Subregional RTEP Committee – Mid-Atlantic
ODEC Supplemental Projects

October 19 , 2023

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

ODEC Transmission Zone: Supplemental
6750 Kellam-Cheriton 69kV Rebuild

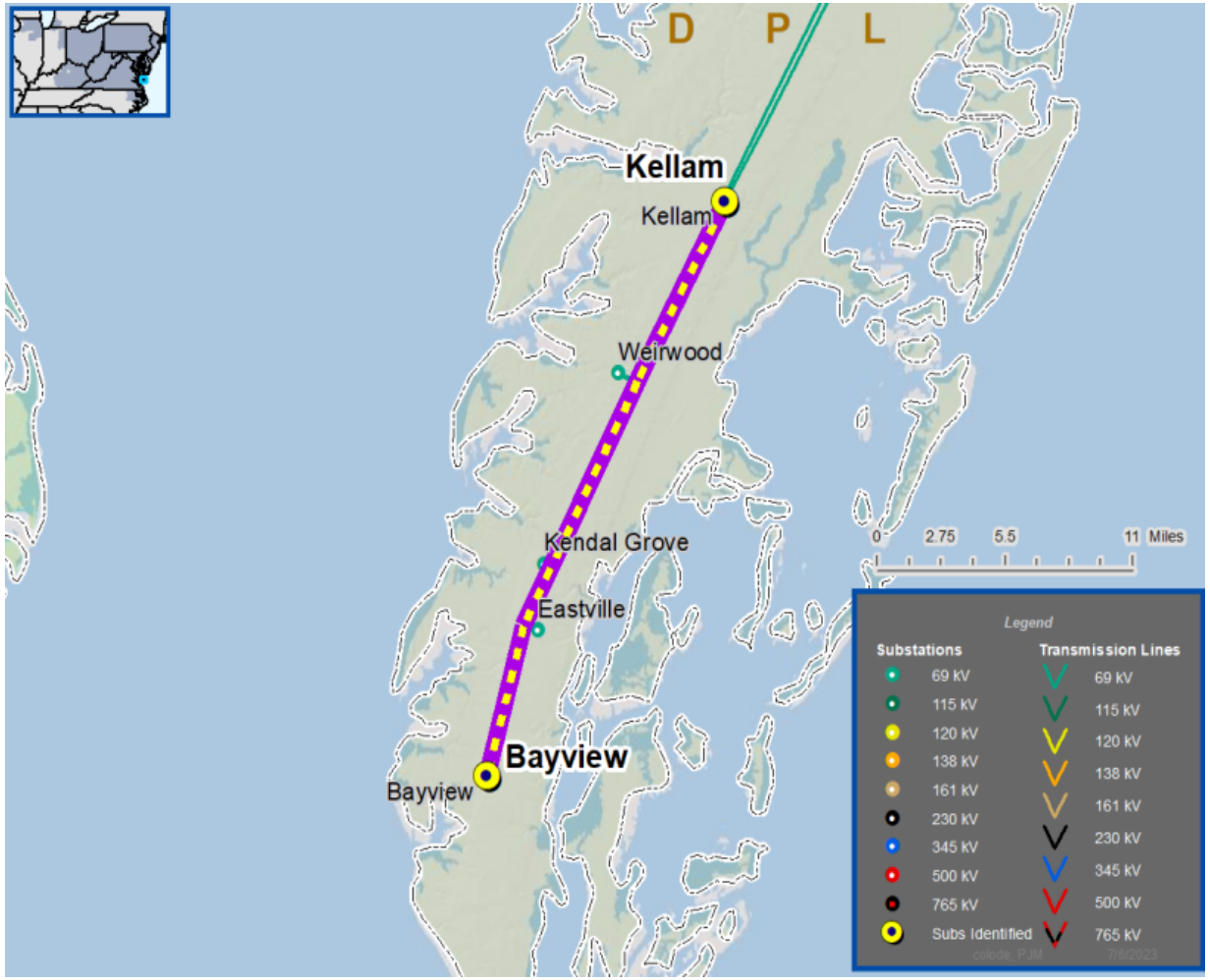
Need Number: ODEC-2023-01
Process Stage: Solution Meeting 10/19/2023
Previously Presented: Need Meeting 07/20/2023
Supplemental Project Driver: ODEC End-of-Life Criteria

III.B.2: ODEC transmission shall replace aged facilities which because of their age or condition pose a risk to reasonable reliability and resilience levels.

III.B.3: ODEC transmission shall replace aged facilities which because of their age or condition pose an increased total cost as compared to a new facility.

