The review of this Application is in two parts:

Part A – Final Forest Conservation Plan Amendment 82013025F (Black Hill) (discussed in a separate staff report)


Construction of a new power substation to distribute service to the neighboring Black Hills development and surroundings.
RECOMMENDATIONS:

Staff recommends approval of the Mandatory Referral to be transmitted to the Washington Suburban Sanitary Commission (WSSC): 

Mandatory Referral Review
This proposal is for the construction of a new power substation that will use an existing overhead electrical transmission line to distribute service to the neighboring Black Hills development which is currently under construction. This project requires the Mandatory Referral review process under the Montgomery County Planning Department’s Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review and approval by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized.

INTRODUCTION

Site Description
The Property is located on Crystal Rock Drive, 3,000 feet north of Kinster Drive, identified as part of parcel 374 on Tax Map EV341, on the west side of I-270, TMX-2 Zone, 2009 Germantown Sector Plan. The Property totals 2.73 acres.

The Property is in the northern portion of the Germantown Employment Area near the Corridor Cities Transitway (CCT), adjacent to Black Hill Regional Park and I-270. The primary access point is Crystal Rock Drive. The Property slopes from the northern boundary adjacent to I-270 toward the southern boundary directly adjacent to the existing townhouses, and naturally drains toward the Little Seneca Creek.
Figure 1: 2017 Aerial Photograph of the Vicinity

Figure 2: 2017 Aerial of the Substation Location
Project Description

Potomac Edison, a FirstEnergy Company (FE) is proposing the construction of the Crystal Rock Substation Project (the Project), which involves the construction of a new 70-foot by 100-foot pad to locate the substation, and an approximately 600 ft of permanent access road extending northeast from the end of Crystal Rock Drive. The Project will connect an existing overhead electrical transmission line to the proposed substation to distribute service to the neighboring Black Hills development which is currently under construction.

The Project is located adjacent to Interstate-270 (I-270) in Germantown, and is bordered by I-270 to the east, wooded lands to the north and west, and open grass fields to the south. The site was historically used as a golf driving range but is now part of a master planned mixed use development. Residential homes (mostly apartments) lie to the west and south away from the proposed substation site, with a large railway electronics manufacturing plant located on the opposite side of I-270, east of the site. An existing overhead electrical sub-transmission line currently crosses I-270 just to the north of the proposed substation and connecting to these existing lines is part of the overall scope of this Project. Future use of the lands immediately adjacent to the proposed substation site is planned as a large parking garage which will generally shield the substation from adjacent residential uses, but the exact timing of this structure is undetermined.

The Project will involve a minor impact to the Black Hills Forest Conservation Easement area (the removal of a single tree and other smaller unregulated vegetation). The modification of the previously approved Forest Conservation Plan is currently being submitted and processed by representatives of the Black Hills development.

Specific site development activities will consist of the following:

- Temporary utilization of Crystal Rock Drive near the project location during construction of the access road to the substation.
- Temporary disturbance of a corridor between the existing overhead transmission lines and the proposed substation site. This area will be restored to approximate existing ground conditions after installation.
- Permanent disturbance of a pad of approximately 0.16-acre in size and a 0.26-acre access road area where the new substation will be installed. An access road leading to a 0.15-acre gravel pad with a 0.04-acre graded lawn area will be constructed in this location.
Sector Plan Consistency
The Project is necessary infrastructure to serve existing and planned development associated with the Black Hills mixed use development, which has previously been deemed consistent with the 2009 Germantown Sector Plan.

Neighborhood Compatibility

Scale and Facility Design
The parcel is mostly treeless and only one regulated tree will need to be removed to provide minimum safety clearance for the connection lines between the proposed substation and the existing transmission line which crosses I-270. The removal of this tree is being addressed under the revised Forest Conservation Plan being processed by representatives of the Black Hills’s development.

The Project is not subject to the county’s landscape requirements, and thus a comprehensive landscape plan has not been developed. However, to provide interim screening of the substation from adjacent development areas (until the future parking garage is constructed), a Landscape Screening and Lighting Plan has been developed which will include the establishment of a planted strip along the western and southern perimeter of the substation (outside of the required permanent security fencing around the

Figure 3: Site Layout
substation). Based on a basic viewshed assessment conducted for the project site, no other shielding landscaping should be required.

