

# Subregional RTEP Committee - DLCO

March 15, 2024

# Needs

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

**Need Number:** DLC-2024-002

**Process Stage:** Needs Meeting – 3/15/2024

**Supplemental Project Driver(s):**

- Customer Service
- Equipment Material Condition, Performance, and Risk

**Specific Assumptions Reference:**

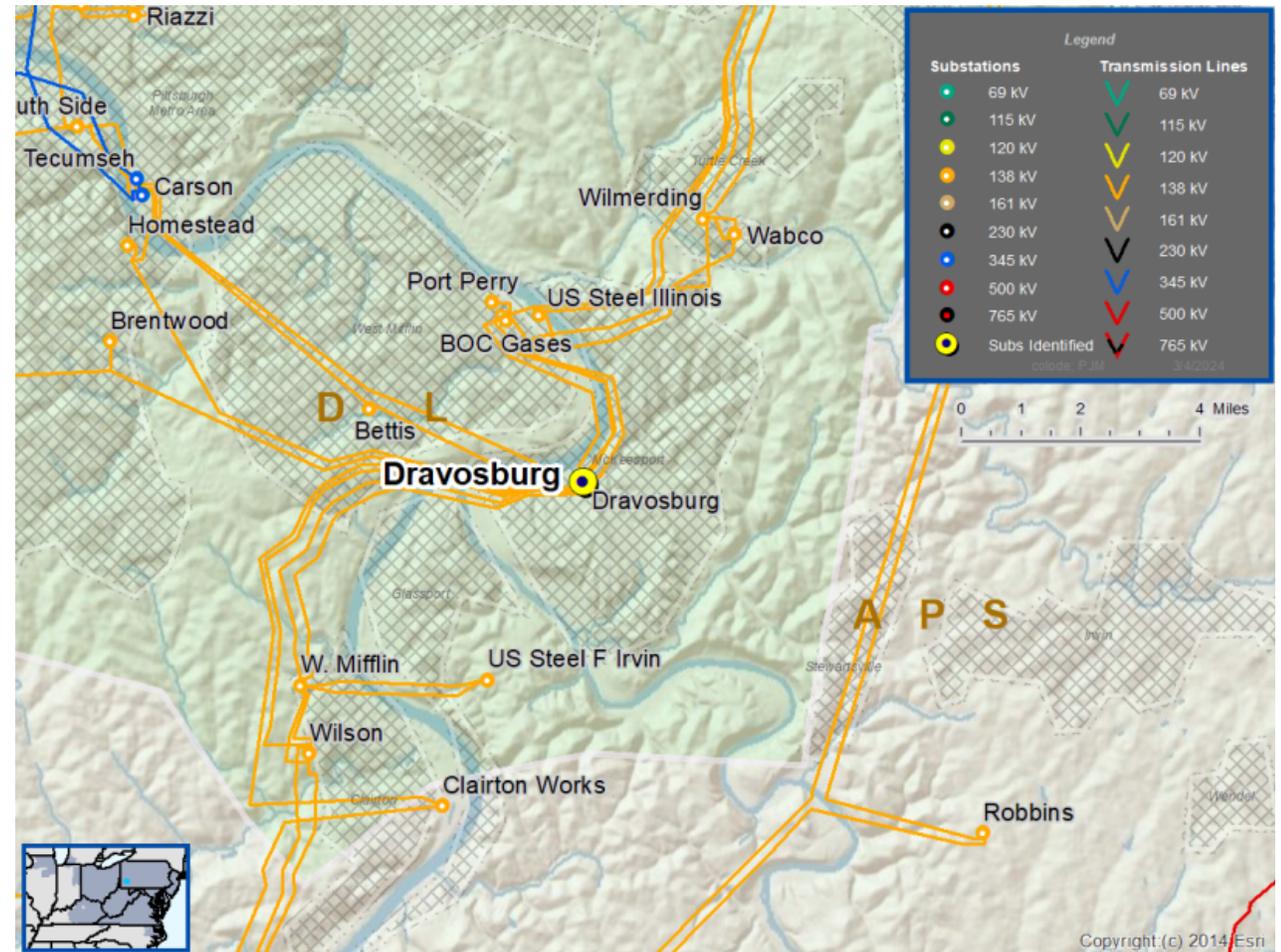
Slides 6 and 9 of the DLC 2024 Local Planning Assumptions.

**Problem Statement:**

Duquesne Light’s Distribution Planning team has determined that Dravosburg Substation has limited capacity to serve new distribution load due to the size of the station’s existing distribution transformers.

