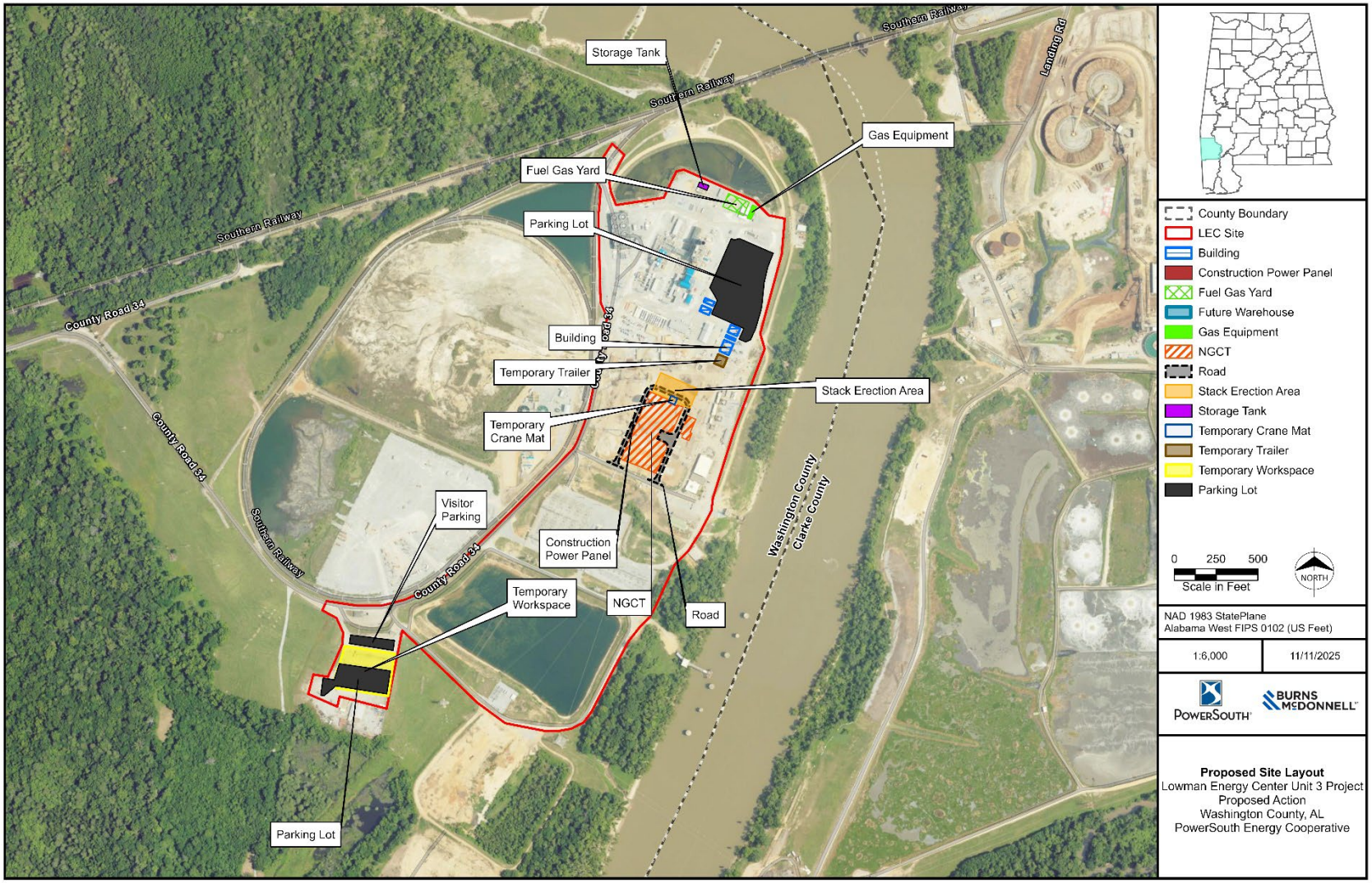
The Project would include the construction and operation of one Mitsubishi JAC advanced-class NGCT and associated facilities. In addition to the construction and operation of the NGCT at LEC, the Proposed Action would include construction of approximately 7 miles of new 230-kilovolt (kV) transmission line within approximately 3.5 miles of newly constructed right-of-way, additions to the on-site substation, and the reconductoring of approximately 16 miles of existing Lowman - Eliska 115-kV transmission line throughout Clarke and Monroe counties, Alabama. The general location of the Proposed Action is depicted in Figure 1-1, and a preliminary site layout is depicted in Figure 1-2.

Figure 1-1: General Vicinity Map



Source: Esri, USGS, PowerSouth, and Burns & McDonnell

Figure 1-2: LEC3 Site Layout Map



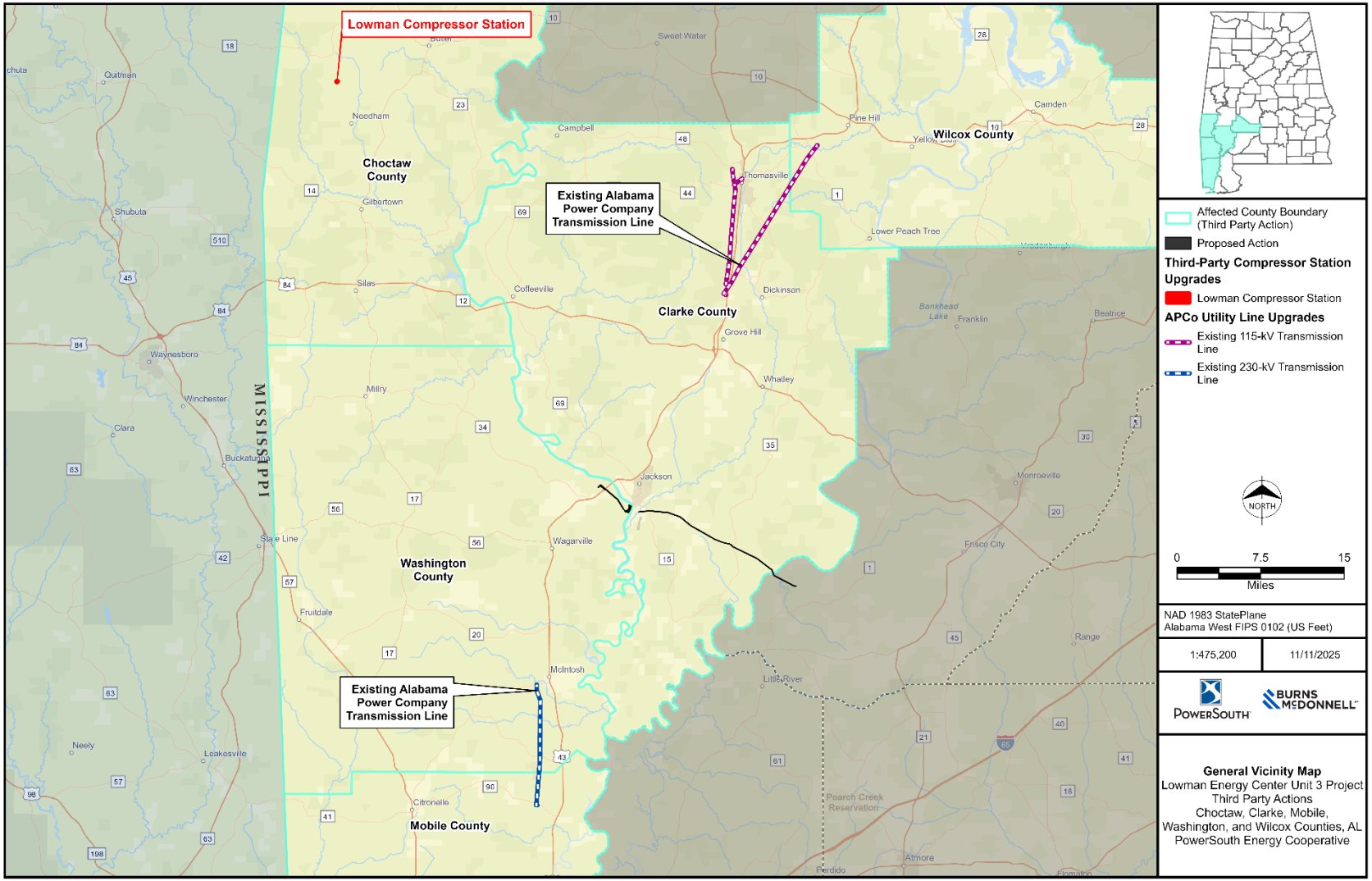
Source: Esri, NAIP, PowerSouth, and Burns & McDonnell

The following actions are foreseeable and required to support the Proposed Action. Transmission line reconductoring and gas pipeline infrastructure upgrades will be required, which will be performed by third parties. It is anticipated that Alabama Power Company (APCo) will reconductor approximately 11 miles of their existing West McIntosh – Calvert 230-kV line, approximately 12 miles of their existing Fulton – Thomasville 115-kV line, and approximately 6 miles of their existing Bassett Creek – Sunny South 115-kV line. Additionally, the natural gas vendor will make improvements to their compression station within their existing pipeline corridor for fuel stability. The improvements include two new compressor units at the Lowman Compressor Station, and the construction of a new on-site natural gas metering station. The footprint of the proposed upgrades to the Lowman Compressor Station is expected to be less than 10 acres. Third-party activities directly related to the Proposed Action are shown in Figure 1-3.

The Project is anticipated to start construction in the second quarter of 2026 and would be operational by the third quarter of 2029. Construction activities related to the NGCT, its auxiliary equipment, and the substation additions will occur entirely within the existing LEC footprint, which is situated on the Tombigbee River, approximately 5 miles southeast of Leroy, Alabama. The total footprint for construction activities defined by the Proposed Action is approximately 458 acres and is made up of 82 acres of greenfield conversion for the new 230-kV transmission line, 85 acres within the bounds of the LEC, and 291 acres of minor temporary disturbances within existing PowerSouth right-of-way for reconductoring of the existing 115-kV transmission line. PowerSouth intends to utilize existing infrastructure at the LEC to minimize environmental impacts and capital costs.

PowerSouth is requesting financing assistance from the U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS) for construction of the Mitsubishi JAC advanced-class NGCT, transmission lines and associated facilities (proposed action). Because PowerSouth plans to apply for project financing assistance from RUS, the proposal constitutes a federal action subject to review in accordance with the National Environmental Policy Act (NEPA), 42 United States Code [USC] §§ 4321 – 4347. RUS has determined that the proposed action requires the preparation of an Environmental Assessment (EA) due to the action not qualifying as a Categorical Exclusion, as listed in USDA's policy for implementing NEPA, 7 CFR 1b.3 and 7 CFR 1b.4. This EA identifies and evaluates the significance of environmental impacts associated with the proposed construction, maintenance, and operation of the proposed NGCT, transmission lines and associated facilities. RUS is the lead federal agency for the Project as defined by 40 CFR 1501.7(2024). As the lead federal agency, RUS must evaluate the Project's effect on historic properties under Section 106 of the National Historic Preservation Act (54 U.S.C. §§ 300101 – 306108) and its implementing regulation "Protection of Historic Properties" (36 CFR 800).

Figure 1-3: General Vicinity Map of Third-Party Actions



Source: Esri, Alabama Power Company, PowerSouth, and Burns & McDonnell

1.1.2 Agency and Program Objectives

USDA Rural Development is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and RUS (USDA RUS, 2025). There are more than 50 programs between the three agencies that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants to accomplish program objectives.

RUS's action is the decision to provide financing assistance for the Proposed Action through the Electric Infrastructure Loan & Loan Guarantee Program. Under the Rural Electrification Act of 1936, 7 U.S.C. §§ 901-950cc-2, as amended, the Secretary of Agriculture is authorized and empowered to make loans to nonprofit cooperatives and others for rural electrification for the purpose of financing the construction and operation of generating plants, electric transmission and distribution lines, or systems for the furnishing and improving of electric service to persons in rural areas (7 USC 904). As defined in this Act, the primary function or mission of RUS is to carry out the electric loan program.

This Environmental Assessment (EA) was prepared in accordance with Title 7 of the Code of Federal Regulations (CFR) Part 1b.5 *Environmental Assessments*, which prescribes the policies and procedures of the USDA for implementing the National Environmental Policy Act of 1969.[1]

1.2 Purpose and Need

PowerSouth conducted a Power Supply Study (PowerSouth, 2025, Appendix A) and determined that there is a capacity deficiency that continues to grow each year. The capital-intensive nature of electric utilities, combined with long lead times for new plant construction, necessitate the development of long-range generation expansion plans. Broadscale changes to the regulatory framework, changing fuel economies, and new, more efficient supply and demand-side technologies further reinforce this need. Despite the rapidly changing energy market, PowerSouth must continue to support its Power Supply Strategy, as described in the 2025 Power Supply Study, through the primary objectives of reliability, low cost, and flexibility. PowerSouth is committed to providing reliable capacity to support member systems and protect against uncertainty in the bulk power market through a mixture of long-term ownership commitments and power purchases from the wholesale power market. Maintaining a diverse portfolio of capacity resources allows PowerSouth to adjust rapidly to an ever-changing power industry and contributes to PowerSouth's commitment to providing low wholesale power costs to its member-owners.

[1] As defined in the latest revision of 7 CFR Part 1b.5 dated 09/26/2025.

The Power Supply Study revealed multiple factors contributing to PowerSouth's need to expand its capacity. PowerSouth has five Power Purchase Agreements (PPAs) set to expire before the end of 2030 without an opportunity for extension. Additionally, PowerSouth's 2024 Load Forecast, developed jointly by PowerSouth and its member systems and in accordance with Rule 7 CFR 1710 Subpart E – Load Forecasts of the RUS, was approved in August 2024 (PowerSouth, 2025). Over a 20-year forecast period, PowerSouth's load is projected to grow at an average rate of approximately one percent per year, necessitating additional capacity to maintain system reliability and meet future demand.

Despite the addition of the new natural gas combined cycle (NGCC) equipment at LEC in 2023, PowerSouth continues to have a shortfall in generating capacity in addition to the need to meet the growing demand for electricity.

To meet this power supply need, PowerSouth must:

1. prepare for future generation expansion while allowing flexibility to adapt to changes in load forecasts;
2. develop a firm, dispatchable generation asset;
3. buffer against fuel price uncertainties; and
4. hedge against rising construction costs.

2.0 Alternatives

To determine if RUS can finance the Proposed Action, alternatives that meet the purpose and need should be considered. Chapter 1.2 of this EA discusses the need for increased generating capacity. PowerSouth conducted an analysis of capacity alternatives which is discussed throughout this chapter. Several options, including a no-action alternative, were evaluated to meet the identified future capacity needs. The options that were evaluated but ultimately eliminated from consideration, the preferred alternative, and the no-action alternative are discussed in detail below.

2.1 Introduction

PowerSouth's Power Supply Strategy (PowerSouth, 2025) focuses on three primary objectives, outlined below.

- Reliability: Provide capacity to meet growing demand through a mixture of long-term ownership commitments and power purchases from the wholesale power market. Ensure a reliable capacity supply for member systems and protect against uncertainty in the bulk market.
- Low Cost: Provide low wholesale power costs to help members maintain a competitive edge. Explore opportunities for improved economics through alternative fuel sources and diversified fuel supply arrangements. Minimize cost risk associated with market price spikes.
- Flexibility: Maintain an ability to adjust to a rapidly changing power industry. Maintain a balanced portfolio of capacity resources. Commit to long-term purchases only when necessary or of unquestionable value. Improve system economics through short-term energy purchases and sales, as available.

PowerSouth currently has 21 generating units with a total rated capacity of 2,218 MW in the winter and 2,000 MW in the summer. PowerSouth owns and operates natural gas-fired generation at LEC (696 MW), the McIntosh Power Plant in McIntosh, Alabama (660 MW), and the Maury A. McWilliams (149 MW) and James A. Vann Jr. (585 MW) Power Plants in Gantt, Alabama. PowerSouth also owns and operates hydroelectric generation at the Point A and Gantt Hydroelectric Power Plants in Gantt, Alabama (7 MW combined). PowerSouth has a minority ownership of coal-fired generation at the James H. Miller Jr Electric Generating Plant in Birmingham, Alabama (121 MW). PowerSouth also relies on purchased power to support its generation needs, including 199 MW of hydroelectric power from the Southeastern Power Administration and ten currently active PPAs accounting for roughly 1,035 MW. The PPAs are typically restricted by seasonal peaks and have varying expiration dates between February 2026 at the earliest and December 2043 at the latest.

PowerSouth issued a Power Supply Study in May 2025 in accordance with RUS requirements detailed in 7 CFR Part 1710.253 and 7 CFR Part 1710.303, with the primary purpose of coordinating new capacity additions based on the demand and energy needs of the

PowerSouth system (Appendix A). This study detailed multiple alternatives that were analyzed to identify the most reliable and cost-effective methods to meet the growing energy demands of our service territory. The options reviewed as part of this EA include demand-side management, renewable resources, PPAs, and self-build generation.

