TECHNICAL MEMORANDUM
Summary of proposed Dresden – Talbot County 500 kV Transmission Line Project

DATE: April 21, 2025 (revised April 22, 2025)

SUBJECT: **Request for RUS NEPA Guidance under E.0. 14156**

TO: SUZANNE KOPICH
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FROM: CHRISTOPHER D. SMITH
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I. EMERGENCY JUSTIFICATION

GTC provides transmission capacity to the member system co-operatives (EMCs) through participation in the Georgia Integrated Transmission System (ITS), which consists of transmission facilities operated by GTC, Georgia Power Company, Municipal Electric Authority of Georgia - MEAG Power, and the City of Dalton Utilities. Parity in ownership of the ITS facilities depends on the load served by each of the owners. Although transmission lines and substations are constructed, owned, and maintained by individual ITS members, the ITS is jointly planned and operated as a single, integrated system.

The need for the Dresden – Talbot County 500 kV transmission line project was identified and confirmed during the 2022 Georgia Integrated Transmission System (ITS) screening process and currently has consensus support at the Transmission Project Working Group (TPWG) within the ITS with a needed in-service date of 6/1/2029. The TPWG is one of the joint committees within the ITS that plans expansion and modification projects to the integrated system.

In addition to building the Dresden – Talbot County 500 kV Transmission Line project, GTC will also need to modify the existing Dresden 500/230 kV Substation to create a new substation frame to terminate the proposed transmission line. The modification will require a fence expansion and grading activities for the expansion of the Dresden Substation. GTC will also need to construct the Talbot County 500/230 kV Substation on the south end of the

corridor. This facility will be adjacent to the existing Talbot County 230 kV Switching Station.

The initial purpose and need for the Dresden – Talbot County project results from changes in generation and evolving interregional flow patterns that are resulting in constraints on area transmission facilities. Since 2023, several existing 230 kV and 115 kV transmission lines will experience overload if contingency situations occur. The 'no action' alternative would result in operational limitations over a wide area of the state, resulting in abnormal configurations and increased generation curtailment risks for area generation sites.

Currently, the Atlanta Metropolitan Area as well as other regions in Georgia are experiencing the development of many artificial intelligence (AI) data centers, generating large electrical energy load requirements. This additional load growth has heightened the need for the Dresden – Talbot County to be completed by 6/1/2029 and exacerbated the effects of not meeting the project need date. To meet this aggressive need date, construction of this facility must begin by October 2025.

II. ROUTE SELECTION / SURVEYING:

The Dresden – Talbot County Transmission Line project team completed alternative corridor analysis utilizing the EPRI/GTC Siting Methodology. The team selected a preferred route on January 30, 2024. The preferred route crosses portions of Harris, Troup, Coweta, Meriwether, and Talbot Counties, GA.

Since that time the project team has centerlined the preferred route, identified potential off right-of-way access opportunities, informed EMCs with intersecting service territories of project specifications, notified elected officials, contacted property owners, acquired many survey permits, and conducted several public information meetings. There are approximately 222 landowners that the proposed Dresden – Talbot County transmission line route crosses. Survey activities for engineering design and right-of-way acquisition have begun. Environmental field studies have not begun to date.

Public Information Meetings:

Harris County Public Information Meeting

- Wednesday, October 2, 2024 6:00 PM-8:30 PM
- Ellerslie Depot, 4780 Harris Road, Ellerslie, GA 31807

Troup County Public Information Meeting

- Thursday, October 3, 2024 6:00 PM-8:30 PM
- Hogansville Public Library, 310 Johnson Street, Hogansville, GA 30230

Coweta County Public Information Meeting

- Tuesday, November 12, 2024 2:00 PM- 4:00 PM, 6:00 PM-8:30 PM
- Welcome Community Center, 1792 Welcome Road, Newnan, GA 30263

Meriwether County Public Information Meeting

- Friday, February 21, 2025 2:00 PM- 4:00 PM, 6:00 PM-8:30 PM
- R.D. Hill Multi-Purpose Center (Old Depot), 1224 Terrell Street, Greenville, GA 30222

Talbot County Public Information Meeting

- Tuesday, February 25, 2025 2:00 PM- 4:00 PM, 6:00 PM-8:30 PM
- Talbot County Chamber of Commerce, 12 East Madison Street, Talbotton, GA 31827

The mileage of the centerlined route for Dresden – Talbot County 500kV T/L is 66.59-Miles. Based on the current design, the project will require a 150-Foot right-of-way. This calculates to approximately 1200-Acres of transmission line right-of-way is estimated to be needed for the proposed project.

III. RUS GUIDANCE REQUEST

Due to the National Energy Emergency and Executive Order 14156 application to the Dresden – Talbot County 500 kV Transmission Line Project, how would RUS implement a NEPA review for a project with this scope and construction timing? Would RUS consider the Dresden – Talbot County 500 kV Transmission Line project has the potential to avoid significant impacts to the environment, therefore, allowing for a concise environmental assessment?

IV. LAND USE ANALYSIS

Currently, GTC has access to two land use datasets.

