

**RECOMMENDATION ON THE VARIANCE APPLICATION OF
PSE&G/Bergen Switching Station - Switchgear - Variance
FILE # 20-152**

I. INTRODUCTION

An application for one bulk variance has been filed with the New Jersey Sports & Exposition Authority (NJSEA) by Public Service Electric and Gas Company (PSE&G) for the premises located along Hendricks Causeway and identified as Block 4014, Lot 4, in the Borough of Ridgefield, New Jersey. The subject premises is located within three different zones in the Hackensack Meadowlands District, i.e., the District's Public Utilities, Environmental Conservation, and Light Industrial B zones. The bulk variance is sought in connection with the installation of two new walk-in 13kV sheltered aisle switchgears and associated equipment in the Public Utilities-zoned portion of the subject premises.

Specifically, the applicant is requesting variance relief from the following:

1. N.J.A.C. 19:4-5.112(a)3i, which requires a minimum front yard setback of 35 feet, whereas the applicant is proposing to construct a new walk-in 13kV sheltered aisle switchgear (13kV Switchgear #1) and associated equipment in the Public Utilities zone with a setback of 25.3 feet from the front property line along Hendricks Causeway.

Notice was given to the public and all interested parties as required by law. The public notice was published The Record on September 15, 2020. No written objections were submitted to the Division of Land Use Management. An electronic public hearing was held virtually using Zoom video conferencing on Tuesday, September 29, 2020. All information submitted to the Division of Land Use Management relative to this application is made part of the record of this recommendation.

II. GENERAL INFORMATION

A. Existing and Proposed Use

Located in the District's Public Utilities, Environmental Conservation and Light Industrial B zones, the 78.24-acre parcel fronts on Hendricks Causeway, and is developed with the PSE&G's Bergen Switching Station, which includes its Ridgefield Substation within the eastern portion of the site. Gravel covers most of the 15.27-acre surface area within the facility. Approximately 62 acres, or 80 percent of the overall site, is located in the Environmental Conservation zone and consists of mostly wetlands. Bellman's Creek traverses this portion of the property from west to east. Several electric transmission towers with overhead wiring are located throughout the entire site.

PSE&G is undertaking the Energy Strong II Flood Mitigation (ESII) program, a statewide program to strengthen and improve the reliability of the electric distribution system against severe storm events such as those experienced during Superstorm Sandy. As part of the ESII program, PSE&G is proposing to perform upgrades to the Ridgefield Substation, including the installation of two new walk-in 13kV sheltered aisle switchgears and associated equipment on the portion of the subject premises located in the Public Utilities zone. The project intent is to elevate critical electrical equipment at least one foot above FEMA base flood elevation levels to improve reliability and increase capacity of the system.

B. Response to the Public Notice

No written objections were received prior to the public hearing.

III. PUBLIC HEARING (September 29, 2020)

A public hearing was held on Tuesday, September 29, 2020. NJSEA staff in attendance were Sara Sundell, Director of Land Use Management and Chief Engineer; Sharon A. Mascaró, Deputy Director of Land Use Management and Deputy Chief Engineer; Mia Petrou, Supervising Planner; and William Moran, Senior Engineer.

A. Exhibits

The following is a list of the exhibits submitted by the applicant at the public hearing and marked for identification as follows:

<u>Number</u>	<u>Description</u>
A-1	PSE&G Ridgefield Substation & Switching Station Site Location & Aerial Exhibit, dated September 15, 2020;
A-2	PSE&G's Ridgefield Substation Site Plan, dated May 14, 2020, and revised through August 11, 2020;
A-3	Photograph of a Sheltered Aisle Switchgear
A-4	Drawing 323228 entitled, Bergen Switching Station - Ridgefield Substation Grading, Drainage, SESC Plan, dated May 2, 2011, Revision No. 11P dated February 7, 2020;
A-5	PSE&G's Ridgefield Substation Existing Conditions Plan, prepared by PSEG Services Corporation Surveys & Mapping, dated May 14, 2020, and revised through August 11, 2020; and
A-6	Drawing 728645 entitled, Bergen Switching Station - Ridgefield Substation Lighting Plan, dated November 1, 2018, Revision No. 2P, dated February 24, 2020.

B. Testimony

Glenn C. Kienz, Esq., of the Weiner Law Group LLP, represented PSE&G at the hearing. The following three witnesses testified in support of the application:

1. Hardik Shah, P.E., PSE&G;
2. Katherine Hering, P.E., P.P., DW Smith Associates; and
3. Ike-Chukwu Inya-Agha, PM, PSE&G

Staff findings and recommendations are based on the entire record. A transcript of the public hearing was prepared and transcribed by Beth Calderone, Certified Shorthand Reporter.