2.2 Alternatives Considered

2.2.1 Alternatives Not Carried Forward

The following list includes alternatives that were evaluated but eliminated from consideration. The reason for elimination is briefly described for each alternative.

- Demand-Side Management: Demand-side management (DSM) programs promote conservation and reductions in peak demand. PowerSouth employs both a Touchstone Energy Home program that provides incentives for increasing energy efficiency in the home and a water heater control program that reduces demand during peak conditions. Current projections show growth for the water control program as flat or declining. PowerSouth determined that the DSM program would not meet the purpose and need; therefore, this alternative was eliminated from further analysis.
- Renewable Resources: PowerSouth currently uses several sources of renewable energy including hydroelectric power, and an agreement with Waste Management for purchased power from a landfill gas plant. While PowerSouth continues to investigate renewable resource projects as they become available, the geographic territory hinders the development of traditional renewable resources such as geothermal, wind, and biomass. Natural barriers to these traditional options include a lack of geothermal resources and insufficient wind speeds while cost remains a prohibitive factor for economic feasibility of traditional renewable energy sources. Accordingly, PowerSouth determined that renewable resources would not meet the purpose and need; therefore, this alternative was eliminated from further analysis.
- Solar: PowerSouth's largest system peak occurs in the winter months, typically in the early morning hours due to residential heating demands, when solar energy is not being produced. Solar power generation is intermittent due to natural weather patterns and as such non-solar resources must be made available to balance out the dips and recovery periods. Solar energy resources were, therefore, deemed insufficient to meet long-term capacity needs and were eliminated from further consideration.
- Energy Storage: Lithium-ion battery energy storage systems were considered as potentially viable alternatives due to the designed short-term discharge duration which aligns well with peaking capacity needs. Battery storage has proven to be a potentially transformative technology due to its ability to provide fast and flexible capacity to mitigate for the intermittent nature of some renewable energy sources. These systems were, ultimately, removed from consideration because of their high

build costs and inability to provide a long discharge duration during extended peak periods.

- PPAs: PowerSouth solicited long-term, PPA-based proposals from multiple wholesale power suppliers in the southeast. PPAs were evaluated based on cost, fuel supply, firmness and availability, transmission, scheduling, and contract terms and dates. Two PPA options offering 50-100 MW of energy and capacity needs were compared to a self-build option. The PPA options were both competitively priced but would fall short of providing the needed capacity to meet PowerSouth's anticipated deficit by 2030. Since the PPAs would still require additional generation capacity to meet the purpose and need, this alternative was eliminated from further analysis.

PowerSouth evaluated if a combination of these alternatives could meet the Project's purpose and need instead of the Proposed Action. While DSM, renewable resources, and PPAs are all currently used by PowerSouth to meet consumer demand, none of these options, whether developed individually or in combination, would meet the anticipated energy and capacity demand in time while maintaining reliable and affordable power to end-users.

2.2.2 Self-Build Alternative

PowerSouth determined that a self-build option is the only feasible generation source that could meet the primary objectives of PowerSouth's Power Supply Strategy. In the summer of 2024, PowerSouth initiated a siting study to identify the optimal location for self-build peaking power generation. Alternatives for technology and project location have been evaluated and are outlined in the below sections.

2.2.2.1 Technology Selection

PowerSouth hired Burns & McDonnell to support the development of the new peaking generation. As part of the development effort, an alternatives analysis was prepared and determined that NGCTs can generate the amount of peaking capacity needed and were selected for further analysis (PowerSouth, 2025). NGCCs were eliminated as they require significantly more capital, operations, and maintenance costs over NGCTs. A comparison of various NGCT alternatives considered to meet the identified purpose and need is summarized in Table 2-1.

Table 2-1: Summary of Self-Build Generation Alternative Analysis

Consideration Factors	Self-Build Generation Alternatives		
	Single F-Class NGCT	**Two F-class NGCTs**	**Advanced Class NGCT**
Capacity	**260 MW**	**520 MW**	**450 MW**
Schedule/Unit Availability	Due to high demand, customers are required to purchase production slots No production slots available for F-class CT to meet 2029 COD[1] requirement	Due to high demand, customers are required to purchase production slots No production slots available for F-class CT to meet 2029 COD requirement	Due to high demand, customers are required to purchase production slots Currently, there is one manufacturer that can guarantee delivery to meet 2029 COD requirement

1. COD: Commercial Operation Date

Based on the capacity of these technologies and contacting multiple manufacturers for bids, the alternative of an advanced class NGCT (i.e., the Proposed Action) is the best approach for PowerSouth to meet the identified need. The Proposed Action will balance PowerSouth's traditional and more intermittent renewable generation assets on the system within the timeframe the capacity is needed.

2.2.3 Siting Study Review

For the identified technology, PowerSouth needs a site that can accommodate the new generation capacity. As stated above, PowerSouth must add new resources by 2029. Based on the large need in the region, an ideal site must have adequate transmission, high pressure natural gas, and other infrastructure to support operations. PowerSouth conducted a Generation Siting Study to determine the optimal location for a new generation resource. (PowerSouth, 2024).

PowerSouth considered all of their existing power production facilities and major transmission substation locations as potential sites for the selected technology. A two-phase evaluation of these potential sites was implemented. Phase one screened the sites based on high-level criteria such as environmental impact, natural gas infrastructure, and transmission and substation infrastructure. Phase two evaluated the remaining sites in greater detail.

Based on costs and expected environmental impacts, the Siting Study concluded that the LEC was the preferred location for the selected technology. Future generation at the LEC will avoid impacts associated with building new infrastructure, as a significant amount of existing infrastructure is available for reuse. Such projects have an inherently lesser environmental impact than building on a greenfield site. Therefore, the LEC was selected for the Proposed Action.

2.3 Proposed Action Alternative

After reviewing available and feasible alternatives, the Project, as described in Subsection 1.1.1, is the Proposed Action Alternative that effectively meets the Project's purpose and need. Under the Proposed Action Alternative, RUS would approve PowerSouth's request for financing. PowerSouth would then proceed with construction and operation of the new advanced-class NGCT and its associated infrastructure.

The Proposed Action includes an estimated capacity of 450 MW and has an anticipated in-service date of third quarter of 2029. The Proposed Action will solely burn natural gas. The Proposed Action would employ selective catalytic reduction (SCR) technology to control nitrogen oxide (NOx) emissions and employ oxidation catalyst technology to control carbon monoxide (CO), volatile organic compound (VOC), and formaldehyde (HCHO) emissions.

The Proposed Action includes the construction of approximately 7 miles of new 230-kV transmission line, additions to the on-site substation, and reconductoring of approximately 16 miles of existing Lowman – Eliska 115-kV transmission line in Washington, Clarke, and Monroe Counties, Alabama.

The Proposed Action will be constructed over a 30- to 36-month period. The main area for construction is a brownfield area within the existing LEC. Specifically, the new unit will sit immediately south of the existing NGCC, in the area previously occupied by the decommissioned coal units. Construction activities would also include equipment laydown, temporary offices, and parking at the LEC (Figure 1-2).

The potential effects associated with the construction and operation of the Proposed Action and other foreseeable actions are analyzed in this EA.

2.4 No Action Alternative

Under the No Action Alternative, RUS would not provide financial assistance to PowerSouth to construct the Project. As a result, PowerSouth would be unable to meet its obligation to its members to supply adequate and reliable power to meet their present and future needs. PowerSouth would be required to secure alternative financing for the proposed Project or secure power to address the projected capacity shortfall from other third-party resources. The No Action Alternative would result in increased Project financing costs, which would have an adverse impact on the financial viability of the Project. The No Action Alternative could require PowerSouth to purchase power from another source, thereby increasing power output from existing generating resources, or experience rolling blackouts of varying intensity in PowerSouth's service terAritory, especially during extreme winter weather events.

3.0 Affected Environment and Environmental Consequences

Chapter 3 provides descriptions of the existing environmental conditions of the LEC, the existing PowerSouth transmission line right-of-way, and the proposed transmission line new build right-of-way (Project Area, Figure 1-1) and the effects that are anticipated from the construction and/or operation of the Proposed Action. This chapter provides an understanding of the affected environment and potential environmental consequences for the following resources: land use, formally classified lands, geology, soils, and farmlands; floodplains; wetlands and water bodies; water resources; coastal resources; biological resources; historic and cultural resources; aesthetics; air quality; noise; transportation; and human health and safety. Federal, state, and local regulations that apply to managing these resources are also discussed in the context of the existing environment.

This chapter assesses the potential effects of the Proposed Action Alternative and the No Action Alternative. The No Action Alternative provides a basis for comparison in which none of the Project components would be constructed.

3.1 Land Use, Formally Classified Lands, Geology, Soils, and Farmland

3.1.1 Affected Environment

3.1.1.1 Land Use

Multi-Resolution Land Characteristics (MRLC) Consortium's National Land Cover Database (NLCD) and 2023 aerial imagery were utilized to determine land cover within the Project Area. The Project Area (458 acres) includes 85 acres at the existing LEC, 291 acres of existing 115-kV transmission line right-of-way, and 82 acres of new 230-kV transmission line right-of-way. Land cover within the LEC is almost entirely classified as developed with varying intensity. The existing 115-kV transmission line right-of-way is an actively managed overhead utility corridor. Portions of the 115-kV right-of-way contain agriculture fields and cultivated crops, while other areas are dominated by emergent wetlands and mixed grasses. Most of the existing 115-kV right-of-way is surrounded by mixed forest, scrub/shrub, and woody wetlands (NLCD, 2024). The proposed 230-kV transmission line right-of-way is dominated by forested and scrub-shrub cover including deciduous forest, evergreen forest, mixed forest, scrub-shrub, cultivated crops, and woody wetlands. The proposed 230-kV transmission line right-of-way will be primarily co-located adjacent to an existing, actively maintained natural gas and electric transmission utility right-of-way. Table 3-1 summarizes the land cover data obtained from MRLC's NLCD for the proposed 230-kV transmission line right-of-way.

Table 3-1: Land Cover within Proposed 230-kV Transmission Line Right-of-Way

Land Cover Type [1]	Area of Proposed 230-kV ROW (%)[2]
Developed, Open Space	8.8%
Developed, Low Intensity	4.1%
Developed, Medium Intensity	2.6%
Developed, High Intensity	0.2%
Barren Land	0.8%
Evergreen Forest	24.7%
Mixed Forest	2.3%
Shrub/Scrub	3.0%
Grassland/Herbaceous	0.8%
Pasture/Hay	2.6%
Cultivated Crops	6.7%
Woody Wetlands	43.4%

1. Annual National Land Cover Classification (USGS, 2024)
2. Percent area was calculated by dividing the area of the given land cover type by the total area of the proposed 230-kV transmission line right-of-way (approximately 82 acres)

3.1.1.2 Formally Classified Lands

The United States Geological Survey (USGS) Protected Areas Database of the US (PAD-US) was used to identify formally classified lands. Properties or lands that are administered by the federal, state, or local government or lands that have been given special protections through formal legislation are considered formally classified. The existing 115-kV transmission line right-of-way spans the Alabama River which has two PAD-US designations including State-owned Submerged Lands managed by the Alabama Department of Conservation and Natural Resources (ALDCNR) and Clairborne Recreation Area managed by the United States Army Corps of Engineers (USACE) (USGS GAP, 2025). There are no formally classified lands within the boundaries of the proposed 230-kV transmission line right-of-way nor the LEC. Near the Project Area, there are two locally managed parks (HW Pearce Jr Memorial Park, Jackson Recreation Park), one wildlife game sanctuary managed by ALDCNR, and state submerged lands along the Tombigbee River, also managed by ALDCNR (USGS GAP, 2025). Figures depicting formally classified lands near the Project Area are included in Appendix B.

3.1.1.3 Geology

Data from the Geological Survey of Alabama (GSA) was reviewed using the National Geologic Map Database to determine the source geology for the Project Area (Osborne, Szabo, Copeland, & Neathery, 1989). The Project Area is entirely within the Coastal Plain Province and more specifically in the East Gulf Coastal Plain physiographic region (Rutledge, 2016). Most of the Project Area is comprised of Holocene alluvial, coastal, and

low terrace deposits, which is characterized by unconsolidated material deposited by streams and other bodies of water with grain sizes varying from clay to gravel. Both transmission line rights-of-way also include Pleistocene high terrace deposits characterized by clastic sediments formed by weathering and erosion of preexisting rocks or minerals and Miocene Series, undifferentiated, which is characterized by clastic sedimentary rocks. The existing 115-kV transmission line is also composed of Oligocene Series, undifferentiated, and a small area including Tallahatta Formation, part of the Clairborne group. The Oligocene Series, undifferentiated, is characterized by mostly clastic sedimentary rocks composed of particles transported and deposited by natural weather patterns or accumulated by chemical precipitation or secretion by organisms. Table 3-2 compares the geologic composition for the Project Area.

Table 3-2: Geologic Composition of Project Area

	System	Series	Coastal Plain Province	Geomaterial[1]
LEC	Quaternary	Holocene	Alluvial, coastal, and low terrace deposits	Young alluvial sediment
Proposed 230-kV ROW	Quaternary	Holocene	Alluvial, coastal, and low terrace deposits	Young alluvial sediment
	Quaternary	Pleistocene	High terrace deposits	Sand and gravel of unspecified origin
	Tertiary	Miocene	Miocene Series, undifferentiated	
Existing 115-kV ROW	Quaternary	Holocene	Alluvial, coastal, and low terrace deposits	Young alluvial sediment
	Quaternary	Pleistocene	High terrace deposits	Sand and gravel of unspecified origin
	Tertiary	Miocene	Miocene Series, undifferentiated	
	Tertiary	Oligocene	Oligocene Series, undifferentiated	Clastic sedimentary rock, with minor carbonate
	Tertiary	Eocene	Tallahatta Formation (Clairborne Group)	Mostly sandstone and mudstone, with minor carbonate

Source: (Osborne, et. al. 1989)

1. Geomaterial: any material derived from the Earth with geological origin.

3.1.1.4 Soils

The Soil Survey Geographic Database (SSURGO), published by the USDA Natural Resources Conservation Service (NRCS), was used to identify soil map units within the Project Area (NRCS, 2024). Table 3-3 below includes soil map unit name and symbol, acreage within Project Area, hydric soil determination, and farmland classification. The Project Area is predominantly made up of non-hydric soil that is not considered prime farmland. The LEC is mostly classified as Urban land-anthroportic udorthents complex, 0 to 8 percent slopes, industrial (Ut) while the existing 115-kV transmission line is mostly comprised of Maubila-Wadley-Smithdale complex, Iuka, Bibb, and Mantachie soils, Lucedale sandy loam, and

Smithdale-Boykin complex. The proposed 230-kV transmission line right-of-way mostly contains Urbo-Mooreville-Una complex and Smithdale fine sandy loam. In total, the proposed 230-kV transmission line right-of-way contains 5.8 acres (approx. 7%) of hydric soil while the existing 115-kV transmission line right-of-way contains 26.9 acres (approx. 9%) of hydric soil, and the LEC is made up entirely of non-hydric soils. Table 3-3 compares the soil makeup of the Project Area. Figures depicting the soil map unit names and symbols within the Project Area are included in Appendix B.

3.1.1.5 Farmland Classification

Table 3-3 identifies the soils within the Project Area that are classified as prime farmland or not prime farmland. Prime farmland is defined by the USDA as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for those uses (7 CFR§657.5(a)(1)). The LEC does not contain any soil classified as prime farmland. The proposed 230-kV transmission line right-of-way contains 17.5 acres (approx. 21%) of prime farmland while the existing 115-kV transmission line right-of-way contains 51.9 acres (approx. 18%) of prime farmland, that was previously converted with the original construction of the transmission line. Large portions of the proposed 230-kV transmission line right-of-way are currently made up of bottomland hardwood forest, mixed hardwood-pine stands, and planted pine stands. There is also a small portion of the proposed right-of-way that is currently actively farmed. Figures depicting prime farmland within the Project Area are included in Appendix B.

