

Attachment E: Automatic Sectionalizing Schemes

Below is a list of schemes recognized by PJM for used in operations. Please refer to Manual-03B (CEII) Section 1.1.6 Recognition of Automatic Sectionalizing Schemes for the process to update this list. Transmission Owners can request changes by contacting PJM via M03_Change@pjm.com.

American Electric Power (AEP)

- Belmont 765/500 kV T-5 Sectionalized Restores Kammer-Belmont 765 kV and Mountaineer-Belmont 765 kV following a fault on the Belmont 765/500 kV T-5 transformer.
- 2. **Desoto 345/138 kV T-1 Sectionalized** Restores Desoto #2 345 kV bus following a fault on the Desoto 345/138 kV T-1 transformer.
- 3. **East Danville 230/138 kV T4 Sectionalized** Restores 138 kV 'P' 'M' and 'N' circuit breakers at East Danville following a fault on the East Danville 230/138 kV T4 transformer.
- 4. **East Danville 230/138 kV T5 Sectionalized** Restores 138 kV circuit breakers 'P', 'L', , and 'J' and 69 kV circuit breakers 'H', 'F', and G and 12 kV circuit breaker 'A' at East Danville following a fault on the East Danville 230/138 kV T5 transformer.
- 5. **Haviland TX #4 Sectionalized –** Restores the Haviland 138 kV bus following a fault on the Haviland TX #4.
- 6. **Huntington-Sorenson 138 kV Sectionalized** Restores the Huntington-Rock Creek 138 kV line and the Huntington-Huntington PSI 138 kV line following a fault on the Huntington-Sorenson 138 kV line.
- 7. **Maliszewski 765/138 kV T-1 Sectionalized** Restores Maliszewski-Vassell 765 kV line and Marysville-Maliszewski 765 kV line following a fault on the Maliszewski 765/138 kV T-1 Transformer.
- 8. **Rockport 765/138/34 kV T-3 Sectionalized** Restores Rockport 765 kV Ring Bus following a fault on the Rockport 765/138/34 kV T-3 transformer.
- South Berwick 345/69 kV T-1 Sectionalized Restores Fostoria-S. Berwick 345 kV line and South Berwick-Galion 345 kV line following a fault on the South Berwick 345/69 kV T-1 transformer.
- 10. **Tri State 345/138 kV T-1 Sectionalized** Restores 345 kV 'H' and 'G1' circuit breakers at Tri State following a fault on the Tri State 345/138 kV T-1 transformer.
- 11. **Tri State 345/138 kV T-2 Sectionalized** Restores 345 kV 'G2' and 'G' circuit breakers at Tri State following a fault on the Tri State 345/138 kV T-2 transformer.
- 12. **Tri State 345/138 kV T-3 Sectionalized** Restores 345 kV 'G2' and 'H2' circuit breakers at Tri State following a fault on the Tri State 345/138 kV T-3 transformer.
- 13. **West Millersport 345/138 kV T-1 Sectionalized** Restores W. Millersport No. 1 345 kV Bus following a fault on W. Millersport 345/138 kV T-1 transformer, after isolating



via the West Millersport 'X1' 345 kV air break.

14. **West Millersport 345/138 kV T-2 Sectionalized** – Restores W. Millersport No. 2 345 kV Bus following a fault on W. Millersport 345/138 kV T-2 transformer, after isolating via the West Millersport 'X2' 345 kV air break.

Atlantic City Electric Company (ACE)

- Atco #1 69 kV Transformer Sectionalized Restores Atco 69 kV Bus following a fault on the Atco #1 69 kV transformer.
- 2. **Atco #4 69 kV Transformer Sectionalized** Restores Atco 69 kV Bus following a fault on the Atco #4 69 kV transformer.
- 3. **Carlls Corner #4 69 kV Transformer Sectionalized** Restores Sherman Avenue-Carlls Corner 69 kV line following a fault on the Carlls Corner #4 69 kV transformer.
- 4. Corson #4 69 kV Transformer Sectionalized Restores Dennis-Corson 69 kV line, Sea Isle-Corson 69 kV line and Corson #1 138/69 kV transformer following a fault on the Corson #4 69 kV transformer.
- 5. **Dacosta #1 69 kV Transformer Sectionalized** Restores Dacosta 69 kV Bus following a fault on the Dacosta #1 69 kV transformer.
- 6. **Fairton #1 69 kV Transformer Sectionalized** Restores Laurel-Fairton 69 kV line following a fault on the Fairton #1 69 kV transformer.
- 7. **Fairton #2 69 kV Transformer Sectionalized** Restores Newport-Fairton 69 kV line following a fault on the Fairton #2 69 kV transformer.
- 8. **Glassboro #2 69 kV Transformer Sectionalized** Restores Glassboro 69 kV Bus following a fault on the Glassboro #2 69 kV transformer.
- 9. **Glassboro #3 69 kV Transformer Sectionalized** Restores Glassboro 69 kV Bus following a fault on the Glassboro #3 69 kV transformer.
- 10. **Glassboro #5 69 kV Transformer Sectionalized** Restores Glassboro 69 kV Bus following a fault on the Glassboro #5 69 kV transformer.
- 11. **Higbee #1 69 kV Transformer Sectionalized** Restores Lewis-Higbee 69 kV line, Ontario-Higbee 69 kV line and Higbee #2 69/23 kV transformer following a fault on the Higbee #1 69 kV transformer.
- 12. **Higbee #2 69 kV Transformer Sectionalized** Restores Lewis-Higbee 69 kV line and Higbee #1 69/23 kV transformer following a fault on the Higbee #2 69 kV transformer.
- Monroe Glassboro Rowan 69 kV Sectionalized Restores Monroe-Glassboro or Glassboro-Rowan following a fault on Glassboro-Rowan or Monroe-Glassboro respectively.
- Monsanto Nortonville Oldman 69 kV Sectionalized Restores Monsanto-Nortonville or Nortonville-Oldman following a fault on Nortonville-Oldman or Monsanto-Nortonville respectively.
- 15. Ontario #1 69 kV Transformer Sectionalized Restores Huron-Ontario 69 kV



- line, Searstown-Ontario 69 kV line and following a fault on the Ontario #1 69 kV transformer.
- Ontario #2 69 kV Transformer Sectionalized Restores Higbee-Ontario 69 kV line and Lewis-Ontario 69 kV line following a fault on the Ontario #2 69 kV transformer.
- 17. Ontario #3 69 kV Transformer Sectionalized Restores Huron-Ontario 69 kV line, Searstown-Ontario 69 kV line and following a fault on the Ontario #3 69 kV transformer.
- **18.** Ontario #4 69 kV Transformer Sectionalized Restores Higbee-Ontario 69 kV line, Lewis-Ontario 69 kV line, and HarborBC-Ontario 69 kV line following a fault on the Ontario #4 69 kV transformer.
- 19. Paulsboro #2 69 kV Transformer Sectionalized Restores Valero Packing Tap-Paulsboro 69 kV line and Beckett-Paulsboro 69 kV line following a fault on the Paulsboro #2 69 kV transformer.
- 20. **Pine Hill #1 69 kV Transformer Sectionalized** Restores Pine Hill 69 kV Bus following a fault on the Pine Hill #1 69 kV transformer.
- 21. **Pine Hill #3 69 kV Transformer Sectionalized** Restores Pine Hill 69 kV Bus following a fault on the Pine Hill #3 69 kV transformer.
- 22. **Pine Hill Terrace Pitman 69 kV Sectionalized–** Restores Pine Hill-Terrace or Terrace-Pitman following a fault on Terrace-Pitman or Pine Hill-Terrace respectively.
- 23. **Pleasantville #4 69 kV Transformer Sectionalized** Restores Lewis-Pville 69 kV line following a fault on the Pville #4 69 kV transformer.
- 24. **Pleasantville #5 69 kV Transformer Sectionalized** Restores Lewis-Pville 69 kV line following a fault on the Pville #5 69 kV transformer.
- 25. Second Street #1 69 kV Transformer Sectionalized Restores Sherman Avenue-Second Street 69 kV line following a fault on the Second Street #1 69 kV transformer.
- 26. **Second Street #2 69 kV Transformer Sectionalized** Restores Sherman Avenue-Second Street 69 kV line following a fault on the Second Street #2 69 kV transformer.
- 27. **Second Street #Wheat 2 69 kV Transformer Sectionalized** Restores Sherman Avenue-Second Street 69 kV line following a fault on the Second Street #Wheat 2 69 kV transformer.
- 28. **Silver Lake #2 69 kV Transformer Sectionalized** Restores Silver Lake 69 kV Bus following a fault on the Silver Lake #2 69 kV transformer.
- 29. **Swainton #2 69 kV Transformer Sectionalized** Restores Peermont-Swainton 69 kV line following a fault on the Swainton #2 69 kV transformer.
- 30. **Tuckahoe #1 69 kV Transformer Sectionalized** Restores Mill-Tuckahoe 69 kV line and Dennis-Tuckahoe 69 kV line following a fault on the Tuckahoe #1 69 kV transformer.



