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|  | © ISO New England, Inc. 2024 | Master/LCC Procedure No. 18 – New England System Restoration Plan, Attachment D |
| | | Revision Number: 9.1 Revision Date: May 20, 2024 |
| Owner: System Restoration Working Group (SRWG) Chair | | Approved by: M/LCC Heads |
| | | Review Due Date: May 20, 2025 |

Attachment D - Inter - Local Control Center Ties Operating at 115 kV and Above

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Inter - Local Control Center Ties Operating at 115 kV and Above

| Table 1 - NGRID - New Hampshire | | |
|---------------------------------|---|-----------|
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| A253 | Merrimack Autotransformer | 230/115kV |
| | | |
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| I135N | Bellows Falls – Monadnock - Fitzwilliam | 115kV |
| I135 | Flagg Pond - Fitzwilliam | 115kV |
| Q195 | Moore - Littleton - Whitefield | 115kV |
| Y151N | Pelham - Power St | 115kV |
| | | |
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| C203 | Moore/Comerford - Littleton | 230kV |
| D204 | Moore/Comerford - Littleton | 230kV |
| | | |
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| 326 | Sandy Pond - Scobie Pond | 345kV |
| 394 | Ward Hill - Seabrook | 345kV |
| 3124 | Tewksbury - Scobie Pond | 345kV |
| | | |

| Table 2 - NGRID – VELCO | | |
|-------------------------|---|---------|
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| F206 | Comerford - Granite | 230kV |
| | | |
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| K26 | Wilder - Hartford | 115kV |
| W149S/K149 | Bellows Falls – Slayton Hill - Ascutney | 115kV |
| | | |
| Q117-K4 | Adams - Bennington | 115kV |


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Table 3 - NGRID – RIE

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 315 | Brayton Point – West Farnum | 345kV |
| 366 | Millbury – West Farnum | 345kV |
| | | |

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|--|---------|
| E183 | Grand Army – Warren – Mink St – Wampanoag | 115kV |
| F184N | Grand Army – Bristol RI – Warren – Mink St – Read St | 115kV |
| L14 | Tiverton – Bell Rock – Bates St – Jepson | 115kV |
| M13 | Tiverton – Bell Rock – Bates St – Jepson | 115kV |
| P11 | Robinson – Valley - Pawtucket | 115kV |
| Q10 | Robinson – Staples | 115kV |
| Q143 | Uxbridge – Woonsocket – Whitins Pond – Millbury | 115kV |
| R144 | Whitins Pond – Woonsocket - Millbury | 115kV |
| T7 | Pottersville – Dannel Park – Pawtucket | 115kV |
| V148S | Read St – Robinson – Washington | 115kV |
| X3N | Grand Army – Dannel Park - Phillipsdale | 115kV |
| | | |


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Table 4 - New Hampshire – VELCO

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| N186/K186 | Chestnut Hill - Vernon_VT | 115kV |
| K174 | North Rd. - Ascutney | 115kV |
| 60/K60 | Littleton - St. Johnsbury | 115kV |
| | | |

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 379 | Fitzwilliam - Vernon_VT | 345kV |
| | | |

Table 5 - New Hampshire – Maine

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 197 | Three Rivers - Quaker Hill | 115kV |
| K1214/214 | Saco Valley - Lovell | 115kV |
| 250 | Three Rivers - Maguire Rd | 115kV |
| | | |

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 385 | Deerfield - Buxton | 345kV |
| 391 | Scobie Pond - Buxton | 345kV |
| 3022 | Eliot - Maguire Rd. | 345kV |
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Table 6 - CONVEX – NGRID

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|--|---------|
| A127W | Harriman - Montague - French King - Erving | 115kV |
| A127 | Erving - Wendell Depot - Barre - Webster Street - Millbury | 115kV |
| F132 | Doreen - Adams | 115kV |
| X176 | Ludlow - Palmer | 115kV |
| Y177 | Montague - Harriman | 115kV |
| | | |
| 1205 | Ludlow - West Hampden | 115kV |
| 1976 | Scitico - West Hampden | 115kV |
| | | |