Table 3-3: NRCS SSURGO Soils within Project Area

Map Unit Symbol	Map Unit Name	Farmland Classification[1]	Area of LEC (acres)	Area of Proposed 230-kV ROW (acres)	Area of Existing 115-kV ROW (acres)
AcD	Annemaine-Cahaba complex, 5 to 12 percent slopes, occasionally flooded	Not prime farmland	1.2		
ArG	Arundel-Cantuche complex, 35 to 60 percent slopes	Not prime farmland			0.1
BaA	Bama fine sandy loam, 0 to 2 percent slopes	All areas are prime farmland		3.5	
BaB	Bama fine sandy loam, 2 to 5 percent slopes	All areas are prime farmland		3.1	4.5
BiA[2]	Bibb-Iuka complex, 0 to 2 percent slopes, frequently flooded	Not prime farmland		0.7	
BJK[2]	Bibb, Johnston and Kinston soils, 0 to 1 percent slopes, frequently flooded	Not prime farmland		5.1	
BoG	Brantley-Okeelala complex, 35 to 60 percent slopes	Not prime farmland			4.0
BrA[2]	Bibb loam, 0 to 1 percent slopes, frequently flooded	Not prime farmland			6.5
BsF	Boykin-Luverne-Smithdale complex, 15 to 35 percent slopes	Not prime farmland		3.4	
ChB	Chrysler silt loam, 0 to 5 percent slopes, occasionally flooded	All areas are prime farmland			1.3
CnB	Congaree loam, 0 to 4 percent slopes, occasionally flooded	All areas are prime farmland			0.9
FaE	Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes	Not prime farmland			9.7
GrB	Gritney fine sandy loam, 2 to 5 percent slopes	All areas are prime farmland		3.8	
IBA	Iuka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded	Not prime farmland			17.2
IgA	Izagora fine sandy loam, 0 to 2 percent slopes, occasionally flooded	All areas are prime farmland			2.2
IjB	Izagora-Jedburg complex, 0 to 3 percent slopes, occasionally flooded	Not prime farmland			2.6
JdA	Jedburg loam, 0 to 2 percent slopes, occasionally flooded	Not prime farmland			0.2
LsA	Lucedale sandy loam, 0 to 2 percent slopes	All areas are prime farmland			17.5
MaA	Malbis fine sandy loam, 0 to 2 percent slopes	All areas are prime farmland		7.0	

Map Unit Symbol	Map Unit Name	Farmland Classification[1]	Area of LEC (acres)	Area of Proposed 230-kV ROW (acres)	Area of Existing 115-kV ROW (acres)
MaB	Malbis fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland			10.0
MaC	Malbis fine sandy loam, 5 to 8 percent slopes	All areas are prime farmland			2.9
MbF	Maubila-Wadley-Smithdale complex, 8 to 30 percent slopes	Not prime farmland			72.6
MW	Miscellaneous water	Not prime farmland	29.6		
OkF	Okeelala-Brantley complex, 15 to 35 percent slopes	Not prime farmland			10.6
OmC	Olla-Maubila complex, 2 to 8 percent slopes	Not prime farmland			18.5
PwF	Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes	Not prime farmland			2.4
RvA	Riverview fine sandy loam, 0 to 2 percent slopes, occasionally flooded	All areas are prime farmland			1.9
SaA	Savannah fine sandy loam, 0 to 2 percent slopes	All areas are prime farmland			10.7
SbB	Smithdale-Boykin complex, 2 to 5 percent slopes	Not prime farmland			25.5
SbD	Smithdale-Boykin complex, 5 to 15 percent slopes	Not prime farmland			4.6
SfD	Saffell very gravelly sandy loam, 8 to 15 percent slopes	Not prime farmland			8.1
SgF	Saffell-Lucy (flomaton) complex, 15 to 35 percent slopes	Not prime farmland			1.2
SmD	Smithdale fine sandy loam, 5 to 15 percent slopes	Not prime farmland		21.0	
StA	Stough sandy loam, 0 to 1 percent slopes	Not prime farmland			6.5
UnA[2]	Una clay, ponded	Not prime farmland			15.1
UrA[2]	Urbo silty clay loam, 0 to 1 percent slopes, frequently flooded	Not prime farmland			5.3
Ut	Urban land-anthroportic udorthents complex, 0 to 8 percent slopes, industrial	Not prime farmland	53.8	6.8	
UuB	Urbo-Mooreville-Una complex, 0 to 3 percent slopes, frequently flooded	Not prime farmland		28.0	6.8

Map Unit Symbol	Map Unit Name	Farmland Classification[1]	Area of LEC (acres)	Area of Proposed 230-kV ROW (acres)	Area of Existing 115-kV ROW (acres)
W	Water	Not prime farmland			2.2
WsF	Wadley-Smithdale complex, 15 to 35 percent slopes	Not prime farmland			19.4
		Total (acres)	**84.6**	**82.4**	**291**

Source: NRCS SSURGO, December 2024.

1. Prime farmland is land with soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when managed with acceptable farming practices. (7 CFR §657.5(a)).
2. Hydric Soil (SDA, 2024)

3.1.2 Environmental Consequences

The following sections summarize the potential environmental consequences of the Proposed Action Alternative and No Action Alternative related to land use, formally classified lands, geology, soils, and farmland.

3.1.2.1 Proposed Action Alternative

Construction and operation of the Proposed Action would generally result in minor or temporary effects to existing land use. The LEC is an active, industrial power generation facility. Construction and operation of the proposed NGCT at the existing LEC would result in no effect on land use, formally classified lands, soils, or farmland since there will be no disturbances outside of existing, previously disturbed areas within the LEC property boundaries. Construction activities resulting from the reconductoring of the existing 115-kV transmission line will be contained to the existing 115-kV transmission line right-of-way. These activities would likely cause no effect on formally classified lands, land use, soil, or farmland. There may be short-term and minor effects resulting from temporary construction activities, however, since the right-of-way is existing and actively in-use, no long-term effects are anticipated.

The proposed 230-kV transmission line would likely cause minor, short-term effects on soils. There are no formally classified lands within the proposed transmission line right-of-way. While there are some areas of prime farmland, construction activities for the proposed transmission line would result in only temporary, short-term effects. Once construction is complete, farming around transmission line poles and within the transmission line right-of-way is allowed with coordination with PowerSouth. To establish the proposed 230-kV transmission line right-of-way, sensitive vegetative clearing techniques would be used to prevent disturbances to the soil and underlying root systems. The NRCS-CPA-106 form was completed by PowerSouth and submitted to NRCS for the proposed 230-kV transmission line (Appendix F). NRCS has evaluated the proposed 230-kV transmission line right-of-way

as required by the Farmland Protection Policy Act. PowerSouth received a response from the NRCS on December 10, 2025, in which NRCS stated that the Proposed Action is in an area that meets the definition for urban development and is therefore exempt from the Farmland Protection Policy Act (FPPA). Because the Proposed Action is exempt from the FPPA, NRCS did not provide a Farmland Conversion Impact Rating (Form AD-1006). NRCS recommended that sediment control measures be implemented and maintained during the construction phases of the Proposed Action to protect land, water, and other related resources. Plans for construction should include sediment basin/traps and other erosion control practices, including coverage of bare soil as soon as possible by temporary/permanent vegetative and/or physical structures.

3.1.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term effects on land use, formally classified lands, geology, soils, or farmland at or near the Project Area because no construction or operation would occur.

3.1.3 Mitigation

Construction and operation of the Proposed Action is not anticipated to significantly alter land use. Construction activities related to the installation and operation of the new NGCT will be confined to the existing LEC. All construction activities related to the reconductoring of the existing 115-kV transmission line will take place within the existing right-of-way and would, therefore, not cause any effect on or a change to land use. Part of the Proposed Action includes the construction of two new paralleling 230-kV transmission lines which will result in a minor change to land use and any areas currently being farmed may be temporarily affected by construction activities. Effects on land use would be minimized by co-locating the proposed right-of-way with existing utility easements. A significant portion of the proposed 230-kV transmission line right-of-way is currently classified as mixed forest and woody wetlands. The construction and operation of the proposed 230-kV transmission line would affect the land use classification in order to support an overhead transmission line.

Construction best management practices (BMPs) will be applied to areas of exposed soil during and following construction of the Proposed Action. Due to the minimal anticipated effects on current land use, formally classified lands, prime farmlands, geology, and soils no additional mitigation measures are anticipated to be necessary.

3.2 Floodplains

3.2.1 Affected Environment

The U.S. Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) indicates that the Project Area intersects several 100-year floodplains associated with the Tombigbee and Alabama Rivers (FEMA, 2025). The LEC was previously built up significantly to protect the facility from flooding associated with the Tombigbee River.

Roughly three (3) acres of the LEC overlap with Zone A floodplain as depicted on Flood Insurance Rate Map (FIRM) panel 01129C0350D, effective 10/16/2012. The existing 115-kV transmission line right-of-way includes approximately nine (9) acres of 100-year floodplain (Zone A) associated with the Tombigbee River (FIRM ID: 01025C0532D, effective 7/17/2012) and 32 acres of 100-year floodplain (Zones A and AE) associated with the Alabama River and its first order tributaries (FIRM Panels: 01025C0590D, effective 7/17/2012; 01099C0414C and 01099C0418C, effective 2/4/2009; 01025C0600D, effective 7/17/2012). The proposed 230-kV transmission line right-of-way includes approximately 41 acres of 100-year floodplain (Zones A and AE) as depicted on the FIRM panels 01129CO225D and 01129C0350D, both effective 10/16/2012. Figures displaying floodplains within the Project Area are included in Appendix B.

3.2.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to floodplains.

3.2.2.1 Proposed Action Alternative

PowerSouth will construct the new NGCT on the existing LEC and will restrict all construction activities to previously disturbed areas. Construction activities related to the reconductoring of the existing 115-kV transmission line will be confined to existing right-of-way. Construction and operation of the new NGCT and upgrades to the existing PowerSouth transmission line are anticipated to have no effect on floodplains throughout the entirety of the Project. No fill will be added to the LEC in areas overlapping Zone A floodplains. Replacement structures along the existing transmission line will be placed in the same location as the existing structures, minimizing potential impacts to floodplains. Construction activities related to the proposed 230-kV transmission line would cause minimal permanent impacts, isolated to proposed pole locations. PowerSouth initiated consultation with Washington County floodplain officials to request their feedback on the construction and operation of the proposed new 230-kV transmission line. PowerSouth received a response from the Washington County Engineer on October 28, 2025 (Appendix F) confirming that there were no objections to the Proposed Action.

3.2.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to floodplains as no construction or operation would occur.

3.2.3 Mitigation

As construction and operation of the Proposed Action would have no effect on floodplains, no mitigation measures are required.

3.3 Wetlands and Water Bodies

3.3.1 Affected Environment

The Project Area was reviewed for potential impacts to wetlands and waterbodies during a preliminary desktop assessment. Goodwyn Mills Cawood, LLC (GMC) completed a desktop assessment for Waters of the US (WOTUS) and Section 10 waters using U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Maps, the USGS National Hydrography Dataset (NHD), USGS Quadrangles, NRCS soils maps, and current and historic aerial imagery for both the existing 115-kV transmission line right-of-way and the proposed 230-kV transmission line right-of-way. Wetland, stream, and waterbody field delineations were completed for both transmission line rights-of-way in accordance with the *1987 Corps of Engineers Wetlands Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic & Gulf Coastal Plain – Version 2.0* (Regional Supplement). During field delineations, each delineated WOTUS was assigned a type based on the Cowardin Classification System (Cowardin et al., 1979), which are further characterized in the Wetland Delineation Reports (Appendix D). The LEC is completely characterized by industrial activities and, as such, does not contain jurisdictional WOTUS. An onsite delineation was not conducted for the LEC, since all construction activities will be confined to previously disturbed, developed, or upland areas.

Wetland delineation reports for both the proposed and existing transmission lines are included in Appendix D. The reports fully characterize the results of the respective desktop assessments and field surveys. Delineated wetlands, streams, and waterbodies are depicted on field delineation figures included as appendices of the wetland delineation reports.

Based on the desktop review of the Project Area, 34 NWI wetlands including palustrine forested wetlands, riverine systems, and freshwater ponds and 7 named streams including Wallers Creek, Sizemore Creek, Little Reedy Creek, Fletcher Branch, Eureka Creek, Bassett Creek, and the Alabama River intersect the transmission line rights-of-way. Figures depicting NWI wetlands and NHD flowlines are included in Appendix B.

In August 2025, GMC conducted onsite delineations for the existing 115-kV transmission line right-of-way and identified approximately 41 acres of palustrine emergent (PEM) wetlands and a total of 7,919 feet of linear waterbodies within the surveyed area, consisting of 5,388 linear feet of perennial streams, 1,727 linear feet of intermittent streams, and 804 feet of ephemeral streams. GMC also delineated one wetland ditch feature for a total of 457 linear feet. Dominant vegetation found in the delineated PEM wetlands included soft rush (*Juncus effusus*), lizard's tail (*Saururus cernuus*), and broadleaf cattail (*Typha latifolia*). Wetland hydrology was indicated by the presence of surface water and saturated soils, visible water marks and water-stained vegetation. The existing 115-kV transmission line right-of-way intersects one navigable water subject to Section 10 of the Rivers and Harbors Act of 1899, the Alabama River. All 32 wetlands, 17 perennial streams, 12 intermittent

streams, five ephemeral streams and one wetland ditch delineated by GMC were considered potential WOTUS subject to USACE jurisdiction under Section 404 of the Clean Water Act (CWA). Figures 2.1 through 2.14 in the wetland delineation report included in Appendix D depict the delineated features mapped by GMC during onsite wetland and waterbody delineations.

GMC conducted onsite delineations for the proposed 230-kV transmission line in June and July of 2025 and identified approximately 47 acres of palustrine forested (PFO) and PEM wetlands and of 2,130 feet of linear waterbodies within the Project Area, consisting of 900 linear feet of perennial streams and 1,229 linear feet of intermittent streams. Dominant vegetation within the wetlands included bald cypress (*Taxodium distichum*), woolgrass (*Scirpus cyperinus*), soft rush, and lizard's tail. Wetland hydrology was indicated by the presence of surface water, saturated soils, and water-stained leaves. All 11 wetlands, three perennial streams, and five intermittent streams delineated by GMC were considered potential WOTUS subject to USACE jurisdiction under Section 404 of the Clean Water Act (CWA). Figures 2.1 through 2.4 in the wetland delineation report included in Appendix D depict the delineated features mapped by GMC during onsite wetland and waterbody delineations.

3.3.2 Environmental Consequences

The following sections summarize potential environmental consequences of the Proposed Action Alternative and the No Action Alternative related to wetlands and water bodies.

3.3.2.1 Proposed Action Alternative

Construction activities related to the 115-kV transmission line reconductoring would likely cause minimal temporary impacts but no permanent impacts to wetlands and waterbodies within the existing right-of-way. The existing 115-kV transmission line crosses the Alabama River, which is a Section 10 navigable water. No structures will be placed and no construction activities will occur below the ordinary high-water mark of the Alabama River for the reconductoring of the existing transmission line. Reconductoring of the crossing will be conducted in accordance with the USACE and U.S. Coast Guard requirements, thereby avoiding adverse impacts to navigation or aquatic resources. Because the 115-kV transmission line spans a Section 10 navigable water, PowerSouth intends to coordinate with USACE to obtain Section 10 authorization under the Rivers and Harbors Act and plans to submit a Pre-Construction Notification (PCN) for authorization of the Project under Nationwide Permit (NWP) 57 – Electric Utility Line and Telecommunication Activities (86 FR 2744). Prior to submission of a PCN, PowerSouth intends to schedule a pre-application meeting with the Mobile Regulatory District of the USACE to discuss the project, confirm permit requirements, and determine agency review timeline expectations.

Based on preliminary design for the proposed 230-kV transmission line, 22 monopoles will be erected within wetlands. Geotechnical borings are planned to determine suitable foundation types. Contingent upon the findings of the geotechnical investigations tentatively scheduled for December 2025, PowerSouth would prefer to utilize a vibratory

caisson foundation type to minimize impacts to WOTUS. If vibratory caisson foundations are not feasible, the 5-ft-diameter monopoles will be directly embedded resulting in 19.6 square feet (sq ft) of fill per monopole for a total of 432 sq ft (0.01 acre) of permanent wetland impacts across the entire proposed linear transmission line. In addition to the permanent fill impacts from structures, tree clearing would be required to establish the proposed transmission line right-of-way. Sensitive tree clearing methods would be employed where clearing is required in jurisdictional wetlands. No grubbing or disturbance of soil or root systems is proposed in association with tree removal activities. Temporary impacts are anticipated, resulting from placement of temporary timber matting for construction access. Temporary matting would be removed following completion of the work. The anticipated permanent impacts to WOTUS associated with the construction of the 230-kv transmission line are less than 0.1 acre, as such, the Project would likely be authorized under a non-notifying NWP 57 (USACE, 2021).

PowerSouth will avoid and minimize impacts to wetlands to the extent practicable. Based on the reasonable alternative screening factors and meeting the purpose and need of the Project, the Proposed Action is the only reasonable alternative. BMPs including wetland matting and temporary stream crossings would be implemented to minimize impacts, and pre-construction conditions would be restored.

PowerSouth has initiated coordination with USACE – Mobile District. It is PowerSouth's intention to submit a PCN for the reconductor of the existing 115-kV transmission line, triggered by the overhead spanning of the Alabama River. A summary of PowerSouth's communications with USACE – Mobile District to date is included in Chapter 5 of this EA.