Problem Statement:

- The wood poles on the 6750 line (Kellam to Cheriton/Bayview) were erected in 1963 and are 60 years old and at the end of life. This is a radial 20-mile 69kV line.
- There are approx. 155 wood H pole structures off which approx. 23 structures have been replaced since ODEC took ownership in 2008.
- Annual inspections identify wood pole structures that have the following age-related damage: pole top rot, woodpecker damage, cross arm rot, pole rejects, etc.
- Industry guidelines and other Transmission owners indicate equipment life for wood structures is 35-55 years, conductors and connectors is 40-60 years, and porcelain insulators is 50 years.



ODEC Transmission Zone: Supplemental
6750 Kellam-Cheriton 69kV Rebuild

Need Number: ODEC-2023-01
Process Stage: Solution Meeting 10/19/2023

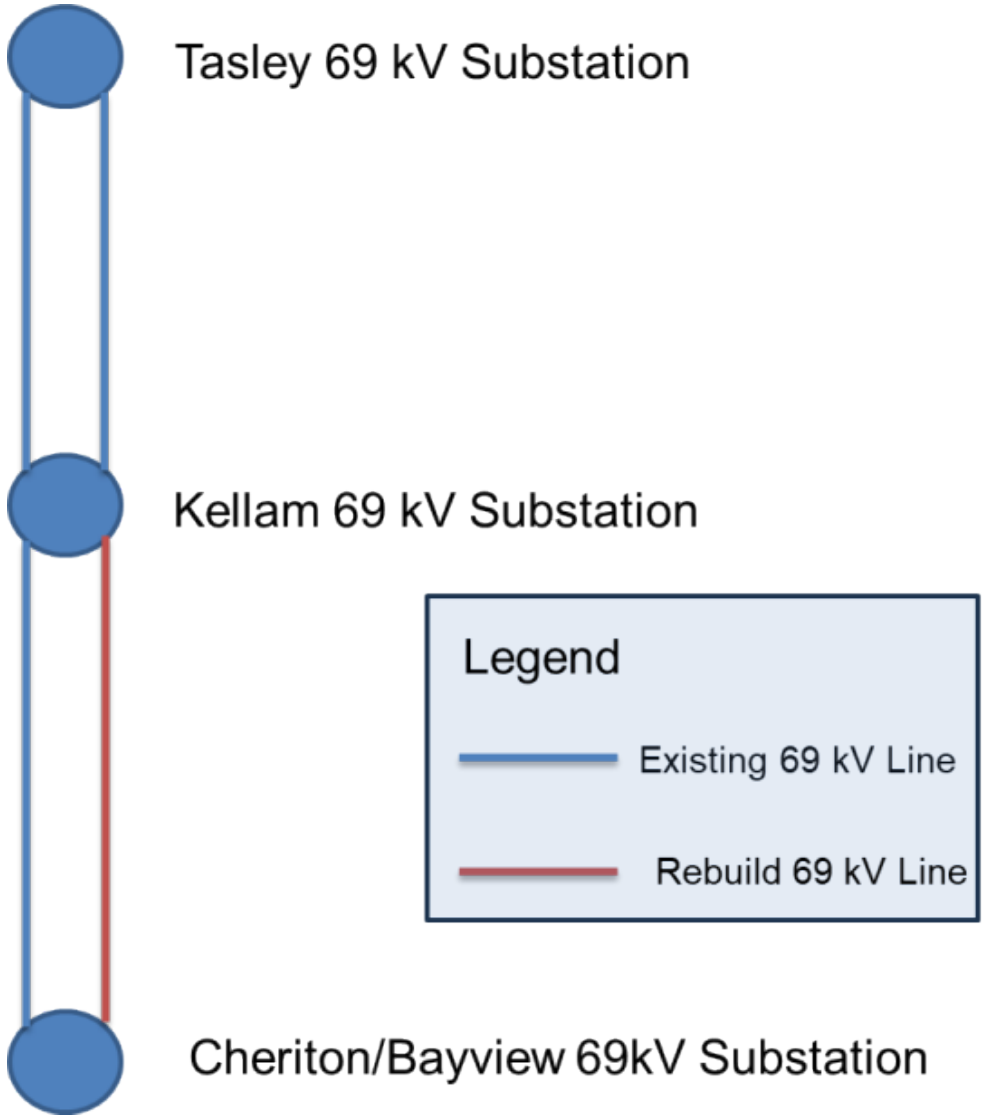
Proposed Solution:

- Rebuild the entire 20-mile 69kV line on Corten Steel MonoPoles with 954 ACSR conductor and OPGW. The replacement line will stay within the existing ROW and clearances shall meet APLIC guidelines.

Alternatives Considered:

1. No feasible alternatives. A new 69kV line in a new ROW will be cost-prohibitive and will have a significant community impact.

