

BGE Brandon Shores Retirement Mitigation Project (Anne Arundel, Baltimore, and Harford Counties) PSC Case Number 9748 PPRP Manager: Ginny Rogers

Note:
This summary was last updated on
August 30, 2024
For current information, follow this link:
[PSC Docket Case #9748](#)

Note:
This summary is based on information
provided in the CPCN Application
dated **July 11, 2024**, which is subject
to change and has not yet been fully
reviewed by PPRP

CPCN Timeline
CPCN Application filed on **July 11, 2024**
Pre-Hearing Conference: **August 19, 2024**
Staff, OPC, and PPRP File Direct Testimony: **March 14, 2025**
Rebuttal Testimony Due: **May 16, 2025**
Public Hearing Dates: **Throughout March and/or April 2025**
PSC Evidentiary Hearings: **June 30, 2025 and July 1-3, 2025**

Project Location:

The Project extends approximately 2.2 miles from the Maryland-Pennsylvania (MD-PA) State line to the Graceton Substation ([Google Map Link](#)). From the Graceton substation in Harford County, the Project extends 29 miles to the proposed Batavia Substation ([Google Map Link](#)) in Baltimore County. From the proposed Batavia Substation, the Project is proposed to extend an additional six miles to the existing Riverside Substation ([Google Map Link](#)). Additional project work is proposed to occur on the proposed Solley Road Substation ([Google Map Link](#)) in Anne Arundel County.

Project Overview:

Baltimore Gas and Electric Company (BGE) filed for a CPCN to construct a group of projects that are needed to maintain the electric system reliability following the retirement of the Brandon Shores Generating Station. The Project includes five separate overhead transmission line segments. The first three segments (Graceton to MD-PA Segment, Graceton Connections Segment, Graceton to Batavia Segment) are depicted in Figure 1, and the last two segments (Batavia to Riverside Segment, Solley Road Segment) are depicted in Figure 2 on the following page.

The Graceton to MD-PA Segment will involve upgrading 2.2 miles of 230kV transmission line to 500kV starting from the MD-PA state line and ending at the Graceton Substation. The work will occur within BGE existing right-of-way (ROW). Segment components include:

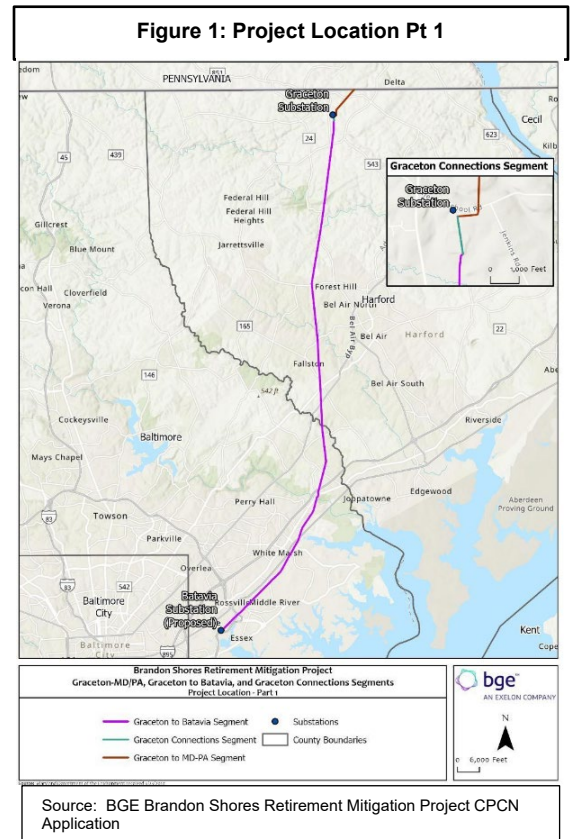
- Removal of 10 existing single circuit 230kV lattice towers;
- Installation of 12 new single circuit 500kV weathering steel monopoles with an average height of 175 ft;
- Replacement of all existing conductors; and
- Upgrading the shield wire to 500kV standards.

The Graceton Connections Segment will involve the reconfiguration of an existing 500kV overhead transmission line and relocation of a 230kV circuit termination point. The work will occur within the BGE-owned Graceton Substation property. Segment components include:

- Installation of three new single-circuit 500kV weathering steel poles and two 500kV three-pole weathering steel structures with an average height of 172 feet;
- Relocation of the existing Circuit 2313; and
- Replacement of two 230kV H-frame structures, with an average height of 95 feet.