- 31. **Upper Pittsgrove #Load 138 kV Transformer Sectionalized** Restores Churchtown-Upper Pittsgrove 138 kV line and Landis-Upper Pittsgrove 138 kV line following a fault on the Upper Pittsgrove #Load 138 kV transformer.
- 32. **Washington #1 69 kV Transformer Sectionalized** Restores 69 kV circuit breakers 'B' and 'C' at Washington following a fault on the Washington #1 69 kV Transformer.
- 33. **Washington #2 69 kV Transformer Sectionalized** Restores 69 kV circuit breakers 'A' and 'C' at Washington following a fault on the Washington #1 69 kV Transformer.
- 34. Woodstown #3 69 kV Transformer Sectionalized Restores Churchtown-Woodstown 69 kV line, Laurel-Woodstown 69 kV line, High Street-Woodstown 69 kV line and Salem-Woodstown 69 kV line following a fault on the Woodstown #3 69 kV transformer.

Dayton Power and Light Company (DAY)

- 1. **Alpha "BK-7" 138/69 kV Sectionalized –** Restores the Alpha Greene and Alpha Bellbrook 138 kV lines following a fault on the Alpha "BK-7".
- 2. **Darby "BK-7" 138/69 kV Sectionalized –** Restores the 138 kV and 69 kV Bus Breakers following a fault on the transformers so that the two 138 kV lines are not tied through the only remaining breaker.
- 3. **New Carlisle** "**BK-7**" **138/69 kV Sectionalized** Restores the New Carlisle Miami 138 kV line and the New Carlisle Phoneton 69 kV line following a fault on the transformer. Also, the New Carlisle Bath 138 kV line and the New Carlisle Huber Heights 69 kV lines will no longer be radially feeding distribution load following a fault on the New Carlisle "BK-7".
- 4. **Overlook "BK-7" 138/69 kV Sectionalized** Restores the Knollwood Overlook Monument 138 kV line following a fault on the transformer.
- 5. **Shelby Honda Sectionalized** Restores the Shelby-Honda line segment for a fault on the Shelby-Honda-Amsterdam line.
- Sugar Creek "BK-N" 345/138 kV Sectionalized Restores the 345 kV and 138 kV Bus Breakers following a fault on the transformer.
- 7. **Sugar Creek "BK-S" 345/138 kV Sectionalized –** Restores the 345 kV Bus Breakers following a fault on the transformer. **NOTE:** The low side ring bus breakers "B" & "K" remain open and do not sectionalize.
- 8. **Urbana "BK-7" 138/69 kV Sectionalized** Restores the 138 kV and 69 kV Bus Breakers following a fault on the transformer.

Delmarva Power and Light (DPL)

 Basin Rd – Churchmans Tap – Keeney 138 kV Sectionalized – Restores Basin Rd-Churchmans Tap or Churchmans Tap-Keeney following a fault on Churchmans Tap-Keeney or Basin Rd-Churchmans respectively.



Dominion Virginia Electric Power (DOM)

- 1. **Acca #1 115/13 kV Transformer Sectionalized** Restores the Acca Lakeside and Acca Hermtage 115 kV lines for a fault on the Acca #1 115/13 kV transformer.
- Acca #2 115/13 kV Transformers Sectionalized Restores the Acca Hermtage, Acca – Lakeside and Acca – Northwest 115 kV lines for a fault on the Acca #2 115/13 kV transformers.
- Braddock #1 230/35kV Transformer Sectionalized Restores the 230 kV Bus Breakers and Braddock-Annandale 297 line for a fault on the Braddock #1 230/35 kV transformer.
- 4. **Braddock #2 230/35kV Transformer Sectionalized** Restores the 230 kV Bus Breakers and Braddock-Annandale 294 line for a fault on the Braddock #2 230/35 kV transformer.
- 5. **Brambleton #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Brambleton #1 500/230 kV transformer.
- 6. **Brambleton #2 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Brambleton #2 500/230 kV transformer.
- 7. **Bristers #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Bristers #1 500/230 kV transformer.
- 8. **Bull Run-Burke 244 Sectionalized** Restores the Bull Run #6 transformer following a fault on and isolation of the 244 line.
- 9. **Burton-Virginia Beach 27 sectionalized** Restores Long Creek transformer # 1 & 2 and either the 27 line from Long Creek-Virginia Beach or the 27 line from Burton-Long Creek following a permanent fault on a section of the 27 line.
- 10. Carson #1 500/230 kV Transformer Sectionalized Restores the 500 kV and 230 kV Bus Breakers for a fault on the Carson #1 500/230 kV transformer.
- 11. Carson #2 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers for a fault on the Carson #2 500/230 kV transformer.
- 12. **Carson-Clubhouse 238 Sectionalized-** Restores the Clubhouse 230 kV bus and transformer #1 following a fault on and isolation of the 238 line.
- 13. **Carson-Poe 2002 Sectionalized** Restores the 230 kV bus and transformer #5 at Poe following a fault on and isolation of the 2002 line.
- 14. **Chesterfield-Tyler-Poe 2003 Sectionalized** Restores the 230 kV bus and transformer #6 at Poe following a fault on and isolation of the 2003 line.
- 15. Clifton #1 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers which restores the Clifton Mosby 500 kV line for a fault on the Clifton #1 500/230 kV transformer.
- Clifton #2 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers which restores the Clifton-Ox line following a fault on the Clifton #2 500/230 kV transformer.



- 17. Clubhouse #1 230/115 kV Transformer Sectionalized Restores Line 238 (Clubhouse Carson) following a fault on the Clubhouse #1 230/115 kV transformer.
- 18. **Dooms #1 115/22 kV Transformer Sectionalized** Restores the Dooms Dupont Waynesboro and Dooms Fishersville 115 kV lines and Dooms #6 230/115 kV transformer for a fault on the Dooms #1 115/22 kV transformer.
- Dooms #2 115/22 kV Transformer Sectionalized Restores the Dooms Midway DP, Dooms – Brand DP and Dooms – Waynesboro 115 kV lines for a fault on the Dooms #2 115/22 kV transformer.
- 20. **Dooms #7 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Dooms #7 500/230 kV transformer.
- 21. **Dooms #9 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Dooms #9 500/230 kV transformer.
- 22. **Elmont #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Elmont #1 500/230 kV transformer.
- 23. **Elmont #2 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Elmont #2 500/230 kV transformer.
- 24. Endless Caverns #3 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Endless Caverns #3 230/115 kV transformer.
- 25. **Endless Caverns #4 230/115 kV Transformer Sectionalized** Restores the 230 kV High Side Breakers for a fault on the Endless Caverns #4 230/115 kV transformer.
- 26. Endless Caverns #5 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Endless Caverns #5 230/115 kV transformer.
- 27. Everetts #2 230/115 kV Transformer Sectionalized Restores the 230 kV Ring Bus Breakers for a fault on the Everetts #2 230/115 kV transformer.
- 28. Farmville #1 115/13 kV Transformers Sectionalized Restores the Farmville Willismount, Farmville Moran DP 115 kV lines and Farmville #4 230/115 kV transformers for a fault on the Farmville #1 115/13 kV transformers.
- 29. **Farmville #5 230/115 kV Transformer Sectionalized** Restores the Farmville Buckingham 230 kV line following a fault on the Farmville #5 230/115 kV transformer.
- Fredericksburg #6 230/35 kV Transformer Sectionalized Restores the 230 kV Bus Breakers and Fredericksburg #7 230/115 kV transformer for a fault on the Fredericksburg #6 230/35 kV transformer.
- 31. Fredericksburg #7 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Fredericksburg #7 230/115 kV transformer.
- 32. **Gainesville #3 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Gainesville #3 230/115 kV transformer.
- Glebe-Crystal 275 Sectionalized Restores Glebe Bus #5 following a fault on Line 275.
- 34. **Glebe-Crystal 276 Sectionalized –** Restores Glebe Bus #6 following a fault on Line
- 35. Gordonsville #1 230/115 kV Transformer Sectionalized Restores the 230 kV Bus