3.3.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term effects on wetlands and water bodies at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.3.3 Mitigation

Construction and operation of the Proposed Action would avoid jurisdictional WOTUS to the extent practical. PowerSouth would obtain the applicable NWPs for the Proposed Action. Appropriate BMPs outlined in the NWP would be followed to minimize impacts from the Proposed Action. It is anticipated there would be permanent impacts resulting from the installation of new transmission line structures as part of the proposed 230-kV transmission line right-of-way. Under NWP 57, compensatory mitigation is only required if there is greater than 0.1 acre of permanent impact to a single and complete crossing. Based on preliminary design, there is anticipated to be 0.01 acre of permanent impacts across the entire Project Area due to fill in wetlands caused by the installation of new transmission line structures within the proposed 230-kV transmission line right-of-way. As proposed, there would be no permanent impact to WOTUS resulting from construction and operation of the proposed 115-kV transmission line reconductoring. No specific mitigation measures are expected to be required.

3.4 Water Resources

3.4.1 Affected Environment

3.4.1.1 Surface Waters, Water Supply, and Discharge

The most prominent surface water resource in the vicinity of the LEC and the proposed 230-kV transmission line is the Tombigbee River. The Tombigbee River begins in Itawamba County, Mississippi, northwest of the Project Area, and flows approximately 440 miles southeast into the Alabama River in Baldwin County, Alabama. The Tombigbee River drains approximately 19,120 square miles with an annual mean flow of 26,233 cubic feet per second (USGS, 2025). Bassett Creek, located west of the LEC, flows into the Tombigbee River about 1.5 miles to the south. Other surface features include several intermittent streams and natural swamps associated with the Tombigbee River in the vicinity of the LEC.

In addition to the Tombigbee River, the Alabama River is the other primary surface water resource in the vicinity of the existing 115-kV transmission line. The Alabama River forms part of the broader Mobile River Basin and is considered a major river system in the central and southern portion of AL, ultimately draining into the Gulf of Mexico. There is a USGS monitoring station approximately 10 miles downstream of the existing transmission line crossing of the Alabama River (Alabama River at Choctaw Bluff, Al. - USGS-02429540) recording daily gage height. In the local vicinity, tributaries and intermittent streams feed the river contributing surface water inflow especially during rainfall events. The Alabama River is used as a regional water supply source for local, agricultural, and industrial uses. Figures depicting surface waters within and around the Project Area are included in Appendix B.

3.4.1.2 Groundwater

According to the GSA, the southern portion of Alabama, including the Project Area, is underlain by the following aquifer recharge areas, Miocene-Pliocene aquifer, the connected watercourse aquifer, and the Crystal River aquifer (GSA, 2016). These aquifers are sand gravel aquifers and are interconnected with the Watercourse aquifer partially recharging the Miocene-Pliocene Aquifer. The Watercourse aquifer generally follows the larger rivers in the area, including the Tombigbee and Alabama Rivers. The Miocene-Pliocene aquifer underlies approximately 6,500 square miles in the panhandle of Florida and the southwestern portion of Alabama. This aquifer is recharged directly by precipitation falling on the overlaying area and from the Watercourse aquifer where it overlays the Miocene-Pliocene aquifer. The Crystal River aquifer lies north of the Miocene-Pliocene aquifer and encompasses a smaller footprint. According to EPA's NEPAssist (Appendix C), no sole source aquifers underlie the Project Area.

3.4.1.3 Water Quality

Generally, the water quality in the Miocene-Pliocene aquifer is high. In Clarke and Washington counties, the aquifer is used as public water supply (Scott, Hayes, & Dyar, 1989). Water quality in the Miocene-Pliocene aquifer shows relatively low levels of total

dissolved solids, however there are potential issues in local wells related to levels of iron and sulfur, high turbidity, and high acidity. Vulnerability studies indicate that the aquifer is susceptible to surface contamination due to shallow ground water tables, unconfined, sandy, and permeable substrates, and relatively intensive land use within the counties at the surface (Scott, et. al., 1989).

LEC's main water source and discharge point is the Tombigbee River which is listed on the *Alabama Section 303(d) List of Impaired Water Bodies* for mercury from atmospheric deposition (ADEM, 2024). Impaired water bodies are defined as those that do not meet the water quality standards established by the Clean Water Act and require federal regulations for remediation. There are no other 303(d) waterbodies in the Project Area.

3.4.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to water resources.

3.4.2.1 Proposed Action Alternative

Construction

Activities related to the construction and installation of the new NGCT facility would not cause environmental consequences to water resources. For construction of the proposed 230-kV transmission line and reconductoring of the existing 115-kV transmission line, PowerSouth would follow all BMPs outlined by USACE and Alabama Department of Environmental Management (ADEM). BMPs may include silt fence, inlet protection, straw wattle barriers, riprap, erosion control blankets, and other erosion and sediment control measures, as necessary. Appropriate sediment and erosion control BMPs would be installed prior to initiating soil-disturbing activities, such as installation of new foundations and concrete pads. All BMPs would be maintained, as necessary, throughout construction of the Proposed Action.

Construction activities associated with the Proposed Action would not affect groundwater within the Project Area. Construction of the Proposed Action would not require dewatering, and therefore no lowering of groundwater levels would occur. PowerSouth would seek a Construction General Permit (CGP) (ALR100000) which requires implementation of BMPs to limit erosion, sediment, and pollutant discharges. A Construction Best Management Practices Plan (CBMPP) would be developed and would include identification of potential pollution sources and specifications of BMPs for erosion and sediment control, material handling, and inspections. The CBMPP would be consistent with state rules (ADEM Admin Code chapter 335-6-12) and the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management (AL SWCC, 2022a, b).

Operation

The Tombigbee River would continue to be the primary water supply for the LEC. Operation of the new NGCT would require a minimal increase in water supply volumes compared to

the current levels. The minimally increased intake levels will remain well below the LEC's current designed intake capacity. The Proposed Action Alternative would not be anticipated to result in impacts to water quality or the impairment status of the surrounding areas.

3.4.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to water resources at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.4.3 Mitigation

Construction and operation of the Proposed Action would be anticipated to have minimal impacts on surface waters or groundwater. PowerSouth would obtain the applicable CGPs for the Proposed Action and will employ water management practices and BMPs during construction and operation in compliance with the ADEM CGP. No specific mitigation measures would be required.

3.5 Coastal Resources

3.5.1 Affected Environment

All facilities associated with the Project are proposed to be located outside of any coastal management zone.

3.5.2 Environmental Consequences

There would be no adverse effects to coastal resources as a result of the Proposed Action.

3.6 Biological Resources

The biological resources of the area surrounding the Proposed Action along with the anticipated effects on biological resources from the Proposed Action are discussed in the following sections.

3.6.1 Affected Environment

The following sections discuss vegetation, wildlife, and special status species within the Project Area.

3.6.1.1 Vegetation

The Project Area falls entirely within the Southeastern Plains Level III Ecoregion as mapped by the EPA (EPA, 2013). This ecoregion is characterized by a mosaic of cropland, pasture, woodland, and forested areas with native vegetation including longleaf pine and Southern mixed forest. The LEC falls entirely within the Southeastern Floodplains and Low Terraces (65p) Level IV Ecoregion while both transmission lines also fall within the Southern Pine Plains and Hills (65f) Ecoregion. Southeastern Floodplains and Low Terraces are characterized by floodplains, low terraces, slow moving rivers, bottomland hardwood

forests, and river swamps. The Southern Pine Plains and Hills Ecoregion is characterized by low rolling hills, gently sloping ridgelines, acidic streams with sand or clay bottoms, mixed oak-hickory-pine forests, and southern pine and mixed forests.

The LEC is a developed, active power-generation plant with limited natural vegetation cover. Where present, vegetative communities within the LEC boundary are often dominated by invasive species or noxious weeds. Natural vegetation is limited to the areas bordering the site within the floodplain and the riparian buffer along the Tombigbee River. Land cover in the surrounding area is dominated by woodland and riparian habitats with several crop fields located to the west of the LEC. Most of the natural vegetation located outside of the floodplain in the area has been removed through past farming, timber harvesting, and other development activities. The vegetation present in the area surrounding the LEC does not vary from that typically found throughout most parts of Washington County. Dominant tree species typically found in the region include slash pine (*Pinus elliottii*), loblolly pine (*Pinus taeda*), bald cypress, live oak (*Quercus virginiana*), sweetgum (*Liquidambar styraciflua*), and southern magnolia (*Magnolia grandiflora*).

During field investigations of the proposed 230-kV transmission line right-of-way and the existing 115-kV transmission line right-of-way, GMC characterized vegetation communities. The existing 115-kV transmission line right-of-way is largely dominated by native forbs and wildflowers commonly found in southeastern seed mixes. Forested areas adjacent to the existing right-of-way include planted pines and mixed hardwoods. Emergent wetland vegetation within the existing 115-kV transmission line right-of-way includes soft rush, lizard's tail, and broadleaf cattail. The proposed 230-kV transmission line right-of-way consists of small areas of existing cleared transmission line corridors and large areas of undeveloped woodlands. Common vegetation observed during onsite field surveys includes mixed hardwood forests, planted pines, cultivated crops, bald cypress, soft rush, woolgrass, and lizard's tail.

3.6.1.2 Wildlife

A habitat assessment survey was completed to evaluate the potential for special-status species or their critical habitat to occur within or in the vicinity of the Project Area. Special-status species are defined as species designated by the USFWS as Endangered, Threatened, Proposed for Listing, or Candidate for Listing under the Endangered Species Act (ESA) and species protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668c).

Based on special-status species lists generated from the sources shown below, a habitat assessment was completed to evaluate the potential for special-status species to occur within the Project Area and its vicinity and to determine the presence or absence of designated or proposed critical habitat. The habitat assessments were based on review of the following sources and field observations:

- The natural history and known geographical and elevation range of the special-status species.
- USFWS Information for Planning and Consultation (IPaC) tool used to determine protected or likely to be protected species under the ESA that are known or likely to occur in the vicinity of the Proposed Action.
- Observations of the habitats present in the Project Area and its vicinity recorded by GMC during field reconnaissance between June and August 2025.[2]

In total, 11 ESA species, one final critical habitat, and one BGEPA listed species were identified using the IPaC tool. During habitat assessments, these species were evaluated for their potential to occur within or near the Project Area. Table 3-4 and Table 3-5 below show ESA-listed, proposed, and candidate species for the existing 115-kV transmission line right-of-way and proposed 230-kV transmission line right-of-way, respectively. A habitat assessment was not conducted within the LEC. The existing conditions onsite are not suitable for any of the ESA species outlined by the IPaC tool (IPaC, 2025a). Other non-listed, common wildlife species observed near the LEC include American alligator (*Alligator mississipppiensis*), raccoon (Procyon lotor), eastern gray squirrel (*Sciurus carolinensis*), eastern cottontail (*Sylvilagus floridanus*), coyote (*Canis latrans*), and white-tailed deer (*Odocoileus virginianus*).

Table 3-4: Federally Listed Species Effect Determinations (Proposed 230-kV ROW)

Common Name (*Scientific Name*)	**Federal Status (USFWS)**	***Effect Determination*[1]**
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	***May affect, not likely to adversely affect*** The hardwood forests, planted pine stands, and mixed hardwood pine stands found within the surveyed area could provide suitable summer and winter roosting habitat. PowerSouth intends to conduct all tree clearing outside of the USFWS "no-cut" period of December 15 through February 15 (winter torpor) and March 15 through July 15 (pup season).[2]
Bald Eagle (*Haliaeetus-Leucocephalus*)	Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c)[3]	***May affect, not likely to adversely affect*** Although bald eagles may traverse the Project Area, specifically along the Tombigbee or Alabama Rivers searching for food resources, no stick nests were observed in or around the Project Area at the time of survey. There have been no documented sitings of bald eagles in Washington County but there have been confirmed nest sightings (ADCNR, 2025).

[2] Field reconnaissance was limited to the proposed 230-kV transmission line right-of-way, existing 115-kV transmission line right-of-way, and general vicinity surrounding LEC.

Common Name (*Scientific Name*)	**Federal Status (USFWS)**	***Effect Determination*[1]**
Alligator Snapping Turtle (*Macrochelys temminckii*)	Proposed Threatened	***May affect, not likely to adversely affect*** Suitable habitat consisting of deep pools within wetlands and large ponded areas were observed during the habitat assessment. While species may be present, the linear nature of the proposed transmission line ROW and the presence of adequate habitat in the area surrounding the proposed ROW, adverse effects are not anticipated.
Black Pine Snake (*Pituophis melanoleucus lodingi*)	Threatened	***May affect, not likely to adversely affect*** Potentially suitable habitat consisting of hardwood and pine forest stands was identified within the surveyed area and in the surrounding areas. While species may be present, the linear nature of the proposed transmission line ROW and the presence of adequate habitat in the area surrounding the proposed ROW, adverse effects are not anticipated. PowerSouth will include a "no kill" snake policy on all construction projects as well.
Eastern Indigo Snake (*Drymarchon couperi*)	Threatened	***May affect, not likely to adversely affect*** Potentially suitable habitat consisting of hardwood and pine forest stands were identified within the surveyed area and in the surrounding areas. While species may be present, the linear nature of the proposed transmission line ROW and the presence of adequate habitat in the area surrounding the proposed ROW, adverse effects are not anticipated. PowerSouth will include a "no kill" snake policy on all construction projects as well.
Gopher Tortoise (*Gopherus polyphemus*)	Threatened	***May affect, not likely to adversely affect*** Gopher tortoise burrows were identified outside of the Project Area, north of Highway 43 in an adjacent APCo utility easement. Within the limits of the proposed transmission line ROW, no burrows were observed. Construction of the Project will not affect the gopher tortoise. In the event a burrow is found, PowerSouth will provide guidance for spanning the features to prevent any impact.
Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)	Threatened	***No effect*** There were no marine nor riverine habitats identified during the habitat assessment. Additionally, the Tombigbee River will not be utilized or accessed for the construction and operation of the proposed 230-kV transmission line.
Inflated Heelspliter (*Potamilus inflatus*)	Threatened	***No effect*** Suitable habitat consisting of large to medium-sized rivers with moderate gradient, riffles, and pools was not observed within the surveyed area.

Common Name (*Scientific Name*)	Federal Status (USFWS)	*Effect Determination*[1]
Monarch Butterfly (*Danaus plexippus*)	Proposed Threatened	***May affect, not likely to adversely affect*** The proposed transmission line ROW did not include sufficient suitable habitat for the plant species and conditions required for Monarch butterflies to succeed.

Sources: USFWS Official Species List (IPaC, 2025b); USFWS December 8, 2025, consultation response (Appendix F)

1. Determinations based on USFWS nomenclature
2. Tree clearing avoidance windows for the Project include the winter torpor and pup seasons (USFWS, 2025a)
3. BGEPA listed species

Table 3-5: Federally Listed Species Effect Determinations (Existing 115-kV ROW)

Common Name (*Scientific Name*)	Federal Status (USFWS)	*Effect Determination*[1]
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	***No effect*** While suitable habitat for winter or summer roost trees exists in the forested areas surrounding the existing transmission line ROW, there is no suitable habitat for bats within the active ROW. No tree clearing will be required for the reconductoring of the existing 115-kV transmission line, and all construction activities will be confined to the existing ROW.
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	***No effect*** While suitable habitat for winter or summer roost trees exists in the forested areas surrounding the existing transmission line ROW, there is no suitable habitat for bats within the active ROW. No tree clearing will be required for the reconductoring of the existing 115-kV transmission line, and all construction activities will be confined to the existing ROW.
Bald Eagle (*Haliaeetus-Leucocephalus*)	Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c)[2]	***No effect*** Although bald eagles may traverse the Project Area, specifically along the Tombigbee or Alabama Rivers searching for food resources, no stick nests were present in the Project Area at the time of survey.
Alligator Snapping Turtle (*Macrochelys temminckii*)	Proposed Threatened	***No effect*** Suitable habitat is not present within the existing transmission line ROW, and no wetland fill is anticipated for the reconductoring of the existing transmission line.