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 301 | Ludlow - Carpenter Hill | 345kV |
| | | |
| | | |
| | | |

Table 7 - CONVEX – VELCO

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 381 | Northfield Mt. - Vernon_VT | 345kV |
| | | |

Table 8 - CONVEX – RIE

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 1870S | Shunock – Chase Hill | 115kV |
| | | |

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 341 | Lake Road – West Farnum | 345kV |
| 347 | Killingly – Sherman Rd. | 345kV |
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Table 9 - NSTAR – NGRID

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|-------------------|------------------------------------|---------|
| 349 | Mystic - Wakefield Junction | 345kV |
| 338 | Woburn - Tewksbury | 345kV |
| 323 | W Medway - Millbury | 345kV |
| 357 | W Medway - Millbury | 345kV |
| 3136 | Woburn - Wakefield Junction | 345kV |
| | | |
| 3520 | W Medway - ANP Bellingham | 345kV |
| 344 | W Medway - Bridgewater | 345kV |
| 356 | Carver - Bridgewater | 345kV |
| 342 | Pilgrim - Canal - Auburn St | 345kV |
| 335 | Holbrook - Auburn St | 345kV |
| | | |

| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
|----------------------|---|---------|
| 211-503/M139 | Woburn – Pinehurst – Billerica – Tewksbury | 115kV |
| 211-504/N140 | Woburn – Pinehurst – Tewksbury | 115kV |
| 423-515/O167 | Mystic - Hendersonville - Everett | 115kV |
| 128-518/P-168 | Chelsea – Revere | 115kV |
| 513-507/D156 | W Framingham - Northboro Rd | 115kV |
| 451-536 | Holbrook - E. Holbrook - Auburn St | 115kV |
| 201-501/D130/126-501 | Medway - Milford - Depot St - Rocky Hill – Purchase St - Hopkinton - Millbury | 115kV |
| D21 | High Hill - Bell Rock | 115kV |
| 191 | Kingston - Auburn St | 115kV |
| 194 | Brook St - Auburn St | 115kV |
| | | |

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| Table 10 - NSTAR – RIE | | |
|------------------------|------------------------------------|---------|
| Inter- LCC Tie ID | Inter- LCC Tie Element Description | Voltage |
| 3361 | ANP Blackstone - Sherman Rd | 345kV |
| | | |

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M/LCC 18 Attachment D Revision History

Document History (This document was created from the retired OP- 6 Appendix D)

| Rev. No. | Date | Reason |
|----------|----------|---|
| Rev 0 | 03/01/13 | Initial version |
| Rev 1 | 02/06/14 | Periodic review performed requiring no changes. |
| Rev 2 | 01/16/15 | Annual review by procedure owner; Globally, changed name of REMVEC II to REMVEC/NGRID; CONVEX-REMVEC/NGRID ties, added 1976, 1205 and A127; Maine - New Hampshire ties, added 3022 Eliot - Maguire Rd; REMVEC/NGRID ties, removed 517-532 and 517-533; This revision is not the result of a BES change and does necessitate a change to the implementation of the Restoration Plan and does result in changes to roles or tasks performed by identified entities in the Plan |
| Rev 3 | 12/07/15 | Annual review by procedure owner: Table 1: added C203 line; Table 2: updated terminals on K149/W149 line; Table 5: deleted A127 line, and added 341 line; This revision is the result of BES changes and does not necessitate a change to the implementation of the Restoration Plan and does not result in changes to roles or tasks performed by identified entities in the Plan |
| Rev 4 | 10/18/16 | Annual review by procedure owner: Added required corporate document identity to all page footers; Table 1: listed all terminals of Y151 Line; Table 2: corrected line nomenclature by replacing "W149/K149" with "W149S/K149"; Table 5: deleted 1205 and 1976 lines added R170 line This revision is not the result of a BES change and does necessitate a change to the implementation of the Restoration Plan and does result in changes to roles or tasks performed by identified entities in the Plan. |
| Rev 5 | 10/21/16 | Per SOP-RTMKTS.0210.0010 Section 5., 11, Expedited Change to Procedure Document line (to correct an editing error made during Revision 4): In Table 5: deleted R170 line and restored 1205 and 1976; This revision is not the result of a BES change and does necessitate a change to the implementation of the Restoration Plan and does result in changes to roles or tasks performed by identified entities in the Plan; |
| Rev 6 | 09/19/17 | Annual review by procedure owner: Updated procedure owner; Table 1: corrected 1 st voltage column value and added 3124 line; Table 5: Added A127W line, modified terminals on B-128 line and 1870S line, reordered line sequence; This revision is the result of a BES change but does not necessitate a change to the implementation of the Restoration Plan and does not result in changes to roles or tasks performed by identified entities in the Plan; |
| Rev 6.1 | 8/17/18 | Annual review by procedure owner requiring no changes; Made administrative changes required to publish the Minor Revision (including updating the Procedure Owner); This Revision is not the result of a BES change and does not necessitate a change to the implementation of the Restoration Plan and does not result in changes to roles or tasks performed by identified entities in the Plan; |