The proposed substation will include only a few small pole-mounted downward facing lights as part of its overall security and operations plan. No outward influence of these lights is anticipated either in the short-term (before the parking garage is constructed) and long term (after the garage is built).

![Typical Modular Substation Cross-Section](image)

**Figure 4 Substation Design**

The overall scale and design should be consistent with the location of existing and planned development on the Black Hills property and should have no adverse effects on neighboring land.

**ENVIRONMENT**

**Environmental Guidelines**
The project area does not contain any environmental buffers, streams, other sensitive features. It is located in the buildable envelope of the Black Hills Site Plan. The property was previously covered by Natural Resource Inventory/Forest Stand Delineation #420110810 approved on October 10, 2013.

**Forest Conservation**
The overall Black Hills property is covered by Final Forest conservation Plan (FFCP) #82013025F. This Mandatory Referral project is located in the northeast corner of that Plan. The Project will involve a minor impact to the Black Hills FFCP, including an impact to the Forest Conservation Easement area (the removal of a single tree and other smaller unregulated vegetation). An Amendment to the previously approved FFCP is submitted in conjunction with this application. The changes to the FFCP are evaluated in a separate staff report.
**Impacts to Parkland**
The closet parkland to the Property is Black Hills Regional Park directly to the northwest. The proposed plan shows no impacts to parkland.

**COMMUNITY OUTREACH AND NOTIFICATION**
No public meeting was held, and no notice was sent by the Applicant. Staff sent out a postcard notice to all adjoining and confronting property owners and all HOA and Civic Associations within one-mile. This notice was sent out on January 25, 2019, two weeks prior to the hearing. Staff felt this notice provided adjacent residents and all interested parties in the project area with an opportunity to review and comment on the plans.

**CONCLUSION**
Staff recommends that the Planning Board approves the Mandatory Referral and transmits recommendations as specified on page two of this staff report.

**Attachments**
Attachment A – Potomac Edison Mandatory Referral Package
Mandatory Referral Narrative and Supporting Documentation

DRAFT

The Potomac Edison Company, a FirstEnergy Company
Crystal Rock Substation Project
Montgomery County, Maryland

GAI Project Number: C140090.00, Task 004
November 2018

Prepared by: GAI Consultants, Inc.
Pittsburgh Office
385 East Waterfront Drive
Homestead, Pennsylvania 15120-5005

Prepared for: The Potomac Edison Company, a FirstEnergy Company
800 Cabin Hill Drive
Greensburg, Pennsylvania 15601-1650
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Attachment 1 Location Map  
Attachment 2 Resource Location Map  
Attachment 3 Proposed Project Layout  
Attachment 4 Permit and Approval Information  
Attachment 5 Natural Resource Inventory/Forest Stand Delineation  
Attachment 6 NRI/FSD Approval Letter from Montgomery County  
Attachment 7 Landscape Screening Plan with Viewshed Photolog
1.0 Mandatory Referral Narrative

Pursuant to Section IV of the Approved Uniform Standards for Mandatory Referral Review

1. Written narrative of the proposal generally describing the project location, access, surrounding land uses and other existing conditions, proposed uses, scale and size of proposed structures, and other significant features of the proposal including, but not limited to the following:

Potomac Edison, a FirstEnergy Company (FE) is proposing the construction of the Crystal Rock Substation Project (Project) which involves the construction of a new 70-foot by 100-foot pad to locate the substation, and an approximately 600 ft. permanent access road extending northeast from the end of Crystal Rock Drive. The proposed project is to connect an existing overhead electrical transmission line to the proposed substation to distribute service to the neighboring Black Hills development which currently under construction. The substation is to be located within portions of FirstEnergy-owned property currently being purchased. See Attachment 1 for a Location Map.

