Transmission Expansion Advisory Committee
PPL Supplemental Projects

September 1, 2020
Needs

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: PPL-2020-0001
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
- Over a 5 mile stretch of the Summit-Lackawanna 1 & 2 230kV line, there are 30 weathering steel Corten lattice towers that were installed in 1970.
- 62% of the structures on this line are Corten Towers.
- A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
- The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
- This is an important 230 kV circuit required to serve the local load. There will be several thermal violations and approximately 175 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0002
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 4.1 mile stretch of the Elimsport-Lycoming 2 & 3 230kV line, there are 25 weathering steel Corten lattice towers that were installed in 1971.
• 76% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. Approximately 315 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
**Need Number:** PPL-2020-0003  
**Meeting Date:** 9/1/2020  
**Process Stage:** Need  
**Supplemental Project Driver:** Equipment Material Condition, Performance, and Risk.

**Problem Statement:**
- Over a 5.2 mile stretch of the Manor-Millwood 230kV line and Face Rock-Millwood 1 69kV line, there are 28 weathering steel Corten lattice towers that were installed in 1967.
- 83% of the structures on this line are Corten Towers.
- A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
- The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
- This is an important 230 kV circuit required to serve approximately 200 MW of local load. Absence of this line will cause a thermal violation for the next N-1 contingency.

**Specific Assumption References:**
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0004
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:

• Over a 10.7 mile stretch of the Montour-Milton 230kV line, there are 63 weathering steel Corten lattice towers that were installed in 1971.
• 72% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. There will be several thermal violations and approximately 105 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0005
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 10.4 mile stretch of the Sunbury-Milton 230kV and Sunbury-Milton 69kV lines, there are 68 weathering steel Corten lattice towers that were installed in 1969.
• 99% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. There will be several thermal violations and approximately 105 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0006
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 7.7 mile stretch of the Stanton-Summit 3 & 4 230kV lines, there are 46 weathering steel Corten lattice towers that were installed in 1970.
• 76% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. There will be thermal and voltage violations and approximately 175 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0007
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
- Over an 8.0 mile stretch of the Saegers-Elimsport and Clinton-Elimsport/Clinton-Saegers 230kV lines, there are 48 weathering steel Corten lattice towers that were installed in 1971.
- 69% of the structures on this line are Corten Towers.
- A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
- The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
- This is an important 230 kV circuit required to serve the local load. Approximately 465 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0008
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 20.4 mile stretch of the South Akron-Millwood 230kV and the Millwood-Strasburg tie 69kV lines, there are 125 weathering steel Corten lattice towers that were installed in 1967.
• 97% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230/69 kV circuit required to serve approximately 25 MW of local load. Absence of this circuit will cause several thermal and voltage violations in the area for the next N-1 contingency.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0009
Montour-Saegers 1 & 2 230kV
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 6.2 mile stretch of the Montour-Saegers 1 & 2 230kV lines, there are 38 weathering steel Corten lattice towers that were installed in 1971.
• 35% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. Approximately 465 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0010
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
- Over an 8.5 mile stretch of the Jenkins-Stanton and Mountain-Stanton 230kV lines, there are 49 weathering steel Corten lattice towers that were installed in 1972.
- 95% of the structures on this line are Corten Towers.
- A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
- The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
- This is an important 230 kV circuit required to serve the local load. There will be thermal and voltage violations and approximately 175 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0011
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 9.8 mile stretch of the Mountain-Stanton and Mountain-Jenkins 230kV lines, there are 55 weathering steel Corten lattice towers that were installed in 1972.
• 97% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. Approximately 190 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0012

Meeting Date: 9/1/2020

Process Stage: Need


Problem Statement:

• Over a 21.9 mile stretch of the Montour-Susquehanna and Montour-Susquehanna T10 230kV lines, there are 132 weathering steel Corten lattice towers that were installed in 1971.

• 74% of the structures on this line are Corten Towers.

• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.

• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.

• This is an important 230 kV circuit required to serve the local load. There will be several thermal violations and approximately 60 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:

PPL 2020 Annual Assumptions
Need Number: PPL-2020-0013
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 38.0 mile stretch of the Siegfried-Harwood and Harwood-East Palmerton/Siegfried-East Palmerton 230kV lines, there are 221 weathering steel Corten lattice towers that were installed in 1969.
• 94% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. There will be a thermal violation and approximately 280 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0014
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
- Over a 9.25 mile stretch of the Montour-Columbia 230kV line, there are 42 weathering steel Corten lattice towers that were installed in 1973.
- 86% of the structures on this line are Corten Towers.
- A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
- The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
- This is an important 230 kV circuit required to serve the local load. There will be thermal & voltage violations and approximately 400 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Need Number: PPL-2020-0015
Meeting Date: 9/1/2020
Process Stage: Need

Problem Statement:
• Over a 25.9 mile stretch of the Frackville-Columbia 230kV line, there are 115 weathering steel Corten lattice towers that were installed in 1973.
• 93% of the structures on this line are Corten Towers.
• A third-party inspection and analysis was conducted on a statistically significant sample of 192 out of the 1284 Corten structures on the PPL system. All the towers inspected exhibited section loss on numerous members and over 90% of the joints had visible pack-out.
• The report rated all the Corten towers inspected in poor or worse condition and concluded that the towers require near-term mitigation.
• This is an important 230 kV circuit required to serve the local load. Approximately 245 MW of local load will be out of power for the next N-1 contingency without this circuit.

Specific Assumption References:
PPL 2020 Annual Assumptions
Questions?
Appendix
# High level M-3 Meeting Schedule

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