- Breakers for a fault on the Gordonsville #1 230/115 kV transformer.
- 36. **Gordonsville #3 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Gordonsville #3 230/115 kV transformer.
- 37. **Greenwich #1 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Greenwich #1 230/115 kV transformer.
- 38. **Greenwich #2 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Greenwich #2 230/115 kV transformer.
- Grottoes #4 230/115 kV Transformer Sectionalized Restores Line 272 (Dooms Grottoes) following a fault on the Grottoes #4 230/115 kV transformer.
- 40. **Grottoes-Dooms 272 Sectionalized-** Restores the Grottoes 230 kV bus and transformer #4 following a fault on and isolation of the 272 line.
- 41. **Harrisonburg #1 115/35 kV Transformer Sectionalized** Restores the Harrisonburg Peach Grove, Harrisonburg Dayton DP 115 kV lines, Harrisonburg #5 230/115 kV transformer and Harrisonburg #3 115/69 kV transformer for a fault on the Harrisonburg #1 115/35 kV transformer.
- 42. Harrisonburg #5 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers and Harrisonburg #4 230/69 kV transformer for a fault on the Harrisonburg #5 230/115 kV transformer.
- 43. **Harrisonburg TX#4 Sectionalized** Restores the 230 kV Bus Breakers following a fault on the transformer.
- 44. **Harrisonburg TX#6 Sectionalized** Restores the 230 kV Bus Breakers following a fault on the transformer.
- 45. **Hayfield #1 230/35kV Transformer Sectionalized** Restores the 230 kV Bus Breakers and Hayfield-Vandorn 210 line for a fault on the Hayfield #1 230/35 kV transformer.
- 46. **Hayfield #2 230/35kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Hayfield #1 230/35 kV transformer.
- 47. **Hopewell #1 230/35 kV Transformers Sectionalized** Restores the 230 kV Bus #1 Breakers for a fault on the Hopewell #1 230/35 kV transformers.
- 48. **Hopewell #2 230/35 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Hopewell #2 230/35 kV transformer.
- 49. **Idylwood #1 230/35 kV Transformer Sectionalized** Restores the Idylwood Braddock, Idylwood Gallows Road and Idylwood Redfield 230 kV lines for a fault on the Idylwood #1 230/35 kV transformer.
- 50. Industrial Park #2 115/35 kV Transformers Sectionalized Restores the Industrial Park Reeves Avenue and Industrial Thole Street 115 kV lines for a fault on the Industrial Park #2 115/35 kV transformers.
- 51. **Jefferson Street #1 230/35 kV Transformer Sectionalized** Restores the Jefferson Street Virginia Hills 230 kV line for a fault on the Jefferson Street #1 230/35 kV transformer.
- 52. Jefferson Street #2 230/35 kV Transformers Sectionalized Restores the



- Jefferson Street North Alexandria and Jefferson Street Belvoir 230 kV lines for a fault on the Jefferson Street #2 230/35 kV transformers.
- 53. **Kitty Hawk #2 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Kitty Hawk #2 230/115 kV transformer.
- 54. **Ladysmith #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Ladysmith #1 500/230 kV transformer.
- 55. **Ladysmith #2 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Ladysmith #2 500/230 kV transformer.
- 56. **Landstown #1 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Landstown #1 230/115 kV transformer.
- 57. **Landstown #2 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Landstown #2 230/115 kV transformer.
- 58. **Lanexa-Lightfoot 2113 Sectionalized** Restores the Lanexa #2 transformer following a fault on and isolation of the Lanexa-Lightfoot 2113 line.
- 59. **Lexington #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Lexington #1 500/230 kV transformer.
- 60. **Lexington #3 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Lexington #3 500/230 kV transformer.
- 61. Locks #1 115/13 kV Transformer Sectionalized Restores the Locks Harvell 115 kV line and Locks #7 230/115 kV transformer for a fault on the Locks #1 115/13 kV transformer.
- 62. Locks #2 115/13 kV Transformer Sectionalized Restores the Locks Harrowgate and Locks Reams DP 115 kV lines for a fault on the Locks #2 115/13 kV transformer.
- 63. Locks #6 230/115 kV Transformer Sectionalized Restores Line 205 (Locks Chesterfield) following a fault on the Locks #6 230/115 kV transformer.
- 64. **Loudoun #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Loudoun #1 500/230 kV transformer.
- 65. **Loudoun #2 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Loudoun #2 500/230 kV transformer.
- 66. **Midlothian #6 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Midlothian #6 500/230 kV transformer.
- 67. **Midlothian-Bremo 2027 Sectionalized** Restores the Midlothian 230 kV Breakers and TX#1 following a fault and isolation of the 2027 line.
- 68. **Midlothian-Spruance 282 Sectionalized** Restores the Midlothian 230 kV Breakers and TX#5 following a fault and isolation of the 282 line.
- 69. Morrisville #1 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers for a fault on the Morrisville #1 500/230 kV transformer.
- 70. Morrisville #2 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers for a fault on the Morrisville #2 500/230 kV transformer.



- 71. **North Anna TX#1 Sectionalized** Restores 500 kV Bus #1 Breakers Wt576 and XT573 following a fault on the transformer.
- 72. **Northeast #9 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Northeast #9 230/115 kV transformer.
- 73. Northern Neck #4 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Northern Neck #4 230/115 kV transformer.
- 74. **Northwest #9 115/13 kV Transformer Sectionalized** Restores the Northwest River Road, Northwest Elmont and Northwest Acca 115 kV lines for a fault on the Northwest #9 115/13 kV transformer.
- 75. Oakwood #1 115/35 kV & #3 115/13 kV Transformers Sectionalized Restores the Oakwood Thole Street 115 kV line for a fault on the Oakwood #1 115/35 kV & #3 115/13 kV transformers.
- 76. Oakwood #2 115/35 kV & #4 115/13 kV Transformers Sectionalized Restores the Oakwood Taussig and Oakwood Little Creek 115 kV lines for a fault on the Oakwood #2 115/35 kV & #4 115/13 kV transformers.
- 77. Ox #1 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers for a fault on the Ox #1 500/230 kV transformer.
- 78. Ox #2 500/230 kV Transformer Sectionalized Restores the 500 kV Bus Breakers for a fault on the Ox #2 500/230 kV transformer.
- 79. **Peninsula #1 115/35 kV Transformers Sectionalized** Restores the Peninsula Nasa, Peninsula Whealton, Peninsula Magruder, Peninsula Seaford 115 kV lines and Peninsula #4 230/115 kV transformer for a fault on the Peninsula #1 115/35 kV transformers.
- 80. **Peninsula #4 230/115 kV Transformer Sectionalized** Restores Line 288 (Peninsula Yorktown) following a fault on the Peninsula #4 230/115 kV transformer.
- 81. **Peninsula-Tabb-Yorktown 288 Sectionalized** Restores Peninsula #4 and #5 transformer and the 230 kV bus at Peninsula following a fault on and isolation of the 288 line.
- 82. Plaza #1 115/13 kV Transformers Sectionalized Restores the Plaza Nation Cylinder Gas, Plaza Manchester 115 kV lines and Plaza #4 230/115 kV transformer for a fault on the Plaza #1 115/13 kV transformers.
- 83. **Possum Point #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Possum Point #1 500/230 kV transformer.
- 84. Reeves Ave #4 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Reeves Ave #4 230/115 kV transformer.
- 85. Reeves Ave #5 230/115 kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Reeves Ave #5 230/115 kV transformer.
- Remington #3 230/115 kV Transformer Sectionalized Restores Line 2077 (Remington – Remington CT) following a fault on the Remington #3 230/115 kV transformer.
- 87. **Remington CT #9 230/115 kV Transformer Sectionalized** Restores the 230 kV High Side Breakers for a fault on the Remington CT #9 230/115 kV transformer.



- 88. **Sewells Point #5 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Sewells Point #5 230/115 kV transformer.
- 89. **Spotsylvania #1 500/115 kV Transformer Sectionalized** Restores the 500 kV Bus Breakers for a fault on the Spotsylvania #1 500/115 kV transformer.
- 90. **Suffolk #5 230/115 kV Transformer Sectionalized** Restores the 230 kV High Side Breakers for a fault on the Suffolk #5 230/115 kV transformer.
- 91. **Suffolk #7 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Suffolk #7 500/230 kV transformer.
- 92. **Suffolk #8 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Suffolk #8 500/230 kV transformer.
- 93. **Surry RSS#1 Sectionalized**_— Restores the 500 kV Bus Breakers following a fault on the transformer.
- 94. Valley #1 500/230 kV Transformer Sectionalized Restores the 500 kV Ring Bus Breakers for a fault on the Valley #1 500/230 kV transformer.
- 95. **Valley #2 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Valley #2 500/230 kV transformer.
- 96. Virginia Beach #3 115/13 kV Transformer Sectionalized Restores the Virginia Beach Pendleton 115 kV line and Virginia Beach #5 230/115 kV transformer for a fault on the Virginia Beach #3 115/13 kV transformer.
- 97. Virginia Beach #2 115/35 kV & #4 115/13 kV Transformers Sectionalized Restores the Virginia Beach Bains Store 115 kV line and Virginia Beach #6 230/115 kV transformer for a fault on the Virginia Beach #2 115/35 kV & #4 115/13 kV transformers.
- 98. Whealton #2 230/115 kV Transformer Sectionalized Restores the 230 kV High Side Breakers for a fault on the Whealton #2 230/115 kV transformer.
- 99. Whiteoak #1 230/13kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Whiteoak #1 230/13 kV transformer.
- 100. Whiteoak #2 230/13kV Transformer Sectionalized Restores the 230 kV Bus Breakers for a fault on the Whiteoak #2 230/13 kV transformer.
- 101. **Yadkin #1 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Yadkin #1 500/230 kV transformer.
- 102. **Yadkin #3 230/115 kV Transformer Sectionalized** Restores the 230 kV Ring Bus Breakers for a fault on the Yadkin #3 230/115 kV transformer.
- 103. **Yadkin #5 500/230 kV Transformer Sectionalized** Restores the 500 kV Ring Bus Breakers for a fault on the Yadkin #5 500/230 kV transformer.
- 104. **Yorktown #9 230/115 kV Transformer Sectionalized** Restores the 230 kV Bus Breakers for a fault on the Yorktown #9 230/115 kV transformer.
- 105. **Yorktown TX#3 Sectionalized** Restores the 230 kV Bus Breakers following a fault on the transformer.