The proposed project covers 2.73 acres is located adjacent to Interstate-270 (I-270) in Germantown, Montgomery County, Maryland (MD), and is bordered by I-270 to the east, wooded lands to the north and west, and open grass fields to the south. The site was historically used as a golf driving range, but is now part of a master planned, mixed use development. Residential homes (mostly apartments) lie more to the west and south away from the proposed substation site, with a large railway electronics manufacturing plant being located on the opposite side of I-270, east of the site. An existing overhead electrical sub-transmission line currently crosses I-270 just to the north of the proposed substation and connecting to these existing lines is part of the overall scope of this project. Future uses of the lands immediately adjacent to the proposed substation site is planned as large parking garage which will generally shield the substation from adjacent residential uses, but the exact timing of this structure is undetermined.

It has been determined that there are no streams or wetlands located within the proposed substation site (reference Resource Location Map - Attachment 2). The Project will involve a minor impact to the Black Hills Development Forest Conservation Easement area (the removal of a single tree and other smaller unregulated vegetation), and the modification of the previously approved Forest Conservation Plan is currently being submitted and processed by representatives of the Black Hills development.

Specific site development activities are depicted on the Proposed Project Layout (Attachment 3) will consist of the following:

- Temporary utilization of Crystal Rock Drive near project location during construction of access road to substation.
- Temporary disturbance of a corridor between the existing overhead transmission lines and the proposed substation site. This area will be restored to approximate existing ground conditions after installation.
- Permanent disturbance of a pad of approximately 0.16-acre in size and a 0.26-acre access road area where the new substation will be installed. An access road leading to a 0.15-acre gravel pad with a 0.04-acre graded lawn area will be constructed in this location.

a. The hours of operation and the types of use(s) proposed within the structure(s), or on the property under consideration.

Not applicable due to the nature of the proposed facilities. The proposed substation will be an un-manned facility with appurtenant structures being visited occasionally by FE staff for maintenance and operations.
b. **Whether the proposed project is consistent with the county’s General Plan, functional plans such as the Countywide Master Plan of Transportation, the approved and adopted area master plan(s) or sector plan(s), and other public plans, policies, or programs for the area. Any deviation or lack of consistency should be fully explained.**

The Project is needed infrastructure to serve existing and planned development associated with the Black Hills mixed use development, which has previously been deemed consistent with the county’s General Plan.

c. **A Pedestrian and Bicycle Safety Impact Statement that includes an analysis of the effect of the project on pedestrian and bicyclist access and safety, and the identification of any capital and/or operating modifications, including road re-construction plans and road re-striping plans, that may be required to promote and maximize safe pedestrian and bicyclist access on the project site, and in the surrounding area.**

Due to the location of the area covered by this Mandatory Referral being remotely located in an otherwise inaccessible portion of the overall Black Hills development, no pedestrian or bicycle activities are expected to be encountered except for where the proposed access drive connects with the local roadway network. During construction, pedestrian traffic will be restricted from entering the workspace, and appropriate roadway protection measures will be implemented, such as temporary detours or other MOT initiatives.

d. **Whether the proposed typical roadway and pathway section meets the applicable state and county standard(s). If not, the necessary waivers requested, or to be requested, from any applicable agency or municipality, and the reasons for those waivers should be described.**

The proposed Project does not propose impact upon any roadway or designated trail/pathway, and the single point of connection for the construction/maintenance access road will be constructed and maintained to meet all applicable federal, state, and county standards. This single roadway connection location will be restored to pre-construction conditions.

e. **The status of a Historic Area Work Permit (HAWP) application, if the project would affect county-designated historic resources, sites, or districts. For state or federally funded projects, indicate the status of comments by the Maryland Historical Trust. If any historical resources, sites, or districts would be impacted, state the proposed measures to be undertaken to limit impacts, and any remedial measures to mitigate, the identified impacts.**

The master developer for the Black Hills project conducted extensive research and coordination with the Maryland Historical Trust, and due to the previously altered condition of the site for the proposed substation (previously a golf driving range), no adverse impact upon county-designated historic resources, sites, or districts is anticipated.

f. **Phasing schedule or plan, if applicable.**

There is no applicable phasing schedule or plan, as the project will be constructed in a single phase. The construction start date is currently set for January 2019 with an in-service date for the substation being third quarter of 2019.
g. A description of the manner in which any land intended for common or quasi-public use, but not proposed to be in public ownership, will be held, owned, and maintained in perpetuity for the indicated purposes.