Common Name (*Scientific Name*)	**Federal Status (USFWS)**	***Effect Determination*[1]**
Black Pine Snake (*Pituophis melanoleucus lodingi*)	Threatened	***May affect, not likely to adversely affect*** There may be suitable habitat for this species in the upland areas within the existing transmission line ROW and within the hardwood, pine, and mixed hardwood-pine forests, or agriculture fields in the vicinity of the existing ROW. Gopher tortoise burrows were observed in the existing transmission line ROW, which are used by this species. While species may be present, the linear nature of the proposed transmission line ROW and the presence of adequate habitat in the area surrounding the proposed ROW, adverse effects are not anticipated. PowerSouth will include a "no kill" snake policy on all construction projects as well.
Eastern Indigo Snake (*Drymarchon couperi*)	Threatened	***May affect, not likely to adversely affect*** There may be suitable habitat for this species in the upland areas within the existing transmission line ROW and within the hardwood, pine, and mixed hardwood-pine forests, or agriculture fields in the vicinity of the existing ROW. Gopher tortoise burrows were observed in the existing transmission line ROW, which are used by this species. While species may be present, the linear nature of the proposed transmission line ROW and the presence of adequate habitat in the area surrounding the proposed ROW, adverse effects are not anticipated. PowerSouth will include a "no kill" snake policy on all construction projects as well.
Gopher Tortoise (*Gopherus polyphemus*)	Not federally listed east of the Tombigbee River	**Not applicable** Gopher tortoise burrows were observed within the existing 115-kV transmission line ROW; however, the gopher tortoise is not listed as a federally protected species east of the Tombigbee River in Clarke or Monroe counties. PowerSouth still intends to avoid potential impacts to gopher tortoise burrows and will provide guidance to construction crews for avoidance measures.
Alabama Sturgeon (*Scaphirhynchus suttkusi*)	Endangered	***No effect*** The Project Area crosses the Alabama River, critical habitat for the Alabama sturgeon. There will be no disturbances to the river because of the Project. Upgrades to the existing transmission line structures will occur on either side of the river, and the new wire will span overtop the river.
Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)	Threatened	***No effect*** The Project Area crosses the Alabama River, suitable spawning habitat for the gulf sturgeon. There will be no disturbances to the river because of the Project. Upgrades to the existing transmission line structures will occur on either side of the river, and the new wire will span overtop the river.

Common Name (*Scientific Name*)	Federal Status (USFWS)	*Effect Determination*[1]
Alabama Sturgeon	Designated Critical Habitat	***No effect*** No construction activities are planned that would cause impact on the Alabama River. There will be no effect on the Critical Habitat of the Alabama sturgeon because of the Project.
Inflated Heelspliter (*Potamilus inflatus*)	Threatened	***No effect*** In addition to the Alabama River, several creeks (Little Reedy Creek, Sizemore Creek, and Wallers Creek) were identified during the habitat assessment that could provide suitable habitat for this species. There will be no construction activities occurring within the banks of streams identified during field investigations. Timber matting will be used, and temporary stream crossings will be installed for construction access. PowerSouth will include BMPs at the above-mentioned stream crossings in all construction contracts.
Monarch Butterfly (*Danaus plexippus*)	Proposed Threatened	***May affect, not likely to adversely affect*** The existing transmission line ROW may provide suitable habitat for species of milkweed to grow, creating the potential for Monarch butterfly habitat. However, this ROW is actively maintained through herbicide application and mowing. It is unlikely that Monarch butterflies would be adversely affected by the Project.
Georgia Rockcress (*Arabis georgiana*)	Threatened	***No effect*** During the habitat assessment, no suitable habitat for the Georgia rockcress was identified. Suitable and preferred habitat would include shallow soil accumulations on rocky bluffs, gently sloping rock outcrops, outcrops along rivers, or sandy loam soils along eroding riverbanks.

Sources: USFWS Official Species List (IPaC, 2025c); USFWS December 8, 2025, consultation response letter (Appendix F)

1. Determinations based on USFWS nomenclature
2. BGEPA Listed Species

3.6.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to biological resources.

3.6.2.1 Proposed Action Alternative

3.6.2.1.1 Vegetation

Construction and operation of the Project will occur primarily within previously disturbed areas that are currently in use by PowerSouth for power generation and transmission. The

LEC is an active industrial power generation facility with limited natural vegetation. The existing 115-kV transmission line right-of-way is maintained through regular mowing, tree trimming, and herbicide application. All construction activities for the reconductoring of the existing 115-kV transmission line will be confined to the existing utility easement, and tree clearing activities are not required. PowerSouth will replace all structures at their existing location to minimize new impacts. During construction, there may be temporary impacts to vegetation due to construction traffic, installation of new poles, and/or removal of existing wooden poles. PowerSouth will utilize existing access roads where possible. Temporary timber matting will be used to minimize impacts and limit ground disturbance for construction access through wetlands. BMPs will be implemented to control the spread of noxious weeds and invasive plant species. PowerSouth will use construction techniques that minimize the extent and duration of bare soil exposure, thus minimizing the opportunity for invasive species to become established. After construction is complete, the transmission line right-of-way will be restored and revegetated with an approved seed mix.

The proposed 230-kV transmission line right-of-way will be established in an area currently dominated by bottomland hardwood wetlands, mixed hardwood-pine forest stands, planted pine stands, and an agricultural field. Establishing the proposed greenfield transmission line will require tree clearing throughout the entire 82-acre proposed right-of-way. PowerSouth will utilize sensitive tree-clearing techniques to minimize disturbance to vegetation and soils by limiting ground contact, soil compaction, and not disturbing the root systems. Tree clearing will occur without stump removal or grubbing, a process of removing tree stumps, roots, and other vegetation below the ground surface after vegetation has been cleared. Leaving the stumps in ground and root structures intact allows for native root systems and understory to regenerate naturally. This process preserves hydrologic function and stabilizes soils. Sensitive tree-clearing methods include hand felling, directional felling, and the use of low-ground-pressure equipment. These methods, in addition to the use of temporary timber matting, prevent soil displacement and keep vegetative communities intact. Approximately 43 acres of forested wetland would be temporarily converted to emergent wetland via sensitive tree clearing techniques. The forested wetlands are dominated by bald cypress trees while the understory is made up of soft rush, woolgrass, and lizard’s tail, predominantly. Construction of the proposed 230-kV transmission line would cause effects to the current vegetation community where the right-of-way will be established, but these effects will likely be beneficial to wildlife by establishing successional habitat. PowerSouth will not construct permanent access roads through wetlands and will design the transmission line to minimize permanent impacts, such as installing new transmission line poles using vibratory caissons instead of drilled pier or direct embed. Appropriate BMPs will be used to minimize impacts to vegetation. It is expected that construction-related disturbances from the Proposed Action would be temporary in nature and should not provide an opportunity for the establishment of invasive species or noxious weeds.

3.6.2.1.2 Wildlife

In total, eleven ESA species, one final critical habitat, and one BGEPA listed species were evaluated for their potential to occur in the Project Area. Two federally proposed threatened, one federally proposed endangered, and three federally threatened ESA listed species were determined to have potential to occur near or in the Project Area. However, the Project is not anticipated to cause adverse effects to these species. The remaining five ESA species were determined to be unlikely to occur and, thus, a *no effect* determination was assigned. One BGEPA species has potential to occur in the vicinity of the area, however, based on habitat assessments and location, the Project would be unlikely to cause adverse effects. Additionally, the new NGCT will require an 180-foot stack that will be constructed and operated in the same manner as the existing stack at LEC. The Proposed action is not located in a major migratory fly way and not anticipated to result in adverse effects to avian species.

As indicated above in Table 3-5, there is one designated critical habitat for federally endangered or threatened species overlapping the Project Area as identified in the IPaC report dated October 7, 2025 (IPaC, 2025c). Specifically, this critical habitat is located within the Alabama River and is designated for the Alabama sturgeon. The Project will not include any activities within the Alabama River. The existing 115-kV transmission line spans the Alabama River overhead. The Project will require replacement of existing transmission line poles on either side of the river and reconductoring of the overhead cable, which will be completed aerially. Therefore, the Proposed Action would have no effect on the critical habitat listed in the IPaC report (IPaC, 2025c). The Proposed Action would not result in short - or long-term impacts to protected species or other critical habitats that may occur in Washington, Clarke, or Monroe counties. While there is potentially suitable habitat for some endangered or threatened species in the Project Area, no adverse effects are anticipated when proposed avoidance techniques, like performing tree clearing activities during the USFWS designated clearing timeframes, are employed. Any remaining trees to be removed would be cut during the appropriate regulatory timeframe and using sensitive clearing techniques. A scoping letter was sent to USFWS for review on November 17, 2025, requesting concurrence on PowerSouth's effects determinations. USFWS' response on December 8, 2025, included tree-clearing limitations to avoid impacts to tricolored bat summer habitat (tree clearing should occur from July 16 to December 14 and February 16 to April 30), and recommending visual surveys during construction for the gopher tortoise, Eastern indigo snake, and black pine snake, as well as BMPs:

- Visually inspect equipment staging areas to ensure no gopher tortoise burrows are present.
- Keep equipment at least 50 feet from burrow openings.
- Erect a silt fence barrier between tortoise burrows and the project activity.
- Maintain low speeds at the work site.
- Check for tortoises underneath equipment prior to moving vehicles in the morning.
- Observe a no-kill snake policy on site.

3.6.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term effects to biological resources at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.6.3 Mitigation

3.6.3.1 Vegetation

Construction and operation of the Proposed Action will have minimal effects on vegetation within the Project Area and will not lead to the introduction of invasive species. Construction and operation of the proposed NGCT facility and newly upgraded 115-kV transmission line, would result in no effects on the natural vegetation communities since they are both existing, previously disturbed areas that are actively used for PowerSouth's power generation and transmission. Temporary impacts are anticipated for the proposed 230-kV transmission line; however, minimal permanent impacts are expected. It is anticipated that no mitigation measures will be necessary.

3.6.3.2 Wildlife

Construction and operation of the Proposed Action is not likely to adversely affect any listed threatened or endangered species, migratory birds, or eagles. Good conservation practices such as tree clearing during the tricolored and northern long-eared bats' inactive season will be implemented, as applicable, on portions of the Project Area. All trees in wetlands will be cleared using sensitive tree-clearing techniques to minimize impacts to natural vegetation communities and their root systems. While no stick nests were observed during field surveys and there have not been bald eagle sightings in the vicinity of the Project, should the observation of an active bald eagle nest occur during construction activities, PowerSouth will work with the USFWS to minimize potential impacts. There would be no significant adverse effects to listed threatened or endangered species, migratory birds, or eagles as result of construction or operation of the Proposed Action within the Project Area.

3.7 Historic and Cultural Resources

3.7.1 Affected Environment

In accordance with Section 106 of the National Historic Preservation Act and 36 CFR Section 800.1, federal agencies are required to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. If there is more than one federal agency, a lead federal agency may be designated to act for all federal agencies. RUS is the lead federal agency for this Project and, as such, is responsible for coordination with consulting parties which may include the State Historic Preservation Office (SHPO), Tribal Historic Preservation Officers (THPO), Indian Tribes, the public, the ACHP, local governments, and applicants.

The Project Area is within the Southern Pine Hills and Alluvial deltaic-Plain subdivisions of the East Gulf Coastal Plain physiographic province (Lineback and Traylor 1973). The Coastal Plain is composed of loose gravel, sand, and clay transported and deposited by moving water from Interior Highlands. Distinct to Coastal Plain sediments is the presence of horizontal banding formed from tracts of differing sediment types arranged in belts parallel to the Fall Line. The Coastal Plain gradually slopes towards sea level. Topography of the area consists of rolling hills and relatively steep slopes with a mix of hardwood forests in upland areas and cypress swamps in lowlands.

The physical area of potential effect (APE) for a proposed action includes the total area required for all construction and excavation activities required to construct, modify, improve, or maintain any facilities; any right-of-way or easement areas necessary for the construction, operation, and maintenance of the proposed action; and all construction staging areas, access routes, utilities, spoils areas, and stockpiling areas. The visual APE is made up of the physical APE and the adjacent parcels. Impacts that come from the undertaking at the same time and place with no intervening causes, are considered "direct" regardless of its specific type (e.g., whether it is visual, physical, auditory, etc.). "Indirect" effects to historic properties are caused by the undertaking that are later in time or further removed in distance but are still reasonably foreseeable.

Based on this definition, the current physical APE consists of the approximately 458-acre Project Area. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). PowerSouth submitted cultural resource surveys, associated maps, and draft finding letters for the SHPO and THPO review to RUS on September 17, 2025 (Project Assignment Number 25260745). RUS is required to lead coordination for Section 106 consultation. Jaynie Hirschi, Archeologist, RUS, submitted Section 106 consultation letters to the Alabama SHPO and all potentially interested tribes on November 20, 2025 (Appendix F).

Existing 115-kV Transmission Line

In August 2025, TG Earnest and Associates (TGEA) conducted a cultural resources desktop analysis of the 115-kV transmission line right-of-way to assist the federal agency in their compliance with Section 106. The APE has been defined as the entirety of the existing corridor of the existing 115-kV transmission line right-of-way. The total study area for this investigation was approximately 318 acres (TGEA, 2025a). After the conclusion of the study, the extent of the project was redefined within the existing 115-kV transmission line right-of-way. As identified in Chapter 1 of this EA, the revised project area for the reconductor project totals approximately 291 acres, the physical APE for the reconductor project. Desktop evaluation of the existing 115-kV transmission line right-of-way consisted of a background review of previously recorded cultural resources and previously reported cultural resources surveys within or adjacent to the existing corridor.

The study utilized Federal and State databases containing information regarding historical sites, structures, and properties within or near the study area. No archaeological sites were

identified within the study area, and most archaeological sites within a mile are several hundred meters from the project corridor. No resources listed on the NRHP were identified within the Project Area. Due to the lack of surveys and sites within the Project Area, and the undeveloped nature of the land, the presence of historic resources is possible, but if present, these resources are unlikely to be considered NHRP-eligible.

Proposed 230-kV Transmission Line

In July 2025, TGEA conducted a cultural resources review of approximately 100 acres for the proposed 230-kV transmission line right-of-way. The physical APE was revised to approximately 82 acres later in design. The cultural resources investigation was designed to conform with the Alabama Historical Commission's (AHC) *Standards and Guidelines for Survey and Testing within the State of Alabama* and the Secretary of the Interior's *Standards and Guidelines for Identification*. The first part of this investigation consists of a background review of previously recorded cultural resources and previously reported cultural resources surveys in a Study Area consisting of the LEC and a 1-mile (1.6-km) buffer around the APE. The second part of the investigation consists of the field survey of the 230-kV transmission line right-of-way to include systematic shovel testing at 30-meter (m) intervals as allowed by existing conditions and exposed clay subsoils.

The background review of the 230-kV transmission line right-of-way utilized Federal and State databases containing information regarding historical sites, structures, and properties within or near the Study Area. No National Register of Historic Places (NHRP) or Alabama Register of landmarks and Heritage Listings were identified within or adjacent to the Project Area. One archaeological site, 1WN192 was identified as previously surveyed within the Project Area. This LEC was recommended NHRP ineligible. No NHRP-eligible structures were identified within the Project Area viewshed.

The cultural resources fieldwork was conducted in July 2025. A total of 138 shovel tests were excavated throughout the surveyed area. All shovel tests were negative for cultural material. No evidence of the site 1WN192 was found from in-depth surface examination and shovel testing during this survey.

3.7.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to historic and cultural resources.

3.7.2.1 Proposed Action Alternative

Based on the findings of no historic properties affected in the proposed 230 kV transmission line right-of-way, the existing LEC, and the existing 115-kV transmission line right-of-way during background research and field surveys, RUS submitted a finding of *no historic properties affected* in their Section 106 consultation letter. The Section 106 consultation letter included the proposed determination, corresponding figures and maps, and the cultural resources investigation reports. RUS sent the consultation letter on November 20,

2025, and SHPO is to provide their concurrence or objection within 30 days of receipt. A consultation letter was also provided by RUS to the following tribes for their concurrence:

- Alabama-Coushatta Tribe of Texas
- Alabama-Quassarte Tribal Town
- Choctaw Nation of Oklahoma
- Coushatta Tribe of Louisianna
- Mississippi Band of Choctaw Indians
- Muscogee (Creek) Nation
- Seminole Tribe of Florida

The Alabama SHPO concurred with the RUS finding of no historic properties affected on December 16, 2025. The Choctaw Nation of Oklahoma requested additional project information on December 6, 2025, and RUS responded on December 11, 2025. On January 8, 2026, the Choctaw Nation of Oklahoma requested the following Inadvertent Discovery Clause be included in all permits and contracts:

In the event that ground-disturbing work uncovers significant archaeological materials, such as stone arrowheads, ceramics, or early building foundations, or if work uncovers human burials or human remains, ground disturbing activities will immediately be stopped within a 300-foot radius and the materials protected. The State Historic Preservation Officer and the Choctaw Nation Historic Preservation Department will be contacted as soon as possible and given an opportunity to provide input before construction resumes.

If any archaeological or cultural materials are discovered during the project undertaking, neither the construction team nor the applicant will disclose this information to the public or the media in any manner, including social media. Discoveries of archaeological and historic materials will be kept private and confidential.

RUS has not yet received responses from the SHPO, THPO or potentially affected tribes. No other responses were received. A record of correspondence to date is included in Appendix F. Construction and operation of the Proposed Action is expected to have *no adverse effects* on any historic or cultural resources.

