Subregional RTEP Committee – Western
FirstEnergy Supplemental Projects

DLCO Transmission Zone M-3 Process
Pittsburgh, PA

Need Number: DLC-2022-001

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/22/2022

Previously Presented: Needs Meeting – 3/18/2022
Solutions Meeting – 4/22/2022

Supplemental Project Driver(s):

Infrastructure Resilience and Customer Service

Specific Assumptions Reference:

Slide 9 and 10 of the DLC 2022 Local Planning Assumptions.

Problem Statement:

Load growth in Pittsburgh's downtown area, and in its adjacent communities, has presented concerns regarding DLC's existing distribution lines and its ability to serve its customers. As such, additional capacity and resiliency is needed to provide adequate distribution service to these areas.

Requested In-Service: 6/2025

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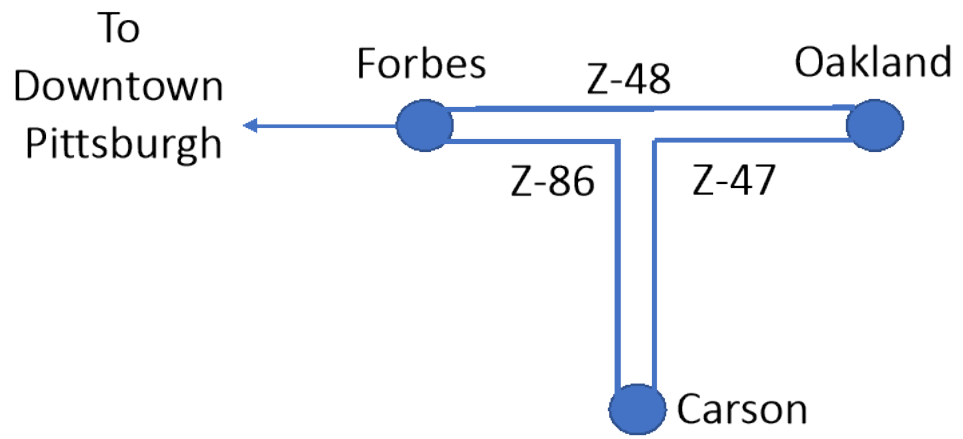
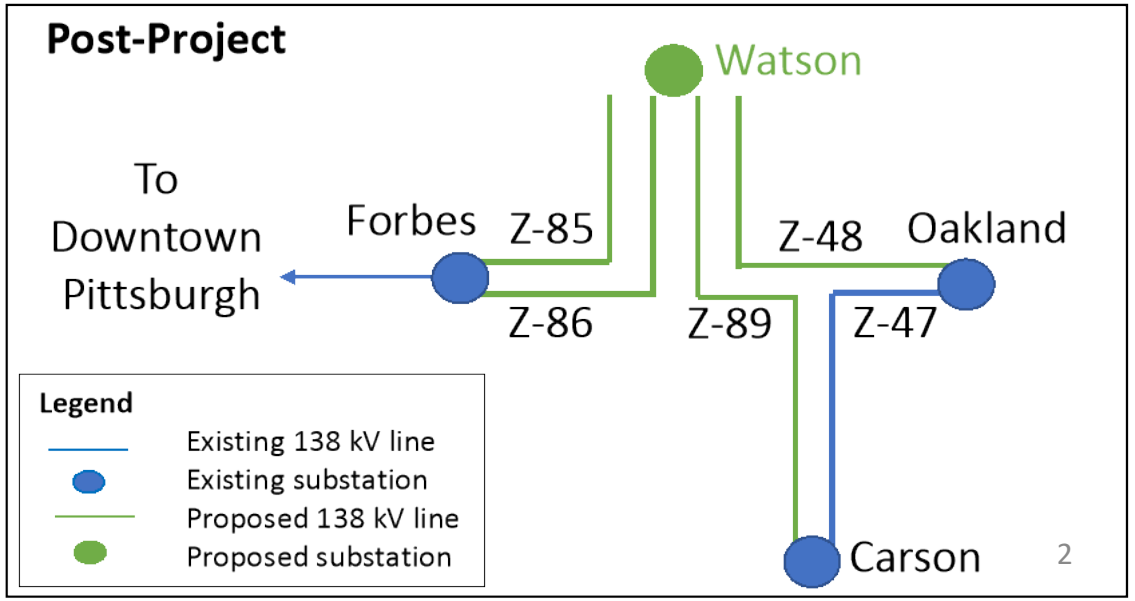
Pre-Project



Post-Project



DLCO Transmission Zone M-3 Process
Pittsburgh, PA

Need Number: DLC-2022-001

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/12/2022

Previously Presented: Needs Meeting – 3/18/2022
Solutions Meeting – 4/22/2022

Potential Solution:
Establish a new 138-23 kV Watson substation with a 138 kV 3000A GIS ring bus. New substation will provide additional distribution feeds to DLC's downtown area which will increase capacity and provide increased resiliency. The existing Oakland–Forbes (Z-48) and Carson–Forbes (Z-86) 138 kV circuits will be looped through the new Watson 138 kV Substation to act as its transmission source. Four new 138 kV circuits will be created: Oakland–Watson (Z-48), Forbes–Watson (Z-85), Forbes–Watson (Z-86), and Carson–Watson (Z-89).