The Graceton to Batavia Segment will involve the installation of a new 230kV double circuit line along an unoccupied side of BGE's existing ROW. The line will be built on the unoccupied west side of BGE's ROW. Segment components include:

- Installation of 174 230 kV double circuit weathering and galvanized steel monopoles with an average height of 150 feet; and



- Removal of two existing 230kV H-frame structures.

The Batavia to Riverside Segment will involve reconductoring six miles of an existing 230kV transmission line from the Batavia Substation to the Riverside Substation. All work will occur within BGE's ROW. Segment components include:

- Removal of one existing 230kV painted steel structure;
- Reconductoring of 49 existing 230kV lattice towers; and
- Installation of a total of seven steel monopoles with an average height of 121 feet; these include three new 230kV double-circuit weathering steel poles and four 230kV single-circuit weathering steel poles.

The Solley Road Segment will involve work on an existing 230kV overhead transmission line and the addition of two new 230kV overhead transmission lines needed to connect a new substation and STATCOM that will be located on BGE property in Anne Arundel County. All work will occur within BGE-owned property along Solley Road. Segment components include:

- Removal of one existing 230kV steel lattice tower; and
- Installation of 10 new 230kV structures, with an average height of 124 feet, including seven single circuit dead-end steel monopoles and three dead-end steel 3-pole structures.

Site Description

All Project segments will utilize existing BGE ROW or easements to the extent possible. The Project consists of overhead transmission line work on existing ROW corridors that range from 150 feet to 300 feet wide, as well as overhead transmission line connection work on 20.7 acres of existing BGE property at the Graceton Substation, and overhead transmission line connection work on 15.5 acres of existing BGE property at the Solley Road Substation site. The total acreage of the ROW corridor for the Project is approximately 748 acres. The Project Study Area is located across Harford County, Baltimore County, and Anne Arundel Counties. Land uses along the Project ROW include forest edges, open agricultural fields, residential properties, low and very low-density residential areas, medium and high intensity developed residential areas, commercial areas, industrial areas, open land, wetlands, water, barren, and other developed lands. The Graceton to Batavia Segment route crosses through Gunpowder Falls State Park and is within one mile of Rocks State Park. The route also crosses multiple streams, wetlands, railroads and roads. BGE anticipates clearing for the project segments to begin in Quarter 1 of 2026 and for the project to close out Quarter 1 of 2029.