3.7.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to historic and cultural resources at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.7.3 Mitigation

No further archaeological work is recommended for the site. All ground-disturbing activities have the potential to unearth human remains. As construction and operation of the Proposed Action will have no impacts on historic or cultural properties, no mitigation measures are necessary. Should any cultural or historical resources be encountered during

construction of the Proposed Action, PowerSouth will implement its Unintended Discovery Plan, which operates in accordance with the procedures required by the AHC's Inadvertent Discovery Clause as summarized below.

If archaeological materials are encountered during construction, the procedures codified at 36 CFR 800.13(b) will apply. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include but are not limited to stone projectile points (arrowheads), ceramic shards, bricks, worked wood, bone and stone, metal, and glass objects. The federal agency or the applicant receiving federal assistance should contact our office immediately. If human remains are encountered, the provisions of the Alabama Burial Act (Code of Alabama 1975, §13A-7-23.1, as amended; Alabama Historical Commission Administrative Code Chapter 460-X-10 Burials) should be followed. This stipulation shall be placed on the construction plans to ensure contractors are aware of proper procedure. The Inadvertent Discovery clause requested by the Choctaw Nation of Oklahoma and outlined above will also be included.

3.8 Aesthetics

3.8.1 Affected Environment

The NGCT will be located entirely within the property boundaries of the existing LEC. To the north of the LEC is a railroad track that runs east to west. Additionally, there are existing transmission lines that extend west from the property towards Leroy, AL and transmission lines that extend east across the Tombigbee River. Across the Tombigbee River from the LEC, there is a large-scale sawmill, paper mill, and waste treatment pond. The topography of the surrounding area is relatively flat with extensive tree cover and some areas that have been previously cleared for transmission line rights-of-way. The existing 115-kV transmission line is within a well-established right-of-way that is mostly surrounded by mixed hardwood forests and planted pine stands. The proposed reconductoring of the existing 115-kV transmission line would start immediately east of Bassett Creek and approximately 0.5 mile north of the Jackson Municipal Airport-4R3. The existing 115-kV transmission line right-of-way crosses the following roads Rockville Rd, Gainestown Rd (County Road (CR) 2), Perrys Chapel Rd, CR 29, Walker Springs Rd (CR 29), CR 1, and Eureka Landing Rd. east of Walker Springs Rd, the existing 115-kV transmission line right-of-way is approximately 750 ft north of the Southern Oaks Estate event venue. The dense forest surrounding the existing transmission line right-of-way generally shields the utility line from view, no visual change is anticipated following the construction completion. The transmission line is most visible to the public at the road crossings listed above.

The Proposed 230-kV transmission line will be co-located along existing utility easements and would tie into the existing APCo transmission line easement approximately 0.5 mi northwest of Jefferson Davis Highway between Leroy, AL and the Tombigbee River. The proposed transmission line will be constructed through a densely forested area, shielding the utility line from public visibility.

3.8.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to aesthetics.

3.8.2.1 Proposed Action Alternative

The aesthetics of the surrounding area would not be significantly altered by the Proposed Action. Light emissions at the LEC would increase slightly compared to current levels of light emissions, because of increased facility lighting. The approximately 180-foot stack at the facility, other facility equipment, transmission line structures, and switching station would introduce new features to the landscape. The LEC has been an industrial power generating facility since 1969 when Unit #1 was completed for the, then Tombigbee Power Plant. The area surrounding the LEC remains predominantly industrial with limited access or visibility to the public. The Proposed Action will have minimal to no effect on the aesthetics of the nearby areas due to the reuse of existing infrastructure and the presence of densely forested areas surrounding the Project Area.

3.8.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to aesthetics at or in the vicinity of the Proposed Action because no construction would occur.

3.8.3 Mitigation

Construction will have temporary visual impacts. Once the Proposed Action is built, there will be long-term aesthetic changes associated with the new facilities, however, these changes will cause minimal changes compared to the existing environment. Removal of trees will be necessary for the proposed 230-kV transmission line right-of-way, but the area bordering the transmission line right-of-way is currently heavily vegetated, which will serve as a visual buffer, no other mitigation measures are proposed.

3.9 Air Quality

The air quality of the area surrounding the Project Area and the effect of the Proposed Action on air quality are discussed in the following sections.

3.9.1 Affected Environment

According to the Koppen climate classification, the LEC is in the Northern Hemisphere's Humid Subtropical zone. Features of this zone include generally warm and humid summers with mild winters. Periods of extreme cold are infrequent and typically do not last more than a few days. The southern Alabama climate is affected by the Gulf of Mexico, including tropical storms and hurricanes. Winters are relatively mild with low temperatures typically around freezing with occasional, brief very cold temperatures and a few wintry precipitation events. Average annual rainfall is 56-60 inches (Chaney, 2025). Rainfall events are dominated by afternoon and evening thunderstorms in summer, rain associated with cold fronts in winter, and rainfall associated with tropical storms in the fall.

The federal government established the National Ambient Air Quality Standards (NAAQS) under the Clean Air Act (CAA) to protect public health (including the sensitive populations such as asthmatics and the elderly), safety, and welfare from known or anticipated effects of eight air pollutants: sulfur dioxide (SO_2), particulate matter 10 microns or less in diameter (PM_{10}), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone, lead (Pb), and carbon dioxide (CO_2). The Significant Impact Level (SIL) and NAAQS thresholds are listed in Table 3-6, below (EPA, 2025a, 2025b).

Table 3-6: NAAQS and SIL Thresholds

Pollutant[a,b]	Averaging Period	NAAQS[c]	SIL[d]
		($\mu g/m^3$)[e]	($\mu g/m^3$)
SO_2	Annual	N/A	1
	1-hour	196	7.8
PM_{10}	24-hour	150	5
$PM_{2.5}$	Annual	9	0.13
	24-hour	35	1.2
CO	8-hour	10,000	500
	1-hour	40,000	2,000
NO_2	Annual	100	1
	1-hour	188	7.52
Lead	Rolling 3-month	0.15	--

a. EPA, 2025a & EPA 2025b
b. SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns or less in diameter, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter, CO = carbon monoxide, NO_2 = nitrogen dioxide
c. NAAQS = National Ambient Air Quality Standards
d. SIL = Significant Impact Level; SIL values listed are for Class II areas
e. $\mu g/m^3$ = micrograms per cubic meter

Washington County, Alabama is in attainment for all pollutants, meaning that the area meets federal clean air standards. The closest air quality monitoring site is approximately 50 miles to the southwest of the LEC (AQS ID: 01-097-0003) and monitors the pollutants SO_2, ozone, and $PM_{2.5}$. The next closest monitoring site (AQS ID: 01-097-8001) is approximately 60 miles to the south of the LEC and monitors the PM_{10}. The closest NO_2 monitor is located in Pascagoula, MS (AQS ID: 28-059-0006), approximately 87 miles southwest of the Project LEC. The community of Leroy is mainly residential with a few commercial and industrial businesses. Agricultural activities also occur within the area. Jackson, Alabama is directly across the Tombigbee River to the east and contains several industrial sources and commercial and residential areas. Industrial sources can add particulate, NO_X, SO_2, and CO emissions. Agricultural activities can generate particulate emissions. Vehicular traffic in Jackson, Leroy, and to and from the Facility, also add to the ambient criteria pollutant concentrations.

3.9.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to air quality.

3.9.2.1 Proposed Action Alternative

Construction and operation of the proposed gas turbine at the LEC would be subject to applicable state and Federal air quality regulations. These regulations would apply to the Proposed Action equipment (one Mitsubishi JAC Advanced Class NGCT and auxiliary equipment). Regulations applicable to the Proposed Action are Division 3 of ADEM Administrative Code, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), and Maximum Achievable Control Technology (MACT). The following sections provide potential environmental consequences of construction and operation of the Proposed Action related to air quality.

Construction

Air emissions from the construction of the Proposed Action will occur due to 1) vehicular emissions from increased traffic from the construction work force and construction deliveries, 2) internal combustion engine emissions from construction equipment, and 3) fugitive dust (PM_{10} and $PM_{2.5}$) emissions from excavating, site preparation, storage piles, and wind erosion of loose soils. These emissions from construction activities can be difficult to quantify, as they are dependent on the number and type of construction vehicles in operation at any given point during construction, the number of construction workers driving to and from the LEC, and the number and type of construction activities occurring. Generally, air emissions from construction are low and temporary in nature, fall off rapidly with distance from the construction site, and will not result in any long-term impacts.

Operation

PowerSouth proposes installing one Mitsubishi JAC Advanced Class NGCT with 454-MW nominal capacity and auxiliary equipment. The turbine will exclusively fire natural gas with a maximum heat input of 4,048 million British thermal units per hour (MMBtu/hr), higher heating value. The turbine is being conservatively permitted to have unrestricted operation for up to 8,760 hours per year. Actual operations are expected to be less than that typical of a base load unit and more consistent with a simple cycle peaking unit. A continuous emission monitoring system will be installed to monitor emissions of NO_x. A 9.9-MMBtu/hr natural gas-fired fuel gas heater will also be installed as part of the Project.

The combustion turbine will have a SCR system and a dry low-NO_X (DLN) combustion control system installed to meet NO_X limits as required by 40 CFR Part 60, Subpart KKKKa and the BACT requirements. The combustion turbine will also have an oxidation catalyst to control emissions of CO, meet the proposed CO best available control technology (BACT) limit, and meet the formaldehyde limits required by 40 CFR Part 63, Subpart YYYY. These regulations are discussed in further detail later in this section. To minimize the emissions of SO_2 and $PM/PM_{10}/PM_{2.5}$, the NGCT emissions will be controlled through the use of pipeline quality

natural gas and good combustion practices as specified by the manufacturer, such as maintaining proper temperature and pressure, fuel to air ratios, excess oxygen, etc. to avoid incomplete combustion byproducts. The CO_2 emissions will be minimized with the use of natural gas as the main fuel.

Two potential operating scenarios were evaluated, encompassing the expected range of operation and expected number of startups and shutdowns. Steady-state 100% load conditions were evaluated to conservatively calculate emissions, although the combustion turbine will operate at reduced loads (i.e., 35 - 90%), depending on electricity demand. The two operating scenarios evaluated to determine worst-case emissions are listed below:

- Operating Scenario A – 8,760 hours per 12-month rolling period operation at 100% load condition;
- Operating Scenario B – 300 startup and shutdown events and 8,560 hours per 12-month rolling period operating at the 100% load condition

The maximum annual emissions from the two operating scenarios were selected for further analysis as described in the Prevention of Significant Deterioration Permit Application submitted on August 5, 2025.

Emissions from the proposed fuel gas heater were calculated assuming 8,760 hours of operation per year combusting natural gas.

Because the existing facility is a major source, the Prevention of Significant Deterioration (PSD) Significant Emission Rate Thresholds (SER) are applicable to the Project. If a pollutant exceeds the SER, then that pollutant will trigger the need for PSD review for that pollutant, which includes air dispersion modeling, BACT analysis, and other permitting tasks. The worst case, future potential-to-emit calculations were performed for each pollutant for the Proposed Action and are listed in Table 3-7. Because the potential emissions of criteria pollutants are above the PSD SERs, the Proposed Action triggers the PSD permitting process. Accordingly, a BACT analysis was required for CO, NO_X, VOCs, $PM/PM_{10}/PM_{2.5}$, and CO_2e, along with a modeling analysis. The Lowman Energy Center is a Part 70 Major source and will remain so as a result of the Proposed Action.

Table 3-7: Total Proposed Action Emission Summary

Pollutant	Potential Emissions (tons per year [tpy])[b]	PSD SER Threshold (tpy)	PSD Review Applicable (Yes, No)
NOX	**366.18**	40	Yes
CO	**386.04**	100	Yes
SO2	38.35	40	No
VOC	**115.30**	40	Yes
$PM/PM_{10}/PM_{2.5}$[c]	**101.04**	25/15/10	Yes
CO_2e[d]	**2,148,007.16**	75,000	Yes

a. NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; VOC = volatile organic compounds; PM= total particulate matter; PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter, CO_2e = carbon dioxide equivalents
b. Numbers in bold indicate the SER significance level is exceeded.
c. Filterable plus condensable
d. If the Proposed Action does not trigger PSD for any other pollutant, the CO_2e PSD threshold does not apply per Utility Air Regulatory Group vs EPA (Case#12-1146, June 23, 2014, before the Supreme Court of the United States Court).

The combustion turbine is subject to 40 CFR Part 60, Subpart TTTTa because it will commence construction after May 23, 2023, has a base load rating greater than 250 MMBtu/hr, and will serve a generator capable of selling more than 25 MW of electricity to the grid. Subpart TTTTa establishes CO_2 emission standards that vary based on the unit's operational load. The specific CO_2 emission limits are as follows:

- Base load: 1,030 - 1,430 pounds of CO2 per gross MWh
- Intermediate load: 1,170 - 1,560 pounds of CO2 per gross MWh
- Low load: 133 - 149 pounds of CO2 per MMBtu

However, on June 11, 2025, the U.S. Environmental Protection Agency (EPA) proposed a rule to repeal Subpart TTTTa. As the final outcome of this proposal is pending, the specific regulation that will apply to the Project will be determined by the rule's status when the final air permit is issued. If Subpart TTTTa is repealed, the Project would become subject to 40 CFR Part 60, Subpart TTTT, which establishes a CO2 limitation of 120 lb CO2/MMBtu for a peaking combustion turbine firing natural gas. The Proposed Action will comply with the requirements of either Subpart TTTTa or Subpart TTTT, whichever is in effect at the time the final air permit is issued. In either case, PowerSouth will be required to begin tracking emissions within 180 days of commercial operation and comply with all applicable monitoring, recordkeeping, and reporting provisions.

NESHAP are contained in 40 CFR Part 63. NESHAP are emissions standards set by the EPA for specific source categories that are classified as major sources of hazardous air pollutant ("HAP") emissions. The NESHAP requires the maximum degree of emission reduction of certain HAP emissions that the EPA determines to be achievable, which is known as the MACT standards.

Under the maximum annual emissions operating scenario, the LEC site would become a major source of HAPs. As a result of the Proposed Action, facility-wide HAP emissions of formaldehyde would exceed the 10-tpy threshold for any single HAP (however, the LEC's facility-wide combined HAP emissions will stay below the 25 tpy threshold at 24.2 tpy combined HAPs). Therefore, the facility would be subject to MACT standard Subpart YYYY: National Emission Standards for HAPs for Stationary Combustion Turbines.

The acid rain provisions of the CAA Amendments are specified in 40 CFR Part 72 through 78. The requirements are applicable to utilities and other facilities that combust fossil fuel and generate electricity for wholesale or retail sale. Often referred to as the Acid Rain Program, the program establishes the reduction of emissions of acid rain forming pollutants, specifically, SO_2 and NO_X emissions.

The NGCT will be subject to the Acid Rain Program because the NGCT is considered a utility unit under the program definition and does not meet the exemptions listed in 40 CFR 72.6(b). The Acid Rain Program requires that the Project hold allowances for SO_2 per 40 CFR 72.9(c)(1) and conduct recordkeeping and reporting per 72.9(f). The continuous emission monitoring requirements of 40 CFR Part 75 establish requirements for the monitoring, recordkeeping, and reporting of SO_2, NO_X, and CO_2 per 40 CFR Part 75.1(a).

3.9.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to air quality at or in the vicinity of the Proposed Action because no construction or operation would occur. However, there will still be a need for power capacity that will be obtained elsewhere, likely from existing fossil-fueled sources or new PPAs with fossil-fueled sources.

3.9.3 Mitigation

Construction activities will have air emissions but are anticipated to be minimal outside of the construction areas and are temporary in nature. The majority of the construction emissions will be from fugitive sources and construction equipment. Fugitive dust control measures could include, but are not limited to, the following:

- Applications of water;
- Paving or watering of roadways after completion of grading;
- Reduction in speed on unpaved roadways to 15 miles per hour or less; and
- Seeding of areas within 30 days of final grading establishment

For operations, the air emissions calculations have determined that the Proposed Action will require a Part 70 Major Source operating permit. All equipment will meet all applicable NAAQS, NSPS, and NESHAP limits. The Proposed Action will include an SCR system to control NO_X emissions and an oxidation catalyst to control CO and VOC emissions. Good combustion practices as specified by the manufacturer such as maintaining proper temperature and pressure, fuel to air ratios, excess oxygen, etc. to avoid incomplete combustion byproducts and the use of pipeline quality natural gas will mitigate emissions of SO_2, PM_{10} and $PM_{2.5}$. PowerSouth submitted an air permit application for the Proposed Action on August 5, 2025, to the ADEM and will adhere to the conditions and requirements of the issued permit during operation of the Proposed Action.