Duke Energy Ohio Kentucky (DEOK)

1. East Wood-Hillcrest 138 kV Sectionalized – Restores the East Wood – Ford Batavia 138 kV line following a fault on the East Wood-Hillcrest 8887 138 kV line.

Duquesne Light Company (DLCO)

- 1. Clinton #Load 138/25 kV Transformer Sectionalized Restores the Clinton Findlay 138 kV line and Clinton #1 345/138 kV transformer for a fault on the Clinton #Load 138/25 kV transformer.
- 2. **Dravosburg 138/69 kV transformer #1 Sectionalized** Restores the Elwyn-Brentwood-Dravosburg Z-70 138 kV line and the Carson-Homestead- Dravosburg Z-87 138 kV line following a fault on the Dravosburg 138/69 kV transformer #1.
- 3. **Elwyn #2 138/25 kV Transformer Sectionalized** Restores the Elwyn Collier 138 kV line for a fault on the Elwyn #2 138/25 kV transformer.
- 4. **Legionville #1 138/25 kV Transformer Sectionalized** Restores the Legoinville Wolfe Run and Legoinville Hopewell 138 kV lines for a fault on the Legionville #1 138/25 kV transformer.
- 5. **Legionville #2 138/25 kV Transformer Sectionalized** Restores the Legoinville Crescent and Legoinville Koppel Steel 138 kV lines for a fault on the Legionville #2 138/25 kV transformer.
- Logans Ferry #1 138/25 kV Transformer Sectionalized Restores the Logans Ferry – Highland, Logans Ferry – Cheswick and Logans Ferry – Universal 138 kV lines for a fault on the Logans Ferry #1 138/25 kV transformer.
- 7. Raccoon #1 138/25 kV Transformer Sectionalized Restores the Raccoon Valley Tap and Raccoon Potter SS 138 kV lines for a fault on the Raccoon #1 138/25 kV transformer.
- 8. Raccoon #2 138/25 kV Transformer Sectionalized Restores the Raccoon Beaver Valley and Raccoon Potter SS 138 kV lines for a fault on the Raccoon #2 138/25 kV transformer.
- 9. **Woodville #3 138/25 kV Transformer Sectionalized** Restores the Woodville Collier and Woodville Piney Fork 138 kV lines for a fault on the Woodville #3 138/25 kV transformer.

FirstEnergy East (FE-E)

- Caterpillar Tractor-White Ford-Glades 115KV Sectionalized Restore
 Caterpillar Tractor-White Ford or Glades-White Ford following a fault on Glades White Ford or Caterpillar Tractor-White Ford respectively.
- 2. Claysburg-Curryville-Saxton 115KV Sectionalized— Restore Claysburg-Curryville or Saxton-Curryville following a fault on Saxton-Curryville or Claysburg-Curryville respectively.
- 3. Collins-Cly-Newberry 115KV Sectionalized Restore Round Top-Newberry and



Middletown Junction-Collins following a fault on Collins-Cly-Newberry.

- Collins-Middletown Junction 115 kV Sectionalized Restore Collins-Cly-Newberry- Round Top 115 kV following a fault on the Collins-Middletown Junction 115 kV line.
- 5. **E.Towanda-Tenn Gas-S.Troy-Everts Drive 115 kV Line Sectionalized –**Restore E. Towanda-Tenn Gas-S. Troy or S. Troy-Everts Drive following a fault on the S. Troy-Everts or E. Towanda-Tenn Gas-S. Troy respectively.
- Eclipse-Clark Summit-Grandview 115KV Sectionalized Restore Eclipse-Clark Summit or Grandview-Clark Summit following a fault on Grandview-Clark Summit or Eclipse-Clark Summit respectively.
- 7. Everts Drive-South Troy-Tennessee Gas 115KV Sectionalized Restore Everts Drive-South Troy and South Troy Transformers or Tennessee Gas-South Troy and South Troy Transformers following a fault on Tennessee Gas-South Troy or Everest Drive-South Troy respectively. Restore Everts Drive-South Troy and Tennessee Gas-South Troy following a fault on either South Troy Transformer.
- 8. Forest #1 230/115 kV Transformer Sectionalized Restores Squab Hollow Forest 230 kV line and Glade Forest 230 kV Line following a fault on the Forest #1 230/115 kV transformer.
- Gardners-Dillsburg-Round Top 115KV Sectionalized

 Restore Gardners-Dillsburg or Round Top-Dillsburg following a fault on Round Top-Dillsburg or Gardners-Dillsburg respectively.
- Garman-Westover South-Madera 115KV Sectionalized Restore Garman-Westover South or Madera-Westover South following a fault on Madera-Westover South or Garman-Westover South respectively.
- 11. **Glades-West Hellam-Prospect 115KV Sectionalized –** Restore Glades-West Hellam or Prospect-West Hellam following a fault on Prospect-West Hellam or Glades-West Hellam respectively.
- 12. **Grandview-Haynie-Piney 115KV Sectionalized—** Restore Grandview-Haynie or Piney-Haynie following a fault on Piney-Haynie or Grandview-Haynie respectively.
- 13. Green Garden-Downing Ave-Buffalo Road 115KV Sectionalized
 Restore Green Garden-Downing Ave and Downing Ave Transformer or Buffalo Road-Downing Ave and Downing Ave Transformer following a fault on Buffalo Road-Downing Ave or Green Garden-Downing Ave respectively. Restore Green Garden-Downing Ave and Buffalo Road-Downing Ave following a fault on Downing Ave Transformer.
- Hector-Sabinsville-Niles Valley 115KV Sectionalized Restore Hector-Sabinsville or Niles Valley-Sabinsville following a fault on Niles Valley-Sabinsville or Hector-Sabinsville respectively.
- Hillclay Jct-Salix-Krayn 115KV Sectionalized Restore Hillclay Junction-Salix or Krayn-Salix following a fault on Krayn-Salix or Hillclay Junction-Salix respectively.
- 16. HomerCity-Quemahoning-Hooversville 230KV Sectionalized Restore Homer



- City-Quemahoning or Hooversville-Quemahoning following a fault on Hooversville-Quemahoning or Homer City-Quemahoning respectively.
- 17. **Hooversville-Ralphton-Somerset 115KV Sectionalized –** Restore Hooversville-Ralphton or Somerset-Ralphton following a fault on Somerset-Ralphton or Hooversville-Ralphton respectively.
- 18. Hooversville-Scalp Level-Rachel Hill 115KV Sectionalized Restore Hooversville-Scalp Level or Rachel Hill-Scalp Level following a fault on Rachel Hill-Scalp Level or Hooversville-Scalp Level respectively.
- 19. **Hunterstown-Oxford-North Hanover 115KV Sectionalized –** Restore Hunterstown-Oxford or North Hanover-Oxford following a fault on North Hanover-Oxford or Hunterstown-Oxford respectively.
- 20. **Jackson-Bair-Hill 115KV Sectionalized –** Restore Jackson-Bair or Hill-Bair following a fault on Hill-Bair or Jackson-Bair respectively.
- Jackson-Menges Mills-PH Glatfelter 115KV Sectionalized Restore Jackson-Menges Mills or PH Glatfelter-Menges Mills following a fault on PH Glatfelter-Menges Mills or Jackson-Menges Mills respectively.
- 22. **JE Baker-Taxville-Westgate 115KV Sectionalized –** Restore JE Baker-Taxville or Westgate-Taxville following a fault on Westgate-Taxville or JE Baker-Taxville respectively.
- 23. Marshall-Grover-Scotch Hollow 230KV Sectionalized— Restore Marshall-Grover or Scotch Hollow-Grover and Grover Transformer following a fault on Scotch Hollow-Grover or Marshall-Grover respectively. Restore Marshall-Grover and Scotch Hollow-Grover following a fault on Grover Transformer.
- Middletown Jct-Collins-Newberry 115KV Sectionalized

 Restore Newberry-Collins or Middletown Junction-Collins following a fault on Middletown Junction-Collins or Newberry-Collins respectively.
- 25. **North Meshoppen-Oxbow-Lackawanna 230KV Sectionalized –** Restore North Meshoppen-Oxbow or Lackawanna-Oxbow following a fault on Lackawanna-Oxbow or North Meshoppen-Oxbow respectively.
- 26. **Pierce Brook-Two Mile Run-Potter 115KV Sectionalized –** Restore Pierce Brook-Two Mile Run or Potter-Two Mile Run following a fault on Potter-Two Mile Run or Pierce Brook-Two Mile Run respectively.
- 27. **Round Top-Allen-PPGI 115KV Sectionalized –** Restore PPGI-Allen or Round Top-Allen following a fault on Round Top-Allen or PPGI-Allen respectively.
- 28. **Round Top-Newberry 115 kV Sectionalized –** Restore Middletown Junction-Collins- Cly-Newberry- 115 kV following a fault on the Round Top-Newberry 115 kV line.
- 29. **Saxton-Three Springs-Shade Gap 115KV Sectionalized –** Restore Saxton-Three Springs or Shade Gap-Three Springs following a fault on Shade Gap-Three Springs or Saxton-Three Springs respectively.
- 30. **Shade Gap-Reeds Gap Tap-Lewistown 115KV Sectionalized –** Restore Shade Gap-Reeds Gap Tap or Lewistown-Reeds Gap Tap following a fault on



Lewistown-Reeds Gap Tap or Shade Gap-Reeds Gap Tap respectively.

