

# Submission of ODEC Supplemental Projects for Inclusion in the Local Plan

# ODEC Transmission Zone M-3 Process Fiber Communications on the Eastern Shore

**Need Number: ODEC-2021-001**

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan 8/26/2021

**Need Slide Presented:** 4/14/21

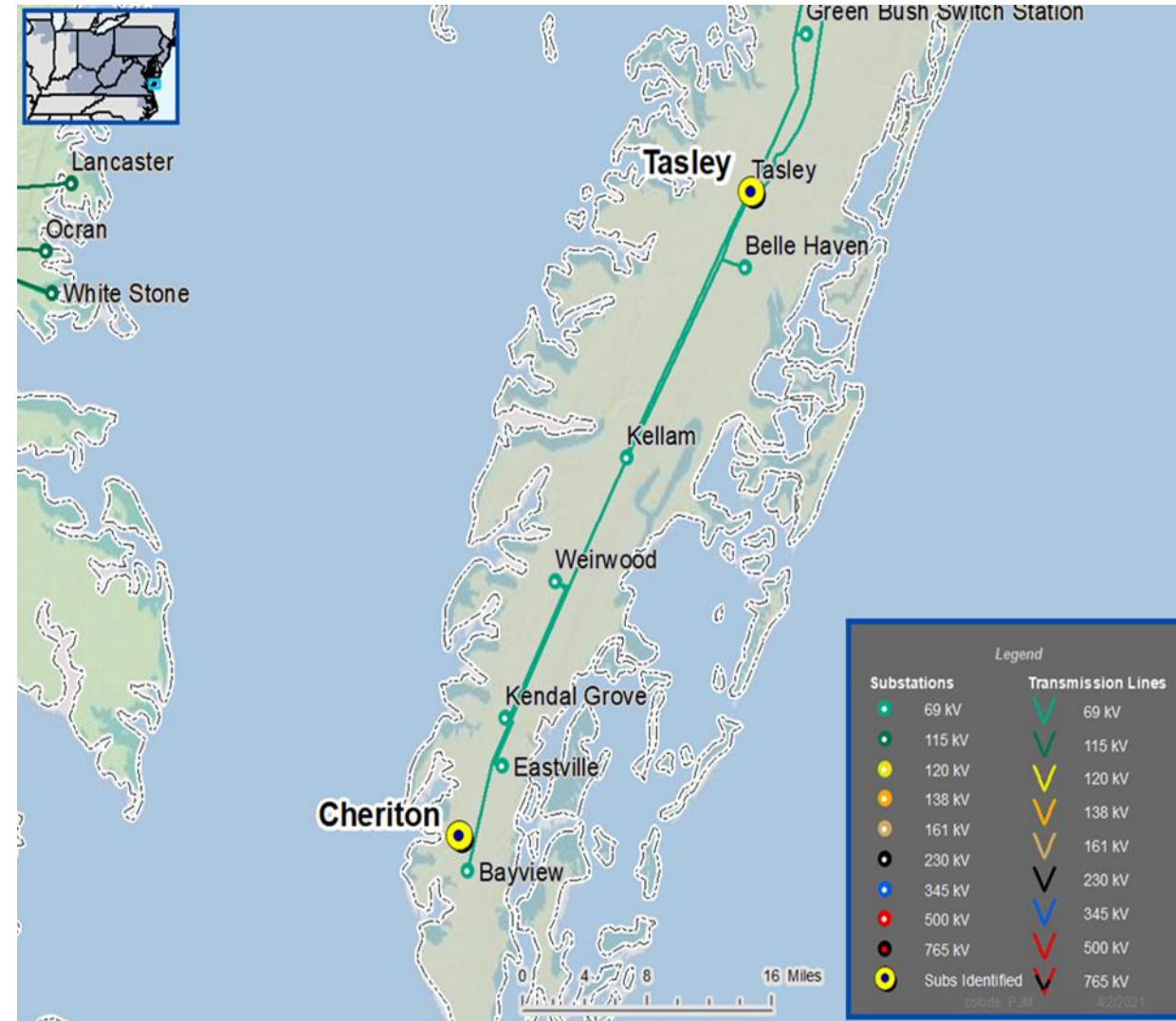
**Solution Slide Presented:** 5/20/21

## Project Drivers:

- System reliability and performance
- Load at risk in planning and operational scenarios
- Unintentional islanding

## Problem Statement:

- Protection and Control of the existing transmission system relies on over current and distance relays.
- Existing generation approximates load in multiple areas.
- Breaker failure backup relaying is currently at the next station upline and increases line clearing times.
- High speed, reliable communications does not exist between stations.
- Communications with PJM and to SCADA systems are being provided by third parties. ODEC wishes to take over these comms as one third party is planning on retiring existing equipment.
- Existing generators at Cheriton and Tasley presently detect islanding indirectly through abnormal frequency and voltage.