The Watson substation will provide load relief, increased service reliability, and resiliency to the distribution lines which provide service to Pittsburgh's downtown area and nearby communities.

Alternatives Considered:

1. **No Changes/ Do Nothing** – this is not a recommended alternative. Failing to address this issue would result in distribution system reliability and resiliency concerns with DLC's downtown area, including a number of critical customers. Estimated Alternative Solution #1 Cost: N/A

2. **Build breaker and a half bus configuration of Watson Substation** – this alternative is more costly as it would require more land, equipment, and involve complex protection and control relaying. Estimated Alternative Solution #2 Cost: $54M

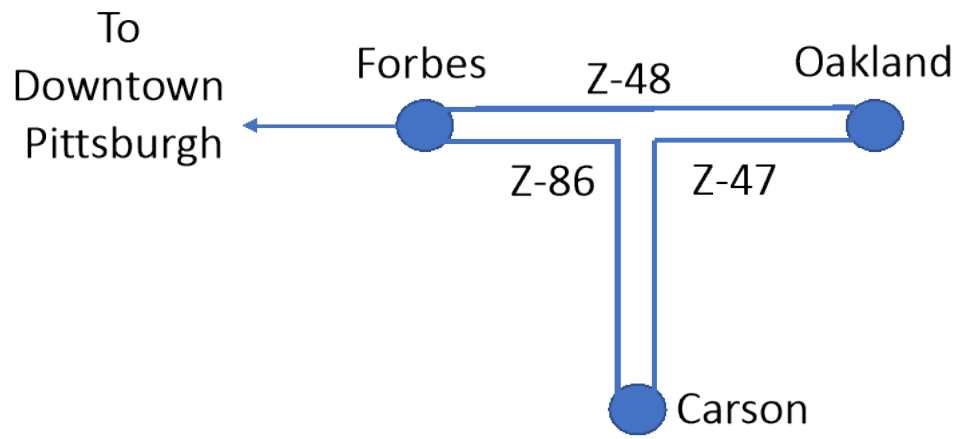
Estimated Project Cost: $34M

Projected In-Service: 6/2025

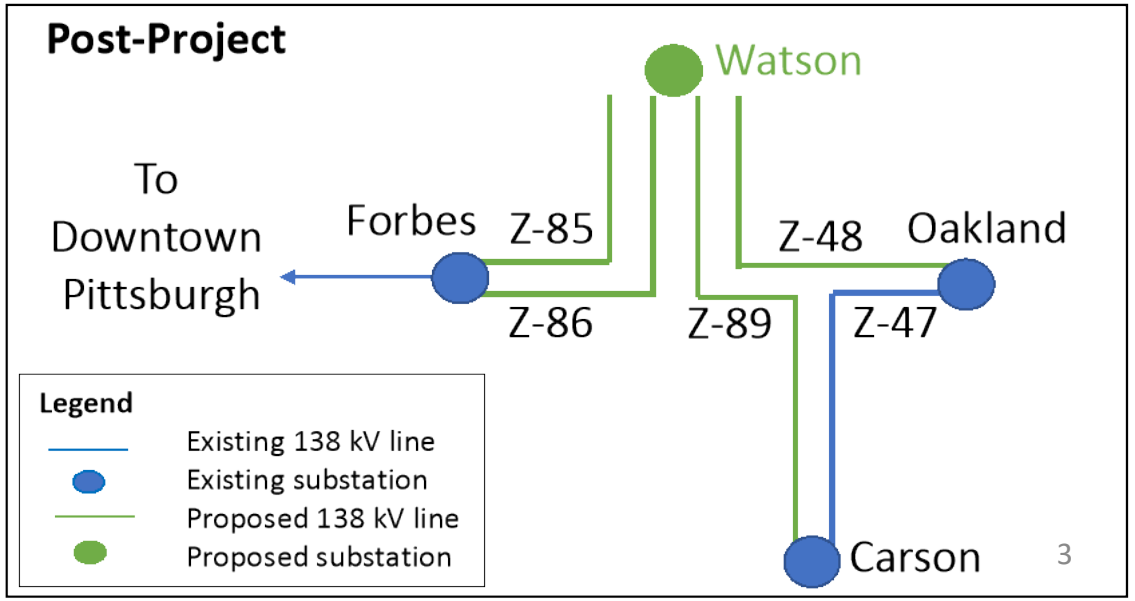
Supplemental Project ID: s2726

Project Status: In Progress

Pre-Project



Post-Project



Revision History

7/13/2022 – V1 – Original version posted to pjm.com (s2726)