- 31. **Shelocta-Edgewood-Lucerne 115KV Sectionalized–** Restore Shelocta-Edgewood or Lucerne-Edgewood following a fault on Lucerne-Edgewood or Shelocta-Edgewood respectively.
- 32. Smith Street-Zions View-Locust Point Road-York Haven-Middletown Junction 115KV 977 line Sectionalized Restore Smith Street-Zions View or Middletown Junction-York Haven-Locust Point Road-Zions View following a fault on Middletown Junction-York Haven-Locust Point Road-Zions View or Smith Street-Zions View, respectively.
- 33. Springboro-Venango Junction-Morgan St-Edinboro South 115KV
 Sectionalized Restore Springboro-Venango Junction and Morgan St-Venango
 Junction or Edinboro South-Venango Junction and Morgan St-Venango Junction
 following a fault on Edinboro South-Venango Junction or Springboro-Venango
 Junction respectively. Restore Springboro-Venango Junction and Edinboro SouthVenango Junction following a fault on Morgan St-Venango Junction.
- 34. **Springwood-Yoe 115KV Sectionalized –** Restore Springwood-Yoe following a fault on Yoe 115KV line.
- 35. **Trade City-Dixonville East-Glory 115KV Sectionalized—** Restore Trade City-Dixonville or Glory-Dixonville following a fault on Glory-Dixonville or Trade City-Dixonville respectively.
- 36. Violet Hill-Mount Rose-Pleasantville 115KV Sectionalized Restore Violet Hill-Mount Rose or Pleasantville-Mount Rose following a fault on Pleasantville-Mount Rose or Violet Hill-Mount Rose respectively.
- 37. Warren-Elm Street Tap-Warren South 115KV Sectionalized— Restore Warren-Elm Street Tap or Warren South-Elm Street Tap following a fault on Warren South-Elm Street Tap respectively. Restore Warren-Elm Street Tap and Warren South-Elm Street Tap following a fault on the Elm Street transformer.
- Wayne-Utica Junction-Eclipse 115KV Sectionalized Restore Wayne-Utica Junction or Eclipse-Utica Junction following a fault on Eclipse-Utica Junction or Wayne-Utica Junction respectively.
- Westfall-Tyrone North-Eagle Valley 115KV Sectionalized Restore Westfall-Tyrone North or Eagle Valley-Tyrone North following a fault on Eagle Valley-Tyrone North or Westfall-Tyrone North respectively.
- 40. **Westover-Madera-Bioenergy 115KV Sectionalized—** Restore Westover-Madera or Bioenergy-Madera following a fault on Bioenergy-Madera or Westover-Madera respectively.
- 41. Whetstone-Harvey Run-Dubois 115KV Sectionalized— Restore Whetstone-Harvey Run and Harvey Run Transformer or Dubois-Harvey Run and Harvey Run Transformer following a fault on Dubois-Harvey Run or Whetstone-Harvey Run respectively. Restore Whetstone-Harvey Run and Dubois-Harvey Run following a fault on Harvey Run Transformer.



FirstEnergy South (FE-S)

- Airco Arroyo Wylie Ridge 218 138kV line Restore Airco-Arroyo or Arroyo-Wylie Ridge following a fault on the Arroyo-Wylie Ridge or Airco-Arroyo respectively.
- 2. **Albright-Kingwood-Pruntytown 100 138kV line** Restore Albright-Kingwood or Kingwood-Pruntytown following a fault on the Kingwood-Pruntytown or Albright-Kingwood respectively.
- 3. Albright-Snowy Creek-Oakpark-Kelso Gap 138 kV line— Restore Albright-Snowy Creek-Oakpark or Oakpark-Kelso Gap following a fault on Oakpark-Kelso Gap or Albright-Snowy Creek-Oakpark respectively.
- Allenport #1 138/25 kV Transformers Sectionalized Restores the Allenport

 Charleroi and Allenport Frazier 138 kV lines for a fault on the Allenport #1
 138/25 kV transformers.
- 5. **Arroyo-Wylie Ridge 212 138kV line** Restore Arroyo-Quaker State and Arroyo bus load following a fault on the Arroyo-Arroyo Jct Wylie Ridge-S. Chester-E. Liverpool respectively.
- 6. **Backfork-Cowen-Crupperneck 138kV line** Restore Backfork-Cowen or Cowen-Crupperneck following a fault on Cowen-Crupperneck or Backfork-Cowen respectively.
- 7. **Barnetts Run-Bridgeport Hill-Glen Falls 138kV line** Restore Barnetts Run-Bridgeport Hill or Bridgeport Hill-Glen Falls following a fault on Bridgeport Hill-Glen Falls or Barnetts Run-Bridgeport Hill respectively.
- Bedington #1 500/138 kV Transformer Sectionalized Restores
 Bedington #3 500/138 kV transformer for a fault on the Bedington #1 500/138 kV transformer.
- Bedington #2 500/138 kV Transformer Sectionalized Restores
 Bedington #4 500/138 kV transformer for a fault on the Bedington #2 500/138 kV transformer.
- Bedington #3 500/138 kV Transformer Sectionalized Restores
 Bedington #1 500/138 kV transformer for a fault on the Bedington #3 500/138 kV transformer.
- Bedington #4 500/138 kV Transformer Sectionalized Restores
 Bedington #2 500/138 kV transformer for a fault on the Bedington #4 500/138 kV transformer.
- Bedington-Nipetown-Reid 138kV line

 Restore Bedington-Nipetown or Nipetown-Reid following a fault on Nipetown-Reid or Bedington-Nipetown respectively.
- 13. **Belmont #1 500/138 kV Transformer Sectionalized** Restores Belmont #2 500/138 kV transformer for a fault on the Belmont #1 500/138 kV transformer.
- 14. **Belmont #2 500/138 kV Transformer Sectionalized** Restores Belmont #1 500/138 kV transformer for a fault on the Belmont #2 500/138 kV transformer.
- 15. **Belmont-Middlebourne-Jacksonburg-Richwood Hill** Restore Belmont-



- Jacksonburg or Jacksonburg-Richwood Hill following a fault on Jacksonburg-Richwood Hill or Belmont-Jacksonburg respectively.
- 16. **Bethelboro #2> 138/25 kV Transformers Sectionalized** Restores the Bethelboro North Union Tap2, Bethelboro North Union Tap1 and Bethelboro Yukon 138 kV lines for a fault on the Bethelboro #2> 138/25 kV transformers.
- 17. **Bethelboro-North Union-South Union-Gans-Lake Lynn 138kV line** Restore Bethelboro-North Union-South Union or South Union-Gans-Lake Lynn following a fault on South Union-Gans-Lake Lynn or Bethelboro-North Union-South Union respectively.
- Black Oak-Short Gap-Cumberland 138kV line Restore Black Oak-Short Gap or Short Gap-Cumberland following a fault on Short Gap-Cumberland or Black Oak-Short Gap respectively.
- Brookhaven-S. Morgantown-Pricehill 138kV line Restore Brookhaven-S. Morgantown or S. Morgantown-Pricehill following a fault on S. Morgantown-Pricehill or Brookhaven-S. M. Morgantown respectively.
- 20. **Buckhannon #3 138/66 kV Transformer Sectionalized** Restores the Buckhannon French Creek and Buckhannon Rider SS 138 kV lines for a fault on the Buckhannon #3 138/66 kV transformer.
- Burma #71 138/25 kV Transformer Sectionalized Restores the Burma Clarion, Burma – Armstrong 138 kV lines and Burma #1 138/115 kV transformer for a fault on the Burma #71 138/25 kV transformer.
- 22. **Burma #72 138/25 kV Transformer Sectionalized** Restores the Burma Kissinger JCT 138 kV line for a fault on the Burma #72 138/25 kV transformer.
- 23. **Burma-Clarion-Ridgway** Restore Burma-Clarion or Clarion-Ridgway following a fault on Clarion-Ridgway or Burma-Clarion respectively.
- 24. Butler #61 138/25 kV Transformer Sectionalized Restores the Butler Cabot and Butler Cabrey Jct Tap 138 kV lines for a fault on the Butler #61 138/25 kV transformer.
- 25. Butler #62 138/25 kV Transformer Sectionalized Restores the Butler Cabot, Butler – Karns City and Butler – Shanor Manor 138 kV lines for a fault on the Butler #62 138/25 kV transformer.
- 26. Cabot #1 500/138 kV Transformer Sectionalized Restores Cabot #3 500/138 kV transformer for a fault on the Cabot #1 500/138 kV transformer.
- 27. Cabot #2 500/138 kV Transformer Sectionalized Restores Cabot #4 500/138 kV transformer for a fault on the Cabot #2 500/138kV transformer.
- 28. Cabot #3 500/138 kV Transformer Sectionalized Restores Cabot #1 500/138 kV transformer for a fault on the Cabot #3 500/138 kV transformer.
- 29. Cabot #4 500/138 kV Transformer Sectionalized Restores Cabot #2 500/138 kV transformer for a fault on the Cabot #4 500/138 kV transformer.
- Cabot-Woodland-N. Point-Kiski Valley 138kV line Restore Cabot-Woodland-N. Point or N. Point-Kiski Valley following a fault on N. Point-Kiski Valley or Cabot-Woodland-N. Point respectively.