1.) The first dataset is the land use / land cover dataset created by Merrick & Co. to support the EPRI/GTC Siting Methodology. This dataset was developed by using aerial photography collected on January 28, 2023, specifically for the Dresden – Talbot County project.

2.) The second is the 2023 National Land Cover Database (NLCD) developed by the Multi-Resolution Land Cover Characteristics (MRLC) Consortium. MRLC is describe by their website as:

"The Multi-Resolution Land Characteristics (MRLC) Consortium is a group of federal agencies who coordinate and generate consistent and relevant land cover information at the national scale for a wide variety of environmental, land management, and modeling applications. The creation of this consortium has resulted in the mapping of the lower 48 United States, Hawaii, Alaska and Puerto Rico into a comprehensive land cover product termed, the National

Land Cover Database (NLCD), from decadal Landsat satellite imagery and other supplementary datasets. - https://www.mrlc.gov/"

By analyzing an estimated 150-Foot in width easement to the Siting Methodology Land Use / Land Cover data the acreages below were calculated.

Table 1 – Siting Methodology Land Use / Land Cover Dataset Acreages

LULC	Area (acres)
Forested	599
Hydrography	13
Open Land	147
Planted Pine	412
Recreational	0
Residential	2
Transportation	28
Utility ROW	11
Grand Total	**1211**

Similarly, by analyzing the 2023 National Land Use Database, the acreages below were calculated.

Table 2 – 2023 National Land Use Database Acreages

LULC	Area (acres)
Deciduous Forest	325
Developed, Low Intensity	6
Developed, Open Space	38
Evergreen Forest	475
Grassland/Herbaceous	63
Mixed Forest	87
Open Water	3
Pasture/Hay	105
Shrub/Scrub	62
Woody Wetlands	48
Grand Total	**1211**

Utilizing the land use / land cover dataset for the EPRI/GTC Siting Methodology, the amount of forest removal for the proposed transmission line route is estimated to be 1011-Acres.

Utilizing the land use from the National Land Use Database, the amount of forest removal by the proposed transmission line route is estimated to be 925-Acres.

V. FEDERAL AND STATE LANDS

Federal Lands

No U.S. Forest Service Land or Wild and Scenic Rivers are located within the project study area. Fort Benning (aka Fort Moore) is located approximately 2-miles south of the project study area. A small area of the U.S. Army Corps of Engineers (USACE) West Point Lake Project intersects the project study area to the west and is approximately 4.5-miles west of the proposed transmission line route. Two small tracts of land owned by the U.S. Fish and Wildlife Service (USFWS) associated with the Piedmont National Wildlife Refugee (NWR) and the USFWS Warm Springs National Fish Hatchery reside with the project study area. The Piedmont NWR tracts are approximately 1.25-miles to the east of the proposed transmission line route and the fish hatchery is approximately 0.2-miles from the proposed route.

The proposed route for the Dresden – Talbot County 500 kV transmission line project avoids crossing the USACE and USFWS lands. Therefore, the proposed project is not expected to affect federal lands.

State Lands

The following state lands are within the project study area:

- F.D.R. (Franklin Delano Roosevelt) State Park (State Heritage Area)
- Sprewell Bluff Wildlife Management Area
- Joe Kurz Wildlife Management Area (State Heritage Area)

The Little White House State Historic Site and Roosevelt Warm Springs Institute is within the project study area. This property is designated as a National Historic Landmark. This facility is approximately 1-mile from the proposed transmission line route.

The Georgia Forest Commission manages several privately owned properties

- Calloway
- Calloway No.2
- Diamond Drake
- Lumsden
- Jones Mill Pond

The proposed route for the Dresden – Talbot County 500 kV transmission line project avoids crossing the above state owned and state managed lands.

GTC has recently learned that the Georgia Department of Natural Resources (GA DNR) is proposing to purchase several large tracts in Talbot County that the proposed transmission line corridor will cross. GTC is actively working with the GA DNR and other stakeholders to determine the best route and strategies to minimize impacts to any resources within these tracts.

VI. FLOODPLAINS

Coweta, Troup, Meriwether, Talbot and Harris Counties are participating communities in the National Flood Insurance Program. FEMA floodplain was evaluated in a digital version of the Flood Insurance Rate Maps (FIRM) for these counties.

Except for the No Action Alternative, all potential alternatives, including the preferred Dresden – Talbot County route would cross FEMA designated floodplains. The proposed transmission lines were routed to minimize impacts to floodplains by crossing floodplains perpendicularly where practicable.

The table (Table 3) below calculates the estimated, proposed right-of-way within FEMA designated floodplain.