C. Public Comment

No members of the public were present at the public hearing

IV. RECOMMENDATION

- A. Standards for the Granting of a Bulk Variance from the Provisions of N.J.A.C. 19:4-5.112(a)3i,, which requires a minimum front yard setback of 35 feet, whereas the applicant is proposing to construct a new walk-in 13kV sheltered aisle switchgear (13kV Switchgear #1) and associated equipment in the Public Utilities zone with a minimum setback of 25.3 feet from the front property line along Hendricks Causeway.**

The Hackensack Meadowlands District Zoning Regulations at N.J.A.C. 19:4-4.14(e) state in part that, *a variance shall not be granted unless specific written findings of fact directly based upon the particular evidence presented are made that support conclusions that...*

1. *Concerning bulk variances:*

- i. *The variance requested arises from such condition that is unique to the property in question, is not ordinarily found in the same zone, and is not created by any action of the property owner or the applicant.*

The subject property consists of approximately 78.24 acres and is located in the District's Environmental Conservation, Public Utilities and Light Industrial B zones. Nearly 80 percent of the site is located within the Environmental Conservation zone and is comprised primarily of wetlands. Upland portions of the subject property are currently improved with an existing switching station and electric substation, including numerous buildings and foundations that support miscellaneous electrical process equipment. Multiple driveways provide access to the site from Hendricks Causeway.

Based upon best available flood hazard data, the site is located within a special flood hazard area and is at risk of flooding in a major storm event. As part of the Energy Strong II Flood Mitigation (ESII) program, PSE&G is proposing to perform upgrades to the existing Ridgefield Substation that will improve the reliability and increase the capacity of the system for approximately 34,000 local customers in Ridgefield and Palisades Park. As part of the upgrade, the applicant proposes to replace the existing switchgear equipment that was installed in 1972 and is nearing the end of its lifespan. The new switchgear will be installed on a platform and elevated a minimum of one foot above the FEMA base flood elevation to mitigate potential impacts resulting from flooding. The placement and configuration of the proposed electrical equipment on the site, including the proposed 9.7 foot encroachment of 13kV Switchgear #1 into the required front yard, is dictated by the predominant presence of wetlands on the site, which prevent

expansion of the substation footprint, the location of the large amount of existing energized electrical equipment on the site's upland area, which makes it tight and difficult to fit new equipment with the appropriate safety clearances while allowing for the ease of movement of personnel and vehicles, and the regulatory requirements of the National Electric Safety Code (NESC) to maintain certain clearances between equipment structures. Therefore, the variance requested arises from conditions that are unique to the property in question and were not created by any action of the property owner.

- ii. The granting of the variance will not adversely affect the rights of neighboring property owners or residents.*

The existing substation with associated electrical equipment is a permitted use in the Public Utilities zone. The proposed electrical equipment is located within the area of the existing substation yard, which is screened from Hendrick's Causeway by a decorative security fence and landscaping. As the width of the 13 kV Switchgear #1 structure that extends 9.7 feet into the front yard is minimal in comparison to the property frontage, which is hundreds of feet long, no adverse visual impacts are anticipated. PSE&G's existing site and maintenance operations will be maintained at their present levels. The site is an unmanned facility that requires only occasional visits by PSE&G personnel.

The proposed variance will not impact the ability of neighboring properties to function as intended. Rather, the proposed improvements will promote energy resiliency, which will benefit area energy customers. In addition, there are no residences in the general vicinity of the site. Therefore, the granting of the requested

variance will not adversely affect the rights of neighboring property owners or residents.

iii. The strict application of the regulations will result in peculiar and exceptional practical difficulties to, or exceptional and undue hardship upon, the property owner.

The strict application of the minimum front yard setback requirement of 35 feet on the subject property will result in peculiar and exceptional practical difficulties to, or exceptional and undue hardship upon, the property owner. If the variance were not granted to permit the installation of 13 kV Switchgear #1 as proposed with a front yard setback of 25.3 feet, PSE&G would not be able to upgrade the substation to improve regional reliability and resiliency of the electric distribution system against severe storm events. The strict application of the 35-foot front yard setback would prevent the placement of the new sheltered aisle switchgear equipment with the appropriate safety clearances while allowing for the necessary ease of movement of personnel and vehicles throughout the site.

The location of the proposed electrical equipment on the site is constrained by the presence of a large amount of existing critical electrical infrastructure equipment whose function must be maintained during the installation of the improvements, as well as regulatory requirements of the NESC to maintain certain clearances between equipment structures. Additionally, the switchgear is nearing the end of its 50-year lifespan and needs to be replaced and elevated to mitigate potential damage resulting from flooding. Therefore, the existing site conditions present exceptional practical

difficulties in the ability to comply with the front yard setback requirements.

iv. The variance will not result in substantial detriment to the public good and will not adversely affect the public health, safety, morals, order, convenience, prosperity or general welfare.