3.10 Noise

3.10.1 Affected Environment

The LEC is in Washington County, Alabama, near the town of Leroy and 1.75 miles southwest from the City of Jackson. The LEC is surrounded by woodlands, a railroad line, and the Tombigbee River. Based on aerial imagery, the nearest residences are located approximately 0.75 miles from the proposed construction activity and Proposed Action equipment that were included in the Sound Study (Appendix G). Primary existing noise sources in the area are expected to include railroad activity, traffic from Highway 177, industrial activity from the existing LEC and nearby Packaging Corporation of America facility, and nighttime insect noise.

Noise Regulations

The area immediately surrounding the LEC is unincorporated industrial and woodland. There are privately owned, wooded properties to the north, south, and west of the LEC property and industrial facilities to the east of the LEC beyond the Tombigbee River.

Applicable Federal, state, county, and municipal noise ordinances were reviewed for the surrounding area. The Proposed Action is outside of any municipality, and the State of Alabama and Washington County do not have noise ordinances with applicable numerical sound level limits.

3.10.2 Environmental Consequences

The following sections summarize potential environmental consequences of the Proposed Action Alternatives and No Action Alternative related to noise.

3.10.2.1 Proposed Action Alternative

Construction

Proposed Action construction would result in temporary and minor noise impacts to the surrounding area. Construction-related sounds would vary in intensity and duration depending on specific stages and activities of construction but would not be permanent. Nearby residences (nearest residence is approximately three-fourths mile away) may temporarily experience increased noise during construction.

Construction of the Proposed Action is expected to last approximately 30 months and will involve LEC preparation, excavation, and installation of concrete foundations and other typical industrial construction practices. Construction schedules are anticipated to be able to construct up to a 7-day per week 24-hours per day schedule in order to minimize the length of calendar time that temporary construction impacts affect the area. There are certain operations that, due to their nature or scope, must be accomplished in part outside typical working hours. Such work generally consists of activities that must occur continuously, once beginning (such as pouring concrete foundations).

The impacts that various construction-related activities might have will vary considerably based on proximity to the property line. Generic sound data ranges are available for various types of equipment at certain distances. Table 3-8 lists generic activities and their minimum and maximum instantaneous sound levels at 50 feet.

Table 3-8: Typical Construction Equipment Noise Levels in A weighted decibel ("dBA")

Generic Construction Equipment	Maximum Noise Level at 50 feet (dBA)
Backhoes	78
Compactor	83
Compressors	78
Concrete Mixers	79
Concrete Saw	90
Cranes (movable)	81
Dozers	82
Excavator	81
Front Loaders	79
Generators	81
Graders	85
Jack Hammers and Rock Drills	89
Pile Driver	101
Pumps	81
Scrapers	84
Trucks	79

Source: Federal Highway Administration, Highway Construction Noise (FHA, 2006).

The types of equipment listed in the table above may be used at various times and for various amounts of time. Construction at the LEC may involve driving piles. Equipment noise will be addressed during construction, and sound dampening material may be used if necessary. Most activities will not occur at the same time. There will be periods when concrete needs to dry and no construction occurs. Sound levels are expected to be quieter for areas where activities are occurring at distances greater than 50 feet from the property line.

Noise from construction is expected to be localized and temporary. The actual noise levels generated by construction will vary on a daily and hourly basis, depending on the activity that is occurring, and the types and number of pieces of equipment that are operating. Noise resulting from construction will vary with equipment type and age, type of work being done, distance from receptor, and meteorological conditions. It is expected that most construction will be done during the daytime when receptors are less sensitive to noise and that the noise will be intermittent. Any excessive construction noise should be of short duration and have minimal adverse long-term effects on land uses or activities associated with the LEC area.

Operation

A noise study was completed for the LEC's anticipated operational sound levels based on the NGCT's expected noise profile. The noise study is provided in Appendix G and includes acoustic modeling for the Proposed Action.

The NGCT could operate day or night. Base operational sound levels for the LEC indicated that the NGCT had potential for noise impacts at the surrounding residential receptors. A mitigation option, including a low-noise silencer and a low-noise air-cooled heat exchanger, was added into the acoustic design for the NGCT to reduce sound levels off-site. As currently designed, the NGCT may be audible during periods of low traffic but should align closely with the expected existing industrial environment surrounding the area. Sound levels for the NGCT at the noise sensitive areas (NSAs) are provided in Table 3-9 below. There are no limits in the area to comply with and predicted mitigated sound levels are expected to be generally consistent with the existing ambient environment.

Table 3-9: NGCT Operational Sound Levels

Receptor Location	Predicted Base Package Sound Levels (dBA)	Predicted Mitigated Design Sound Levels (dBA)
NSA1	58	51
NSA2	51	47

3.10.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to noise at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.10.3 Mitigation

Sound mitigation measures, including an upgraded exhaust stack silencer and low-noise air-cooled heat exchanger have been included on the acoustic design for the NGCT. Additional mitigation to the NGCT has not been considered since there are no applicable noise limits for the LEC. Occupational Safety and Health Administration (OSHA) standards will be met on-site. Details of any additional optional mitigation measures are to be determined, but stack silencers are expected to be utilized to reduce impacts to the surrounding properties.

3.11 Transportation

3.11.1 Affected Environment

The LEC is bordered at its western boundary by County Road (CR) 34, a two-lane, asphalt-paved road that extends from Carson Road to provide access to agricultural and residential properties. The LEC is located at the eastern terminus point of the road and is constrained to the east by the Tombigbee River. No annual average daily traffic (AADT) data is available for CR 34, but it can be assumed that daily travel is relatively low, limited to accessing the LEC and the few residences on CR 34. To the north, the LEC is bordered by a railroad owned

and operated by the Norfolk Southern Railway Company (NS). The NS railroad is a class 1 railroad that operates throughout the southeastern US. The segment of the railroad adjacent to the LEC connects the southern portion of AL to the remainder of the NS rail system. This railway terminates in Mobile, AL, approximately 55 miles south of the LEC.

The proposed 230-kV transmission line right-of-way will start at the LEC, cross CR 34 to the north, co-locate along an existing utility easement, cross US Highway 43 (Jefferson Davis Highway) to the north, until interconnecting with the existing APCo transmission line right-of-way. The proposed reconductoring of the existing 115-kV transmission line will start east of the Tombigbee River near Bassett Creek. The existing transmission line right-of-way spans the following roads across Clarke and Monroe Counties, AL: Rockville Rd, Gainestown Rd (CR 2), Perrys Chapel Rd, CR 29, Walker Springs Rd (CR 29), CR 1, and Eureka Landing Rd. Existing traffic volumes could not be determined based on publicly available data sources. Figures depicting major roadways and transportation routes are included in Appendix B.

3.11.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to transportation.

3.11.2.1 Proposed Action Alternative

Generally, traffic volumes in and around the Project Area will increase during construction periods for the Proposed Action. Existing highways and county roads will be used for access to the Project Area throughout construction. Within the LEC, an access road will be constructed for use as the primary construction access road. Traffic will include equipment and material deliveries and the construction labor force. The frequency of onsite vehicular traffic will be proportionate to the onsite construction labor projections. Large equipment for the construction of the NGCT will be transported and delivered via the NS railroad within the fence line of the LEC. This will limit traffic slowdowns and hazards during construction due to large vehicle deliveries. There is controlled access to the LEC from CR 34. The nearest residences are approximately 3 miles southwest of the LEC off Powell Farm Rd in Carson, Alabama. Vehicular traffic heading to the LEC and/or the southern end of the proposed 230-kV transmission line right-of-way would primarily be use CR 34, minimizing the effects on traffic patterns around residential areas.

Temporary access roads will be constructed within the proposed 230-kV transmission line right-of-way and the existing 115-kV transmission line right-of-way to deliver materials throughout construction. PowerSouth intends to use existing infrastructure for staging areas and temporary laydown yards to minimize effects to traffic patterns in the vicinity of the Project. Although additional vehicular traffic will result from the construction of the Proposed Action, the effects would be minimal and temporary.

The FAA requires notice for any construction or alteration meeting criteria listed in 14 CFR Part 77.9 to promote air safety and the efficient use of air space. Based on the FAA's Notice Criteria Tool, which provides a preliminary determination of Part 77 notice applicability,

several permanent features of the Project require FAA notice, including the NCGT stack, certain power plant equipment, and the transmission line structures. FAA Notification for the NGCT stack (approximately 180 feet) was submitted based on the current, preliminary design (Aeronautical Study Number 2025-ASO-24063-OE). On December 22, 2025, the FAA's Obstructions Evaluation Group initiated further study of the NCGT stack, which includes a notification and comment period of 37 business days. If the FAA does not receive any valid objections during the comment period, then a favorable determination with lighting and/or marking requirements will be issued by the FAA. PowerSouth has not received notice of any comments to this further study to date and will comply with the FAA's lighting and/or marking requirements as determined by the study. Once transmission line structure heights and locations are known, the FAA Notice Criteria will be used to determine if notice to the FAA is needed.

During project execution, various equipment will be utilized to manage the project site, erect major equipment, and access equipment at height. Some of this equipment will exceed the height threshold for FAA Notification for temporary obstructions. Such equipment will include cranes, mobile cranes, rigs, and mobile construction equipment. Appropriate FAA Notifications will be submitted prior to utilizing equipment at the LEC that exceeds the Notification height threshold.

3.11.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts to transportation at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.11.3 Mitigation

As construction and operation of the Proposed Action will have only temporary impacts on transportation, no mitigation measures are planned. Existing roads damaged by construction traffic will be repaired once construction is complete. Plans to control traffic during peak times may be required. PowerSouth will coordinate the proper construction signage near LEC access points on the roads used by construction vehicles to make drivers aware of the increased hazards associated with the construction vehicle(s) presence. PowerSouth intends to coordinate with NS to receive all necessary permits for use of their existing easement and installation of an overhead utility line prior to construction of the proposed 230-kV transmission line.

3.12 Human Health and Safety

3.12.1 Affected Environment

Two potential human health and safety concerns associated with the Proposed Action are to be considered: electromagnetic fields (EMF) and risk management associated with hazardous materials.

The affected environment for EMF includes the corridors associated with new and existing electrical infrastructure for the Proposed Action and its connected actions. This area encompasses a new approximate 3.5-mile right-of-way to be established for the new 230-kV transmission line. It also includes the existing rights-of-way for approximately 16 miles of PowerSouth's 115-kV line and several of Alabama Power Company's transmission lines, all of which will be reconductored. These corridors are located throughout Washington, Clarke, and Monroe Counties, Alabama, and represent the areas where changes to the EMF environment could occur.

PowerSouth will utilize their existing infrastructure and previously developed areas, specifically the existing LEC, for the Project. There are several risks to human health and safety present throughout the operation of a power generation plant including hazards such as fire, slips, trips, falls, electrical hazards, confined space entry, and many others. Additionally, hazardous substances or waste may be released, generated, or required for routine operation of the LEC. Examples may include the use and storage of fuels, lubricating oils, chemicals, and other materials that may be considered hazardous.

3.12.2 Environmental Consequences

The following sections summarize potential environmental consequences of the proposed Action Alternatives and No Action Alternative related to transportation.

3.12.2.1 Proposed Action Alternative

EMF will be strongest directly under a transmission line and will decrease with increasing distance from the right-of-way. The Proposed Action includes the construction of just under 7 miles of new overhead transmission lines and additions to the on-site substation, which will introduce a new source of EMF. Additionally, approximately 16 miles of an existing 115-kV transmission line will have a reconductor upgrade.

During construction, the LEC will be managed to prevent harm to the public. The public will not be allowed to enter any construction areas associated with the Proposed Action. The primary risk to the public would arise from an increase in traffic volume on the roadways near the Project Area resulting from an influx of commuting construction workers and transportation of equipment and materials. However, as noted in Section 3.11 of this EA, transportation effects would be minimal due to the alternative construction material delivery methods and controlled access roads.

Construction and operation of the NGCT will also involve the use and storage of regulated and hazardous materials. During construction, diesel fuel, gasoline, and lubricating oils from heavy equipment and vehicles may accidentally leak or spill. Hydraulic fluid, paints, and solvents will likely be used during the construction phase as well. The presence of aboveground fuel storage tanks and oil-filled equipment present the potential to release into the environment. Construction activities would not be anticipated to result in adverse effects to the health and human safety of the public.

3.12.2.2 No Action Alternative

The No Action Alternative would have no short- or long-term impacts on human health or safety at or in the vicinity of the Proposed Action because no construction or operation would occur.

3.12.3 Mitigation

A safety briefing will be required for employees and contractors. Adequate training for human health and safety concerns will be mandatory for all construction workers on the Project Site. Personal safety equipment such as hard hats, ear and eye protection, and safety boots will be required for all workers onsite. Accidents and injuries will be reported to the designated safety officer onsite.

During construction and operation, all used oil generated at the proposed Project Site and other potentially hazardous materials (automotive fluids, spray paint cans, etc.) will be collected and properly handled by a licensed/permitted recycler.

Construction-related hazards will be effectively mitigated by complying with all applicable federal and state occupational safety and health standards, applicable National Electrical Safety Code regulations, and utility design and safety standards.

Proper risk management can reduce human health and safety concerns from the presence of hazardous materials. To reduce the potential for a release of regulated or hazardous materials during the construction phase of the Proposed Action, work will be planned and performed in accordance with OSHA standards and protocols addressing the use of potentially hazardous materials and applicable federal and state environmental regulations. If a hazardous release were to occur, emergency response, cleanup, management, and disposal of contaminated soils will be conducted according to EPA and state standards. Conformance to these standards and procedures will reduce the potential for significant impacts resulting from the release of hazardous materials during the construction phase.

3.13 Summary of Impacts

A summary of potential effects by Alternative is shown in Table 3-10 below.

Table 3-10: Summary of Potential Effects

Resource	Effects from Proposed Action	No Action Alternative
Land Use	There will be no effect on land use resulting from construction of the NGCT facility at the LEC nor reconductoring of the existing 115-kV transmission line since both are actively used for power generation and transmission by PowerSouth. There will be minimal effects on land use resulting from construction of the proposed 230-kV transmission line. Forested wetlands will be converted to emergent wetlands using sensitive vegetative clearing techniques, but root systems and stumps will remain intact. Trees will be removed in forested areas to create the proposed transmission line ROW.	No unique effects anticipated for this alternative.
Formally Classified Lands	No direct effects are anticipated. The existing 115-kV transmission line spans a USACE recreation management area, and reconductoring of the 115-kV transmission line is not anticipated to have any effect on the area.	No unique effects anticipated for this alternative.
Geology and Soils	The Proposed Action will result in minimal to no effects on geology and soils. Construction activities for the Proposed Action will predominantly be confined to existing infrastructure. Where new clearing is necessary, sensitive vegetative clearing techniques will be used to prevent soil disturbance. During construction, exposure of bare soil will be minimized to the extent possible and proper BMPs will be in place to manage erosion and sediment. There are no anticipated effects to the geology of the Project Area.	No unique effects anticipated for this alternative.
Farmland	Farming activities within the limits of disturbance for the proposed 230-kV transmission line and the existing 115-kV transmission line may be temporarily affected due to construction activities, however, long-term effects are not anticipated.	No unique effects anticipated for this alternative.
Wetlands and Waterbodies	Construction and operation for the NGCT and reconductoring of the existing 115-kV transmission line will have no effect on wetlands or riparian features. The existing 115-kV transmission line spans a Section 10 water, however, the reconductoring will be designed to minimize change in sag of the overhead line as compared to the current transmission line. Coordination with the USACE, including a PCN and pre-application meeting will be completed for the existing 115-kV transmission line. Construction of the proposed 230-kV transmission line will result in temporary impacts to forested wetlands. Conversion of forested wetlands to emergent wetlands is not regulated by USACE, and, as such, this project will qualify for a non-notifying NWP 57.	No unique effects anticipated for this alternative.