No land is proposed to be held by FE for common or quasi-public use.

h. Funding source(s) for the project: county, state, federal, and/or private.

The Project is privately funded.

i. List of permits needed from other agencies. (The Mandatory Referral process does not exempt any project from the need to meet the requirements of any other entitlement process.)

The Permitting and Approvals Table for Mandatory Referral, providing information on permits and approvals needed from other agencies is provided as Attachment 4.

j. A description of the potential impacts to public parkland or land owned by M-NCPPC, if applicable, and an explanation of what efforts have been made to minimize these impacts and what mitigation will be undertaken.

The Project will involve a minor impact to the Black Hills Development Forest Conservation Easement area (the removal of a single tree and other smaller unregulated vegetation), and the modification of the previously approved Forest Conservation Plan is currently being submitted and processed by representatives of the Black Hills development.

k. For all projects involving buildings or other structures, a statement on whether or not the proposed project will seek United States Green Building Council Leadership in Energy and Environmental Design (LEED), or equivalent green building certification. If the project is not going to seek LEED or equivalent certification, provide a LEED scorecard indicating the degree to which the project would be eligible for such certification;

This is not applicable to the Project.

2. General Location Map

An overall map of the location of the Project being addressed by this Mandatory Review is provided as Attachment 1.

3. Site Plan

An overview of the proposed site plan and associated storm water management areas is provided as Attachment 3.

4. Utilities and Rights-of-Way Map

While the project itself is considered a utility enhancement effort, it will not impact or otherwise affect any known utilities nor established Rights of Way.

5. Pedestrian and Vehicular Circulation Plan

This is not applicable to the Project.
6. **Natural Resource Inventory (NRI) Plan**

Natural resources in the Project area were identified by qualified professionals for the proposed project, and by representatives of the Black Hills development (fka – North Village-270 Ltd. Partnership). A Natural Resource Inventory/Forest Stand Delineation (Attachment 5) was approved by Montgomery County in Oct. 2011 (Attachment 6). No streams, wetlands, or natural resources were found during the field investigation.

7. **Tree Conservation Plan**

The Project will involve a minor impact to the Black Hills Development Forest Conservation Easement area (the removal of a single tree and other smaller unregulated vegetation), and the modification of the previously approved Forest Conservation Plan is currently being submitted and processed by representatives of the Black Hills development.

8. **Topographic Map**

A copy of the DRAFT E&S Plans which reflect topographic contours is provided as Attachment 9. These E&S Plans have been provided to WSSC for review and approval.

9. **Stormwater Management Concept**

A Stormwater Management Concept / Stormwater Management Development Plan was developed to serve the proposed substation site. Stormwater management for the Project area will entail minimization of disturbance during construction, implementation of appropriate E&S controls and installation of bio-retention basins and infiltration berms to minimize impacts of additional stormwater flow from new, permanent gravel area associated with the proposed substation. The proposed design will achieve the following:

- Natural Resource Protection. The Project will entail minimal permanent impact to natural resources of the area. This area will be restored to existing conditions.
- Maintenance of Natural Flow Patterns. Existing flow patterns will be maintained throughout the Project area except in the area of the proposed gravel pad. In this area, the size of the pad has been kept to a minimum and graded to match the existing surrounding contours to the extent possible.
- Restoration of disturbed areas to approximate existing conditions after construction will occur in all areas of the Project except for the proposed gravel access road and pad area. Stormwater BMPs will be used to reduce an increase in stormwater to the extent possible.
- Integration of E&SCs into Stormwater Strategy. An E&SC Plan will be submitted for the Project that details measures taken to minimize the possibility of sediment introduction into stormwater runoff during construction. Permanent disturbance will be minimal.
- Implementation of Environmental Site Design (ESD) Planning Techniques and Practices to the Maximum Extent Practicable. Proposed expansion of the facility has been developed in a matter that constrains impacts to previously disturbed areas and intentionally does not impact natural resources identified to the extent that is practically possible.