Approval of the requested variance to permit the installation of switchgear equipment with a 25.3-foot front yard setback, whereas a minimum front yard setback of 35 feet is required, will not result in substantial detriment to the public good and will not adversely affect the public health, safety, morals, order, convenience, prosperity or general welfare. As part of PSE&G's ESII project resiliency and capacity upgrades, the project will increase the lifespan of the substation and bring it into compliance with current code requirements. The proposed substation upgrades will promote the general welfare by improving the reliability of power delivery to 31,000 PSE&G customers in Ridgefield and Palisades Park that are served by this substation. The proposed improvements will blend in with the character of the existing switching station. The applicant provided testimony that any disturbances to the landscaping and fencing screening the substation required for the project will be restored to match the pre-construction condition.

The electric switching station is an unmanned facility and requires only periodic maintenance by PSE&G personnel. Therefore, it is anticipated that traffic levels will not differ from those of the existing operations at the site.

v. *The variance will not have a substantial adverse environmental impact.*

The granting of the requested variance to permit a minimum front yard setback of 25.3 feet, whereas a minimum setback of 35 feet is required, will not have a substantial adverse environmental impact. No wetlands will be disturbed during the installation of the sheltered aisle switchgear equipment. Minimum open space requirements will be maintained. All of the proposed work will occur in previously disturbed areas. The amount of impervious surface will be reduced as a result of this project, thereby reducing the amount of stormwater runoff. The District's environmental performance standards for noise, glare, vibrations, airborne emissions, hazardous materials and water quality, as enumerated in N.J.A.C. 19:4-7.1 et seq., will not be exceeded.

vi. *The variance represents the minimum deviation from the regulations that will afford relief.*

The new switchgear upgrade project is required as part of a regional reliability and resiliency initiative to upgrade existing energy infrastructure. The particular characteristics of the property, including the abundant presence of wetlands and the location of existing improvements, constrain the ability of the proposed electrical processing equipment to comply with the front yard setback requirements of the Public Utilities zone. The sheltered aisle switchgear unit that is proposed to extend approximately 9.7 feet into the required front yard along Hendricks Causeway, will occupy only a small portion of the property's northerly front yard. Adequate light, air and open space will continue to be provided and all relevant NJSEA performance standards as enumerated in N.J.A.C. 19:4-7.1 et seq. will be met. The

location of the proposed electrical equipment on the site is constrained by the presence of existing improvements whose function must be maintained as they are upgraded, as well as by regulatory requirements of the NESC to maintain certain clearances between equipment structures and to ensure the safety of PSE&G personnel. Therefore, the variance request is the minimum deviation from the regulations that will afford relief.

vii. Granting the variance will not substantially impair the intent and purpose of these regulations.

The granting of the requested variance to permit a 25.3-foot front yard setback to 13kV Switchgear #1, whereas a minimum front yard setback of 35 feet is required, will not substantially impair the intent and purpose of the District Zoning Regulations. Due to the existing configuration of the property and the location of the improvements on site, including the predominant presence of wetlands and the layout of the existing electric utility equipment and proposed switchgear upgrades, the site is constrained in its ability to meet the required front yard setback.

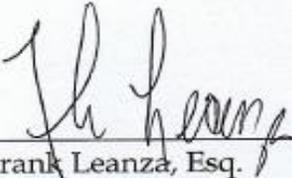
As the District Zoning Regulations are intended to provide for infrastructure and utility improvements and to promote the efficient use of the land, the requested variance will not substantially impair the purpose of the regulations.

V. SUMMARY OF CONCLUSIONS

A. Standards for the Granting of a Bulk Variance from the Provisions of N.J.A.C. 19:4-5.112(a)3i, which requires a minimum front yard setback of 35 feet, whereas the applicant is proposing to construct a new walk-in 13kV sheltered aisle switchgear (13kV Switchgear #1) and associated equipment in the Public Utilities zone with a minimum setback of 25.3 feet from the front property line along Hendricks Causeway.

Based on the record in this matter, the bulk variance application to construct a new walk-in 13kV sheltered aisle switchgear and associated equipment in the Public Utilities zone with a minimum setback of 25.3 feet from the front property line along Hendricks Causeway is hereby recommended for APPROVAL.

Approval	11/9/2020	
Recommendation on Variance Request	Date	Sara J. Sundell, P.E., P.P. Director of Land Use Management and Chief Engineer

<u>APPROVAL</u>	<u>11/9/2020</u>	<u></u>
Recommendation on Variance Request	Date	Frank Leanza, Esq. Senior Vice President Chief of Legal & Regulatory Affairs