Estimated Project Cost: $17 M
Projected In-Service: 12/30/2027
Project Status: Pre-Engineering
Model: 2027 RTEP



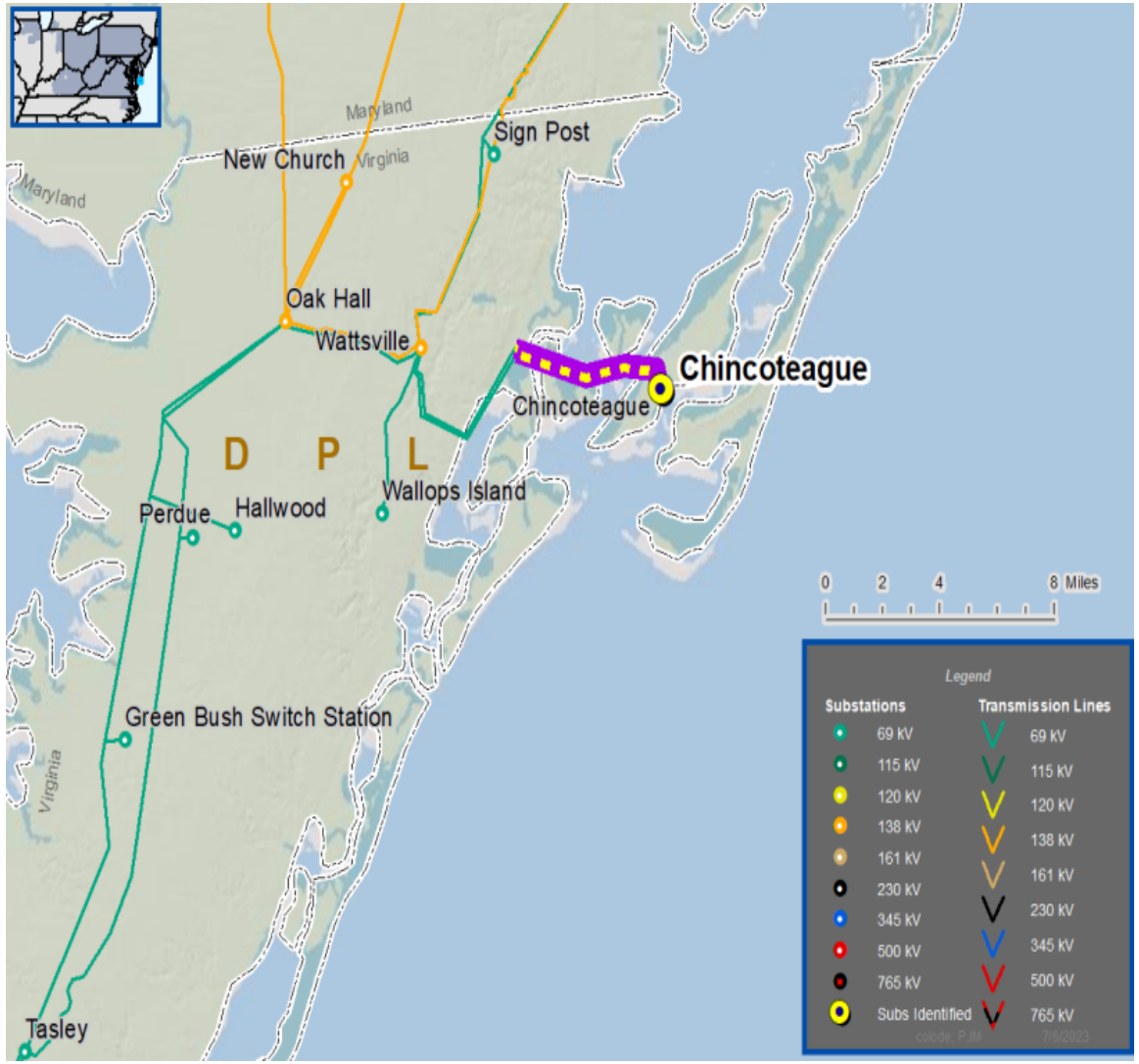
ODEC Transmission Zone: Supplemental
6745/46 69kV Chincoteague Cable

Need Number: ODEC-2023-02
Process Stage: Solution Meeting 10/19/2023
Previously Presented: Need Meeting 07/20/2023

Supplemental Project Driver: ODEC End-of-Life Criteria
III.B.2: ODEC transmission shall replace aged facilities which because of their age or condition pose a risk to reasonable reliability and resilience levels.
III.B.3: ODEC transmission shall replace aged facilities which because of their age or condition pose an increased total cost as compared to a new facility.

