TEAC Committee
ComEd Supplemental Projects

November 14, 2019
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:** ComEd-2019-006  
**Process Stage:** Solutions Meeting 11/14/2019  
**Previously Presented:**  
Need Meeting 10/17/2019  
**Project Driver:**  
Equipment Material Condition, Performance, and Risk  
**Specific Assumption Reference:**  
Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions  
**Problem Statement:**  
345 kV Line 0402 (Quad Cities – Cordova) has obsolete relays  
- Becoming difficult to service REL352 phase comparison relays. They are being phased out of our system.  
- Line is an intertie between PJM/MISO
**Need Number:** ComEd-2019-006  
**Process Stage:** Solutions Meeting 11/14/2019  
**Proposed Solution:**  
Replace 345 kV Line 0402 relays and upgrade communications equipment, $0.2M  
Old ratings: (MVA) 973/1069/1193 SN/SE/SLD  
1053/1143/1536 WN/WE/WLD  
Projected ratings: 1173/1193/1193 SN/SE/SLD  
1497/1569/1569 WN/WE/WLD  
**Alternatives Considered:**  
None  
**Projected In-Service:** 6/1/2020  
**Project Status:** Engineering  
**Model:** PJM 2024 RTEP
**Need Number:** ComEd-2019-007  
**Process Stage:** Solutions Meeting 11/14/2019  
**Previously Presented:**  
Need Meeting 10/17/2019  
**Project Drivers:**  
Operational Flexibility and Efficiency  
Equipment Material Condition, Performance, and Risk  
**Specific Assumption References:**  
Increasing system capacity  
Programmatic replacement of breakers, relays, wood poles, cables, etc.  
Supply strategy guidance resulting in standard conductor sizes and other standard equipment  
**Problem Statement:**  
Network project n5144 is rebuilding 345 kV Kendall – Lockport double circuit towers for 16 miles in 2022 to increase line 10805 rating. New conductor will be T2-1113 (1448 MVA SN/1863 MVA SE).  
- 345 kV Line 10806 runs in parallel on the same towers. Existing conductor is 2156 kcm (1334 MVA SN/1726 MVA SE). The disconnect switch at Lockport is a non-standard 1600A switch.  
- 138 kV lines 0908 (Joliet – Shorewood) and 9117 (Shorewood – Cargo Court) run along the same ROW for 10.5 miles on wood poles.  
- The wood poles are 59-60 years old  
- ComEd intends to eliminate wood poles on the transmission system.
Need Number: ComEd-2019-007
Process Stage: Solutions Meeting 11/14/2019
Proposed Solution:
• Install quad circuit towers for 10.5 miles between Kendall and Lockport. String 138 kV conductor and cut line 0908 and part of line 9117 over to new towers. Incremental cost $12M
• Install T2-1113 conductor on line 10806 and OPGW static wire. Replace 10806 disconnect at Lockport. Incremental cost $1.1M
Ancillary Benefits:
Risk to Shorewood and Cargo Court will be significantly reduced during construction due to shorter outage required.
Increased reliability of steel poles over wood
Alternatives Considered:
• Install quad circuit towers but string and move 138 kV lines over at a future date. Estimated cost: $20M
• Install double circuit towers for n5144. Rebuild 138 kV wood pole line with steel in future. $20M
Projected In-Service: 6/1/2022
Project Status: Conceptual
Model: PJM 2019 RTEP
Appendix
## High Level M-3 Meeting Schedule

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

11/04/2019 – V1 – Original version posted to pjm.com