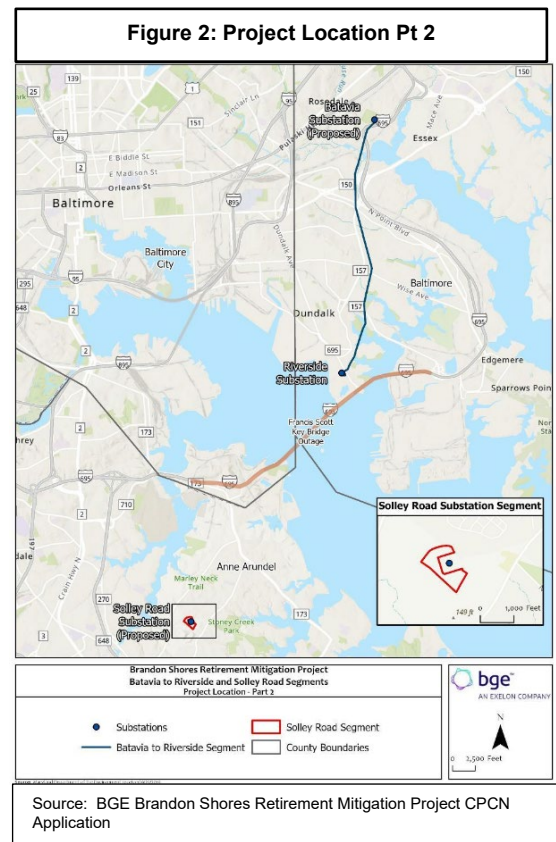
Impact Assessment Highlights

Electrical Need, Reliability, and Costs

- PJM Interconnection LLC (PJM), the system operator for transmission grid in Maryland and neighboring states, in assessing the impact of the planned retirement of the Brandon Shores Generating Station (Coal-fired Units 1 and 2), determined that there is potential for reliability criteria violations. As a mitigation measure, PJM contracted Talen Energy, owner of the Brandon Shores plant, to continue operation beyond the planned deactivation date as a Reliability Must Run (RMR) unit. The RMR costs amount to more than \$14.6 million monthly starting in June 2025. BGE customers would bear the largest percentage (approximately 74%) of these costs.
- BGE proposes the Project, in conjunction with the expansion of several substations in Maryland and complementary transmission upgrades in Pennsylvania, based on the recommendation of PJM. PJM has determined that implementing these transmission changes would resolve the need and allow for the cancellation of the RMR contract. BGE estimates the current cost of the Project at \$350 million.
- The proposed in-service date for the Project is late 4th Quarter 2028.

Air Quality

- Earthwork activities such as digging at the proposed pole locations and traversing unpaved roads may generate fugitive dust. BGE intends to incorporate BMPs during construction to minimize dust generation.
- Operation of heavy equipment will result in combustion by-product emissions.



Biological

- The Applicant completed multiple wetland and watercourse delineations between December 2023 and February 2024 within the Project Study Area. The survey identified a total of 99 watercourses and 156 wetlands.
 - The Applicant indicates that the Project will result in approximately 112,239.53 square feet (SF; 2.58 acres) of permanent impacts to nontidal wetlands and 1,460.68 SF (0.03 acres) of permanent nontidal wetland buffer impacts.
 - The Applicant indicates that the use of temporary matting for construction access will result in temporary impacts to a total of 148,628.51 SF (3.4 acres) of nontidal wetlands and 188,767.65 SF (4.3 acres) of temporary nontidal wetland buffer impacts across all segments.
 - Two Wetlands of Special State Concern occur within the Project study areas.
 - State tidal wetlands are present within the Project study area.
 - The Applicant is currently coordinating with the United States Army Core of Engineers (USACE) and the Maryland Department of the Environment (MDE). The Applicant plans to submit the Wetlands and Waterways Joint Permit Application (JPA) in Quarter 4 of 2024.
 - No temporary or permanent impacts will result to waterways/streams in the Project Study Area because no in-stream construction is proposed for the Project. Streams will be crossed via existing culverts or temporary bank-to-bank bridges.
- The Project Study Area crosses through multiple 100-year floodplains in both the Graceton to Batavia segment and the Batavia to Riverside segment.
- Portions of the ROW cross four Tier II stream catchments, with direct crossings of two Tier II stream segments (an unnamed tributary to Deer Creek and Little Gunpowder Falls).
- The ROW crosses the Deer Creek Scenic River.
- The Applicant consulted with the Maryland Department of Natural Resources (DNR) Wildlife Heritage Service (WHS), which indicated that sections of the Project Study Area contain Bashful Bulrush (*Trichophorum lanifolium*), Seneca Snakeroot (*Polygala senega*), and Woolly Sedge (*Carex pellita*) which are all on the Rare, Threatened, and Endangered (RTE) watchlist. Some sections of the Project Study Area were noted to cross over watercourses that support Chesapeake Logperch (*Percina bimaculate* – Threatened) and White Catfish (*Ameiurus catus* – Rare). Additionally, DNR WHS noted the possible presence of Switch Cane (*Arundinaria tecta* – Rare), Dwarf Iris (*Iris verna* – Endangered), Golden Heather (*Hudsonia ericoides* – Endangered) near the Project Study Area. DNR WHS has encouraged the Applicant to adhere stringently to all appropriate best management practices for sediment and erosion control during all phases of work, in order to reduce the likelihood of adverse impacts.
- The Applicant also utilized the U.S. Fish and Wildlife Service (USFWS) online project screening tool to identify sensitive wildlife species near the Project. The USFWS screening tool indicated that there are five federally listed threatened, endangered, or candidate species that may be present within the Project Study Area: the Northern Long-eared Bat (*Myotis septentrionalis* – Endangered), the Indiana Bat (*Myotis sodalist* – Endangered), the Tricolored Bat (*Perimyotis subflavus* – Proposed Endangered), the Bog Turtle (*Glyptemys muhlenbergii* – Threatened), and Monarch Butterfly (*Danaus plexippus* – Candidate).
- Raptor nest surveys were conducted between December 12, 2023 and February 29, 2024 along the Project Study Area and observed one active bald eagle nest, three inactive nests, one abandoned nest, and one unknown nest. Follow-up raptor nest surveys will be completed prior to the onset of construction to ensure that no disturbance will occur to nesting species.
- Forest Interior Dwelling Species (FIDS) habitats were identified along the edges of multiple segment Study areas and within the Solley Road Project Study area.
- The Applicant anticipates that routine vegetation management, including tree clearing and/or trimming will likely be required on various portions of the Project.
- The ROW crosses 55.4 acres of Green Infrastructure Corridors, 53.3 acres of Green Infrastructure Hubs, 279.1 acres of FIDS habitat, 136.7 acres of Sensitive Species Project Review Areas (SSPRA), and 253.2 acres of Targeted Ecological Areas.

