SRRTEP Committee: Western Dayton Supplemental Projects

June 19, 2020

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: Dayton-2020-007
Process Stage: Needs Meeting
Date: 6/19/2020

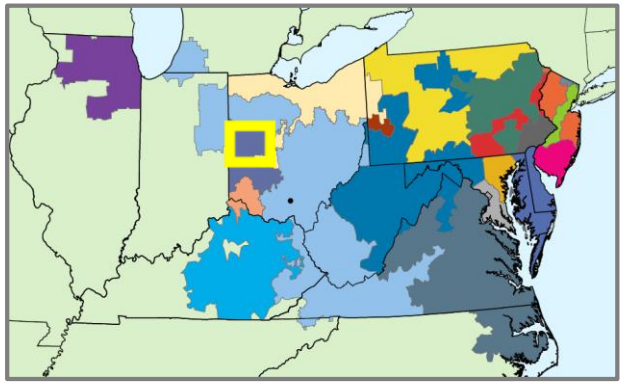
Supplemental Project Driver(s):
System Configuration Improvements
Operational Performance

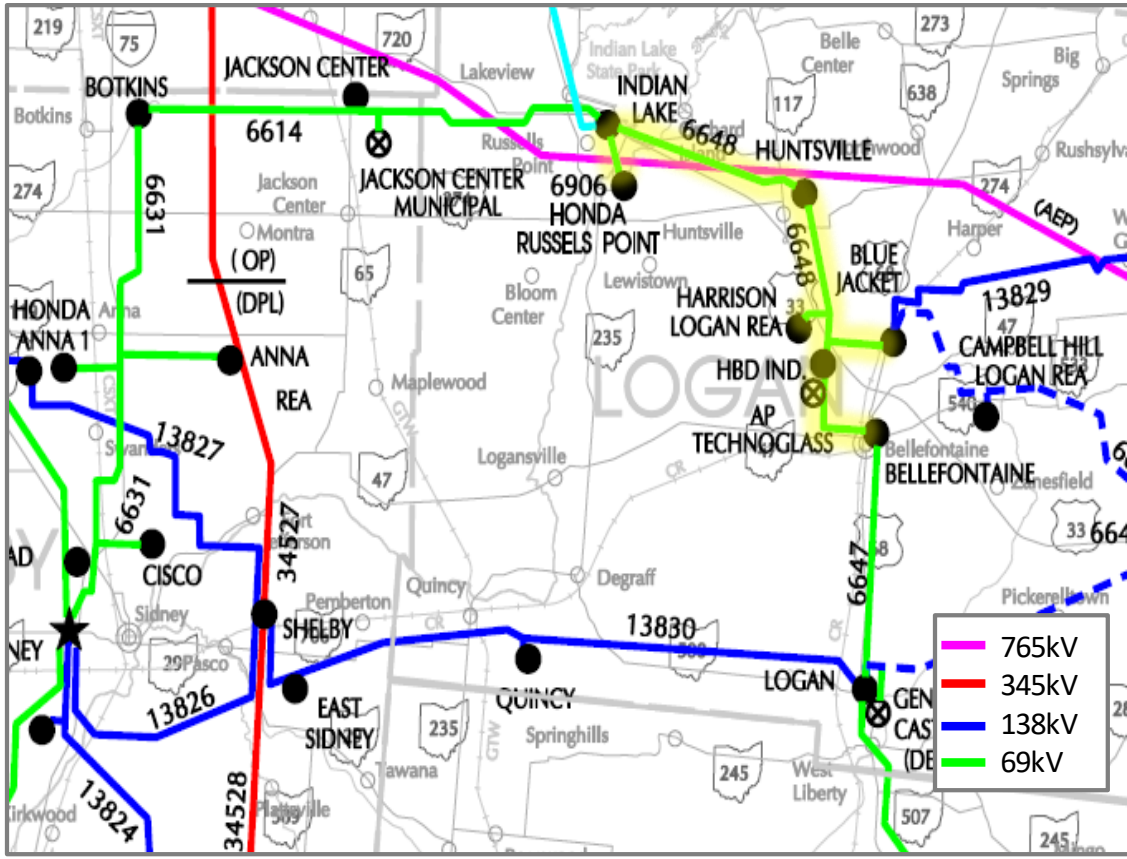
Specific Assumption Reference(s):
DP&L 2020 RTEP Assumptions, Slide 5

Problem Statement:

- The Bellefontaine-Blue Jacket-Indian Lake 6648 69kV transmission line is a 16 mile three-terminal line located in Logan County, Ohio. The line features wooden cross-arm and post construction designs.
- The 6648 line provides service to customers served at 7 different substations: Indian Lake (DP&L), Huntsville (DP&L), Harrison (Logan REA), HBD Thermoid (DP&L), AGC Automotive (DP&L), Bellefontaine (DP&L), and Blue Jacket (DP&L).
  - A fault on 6648 results in at least a momentary outage on 9 distribution transformers, 35MW of load, and possible sustained outages to the multitude of customers served from the line.
  - Also, an outage on 6648 between the Blue Jacket tap and Harrison (Logan REA) will make the remaining circuit radial that provides service to Honda Transmission (Logan REA) and 10 other points of delivery served from the 6631 line in this configuration.
- The 6648 line has experienced 1 permanent and 3 momentary outages since 2017. The permanent outage was caused by a tree outside of the right of way and the momentary outages were caused by lightning, an issue on the distribution underbuild, and a failed piece of equipment during switching.
- The 6648 line serves approximately 35MW of load and has 16 miles of exposure (560MW-mile), although the line has performed well, there is significant exposure on this circuit that must be reduced to ensure long-term reliability.
- Immediately east of Indian Lake substation, the 6648 line crosses a low-lying area for approximately 0.75 miles. For several months of the year, structures are in standing water.
- Circuit 6906 is a radial line 2.0 mile long radial line connecting Indian Lake to a large industrial load (23 MW).

Model: 2019 RTEP Series, 2024 Summer Case





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

6/9/2020 – V1 – Original version posted to pjm.com