- 31. **Carroll #1 138/34.5 kV Transformer Sectionalized** Restores the Carroll Catoctin 138 kV line for a fault on the Carroll #1 138/34.5 kV transformer.
- 32. **Carroll-Taneytown-Germantown 138kV line** Restore Carroll-Taneytown or Taneytown-Germantown following a fault on Taneytown-Germantown or Carroll-Taneytown respectively.
- Catoctin-Walkersville-Monocacy 138kV line Restore Catoctin-Walkersville or Walkersville-Monocacy following a fault on Walkersville-Monocacy or Catoctin-Walkersville respectively.
- 34. **Cecil #1= 138/25 kV Transformers Sectionalized** Restores the Cecil Enlow and Cecil South Fayette 138 kV lines for a fault on the Cecil #1= 138/25 kV transformers.
- 35. Cecil #62 138/25 kV Transformer Sectionalized Restores the Cecil Crossgates, Cecil Houston, and Cecil Buffalo Jct 138 kV lines for a fault on the Cecil #62 138/25 kV transformer.
- Cecil-Crossgates-Peters 138kV line Restore Cecil-Crossgates or Crossgates-Peters following a fault on Crossgates-Peters or Cecil-Crossgates respectively.
- 37. Charleroi #62 138/25 kV Transformer Sectionalized Restores the Charleroi Gordon, Charleroi Dry Run and Charleroi Belmon 138 kV lines for a fault on the Charleroi #62 138/25 kV transformer.
- 38. Charleroi #63 138/25 kV Transformer Sectionalized Restores the Charleroi Vanceville, Charleroi Yukon, Charleroi Mitchell and Charleroi Brownsville 138 kV lines for a fault on the Charleroi #63 138/25 kV transformer.
- 39. **Charleroi-Westraver-Yukon 138kV line** Restore Charleroi-Westraver or Westraver-Yukon following a fault on Westraver-Yukon or Charleroi-Westraver respectively.
- 40. **Cheat Lake-Ruthbelle-Albright 138kV line** Restore Albright-Ruthbelle or Ruthbelle Cheat Lake following a fault on Ruthbelle Cheat Lake or Albright-Ruthbelle 138 kV lines respectively.
- 41. Connelsville #1= 138/25 kV Transformers Sectionalized Restores the Connelsville Stoner Jct 138 kV line for a fault on the Connelsville #1= 138/25 kV transformers.
- 42. Crupperneck #1 138/23 kV Transformer Sectionalized Restores the Crupperneck Cowen, Crupperneck Craigsville and Crupperneck Nettie 138 kV lines for a fault on the Crupperneck #1 138/23 kV transformer.
- 43. Crupperneck-Craigsville-Powell Mountain 138kV line Restore Crupperneck-Craigsville or Craigsville-Powell Mountain following a fault on Craigsville-Powell Mountain or Crupperneck-Craigsville respectively.
- 44. **Double Toll Gate #3 138/25 kV Transformer Sectionalized** Restores the Double Toll Gate Meadow Brook, Double Toll Gate Old Chapel and Double Toll Gate Riverton 138 kV lines for a fault on the Double Toll Gate #3 138/25 kV transformer.
- 45. **Double Toll Gate #4 138/25 kV Transformer Sectionalized** Restores the Double Toll Gate Greenwood and Double Toll Gate Meadow Brook 138 kV lines for a fault on the Double Toll Gate #4 138/25 kV transformer.



- 46. **Double Toll Gate-Old Chapel-Millville 138kV line** Restore Double Toll Gate-Old Chapel or Old Chapel-Millville following a fault on Old Chapel-Millville or Double Toll Gate-Old Chapel respectively.
- 47. **Doubs #1 500/230 kV Transformer Sectionalized** Restores Doubs #3 500/230 kV transformer for a fault on the Doubs #1 500/230 kV transformer.
- 48. **Doubs #2 500/230 kV Transformer Sectionalized** Restores Doubs #4 500/230 kV transformer for a fault on the Doubs #2 500/230 kV transformer.
- 49. **Doubs #3 500/230 kV Transformer Sectionalized** Restores Doubs #1 500/230 kV transformer for a fault on the Doubs #3 500/230 kV transformer.
- 50. **Doubs #4 500/230 kV Transformer Sectionalized** Restores Doubs #2 500/230 kV transformer for a fault on the Doubs #4 500/230 kV transformer.
- 51. **Dupont-Larkmead-Edgelawn 138kV line** Restore Dupont-Larkmead or Larkmead-Edgelawn following a fault on Larkmead-Edgelawn or Dupont-Larkmead respectively.
- 52. **Edgelawn #1 138/66 kV Transformers Sectionalized** Restores the Edgelawn Larkmead and Edgelawn Trissler 138 kV lines for a fault on the Edgelawn #1 138/66 kV transformers.
- 53. **Edgelawn #3 138/66 kV Transformer Sectionalized** Restores the Edgelawn Belmont and Edgelawn Goff Run 138 kV lines for a fault on the Edgelawn #3 138/66 kV transformer.
- 54. **Elko #1 230/138 kV Transformer Sectionalized** Restores the Elko 230 kV bus 1 for a fault on the Elko #1 230/138kV transformer.
- 55. **Everson #1 138/23 kV Transformer Sectionalized** Restores the Everson South Fairmont and Everson Chesapeake 138 kV lines for a fault on the Everson #1 138/23 kV transformer.
- 56. **Everson-Chesapeake-Rivesville.400 138kV line** Restore Everson-Chesapeake or Chesapeake-Rivesville following a fault on Chesapeake-Rivesville or Everson-Chesapeake respectively.
- 57. **Fairview #1 138/23 kV Transformer Sectionalized** Restores the Fairview Miracle Run, Fairview Grant Town, Fairview Dents Run and Fairview Flat Run 138 kV lines for a fault on the Fairview #1 138/23 kV transformer.
- 58. **Fairview-Grant Town-Riversville.42 138kV line** Restore Fairview-Grant Town or Grant Town-Riversville following a fault on Grant Town-Rivesville or Fairview-Grant Town respectively.
- 59. **Fawn #1 138/25 kV Transformer Sectionalized** Restores the Fawn Lawson Jct and Fawn Silverville 138 kV lines for a fault on the Fawn #1 138/25 kV transformer.
- 60. **Finzel-Frostburg-Ridgeley 138kV line** Restore Finzel-Frostburg or Frostburg-Ridgeley following a fault on Frostburg-Ridgeley or Finzel-Frostburg respectively.
- 61. **French Creek #1 138/25 kV Transformer Sectionalized** Restores the French Creek Buckhannon and French Creek Heaters 138 kV lines for a fault on the Fawn #1 138/25 kV transformer.