Table 3 – Floodplain Acreages

	Description		Acres
FEMA Floodplains	100-Year	100-Year Floodplain within Easement	65.55
		Forested Areas within Floodplain	49.08
		Planted Pine within Floodplain	3.92
		Forested + Planted Pine within Floodplain	53
	500-Year	500-Year Floodplain within Easement	0.001
		Forested Areas within Floodplain	0

VII. STREAMS/WETLAND

GTC evaluated NWI maps, USGS quadrangle maps, LiDAR data and aerial photography, considering potential locations of waters of the United States in the project route planning. Although GTC will clear vegetation within forested wetland areas that are within the proposed transmission line ROW and thus converting them to non-forested wetlands; they will still remain wetland resources. GTC also proposes to clear vegetation along the banks and within the State of Georgia's 25-foot stream buffers that fall within the proposed transmission line ROWs. GTC construction contractors will use clearing methods that will leave root systems intact and minimize land disturbance within these areas. A variety of methods and equipment can be utilized by the contractor to achieve this requirement. These can include hand clearing equipment, normal clearing machinery if conditions are dry at the time of clearing, load distributing

mats, and/or equipment with low-ground pressure tracks and/or high-flotation tires with less than 10 PSI distributed load under full operating load.

GTC will develop construction plans, which designate where vehicular wetland crossings will be needed for construction and future maintenance. GTC has identified numerous off-ROW access paths to minimize impacts to waters and wetlands along the proposed transmission line routes. These access crossings will utilize the USACE's Nationwide Permit 57 for Electric Utility Line and Telecommunications Activities Program. GTC is committed to developing plans and designs that minimize impacts to waters of the United States, therefore qualifying for use of the USACE's Nationwide Permit Program and avoiding a Section 404 Individual Permit.

The proposed route crosses 102 USGS blueline streams. The table (Table 4) below calculates the estimated, proposed right-of-way within NWI defined wetlands. The majority of the streams and wetlands will only be crossed aerially. GTC will minimize vehicular crossings needed for construction and future maintenance activities.

Table 4 – Wetland Acreages

	Description	Acres
NWI	PFO1C	16.12
	PFO1A	10.79
	PSS1F	4.41
	PUBHh	4.31
	PFO1Ah	3.65
	PSS1A	3.05
	PFO3B	2.32
	PSS1Cb	2.09
	PEM1A	1.91
	PSS1C	1.09
	PEM1C	0.93
	PSS1/EM1C	0.72
	PFO1Ch	0.41
	PEM1F	0.34
	PFO1Cb	0.27
	Total NWI within Easement	52.41

VIII. CULTURAL RESOURCES

Historic Resources

GTC contracted with VHB, Inc. to conduct a survey of historic resources within a board study area. GTC consider these potential historic properties when developing and evaluating alternative corridors and routes. The survey identified 5,880 resources, including 27 NRHP listed resources and 95 NRHP recommended eligible historic districts.

An adverse effects assessment has not been conducted. However, the table below demonstrates historic properties crossed by the preferred route. The 'Description' of the resources is an NRHP recommended determination from the SOI qualified consultant (VHB, Inc.). No National Landmarks, NRHP listed historic properties, known traditional cultural properties/places, or NRHP recommended eligible historic districts are crossed by the proposed transmission line route.

Table 5 – Historic Resources

	Description	Count	Acres
NRHP Historic Properties	Eligible	3	47.74
	Possibly Eligible	4	34.48
	Not Eligible	28	148.7

Archeological Resources

A review of recorded archaeological sites within the Dresden – Talbot County potential right-of-way was completed by an in-house GTC archaeologist. During the review, two previously recorded archaeological sites were noted within the survey area. Both sites are recommended ineligible based on the evaluations provided to Georgia's Natural Archaeological Historic Resources GIS (GNAHRGIS).

Table 6 – Archaeological Resources

Site Number	NRHP Eligibility	Type of Site	Date Recorded	Reference
9CW76	Recommended Ineligible	Multicomponent Precontact and Historic Artifact Scatter	2001; 2011	Price 2001; Benson 2011
9CW162	Recommended Ineligible	Late 19th to Early 20th ce House Site	2001	Price 2001

IX. THREATENED & ENDANGERED SPECIES

A review of IPAC on April 4, 2025 of the proposed Dresden – Talbot County Transmission Line corridor reveals no designated 'Critical Habitat'. IPAC lists the following federally listed species that may occur along the project corridor:

- Mammals
  - Tricolored Bat *Perimyotis subflavus* – Proposed Threatened

- Birds
  - Eastern Black Rail *Laterallus jamaicensis ssp. Jamaicensis* – Threatened
  - Whooping Crane *Grus americana* – Experimental

- Reptiles
  - Alligator Snapping Turtle *Macrochelys temminckii* – Proposed Threatened

- Clams
  - Gulf Moccasinshell *Medionidus penicillatus* – Endangered
  - Oval Pigtoe *Pleurobema pyriforme* – Endangered
  - Purple Bankclimber (mussel) *Elliptoideus sloatianus* – Threatened
  - Shinyrayed Pocketbook *Hamiota subangulata* – Endangered

- Insects
  - Monarch Butterfly *Danaus Plexippus* – Proposed Threatened

- Flowering Plants
  - Fringed Campion *Silene polypetala* – Endangered
  - Georgia Rockcress *Arabis georgiana* – Threatened
  - Little Amphianthus *Amphianthus pusillus* – Threatened
  - Relict Trillium *Trillium reliquum* – Endangered
  - White Fringeless Orchid *Platanthera integrilabia* – Threatened

X. ATTACHMENTS – Project Maps