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| Rev 7 | 03/27/19 | Annual review by procedure owner: Updating the Procedure Owner in document headers; Globally replaced “REMVEC/NGRID” with “NGRID”; Table 1; Updated definition for Y151N to reflect field work; This Revision does not change the roles or specific tasks of one or more entities identified in the restoration plan. This revision is not the result of any permanent BES modification that changes the ability of ISO or the LCCs to implement the restoration plan. |
| 7.1 | 03/10/20 | Annual review by procedure owner requiring no changes; Made administrative changes required to publish the Minor Revision; This revision is not the result of any permanent planned or unplanned BES modification; This revision does not change the ability, through roles or specific tasks of one or more entities identified in the Plan, to implement the approved Plan; This revision does not impact the ability of ISO-NE to monitor and direct restoration efforts |
| 8 | 03/09/21 | Annual review by procedure owner; Modified line descriptions to predominantly only identify inter-LCC terminals and full line description by exception; This revision is not the result of any permanent planned or unplanned BES modification; This revision does not change the ability, through roles or specific tasks of one or more entities identified in the Plan, to implement the approved Plan; This revision does not impact the ability of ISO-NE to monitor and direct restoration efforts |
| 8.1 | 03/03/22 | Annual review by procedure owner with no intent changes required. Re-titled main document; changed document owner. Edits for conforming nomenclature. This revision is not the result of any permanent planned or unplanned BES modification. This revision does not change the ability, through roles or specific tasks, of one or more entities identified in the Plan, to implement the approved Plan. This revision does not impact the ability of ISO-NE to monitor and direct system restoration efforts. |
| 8.2 | 03/01/23 | Annual review by procedure owner with no changes required. This revision is not the result of any permanent planned or unplanned BES modification. This revision does not change the ability, through roles or specific tasks, of one or more entities identified in the Plan, to implement the approved Plan. This revision does not impact the ability of ISO-NE to monitor and direct system restoration efforts. |
| 9 | 02/28/24 | Annual review by procedure owner; Removed B128 Line and added A127 Line entry to Table 5; Added 3136 Line entry to Table 7; Edited 423-515 Line entry to include NGRID O167 Line ID in Table 7; This revision is the result of a permanent planned BES modification; This revision does not change the ability, through roles or specific tasks, of one or more entities identified in the Plan, to implement the approved Plan; This revision does not impact the ability of ISO-NE to monitor and direct system restoration efforts. |
| 9.1 | 05/20/24 | Annual review by procedure owner; Added Tables 3, 8, & 10 for RIE inclusion; Moved 1870S, 341, & 347 from Table 5 to Table 8; Moved 3361 from Table 8 to Table 10; This revision is not the result of any permanent planned or unplanned BES modification; This revision does not change the ability, through roles or specific tasks, of one or more entities identified in the Plan, to implement the approved Plan; This revision does not impact the ability of ISO-NE to monitor and direct system restoration efforts. |