- 62. **Gates Hill-Brownsville JCT-Charleroi 138kV line** Restore Gates Hill-Brownsville Jct or Brownsville Jct-Charleroi following a fault on Brownsville Jct-Charleroi or Gates Hill-Brownsville Jct respectively.
- 63. **Gilboa #2 138/23 kV Transformer Sectionalized** Restores the Gilboa Enon Tap and Gilboa Jones Branch Tap 138 kV lines for a fault on the Gilboa #2 138/23 kV transformer.
- 64. **Gilboa-Powell Mountain-Summersville-Grassy Falls 138kV line** Restore Gilboa-Powell Mountain-Summersville or Summersville-Grassy Falls following a fault on Summersville-Grassy Falls or Gilboa-Powell Mountain-Summersville respectively.
- 65. **Goff Run #1 138/34.5 kV Transformers Sectionalized** Restores the Goff Run Edgelawn and Goff Run Grantsville 138 kV lines for a fault on the Goff Run #1 138/34.5 kV transformers.
- 66. **Gordon #2> 138/25 kV Transformers Sectionalized** Restores the Goff Run Lagonda 138 kV line for a fault on the Gordon #2> 138/25 kV transformers.
- 67. **Gordon-Lagonda-Windsor 138kV line** Restore Gordon-Lagonda or Lagonda-Windsor following a fault on Lagonda-Windsor or Gordon-Lagonda respectively.
- 68. **Grand Point #1 138/69 kV Transformer Sectionalized** Restores the Grand Point Letterkenney, Grand Point Guilford, Grand Point Fayetteville 138 kV lines and Grand Point #1 138/69 kV transformer for a fault on the Grand Point #1 138/69 kV transformer.
- 69. **Grand Point-Fayetteville-W. Waynesboro 138kV line** Restore Grand Point-Fayetteville or Fayetteville-W. Waynesboro following a fault on Fayetteville-W. Waynesboro or Grand Point-Fayetteville respectively.
- 70. **Guilford #1 138/34.5 kV Transformer Sectionalized** Restores the Guilford 138 kV bus for a fault on the Guilford #1 138/34.5kV transformer.
- 71. **Guilford #2 138/69 kV Transformer Sectionalized** Restores the Guilford 138 kV bus for a fault on the Guilford #2 138/69kV transformer.
- 72. **Halfway Paramount 138 kV line sectionalized -** Restores the Halfway C 138 kV Bus and Paramount #2 Bus for a fault on the Halfway Paramount 138 kV line.
- 73. Harrison City-Penn-Luxor-N. Greensburg-Hempfield 138kV line Restore Harrison City-Penn-Luxor-N. Greensburg or N. Greensburg-Hempfield following a fault on N. Greensburg-Hempfield or Harrison City-Penn-Luxor-N. Greensburg respectively.
- 74. **Hempfield-Sewickly-Waltz Mills-Yukon 138kV line** Restore Hempfield-Sewickly or Sewickly-Waltz Mills-Yukon following a fault on Sewickly-Waltz Mills-Yukon or Hempfield-Sewickly respectively.
- 75. **Huntingdon-Robbins-Yukon 138kV line** Restore Huntingdon-Robbins or Robbins-Yukon following a fault on Robbins-Yukon or Huntingdon-Robbins respectively.
- 76. **Iron Bridge #2> 138/25 kV Transformers Sectionalized** Restores the Iron Bridge Layton Jct Tap and Iron Bridge Donegal 138 kV lines for a fault on the Iron Bridge #2> 138/25 kV transformers.



- 77. **Karns City #1 138/25 kV Transformers Sectionalized** Restores the Karns City Kissinger JCT and Karns City Butler 138 kV lines for a fault on the Karns City #1 138/25 kV transformers.
- 78. Kiski Valley #1 138/25 kV Transformer Sectionalized Restores the Kiski Valley Npointe2 and Kiski Valley Big Pine Tap 138 kV lines for a fault on the Kiski Valley #1 138/25 kV transformer.
- 79. Kiski Valley #1 138/25 kV Transformer Sectionalized Restores the Kiski Valley Npointe2 and Kiski Valley Big Pine Tap 138 kV lines for a fault on the Kiski Valley #1 138/25 kV transformer.
- 80. **Kittanning #2> 138/25 kV Transformers Sectionalized** Restores the Kittanning Alldam6 and Kittanning Garrets Run JCT 138 kV lines for a fault on the Kittanning #2> 138/25 kV transformers.
- 81. **Lake Lynn-Cheat Lake 138kV line** Restore Lake Lynn-Cheat Lake or Cheat Lake 138/69kV transformer following a fault on the Cheat Lake 138/69kV or Lake Lynn-Cheat Lake respectively.
- 82. **Lake Lynn-West Run-Collins Ferry 138kV line** Restore Lake Lynn-West Run or West Run-Collins Ferry following a fault on West Run-Collins Ferry or Lake Lynn-West Run respectively.
- 83. Lardin-Clarksville Jct-Luzerne-Malden-California-Charleroi 138kV line Restore Lardin-Clarksville Jct-Luzerne-Malden-California or California-Charleroi following a fault on California-Charleroi or Lardin-Clarksville Jct-Luzerne-Malden-California respectively.
- 84. **Lime Kiln #3 230/34.5 kV Transformer Sectionalized** Restores the Lime Kiln McCain and Lime Kiln Doubs 230 kV lines for a fault on the Lime Kiln #3 230/34.5 kV transformer.
- 85. **Lime Kiln #4 230/34.5 kV Transformer Sectionalized** Restores the Lime Kiln Montgomery and Lime Kiln Doubs 230 kV lines for a fault on the Lime Kiln #4 230/34.5 kV transformer.
- 86. Long Reach 138/25 kV Transformer Sectionalized Restores the Long Reach Paden City and Long Reach Bens Run 138 kV lines for a fault on the Long Reach 138/25 kV transformer.
- 87. Loughs Lane #1 138/66 kV Transformers Sectionalized Restores the Loughs Lane Leadsville and Loughs Lane Beverly 138 kV lines for a fault on the Loughs Lane #1 138/66 kV transformers.
- 88. Loughs Lane #3 138/66 kV Transformer Sectionalized Restores the Loughs Lane Parsons and Loughs Lane Roar Creek 138 kV lines for a fault on the Loughs Lane #3 138/66 kV transformer.
- 89. Loyalhanna #1= 138/25 kV Transformers Sectionalized Restores the Loyalhanna Luxor and Loyalhanna Edgewater 138 kV lines for a fault on the Loyalhanna #1= 138/25 kV transformers.
- 90. **Loyalhanna #2> 138/25 kV Transformers Sectionalized** Restores the Loyalhanna Bethlen and Loyalhanna Bracken JCT 138 kV lines for a fault on the Loyalhanna #2> 138/25 kV transformers.



- 91. Luxor #1= 138/25 kV Transformers Sectionalized Restores the Luxor Loyalhanna, Luxor Stony Springs JCT and Luxor East Gate 138 kV lines for a fault on the Luxor #1= 138/25 kV transformers.
- 92. **Luxor-East Gate-Sony-King Farm 138kV line** Restore Luxor-East Gate-Sony or Sony-King Farm following a fault on Sony-King Farm or Luxor-East Gate-Sony respectively.
- 93. **Marlowe Halfway 138 kV line sectionalized -** Restores the Halfway A 138 kV Bus for a fault on the Marlowe Halfway 138 kV line.
- 94. **McCalmont #1B= 138/25 kV Transformers Sectionalized** Restores the McCalmont Mountain Gathering 138 kV line for a fault on the McCalmont #1B= 138/25 kV transformers.
- 95. **Meadow Brook #1 500/138 kV Transformer Sectionalized** Restores Meadow Brook #3 500/138 transformer for a fault on the Meadow Brook #1 500/138 transformer.
- 96. **Meadow Brook #2 500/138 kV Transformer Sectionalized** Restores Meadow Brook #4 500/138 transformer for a fault on the Meadow Brook #2 500/138 transformer.
- 97. **Meadow Brook #3 500/138 kV Transformer Sectionalized** Restores Meadow Brook #1 500/138 transformer for a fault on the Meadow Brook #3 500/138 transformer.
- 98. **Meadow Brook #4 500/138 kV Transformer Sectionalized** Restores Meadow Brook #2 500/138 transformer for a fault on the Meadow Brook #4 500/138 transformer.
- 99. Meadow Brook Strasburg 138 kV line sectionalized Restores the Strasburg A 138 kV Bus and the #2 Cap for a fault on the Meadow Brook Strasburg 138 kV line.
- 100. **Millville-Feagans Mill-Stonewall 138kV line** Restore Millville-Feagans Mill or Feagans Mill-Stonewall following a fault on Feagans Mill-Stonewall or Millville-Feagans Mill respectively.
- 101. **Monocacy #4 230/138 kV Transformer Sectionalized** Restores the Monocacy 230 kV "B" bus for a fault on the Monocacy #4 230/138kV transformer.
- 102. **Monocacy-Old Farm-Ringgold 230kV line** Restore Monocacy-Old Farm or Old Farm-Ringgold following a fault on Old Farm-Ringgold or Monocacy-Old Farm respectively.
- 103. Paden City-New Martinsville-Natrium.68 138kV line— Restore Paden City-New Martinsville or New Martinsville-Natrium following a fault on New Martinsville-Natrium or Paden City-New Martinsville respectively.
- 104. **Paramount Reid 138 kV line sectionalized -** Restores the Paramount #1 138 kV Bus for a fault on the Paramount Reid 138 kV line.
- 105. Parkersburg #1 138/23 kV Transformers Sectionalized Restores the Parkersburg Johns Manville JCT 138 kV line for a fault on the Parkersburg #1 138/23 kV transformers.
- 106. Peters #2> 138/25 kV Transformers Sectionalized Restores the Peters –