Economic and Fiscal

- The Applicant estimates the capital cost of the Project to be approximately \$350 million.
- The Applicant estimates the capital cost of the Project including the substation work to be \$1.1 billion
- The estimated total annual taxes for Maryland will be \$650,000, with the Project contributing \$350,000.

Transportation

- The Project crosses multiple roads, four highways, and a railroad.
- The Project is located within 0.5 miles of the Fallston Airport and five miles away from the Baltimore-Washington International Thurgood Marshall Airport.

Land Use

- The Applicant indicates that the Project will have no impact on land use, as BGE does not anticipate the need to acquire new land easements for the Project. The proposed structures will be entirely contained within existing ROW, and as such will not change the zoning, landscape, or potential for alternative uses of any portion of land along the existing ROW.
- The Applicant indicates that during construction, there may be some noise and traffic impacts, typical of construction projects and indicates that these impacts will be temporary in nature.
- There is approximately 204.8 acres of prime farmland and 158.4 acres of farmland of statewide importance within the Project Study Area.
- The Graceton to Batavia Segment Study Area passes through two locations in the Chesapeake Bay Critical Area for approximately 0.5 miles west of the Back River in Baltimore County, as well as west of the Bird River for approximately 0.5 miles. The Batavia to Riverside Segment Study Area crosses multiple points in the Critical Area, totaling approximately 49.5 acres. There are approximately 18 acres of the Graceton to Batavia Segment Study Area located within the Critical Area and there are five existing structures located within the Critical Area.

Cultural and Aesthetic

- Maryland Historic Trust (MHT) indicated that they have no concerns related to historic properties or archaeological sites within the vicinity of the Project Study Area.
- The Applicant indicates that there are 11 properties listed in the National Register of Historic Places (NRHP) within one mile of the Study Area and 10 sites listed in the Maryland Inventory of Historic properties within the Study Area.
- The Project Study Area crosses through 11 acres of the Central Area of Gunpowder Falls State Park, and the segment is within one mile of Rocks State Park. The Central Area of Gunpowder Falls State Park features many miles of multi-use trails and recreational river and fishing areas. Trail use includes activities such as hiking, mountain biking, and/or horseback riding. Additionally, the Study Area passes through 15 Baltimore County Parks.
- BGE has initiated coordination with Maryland Park Service to coordinate with Maryland DNR to ensure impacts to parklands and resources are minimized and compliance is maintained with DNR's land management and conservation goals.

Visual

- The Applicant indicates that there will be permanent visual quality impacts from activities in all segments.
 - The Graceton to MD-PA Segment proposes the installation of 12 steel monopole structures with an average height of 175 ft. The existing structures for demolition range in height from 77-131 feet.
 - The Graceton Connections Segment will include the installation of seven new structures.
 - The Graceton to Batavia Segment will include the installation of 184 steel monopoles with an average height of 150 feet. The transmission line will parallel existing circuits.
 - The Batavia to Riverside Segment will include the installation of six new structures with an average height of 117 feet, the demolition of a 141 foot painted steel pole, and the installation of a 142 foot weathering steel monopole. The existing structures have an average height of 115 feet.
 - The Solley Road Segment will include the construction of a 230kV switchyard and 230kV capacitors, as well as seven single-circuit dead end monopoles and three dead end 3-pole structures.