Problem Statement:

- The 3 conductor 500 MCM medium pressure fluid-filled PILCA cable was installed in the 1980s and is 40 years old and at the end of its life. The channel crossing is approx. 500 feet.
- Cables are the only two radial transmission sources to the Chincoteague station.
- Cable and its attachments have had multiple repair events (5 times under ODEC ownership, 14 times under prior ownership) that require isolating one of the radial feeds to the station and contracting with a Canadian firm to perform repairs.
- The outage clearances associated with oil leak repairs generally last between a week to 3 weeks.
- Spare materials for this cable and its accessories are becoming obsolete.
- Specialized contractors to support cable repairs are not widely available and cannot provide immediate support.



ODEC Transmission Zone: Supplemental
6745/46 69kV Chincoteague Cable

Need Number: ODEC-2023-02

Process Stage: Solution Meeting 10/19/2023

Proposed Solution:

- Install Two UG XLPE 69kV cables from Marsh Island Transition Point to Chincoteague station. Retire the existing oil-filled cables that are at end-of-life.
- Install the two 69kV cables as Armored submarine cables or in conduits. The final determination of the installation method will be made in the pre-engineering phase.
- Replace the circuit switchers and reconfigure the Chincoteague station.
- CPCN will be required.
- **Alternatives Considered:**

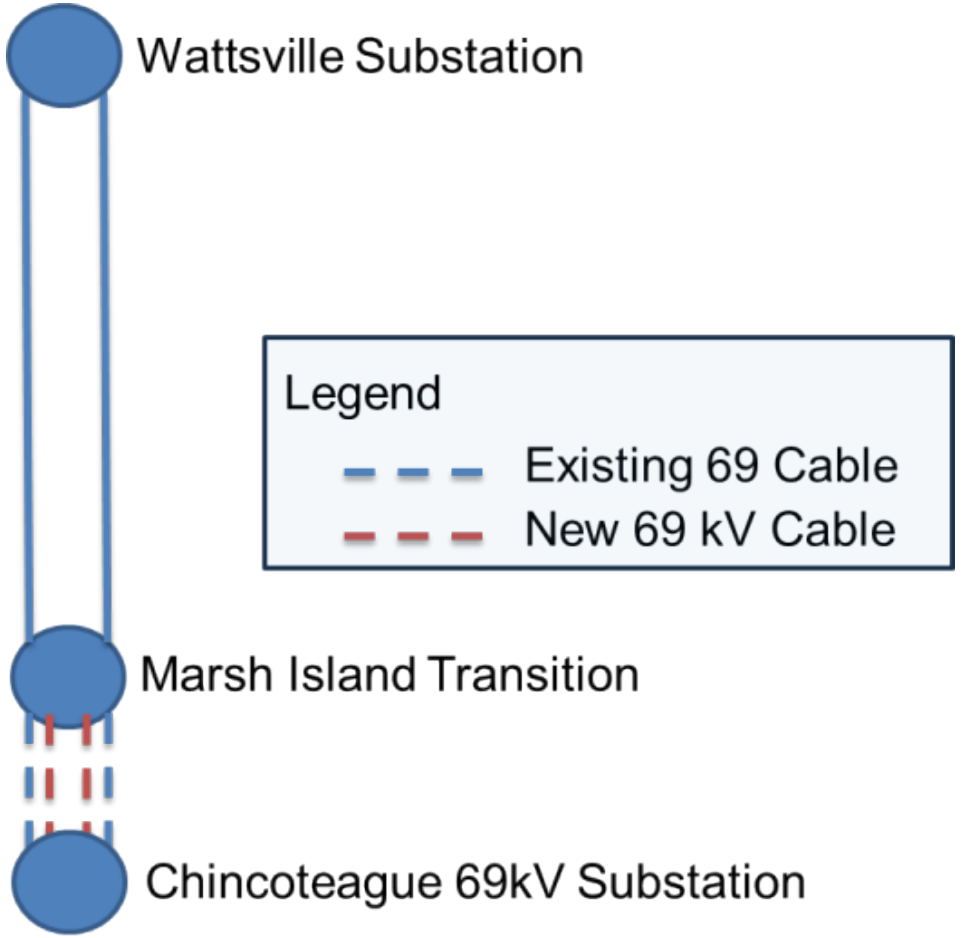
1. No feasible O/H alternatives. The overhead option presents a significant risk from a permitting (United States Army Core of Engineers(USCOE), US Coast Guard (USCG)) and public approval standpoint as the existing cable crossing is a submarine one.

Estimated Project Cost: $6 M

Projected In-Service: 12/30/2027

Project Status: Pre-Engineering

Model: 2027 RTEP



Questions?

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

10/6/2023 – V1 – Original version posted to pjm.com
10/9/2023 – V1 – Update proposed solution on slide #6