10. **Detailed Site Plan/Landscape Plan**

The Project is not subject to the county’s landscape requirements, and thus a comprehensive landscape plan has not been developed. However, in order to provide interim screening of the substation from adjacent development areas (until the future parking garage is constructed), a Landscape Screening and Lighting Plan (Attachment 7) has been developed which will include the establishment of a planted strip along west and southern perimeter of the substation (outside of the required permanent security fencing around the substation). Based upon a basic viewshed assessment conducted for the project site (viewshed photolog included with the Attachment 7), no other shielding landscaping should be required.
11. Tree Canopy Coverage

The parcel is mostly treeless and only one regulated tree will need to be removed to provide minimum safety clearance for the connection lines between the proposed substation and the existing transmission line which crosses I-270. The removal of this tree is being addressed under the revised Forest Conservation Plan being processed by representatives of the Black Hills's development.

12. Lighting Plan

The proposed substation will include only a few small pole-mounted downward facing lights as part of its overall security and operations plan (see profile included on the Landscape Screening Plan - Attachment 7). No outward influence of these lights is anticipated either in the short-term (before the parking garage is constructed) and long term (after the garage is built).

13. Overall Concept Development Plan

Mapping depicting the proposed location of the Project as it crosses the subject parcels is provided as Attachment 1.

14. Statement of Compliance with Montgomery County’s Noise Control Ordinance

A pre-construction sound level monitoring survey was completed at locations surrounding the future site of the proposed substation due to anticipated post-construction persistent hum from the project once the substation is completed and in operation. The purpose of this study was to investigate ambient sound levels and understand the potential impact the operations at the Project may have on the surrounding community. This sound level monitoring survey included two sets of 15-minute readings for LAeq, LAF90, LAFmax, and LAFmin during daylight hours at five locations within a one-mile radius of the proposed substation.

The area surrounding the Project location contains an assortment of Noise Sensitive Areas (NSAs), each posing unique and challenging criteria for preservation. NSAs are identified by the general criterion that they are areas used and enjoyed by people and the surrounding community for various purposes. In the wake of any development of nearby lands, it is the goal to maintain the right to continued enjoyment of these areas for personal or public use.

It is determined that sites monitored currently exceed what would be the allowable sound levels (dBA) for a prominent discrete tone based on Montgomery County Ordinance Chapter 31B-5 during daylight or nighttime hours. While the monitored LAF90 values of ML1 and ML2 were slightly elevated compared to the other locations, this is possibly due to the close proximity of these locations to I-270. Nighttime sound levels from prominent discrete tones could be of particular concern as there is a heightened awareness to nuisance sounds during the nighttime hours when other sources of sound are not present or as predominant. The area around the proposed Project is a developing community with significant amounts of new (or recently new) housing developments. The existing sound levels in the surrounding community represent those typical of a developed, suburban environment. Based on conversations with Montgomery County, MD, Potomac Edison (FE) will remain aware of the possible need to mitigate the sound levels from equipment installed at the Project in the future, e.g., a future expansion of the proposed substation.

15. Architectural Elevations

A typical profile view of this proposed substation is included on the Landscape Screening and Lighting Plan - Attachment 7.
16. **Traffic Impact Statement**

Due to the nature of this Project and a lack of roadways within the designated parcel, no traffic impact or control plans are required. Appropriate driveway permits will be secured (as required) where the access road connects to Crystal Rock Drive.