Duquesne Light’s Asset Management team has determined that the Dravosburg #1 and #2 138-69 kV autotransformers have increased failure probability due to:

- Equipment Age (#1 138-69 kV autotransformer age: 64 years, # 2 138-69 kV autotransformer age: 44 years)
- Obsolescence (Spare parts are not readily available)



# Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

**Need Number:** DLC-2024-001

**Process Stage:** Solutions meeting – 3/15/2024

**Supplemental Project Driver(s):**

Equipment Material Condition, Performance, and Risk

**Specific Assumptions Reference:**

Slide 6 of the DLC 2024 Local Planning Assumptions.

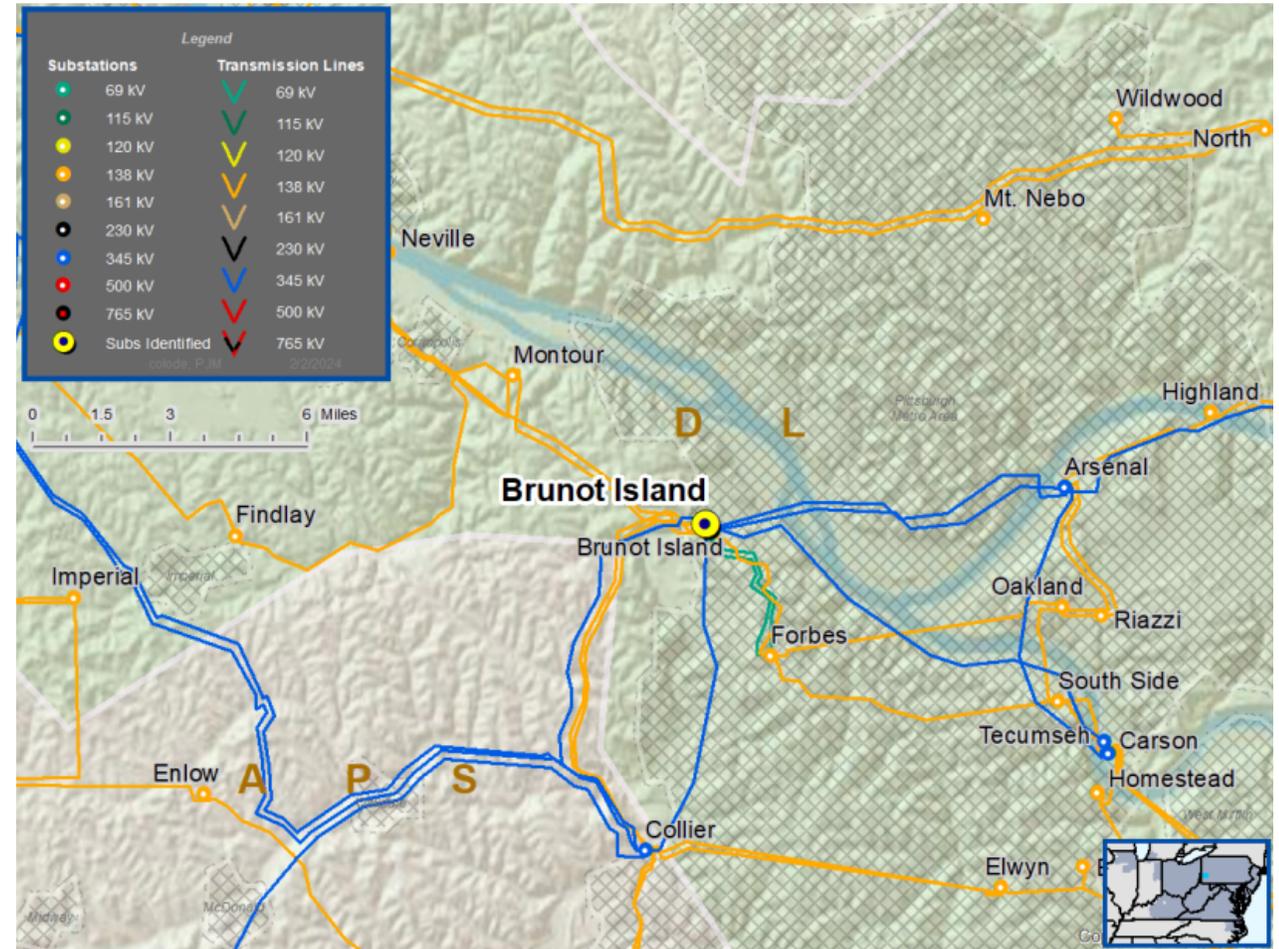
**Problem Statement:**

At Brunot Island Substation, four 138kV oil circuit breakers have increased failure probability due to:

- Equipment Age (Ages range between 45 – 50 years of age)
- Obsolescence (Spare parts are not readily available)

Ten 138 kV buses and one 69 kV bus at Brunot Island have nonredundant bus relaying schemes with increased failure probability due to:

- Equipment Age (Ages range between 40 – 50 years of age)
- Obsolescence (Spare parts are not readily available)



**Need Number:** DLC-2024-001

**Process Stage:** Solution Meeting – 3/15/2024

**Previously Presented:** Needs Meeting – 2/16/2024

### Proposed Solution:

Replace the four aged 138kV breakers and their associated equipment with modern breakers and equipment. Install redundant, secondary microprocessor protection schemes for the ten 138 kV buses and one 69 kV bus that lack redundancy. Replace the aged, existing electromechanical relaying schemes on five 138 kV buses and one 69 kV bus. Note the aged, existing electromechanical relaying schemes on the other five 138 kV buses are not capable of being replaced at this time due to CT limitations on distribution transformers.