- Crossgates and Peters U.S.A.P. 138 kV lines for a fault on the Peters #2> 138/25 kV transformers.
- 107. Peters-Crossgate-Cecil 138 kV Line Sectionalized Restore Peters-Crossgate or Crossgate-Cecil following a fault on the Crossgate-Cecil or Peters-Crossgate respectively.
- 108. **Peters-Crossgates 138 kV Line Sectionalized** Restores the Cecil Crossgates 138 kV lines for a fault on the Peters-Crossgates 138 kV line.
- 109. Pickens #1 138/25 kV Transformer Sectionalized Restores the Pickens Back Fork, Pickens French Creek, Pickens Durbintp and Pickens Monterville 138 kV lines for a fault on the Pickens #1 138/25 kV transformer.
- 110. **Pickens-Durbin-Beverly-LoughsLane.158 138kV line** Restore Pickens-Durbin-Beverly or Beverly-Loughs Lane following a fault on Beverly-Loughs Lane or Pickens-Durbin-Beverly respectively.
- 111. **Powell Mountain #1 138/23 kV Transformer Sectionalized** Restores the Powell Mountain Craigsville, Powell Mountain Bays, Powell Mountain Enon Tap and Powell Mountain Ivydale 138 kV lines for a fault on the Powell Mountain #1 138/23 kV transformer.
- 112. Pruntytown #1 500/138 kV Transformer Sectionalized Restores Pruntytown #2 500/138 kV transformer for a fault on the Pruntytown #1 500/138 kV transformer.
- 113. Pruntytown #2 500/138 kV Transformer Sectionalized Restores Pruntytown #1 500/138 kV transformer for a fault on the Pruntytown #2 500/138 kV transformer.
- 114. Pruntytown #3 500/138 kV Transformer Sectionalized Restores Pruntytown #4 500/138 kV transformer for a fault on the Pruntytown #3 500/138 kV transformer.
- 115. **Pruntytown #4 500/138 kV Transformer Sectionalized** Restores
 Pruntytown #3 500/138 kV transformer for a fault on the Pruntytown #4 500/138 kV transformer.
- 116. Reid #1 138/34.5 kV Transformer Sectionalized Restores the Reid Antrim, Reid – Nipetown and Reid – Antietam 138 kV lines for a fault on the Reid #1 138/34.5 kV transformer.
- 117. Reid #2 138/34.5 kV Transformer Sectionalized Restores the Reid Ringgold and Reid Paramount 138 kV lines for a fault on the Reid #2 138/34.5 kV transformer.
- 118. **Reid-Antrim-Guilford 138kV line** Restore Reid-Antrim or Antrim-Guilford following a fault on Antrim-Guilford or Reid-Antrim respectively.
- 119. Ridgeway #2 138/46 kV Transformer Sectionalized Restores the Ridgeway Elko and Ridgeway – Clarion 138 kV lines for a fault on the Ridgeway #2 138/46 kV transformer.
- 120. **Ringgold #5 138/25 kV Transformer Sectionalized** Restores the Ringgold Catoctin, Ringgold East Waynesboro, Ringgold Reid 138 kV lines and Ringgold #3 230/138 kV transformer for a fault on the Ringgold #5 138/25 kV transformer.



- 121. **Ringgold #6 138/25 kV Transformer Sectionalized** Restores the Ringgold East Hagerstown 138 kV line and Ringgold #4 230/138 kV transformer for a fault on the Ringgold #6 138/25 kV transformer.
- 122. **Riverton #1 138/25 kV Transformer Sectionalized** Restores the Riverton Bethel and Riverton Klines Mill 138 kV lines for a fault on the Riverton #1 138/25 kV transformer.
- 123. **Riverton #2 138/25 kV Transformers Sectionalized** Restores the Riverton Bethel and Riverton Double Toll Gate 138 kV lines for a fault on the Riverton #2 138/25 kV transformers.
- 124. **Seneca Caverns-Canaan Valley-William 138kV line** Restore Seneca Caverns-Canaan Valley or Canaan Valley-William following a fault on Canaan Valley-William or Seneca Caverns-Canaan Valley respectively.
- 125. **Shingletown #82 230/46 kV Transformer Sectionalized** Restores the Shingletown Lewistown and Shingletown Dale Summit 230 kV lines for a fault on the Shingletown #82 230/46 kV transformer.
- 126. Social Hall #2 138/25 kV Transformer Sectionalized Restores the Social Hall Saltsburg, Social Hall Vasco Tap and Social Hall Blairsville 138 kV lines for a fault on the Social Hall #2 138/25 kV transformer.
- 127. **Springdale-Murrycrest-Sunoco Delmont-White Valley 138 kV line** Restore Springdale-Murrycrest or Murrycrest-Sunoco Delmont-White Valley following a fault on Murrycrest-Sunoco Delmont-White Valley or Springdale-Murrycrest respectively.
- 128. **Summit #1 115/46 kV Transformer Sectionalized** Restores the Summit Claysburg and Summit Cambria 115 kV lines for a fault on the Summit #1 115/46 kV transformer.
- 129. **Summit #2 115/46 kV Transformer Sectionalized** Restores the Summit Thirty-First Street 115 kV lines for a fault on the Summit #2 115/46 kV transformer.
- 130. Washington #2> 138/25 kV Transformers Sectionalized Restores the Washington Franklin and Washington Vanceville 138 kV lines for a fault on the Washington #2> 138/25 kV transformers.
- 131. **Weirton-Hamilton-Parkview-Buffalo Jct-Cecil-Windsor 138kV line** Restore Weirton-Hamilton-Parkview or Parkview-Buffalo Jct-Cecil-Windsor following a fault on Parkview-Buffalo Jct-Cecil-Windsor or Weirton-Hamilton-Parkview respectively.
- 132. Whiteley-Blacksville-Miracle Run-Fairview 138 kV line Restore Whiteley-Blacksville-Miracle or Miracle-Fairview following a fault on Miracle-Fairview or Whiteley-Blacksville-Miracle respectively.
- 133. W. Waynesboro-E. Waynesboro-Ringgold 138kV line Restore W. Waynesboro-E. Waynesboro or E. Waynesboro-Ringgold following a fault on E. Waynesboro-Ringgold or W. Waynesboro-E. Waynesboro respectively.
- 134. Wylie Ridge #1 345/138 kV Transformer Sectionalized Restores Wylie Ridge #2 345/138 kV transformer for a fault on the Wylie Ridge #1 345/138 kV transformer.
- 135. Wylie Ridge #2 345/138 kV Transformer Sectionalized Restores Wylie



Ridge #1 345/138 kV transformer for a fault on the Wylie Ridge #2 345/138 kV transformer.

FirstEnergy West (FE-W)

- Allen Junction-Silica Tap-Reynolds-University of Toledo-Vulcan 138 kV –
 Restore Allen Junction-Silica Tap-Reynolds or Vulcan-University of Toledo-Reynolds
 following a fault on Vulcan-University of Toledo-Reynolds or Allen Junction-Silica
 Tap-Reynolds respectively.
- 2. **Bayshore-Oregon-Maclean 138 kV –** Restore Bayshore-Oregon or Maclean-Oregon following a fault on Maclean-Oregon or Bayshore-Oregon respectively.
- Brunswick-Stoney-Granger-West Akron 138 kV Restore Brunswick-Stoney or West Akron-Granger-Stoney following a fault on West Akron-Granger-Stoney or Brunswick-Stoney respectively.
- Longview Cairns Ontario 138 kV line sectionalized Restores Longview-Cairns or Ontario-Cairns following a fault on the Ontario-Cairns or Longview-Cairns respectively.
- 5. **Lyons #1 138/23 kV Transformer Sectionalized** Restores the Lyons Fayette and Lyons Allen Junction 138 kV lines for a fault on the Lyons #1 138/23 kV transformer.
- Niles Central Muni-Garden-Elm-Packard 138 kV Restore Niles Central Muni-Garden or Packard-Elm-Garden following a fault on Packard-Elm-Garden or Niles Central Muni-Garden respectively.
- 7. **Riverbend #1 138/23 kV Transformer Sectionalized** Restores the Riverbend Wickliffe and Riverbend –Salt Springs 138 kV lines for a fault on the Riverbend #1 138/23 kV transformer.

Pennsylvania Power & Light Company (PPL)

- 1. **Frackville #1 230/69 kV Transformer** Restores the 230 kV bus at Frackville following a fault on the transformer #1.
- 2. **Frackville #2 230/69 kV Transformer** Restores the Frackville Columbia 230 kV line following a fault on the transformer #2.
- 3. **Frackville #3 230/69 kV Transformer** Restores the Eldred Frackville 230 kV line following a fault on the transformer #3.
- 4. **Juniata #3 230/69 kV Transformer Sectionalized** Restores the 230 kV bus 1 at Juniata following a fault on the transformer #3.
- 5. **Juniata #4 230/69 kV Transformer Sectionalized** Restores the 230 kV bus 2 at Juniata following a fault on the transformer #4.



- 1. **Mountain #1 230/66 kV Transformer** Restores the 230 kV High Side CBs, which will restore the Mountain-Susquehanna T10 230 kV line, following a fault on the transformer.
- 2. **Mountain #2 230/66 kV Transformer** Restores the 230 kV High Side CBs, which will restore the Mountain-Stanton 230 kV line, following a fault on the transformer.