17. **Statement of Community Outreach**

Due to the small scale of this project and close coordination with representatives of the Black Hills development, no specific community outreach activities were anticipated nor conducted. The installation of this electrical substation will serve to benefit all residents of the Black Hills developments, while causing no impact upon the local community.
ATTACHMENT 1
Location Map
PROPOSED CRYSTAL ROCK SUBSTATION

LEGEND

PROPOSED SUBSTATION

PROJECT LOCATION MAP

CRYSTAL ROCK SUBSTATION PROJECT
FIRSTENERGY


MONTGOMERY COUNTY, MARYLAND

Z:\Energy\2014\C140090.00 - Crystal Rock Substation P\GIS\MXD\Crystal_Rock_Project_Location_Map_2014_08_05.mxd
ATTACHMENT 2

Resource Location Map
CRYSTAL ROCK
SUBSTATION PROJECT
FIRSTENERGY

FIGURE 2
RESOURCE LOCATION
AND SOILS MAP

PROJECT LOCATION
MONTGOMERY COUNTY,
MARYLAND

REFERENCE:
WORLD IMAGERY AND
TRANSPORTATION, 2011, OBTAINED
VIA ESRI WORLD IMAGERY, ACCESSED
03/2015.
NATIONAL WETLAND INVENTORY (NWI)
WETLANDS, USFWS, 2014.
SOIL SURVEY GEOGRAPHIC (SSURGO)
DATABASE FOR MONTGOMERY
COUNTY, MARYLAND, USDA/NRCS,
2014.
CONTOURS, NATIONAL ELEVATION
DATASET, USDA/NRCS, 2014.

LEGEND
- 20-foot Contour
- NWI Wetland
- Study Area
- Soil Type Boundary

Z:\Energy\2014\C140690.00 - Crystal Rock Substation P\GIS\MXD\RTE\Crystal_Rock_Sub_Resource_Location_Soils_2015_03_26.mxd

DRAWN BY: AEK
DATE: 3/26/2015
CHECKED: EFJ
APPROVED: LJP
ATTACHMENT 3
Proposed Project Layout
ATTACHMENT 4

Permit and Approval Information
### Attachment 4 - Permits Required Table

<table>
<thead>
<tr>
<th>Permit Required</th>
<th>Agency</th>
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<tr>
<td>National Pollutant Discharge Elimination System (NPDES)</td>
<td>Maryland Department for the Environment</td>
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<tr>
<td>Application for General Permit for Stormwater Associated with Construction Activity</td>
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<tr>
<td>Engineered Sediment Control Permit</td>
<td>Montgomery County - Dept. of Permitting Services</td>
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<tr>
<td>Forest Conservation Plan (Part of Black Hills Development's FCP)</td>
<td>Maryland National Capital Parks &amp; Planning Commission</td>
</tr>
<tr>
<td>Stormwater Management (SWM) Concept Application</td>
<td>Montgomery County - Dept. of Permitting Services</td>
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<tr>
<td>Site Development SWM Plan</td>
<td></td>
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<tr>
<td>Public Right-of-Way Application</td>
<td>Montgomery County - Dept. of Permitting Services</td>
</tr>
<tr>
<td>Electrical Permit</td>
<td>Montgomery County - Dept. of Permitting Services</td>
</tr>
<tr>
<td>Fence Permit</td>
<td>Montgomery County - Dept. of Permitting Services</td>
</tr>
</tbody>
</table>
ATTACHMENT 5

Natural Resource Inventory/Forest Stand Delineation
ATTACHMENT 6
NRI/FSD Approval Letter from Montgomery County
October 10, 2011

North Village-270 Ltd Partnership
C/o Lerner Enterprises
2000 Tower Oaks Blvd. 8th Floor
Rockville, MD 20852

RE: Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) 420110810
Far North Village

Dear Sirs:

This letter is to inform you that Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) 420110810 Far North Village is approved. A forest conservation plan can now be submitted to the Planning Department in conjunction with any application to which it a necessary component, or directly to Planning Staff if not associated with an application before the Planning Board.

Since the property is subject to the Montgomery County Forest Conservation law there shall be no clearing of forest, understory, or tree removal on the subject site prior to the approval of a final forest conservation plan. If there are any subsequent modifications to the approved plan, not including changes initiated by a government agency, a separate amendment must be submitted to M-NCPCC for review and approval prior to the submission of a forest conservation plan.

If you have any questions regarding these actions, please feel free to contact me at 301-495-4546.

Sincerely,

[Signature]

Josh Penn, Senior Planner

Cc: NRI/FSD 420110810 file
Frank Johnson, MHG
ATTACHMENT 7

Landscape Screening and Lighting Plan