Generation Interconnection

Feasibility Study Report

for

Queue Project AE1-001

CALVERT CLIFFS

7.1 MW Capacity / 28.1 MW Energy

June, 2019

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1 Preface

The intent of the feasibility study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation to the PJM network at a location specified by the Interconnection Customer. The Interconnection Customer may request the interconnection of generation as a capacity resource or as an energy-only resource. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Direct Connections, which are new facilities and/or facilities upgrades needed to connect the generator to the PJM network, and (2) Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system.

In some instances a generator interconnection may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection, may also contribute to the need for the same network reinforcement. Cost allocation rules for network upgrades can be found in PJM Manual 14A, Attachment B. The possibility of sharing the reinforcement costs with other projects may be identified in the feasibility study, but the actual allocation will be deferred until the impact study is performed.

An Interconnection Customer with a proposed new Customer Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units (PMUs). See Section 8.5.3 of Appendix 2 to the Interconnection Service Agreement as well as section 4.3 of PJM Manual 14D for additional information.

The Feasibility Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer is responsible for the right of way, real estate, and construction permit issues. For properties currently owned by Transmission Owners, the costs may be included in the study.

2 General

The Interconnection Customer has proposed an uprate to an existing nuclear generating facility located in Calvert, Lusby County, Maryland. This projects requests an increase to the install capability of 28.1 of uprate MW with 7.1 of uprate MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is March 17, 2018. This study does not imply a TO commitment to this in-service date.

Note that this project is an increase to the Interconnection Customer's AC1-008 and AC2-017 projects, which will share the same property and connection point. The conduct of light load analysis as required under the PJM planning process is not performed during the Generation Interconnection Feasibility Study phase of the PJM study process. Additional reinforcement requirements for this Interconnection Request may be defined during the conduct of the light load analysis which shall be performed following execution of the System Impact Study agreement.

Queue Number	AE1-001
Project Name	CALVERT CLIFFS
State	Maryland
County	Calvert
Transmission Owner	BGE
MWE	28.1
MWC	7.1
Fuel	Nuclear
Basecase Study Year	2022

2.1 Point of Interconnection

AE1-001 will interconnect with the BGE transmission system at the Calvert Cliffs 500kV bus.

2.2 Cost Summary

The AE1-001 project will be responsible for the following costs:

Description	Total Cost
Attachment Facilities	None
Direct Connection Network Upgrade	None
Non Direct Connection Network Upgrades	None
Total Costs	None

In addition, the AE1-001 project may be responsible for a contribution to the following costs

Description	Total Cost
System Upgrades	None

3 Transmission Owner Scope of Work

Not applicable.

4 Attachment Facilities

The total preliminary cost estimate for the Attachment work is given in the table below. These costs do not include CIAC Tax Gross-up.

Description	Total Cost
Not Applicable	None
Total Attachment Facility Costs	None

5 Direct Connection Cost Estimate

The total preliminary cost estimate for the Direct Connection work is given in the table below. These costs do not include CIAC Tax Gross-up.

Description	Total Cost
Not Applicable	None
Total Attachment Facility Costs	None

6 Non-Direct Connection Cost Estimate

The total preliminary cost estimate for the Non-Direct Connection work is given in the table below.

Description	Total Cost
Not Applicable	None
Total Attachment Facility Costs	None

7 Incremental Capacity Transfer Rights (ICTRs)

Will be determined at a later study phase

8 Schedule

Not applicable.

9 Transmission Owner Analysis

Not applicable.

10 Interconnection Customer Requirements

Not applicable.

11 Revenue Metering and SCADA Requirements

Existing metering meets all requirements.