**Estimated Cost:** \$8 M

### Ancillary Benefits:

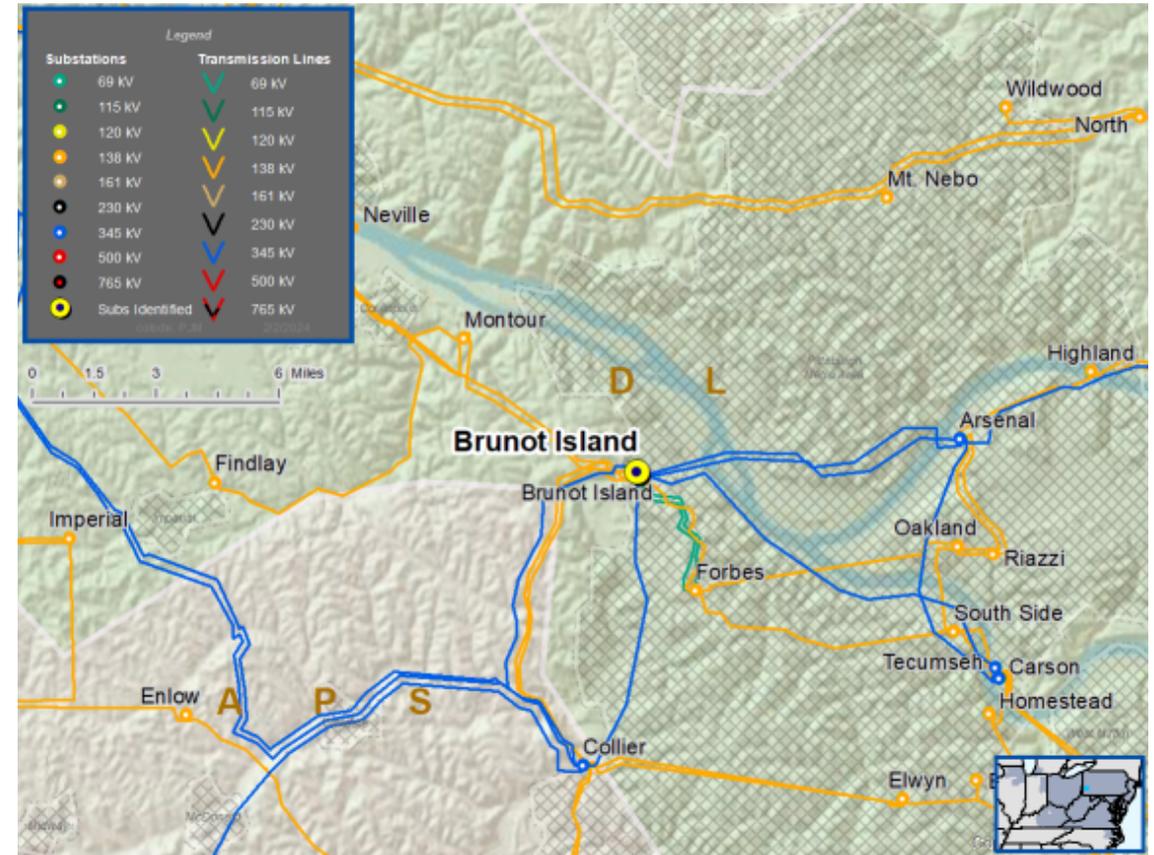
This project will upgrade the fault interrupting capacity of the breakers to 63kA and eliminate several relay failure contingencies at the substation.

### Alternatives Considered:

- 1. Maintain existing condition** – Maintaining the existing condition of the equipment does not address the increased failure risk of the aged breakers.  
Estimated Cost: N/A

**Projected In-Service:** June 2025

**Project Status:** Planning



# Appendix

# High Level M-3 Meeting Schedule

Assumptions	Activity	Timing
	Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
	Stakeholder comments	10 days after Assumptions Meeting
Needs	Activity	Timing
	TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
	Stakeholder comments	10 days after Needs Meeting
Solutions	Activity	Timing
	TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
	Stakeholder comments	10 days after Solutions Meeting
Submission of Supplemental Projects & Local Plan	Activity	Timing
	Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
	Post selected solution(s)	Following completion of DNH analysis
	Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
	Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions

# Revision History

3/5/2024– V1 – Original version posted to pjm.com