Resource	Effects from Proposed Action	No Action Alternative
Floodplains	The Proposed Action overlaps with 100-year floodplains, however, the nature of the Project is unlikely to have any effect on the base flood elevation. No effects are anticipated.	No unique effects anticipated for this alternative.
Water Resources	There are no anticipated effects to surface water because of the Proposed Action. During construction, PowerSouth will implement CBMPP and follow ADEM guidance for stormwater and nonpoint source pollution prevention. The Project Site overlies the Miocene-Pliocene aquifer; however, no sole source aquifers underlie the area. Groundwater will not be used to provide water supply for the Proposed Action. BMPs, including material handling, will be in place throughout construction to prevent groundwater leaching of hazardous materials. Facility waste streams from the Proposed Action will be directed to onsite septic systems. Process water from the Proposed Action and stormwater will be discharged to an onsite settling pond.	No unique effects anticipated for this alternative.
Coastal Resources	The Project Area is outside of the coastal management zone. As such, no effects are anticipated.	N/A
Biological Resources	The Proposed Action will not result in significant effects to biological resources including vegetation and wildlife. Construction activities for the Proposed Action will predominantly be confined to existing infrastructure. Where new clearing is necessary, sensitive vegetative clearing techniques and BMPs will be used to prevent effects on biological resources.	No unique effects anticipated for this alternative.
Cultural Resources	Based on the distance from any listed NRHP properties and the concurrence received from SHPO that no historic properties would be affected, it is anticipated that the Proposed Action would not have adverse impacts on cultural resources.	No unique effects anticipated for this alternative.
Visual Resources and Aesthetics	The aesthetics of the surrounding area would be minimally altered by the Proposed Action. A new NGCT facility on-site will cause a slight increase in light emission at the LEC. Reconductoring of the existing 115-kV transmission line ROW will not result in effects to the aesthetics because all construction activities will be confined to the existing transmission line ROW, and all transmission line poles to be upgraded will be replaced in their current location. The proposed 230-kV transmission line construction and operation will result in reduced forest cover, however, due to the distance of the proposed transmission line from homes and businesses, it is unlikely that significant effect will be noticed by the public.	No unique effects anticipated for this alternative.
Air Quality	The existing air quality in the Washington County area is designated as in attainment in regard to the NAAQS for all criteria pollutants. Construction of the Proposed Action will generate air emissions that are low and temporary in nature and will not lead to long-term impacts. For operations, the air emissions calculations have determined that the Proposed Action is	No unique effects anticipated for this alternative.

Resource	Effects from Proposed Action	No Action Alternative
	considered a major PSD source and will require a modification to LEC's existing Part 70 Major Source operating permit. It is anticipated that the Proposed Action would not affect the attainment status for Washington County. PowerSouth would comply with the issued ADEM construction air permit that would include emission limitations, monitoring requirements, and other terms and conditions.	
Noise	Proposed Action construction would result in temporary and minor noise impacts in the surrounding area. Construction-related sounds would vary in intensity and duration depending on specific stages and activities of construction but would not be permanent. Nearby residences may temporarily experience increased noise during construction. Minor temporary disturbances to wildlife could occur. A preliminary noise study was conducted. The results of this study showed noise levels are likely to have low to moderate adverse effects on nearby neighbors.	No unique effects anticipated for this alternative.
Transportation	During the construction phase, a temporary increase in daily automobile traffic is expected. Traffic volumes will rise as activities begin, reach their highest point during peak construction, and then gradually decrease back to normal operational levels as the project nears completion and operation of the Proposed Action. No permanent changes to existing roads are anticipated as part of this Proposed Action. No permanent damage to roads is anticipated with the implementation of mitigation measures.	No unique effects anticipated for this alternative.

Resource	Effects from Proposed Action	No Action Alternative
Infrastructure, Transportation, Public Health and Safety, and Hazardous Materials	Outages would be required to update the transmission line and to allow for interconnection of the new transmission line onsite. Electric outages would also be required for the reconductoring of the existing transmission line. Despite outages being likely, customers should not experience lapses in service due to the deployment of back feeding stations and other lines. There is controlled and restricted access to the LEC via CR 34. Most construction access roads for the entire Project Area will be confined within the LEC or existing PowerSouth easements. For construction of the proposed 230-kV transmission line, temporary access roads to the construction workspace from public roads or highways would be controlled to prevent access to the public. Existing healthcare facilities are anticipated to be sufficient for the Proposed Action during construction and operation, and no necessary improvements are anticipated. The Proposed Action would have fire suppression measures of its own, as well as facilities for the storage of hazardous materials. No fire department improvements are anticipated. If necessary, police protection would be provided by the Washington County Sherriff's Department during both construction and operations, and no improvements are anticipated. Local waste disposal and sanitation facilities are not anticipated to be adversely affected by the additional waste streams generated during construction and operation of the Proposed Action. No additional solid waste would be generated by the Proposed Action as byproducts from the production of electricity.	No unique effects anticipated for this alternative.

4.0 Summary of Mitigation

The following Table 4-1 is a summary of mitigation proposed for the Proposed Action by resource.

Table 4-1: Summary of Required Mitigation Measures

Resource	Potential Environmental Consequences	Mitigation Measures Required	Intensity of Residual Effects
Land Use, Formally Classified Lands, Geology, Soils, and Farmland	Land use across the Project Area is not anticipated to significantly change due to most work occurring within existing infrastructure. During construction of the proposed 230-kV transmission line and reconductoring of the existing 115-kV transmission line, land use may be temporarily affected, however, long-term effects are not anticipated.	No mitigation measures are anticipated	Minimal
Floodplain	Construction of the proposed 230-kV transmission line and reconductoring of the existing 115-kV transmission line will occur within floodplains, however, due to the nature of the Project, no permanent effects are anticipated.	No mitigation measures are anticipated	None
Wetlands and Waterbodies	Impacts to jurisdictional WOTUS will be temporary in nature. BMPs will be implemented and fill in wetlands will be minimized to the extent practicable.	BMPs will be implemented during construction. Sensitive vegetation clearing techniques will be employed during construction of the proposed 230-kV ROW. No other mitigation measures are anticipated.	Low
Water Resources	Water supply to the LEC will continue to be supplied via the Tombigbee River. There will be no significant change to water supply compared to the existing LEC.	No mitigation measures are anticipated.	None
	Soil erosion and stormwater runoff into nearby streams and rivers may impact waterways during construction.	Before construction activities commence, appropriate state permits will be applied for and proper BMPs will be designed and implemented in accordance with ADEM regulations to prevent impacts to water resources.	Minimal
	The Proposed Action will discharge process water and stormwater to an onsite process waste pond. The outfall from the settling pond will be discharged as needed to the Tombigbee River via a permitted outfall.	No mitigation measures are anticipated.	None

Resource	Potential Environmental Consequences	Mitigation Measures Required	Intensity of Residual Effects
Threatened and Endangered Species	The Proposed Action may affect but is not likely to adversely affect any ESA listed species or critical habitat.	All necessary BMPs will be implemented to avoid impacts to ESA listed species. This includes limiting tree clearing activities to the inactive bat seasons, utilizing BMPs to protect water resources, and contract agreements to protect snakes that may be encountered within the Project Area during the construction.	Minimal
	Potential bird strikes on transmission lines may occur.	Bald eagles and other migratory birds may occur within the Project Area. However, no known concentration of nesting was found. The Project Area is not located within a major migratory flyway.	None
	During construction, noise and activity may temporarily drive wildlife out of the area immediately surrounding the Project Site.	No mitigation is needed. After construction ends, wildlife will return.	Minimal
Vegetation	Forested wetlands will be converted to emergent wetlands during construction of the proposed 230-kV transmission line. Root systems will not be disturbed, and stumps will be left in place to mitigate for long-term effects.	Sensitive vegetative clearing techniques will be used to minimize effects to vegetation communities.	Minimal
	It is not expected that LEC construction related disturbances will provide an opportunity for the establishment of invasive species as the area will not be conducive to the growth of vegetation. Construction activities will not introduce or spread invasive species in the area.	No mitigation measures are anticipated.	None
Historical and Cultural Properties	Construction within the Project Area will largely be confined to previously disturbed areas. No NHRP eligible sites or resources were found during cultural resource surveys.	No mitigation measures are anticipated. The Unanticipated Discovery Plan and the Choctaw Nation of Oklahoma Inadvertent Discovery Clause will be added to all contracts for the Proposed Action.	None

Resource	Potential Environmental Consequences	Mitigation Measures Required	Intensity of Residual Effects
Aesthetics	There will be minimal effects on aesthetics due to the majority of the Proposed Action occurring within previously disturbed areas and currently active industrial areas. There is limited visibility or access available to the public. Construction of the proposed 230-kV transmission line will remove trees and introduce new infrastructure to previously undisturbed areas, however, due to the presence of tree cover surrounding the proposed transmission line and co-location with existing utility easements, effects are anticipated to be minimal.	General landscaping and maintaining existing tree line buffer will be used where practical. No other mitigation measures are anticipated.	Minimal
Air Quality	Air emissions from construction are low and temporary in nature and will fall off rapidly with distance from the LEC construction. Emissions from construction activities can be difficult to quantify, as they are dependent on the number and type of construction vehicles in operation at any given point during construction, the number of construction workers driving to and from the Project Site, and the number and type of construction activities occurring, etc. Construction of the Proposed Action will not result in any long-term impacts.	Fugitive dust control measures will include, but are not limited to, the following applications of water, paving or watering of roadways after completion of grading, and reduction in speed on unpaved roadways to 15 miles per hour or less. Construction equipment will be properly maintained. Seeding of areas within 30 days of final grading establishment. No other mitigation is anticipated.	Minimal
	Emissions will occur from operation of the Proposed Action.	Air emission calculations have determined that the Proposed Action will be permitted as a PSD Major Modification. All equipment will meet the applicable NAAQS, NSPS and NESHAP limits. The Proposed Action will include an SCR system to control NO_X emissions and an oxidation catalyst to control CO and VOC emissions. Good combustion practices as specified by the manufacturer such as maintaining proper temperature and pressure, fuel to air ratios, excess oxygen, etc. to avoid incomplete combustion byproducts and the use of pipeline quality natural gas will mitigate emissions of SO_2, PM_{10} and $PM_{2.5}$. PowerSouth will comply with the requirements in the air construction permit, once received. A Title V operating permit modification will be applied for within 12 months after the commercial operation date.	Low

Resource	Potential Environmental Consequences	Mitigation Measures Required	Intensity of Residual Effects
Noise	Noise will be produced from the construction equipment and activities. Actual noise levels generated by construction will vary on a daily and hourly basis, depending on the activity that is occurring, and the types and number of pieces of equipment that are operating.	Any excessive construction noise should be of short duration and have minimal adverse long-term effects on land uses or activities associated with the Project Area.	Minimal
	Noise will be produced from the operation of the Proposed Action.	Sound mitigation measures will be included in the base design of the Proposed Action including low noise emitting equipment and stack silencers. Details of these measures will be determined as the Proposed Action proceeds.	Low
Transportation	Construction of the Proposed Action will cause a temporary increase of traffic in and around the Project Area.	As construction and operation of the Proposed Action will have only temporary impacts on transportation, no mitigation measures are anticipated.	Minimal
	Damage to existing roads during construction.	Roadways will not be purposefully damaged. In the event this does occur, repairs for damage caused by construction activities will be made when appropriate.	Minimal
Human Health and Safety	EMF will be strongest directly under the transmission line and decreases with increasing distance from the transmission line interconnection. The Proposed Action is not anticipated to significantly increase the existing EMF levels in the current transmission corridor. However, new EMF will be introduced in the new, 3.5-mile ROW for the 230-kV lines.	No mitigation necessary.	Minimal
	During construction, the site will be managed to prevent harm to the general public. The general public will not be allowed to enter any construction areas associated with the Proposed Action. The major risk to the general public will be from an increase in traffic volume on the roadways near the Project Site as a result of commuting construction workers and transportation of equipment and materials.	Perimeter fences and controlled access will remain in place throughout the construction and future operation of the Proposed Action. Increases in traffic will be temporary in nature and following construction will return to typical levels for the area.	Minimal

Resource	Potential Environmental Consequences	Mitigation Measures Required	Intensity of Residual Effects
	There are a number of risks to human health and safety possible in the course of constructing and operating a power plant including hazards such as fire, slips, trips, falls, electrical hazards, confined space entry, and many others. Additionally, hazardous substances or wastes may be released, generated, or required for construction and operation of the Facility.	A safety briefing will be required for employees and contractors. Adequate training for human health and safety concerns will be mandatory for all construction workers in the Project Area. Personal safety equipment such as hard hats, ear and eye protection, and safety boots will be required for all workers onsite. Accidents and injuries will be reported to the designated safety officer onsite.	Minimal
	Construction and operation of the Proposed Action will also involve the use and storage of regulated and hazardous materials. During construction, diesel fuel, gasoline, and lubricating oils from heavy equipment and vehicles may accidentally leak or spill. Hydraulic fluid, paints, and solvents will likely be used during the construction phase as well. Additionally, the presence of aboveground fuel storage tanks and oil-filled equipment present the potential to release into the environment.	Proper risk management can reduce human health and safety concerns from the presence of hazardous materials. To reduce the potential for a release of regulated or hazardous materials during the construction phase of the Proposed Action, work will be planned and performed in accordance with OSHA standards and protocols addressing the use of potentially hazardous materials and applicable federal and state environmental regulations. If a hazardous release were to occur, emergency response, cleanup, management, and disposal of contaminated soils will be conducted according to EPA and state standards. Conformance to these standards and procedures will reduce the potential for significant impacts resulting from the release of hazardous materials during the construction phase.	Minimal

5.0 Coordination, Consultation, and Correspondence

The following sections detail the agency and tribal coordination efforts completed for the Proposed Action and public involvement plan.

Agency Consultation Letters were sent to agencies to inform agency contacts that PowerSouth had engaged RUS and was requesting financing for the Proposed Action. The letter provided a description of the Proposed Action and explained that the action triggers an EA. The agencies were provided with this information on the Proposed Action as an opportunity to ask questions and provide initial feedback. Agency correspondence is provided in Appendix F. Table 5-1 provides a list of agencies who received letters. Additional phone calls and meetings were conducted as needed with various agencies. These contacts were to conduct preliminary permitting outreach and to receive guidance on how to proceed with the Proposed Action.

Table 5-1: RUS Consultation Letter Distribution

	Agency	Date(s)	Contact	Response
Federal	USACE	November 17, 2025	Philip Hegji, Mobile District	On December 11, 2025, Philip Hegji responded to PowerSouth's consultation request with no objection to the Proposed Action.
	NRCS	November 17, 2025	D'Andre Yancey NRCS - AL State Office	On December 10, 2025, D'Andre Yancey responded to PowerSouth's consultation request with no objection to the Proposed Action due to NRCS's interpretation that the Proposed Project area is exempt from the Farmland Protection Policy Act.
	USFWS	November 17, 2025	William Pearson	On December 8, 2025, William Pearson responded to PowerSouth's consultation request with recommended best practices and notification requirements for the three individual IPaCs submitted for the Proposed Action.
	FAA	November 21, 2025	OE/AAA Web Portal, Chris Smith	On December 22, 2025, FAA's Obstruction Evaluation Group initiated further evaluation of the proposed 180-foot stack. This evaluation includes a notice period of 37 business days. Chris Smith, Aeronautical Information Specialist, indicated that if no valid objections are received within the 37-day period, FAA will issue a favorable determination with lighting and/or marking requirements for the 180-foot stack.
Local	Washington County	October 15, 2025	Daniel Overton	On October 28, 2025, Mr. Daniel Overton, Washington County Engineer, responded to PowerSouth's consultation request with no objection to the Proposed Action.

5.1 Agency Consultation

5.1.1 Permitting

Appendix H provides the Federal, State, and local permits and approvals anticipated to be required for the Proposed Action. The table includes permits that are related to the overall Proposed Action, including permits that are the responsibility of entities other than PowerSouth.

5.2 Tribal Coordination

On September 22, 2025, Section 106 Initiation Letters that provided preliminary details of the Proposed Action were provided to RUS for coordination with the tribes listed below.

- Alabama-Coushatta Tribe of Texas
- Alabama-Quassarte Tribal Town
- Choctaw Nation of Oklahoma
- Coushatta Tribe of Louisianna
- Mississippi Band of Choctaw Indians
- Muscogee (Creek) Nation
- Seminole Tribe of Florida

RUS Section 106 Findings Letters containing further details about the Proposed Action were mailed to the tribes listed above on November 20, 2025. The 30-day timeline for the second round of letters will conclude on December 20, 2025.

The Choctaw Nation of Oklahoma requested additional project information on December 6, 2025, and RUS responded on December 11, 2025. On January 8, 2026, the Choctaw Nation of Oklahoma requested the following Inadvertent Discovery Clause be included in all permits and contracts:

In the event that ground-disturbing work uncovers significant archaeological materials, such as stone arrowheads, ceramics, or early building foundations, or if work uncovers human burials or human remains, ground disturbing activities will immediately be stopped within a 300-foot radius and the materials protected. The State Historic Preservation Officer and the Choctaw Nation Historic Preservation Department will be contacted as soon as possible and given an opportunity to provide input before construction resumes.

If any archaeological or cultural materials are discovered during the project undertaking, neither the construction team nor the applicant will disclose this information to the public or the media in any manner, including social media. Discoveries of archaeological and historic materials will be kept private and confidential.

No other responses were received.

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7.0 List of Preparers

The environmental review for the Proposed Action was prepared by RUS, PowerSouth, and Burns & McDonnell Engineering Company, Inc. The following is a list of preparers of this document.

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Appendix A – PowerSouth Power Supply Study

Appendix B – Figures and Maps

Appendix C – NEPAssist

Appendix D – Wetlands Reports

Appendix E – Threatened and Endangered Species Reports

Appendix F – Agency Correspondence

Appendix G – Noise Study

Appendix H – Permit Matrix