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## Selected Solution:

- Install OPGW on the 110miles of transmission lines with underground fiber in the various areas where the transmission lines are underground such as airport runways or water crossings.

## Alternatives Considered:

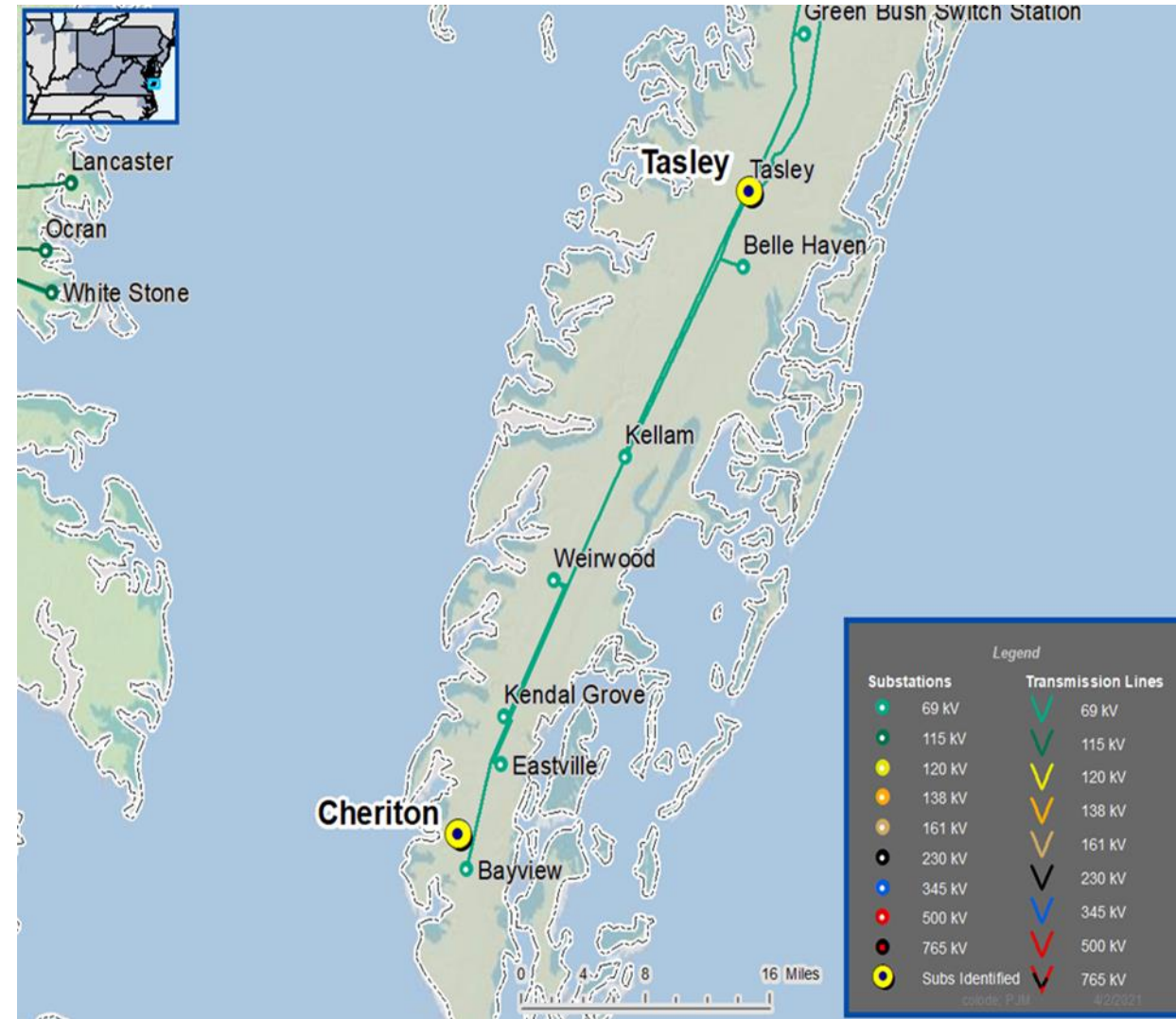
- Keeping the status quo with communications with PJM and to SCADA systems being provided by third parties. This solution doesn't provide for the high-speed protection required. Microwave options were reviewed but the permitting requirements and Right of Ways for line of sight were impractical in many areas.

**Estimated Cost:** \$20M

**Projected In-Service:** 2028 with segments being completed each year beginning in 2022.

**Supplemental Project ID:** s2552

**Project Status:** Preliminary Engineering



# Revision History

8/26/2021 – V1 – Local Plan for S2552 posted to pjm.com