

T-2007-3

| Overload Branches | Rate (MVA) | Bench Mark | | WJQS (load%) | T-2007-3 (load%) (1) | Solution | | | Contingency |
|---|------------|------------------|---------------------------------------|--------------|----------------------|----------|--------|--------|---|
| | | 2011 HS (load %) | 2011 HS + high TOT3 high TOT7 (load%) | | | Part 1 | Part 2 | Part 3 | |
| Beaver Creek TSGT - 230/115 kV auto | 224 | 115 | 138 | 122 | 152 | 120 | 120 | 122 | Beaver Creek PSCo - Beaver Creek WAPA 115 kV |
| Beaver Creek TSGT - Beaver Creek WAPA 115 kV | 200 | 125 | 147 | 130 | 175 | 132 | 130 | 132 | Beaver Creek PSCo - Beaver Creek WAPA 115 kV |
| Beaver Creek PSCo - Beaver Creek WAPA 115 kV | 319 | | 103 | 104 | 130 | 104 | 104 | 105 | Beaver Creek TSGT - Story 230 kV |
| Beaver Creek PSCo - 230/115 kV auto | 224 | | 115 | 113 | 111 | | | | Beaver Creek PSCo - Beaver Creek WAPA 115 kV |
| Ft. St. Vrain - Weld 230 kV | 500 | | | 114 | 145 | 120 | | | Windsor - Ault 230 kV |
| Ft. St. Vrain - Windsor 230 kV | 495 | | | | 125 | 106 | | | Ft. St. Vrain - Weld 230 kV |
| Harmony - TimberLine 230 kV | 472 | | | | 120 | 112 | | | Windsor - Ault 230 kV |
| Windsor - Ault 230 kV | 495 | | | 105 | 130 | 111 | | | Weld PS - Weld LM 230 kV |
| Ault - Weld LM #1 230 kV | 478 | | 102 | 112 | 130 | 116 | | | Ault - Weld #2 230 kV |
| Ault - Weld LM #2 230 kV | 478 | | 102 | 112 | 130 | 116 | | | Ault - Weld #1 230 kV |
| Ault - LRS 345 kV | 956 | | 102 | | | 101 | | | LRS - Story 234 kV |
| Archer - Cheyenne 115 kV | 80 | 128 | 153 | 118 | 134 | 120 | 122 | 124 | Archer - 230/115 kV auto - Archer - Crowcrak 115 kV |
| Archer - Skyline 115 kV | 80 | 166 | 166 | 115 | 118 | 115 | 115 | 115 | Happy Jack - Corlett 115 kV |
| Archer - Stegall 230 kV | 442 | | 115 | | | | | | Ault - LRS 345 kV |
| Archer - 230/115 kV auto | 167 | | 100 | 106 | 104 | 101 | 102 | 103 | Archer - 230/115 kV auto |
| Alcova - Miracle Mile 115 kV | 109 | 108 | 110 | | | | | | Alcova - Miracle Mile 115 kV |
| Gem City Tap - Snowy Range 115 kV | 133 | | | | 108 | 104 | 105 | 105 | Cheyenne - Snowy Range 230 kV |
| Cobble Tap - Timn Tap 115 kV | 85 | | | 101 | 109 | | | | Archer - Ault 230 kV |
| LRS - 345/230 kV autos | 600 | | | | 127 | 133 | 133 | 133 | LRS 345/230 kV autos |
| Castle Rock - Bayou 115 kV | 135 | | | | 111 | 101 | 101 | 102 | Daniels Park 230/115 kV auto |
| Parker PS - Grandview 115 kV | 187 | | | | 101 | | | | Smoky Hill - Peakview 115 kV |
| Parker PS - Sulphur #1 115 kV | 180 | | | 101 | | | | | Parker PS - Sulphur #2 115 kV |
| Parker PS - Sulphur #2 115 kV | 180 | | | 101 | | | | | Parker PS - Sulphur #1 115 kV |
| Smoky Hill - Peakview 115 kV | 187 | | | | 115 | | | | Smoky Hill - Murphy 230 kV |
| Smoky Hill - Murphy 230 kV | 340 | | | | 108 | | | | Buckly - Smoky Hill 230 kV |
| Buckly - Smoky Hill 230 kV | 435 | | | | 108 | | | | Meadow Hill - Smoky Hill 230 kV |
| Daniels Park - Pawnee 230kV | 340 | 104 | 146 | 138 | 170 | 150 | 146 | 143 | Quincy - Brick Center 230 kV / P-DP 345 kV |
| Pawnee - Brick Center 230 kV | 478 | | 119 | 115 | 159 | 125 | 122 | 119 | Daniels Park - Pawnee 230kV/ P-DP 345 kV |
| Smoky - Quincy 230 kV | 478 | | | | 125 | | | | Daniels Park - Pawnee 230kV |
| Quincy - Brick Center | 478 | | | | 125 | | | | Daniels Park - Pawnee 230kV |
| Daniels Park - 230/115 kV auto | 150 | | | 101 | 108 | 113 | 113 | 114 | Castle Rock - Bayou 115 kV |
| Brick Center - 230/115 kV auto | 200 | | 124 | 119 | 143 | 115 | 115 | 113 | Quincy - Brick Center 230 kV |
| Washington - JL Green 230 kV | 495 | | | | 120 | 106 | 102 | | Ft. Lupton - Henry Lake 230 kV |
| Ft. Lupton - 230/115 kV auto | 280 | | | | 115 | 104 | 107 | | Washington - JL Green 230 kV |
| Ft. Lupton - JL Green 230 kV | 495 | | | 101 | 123 | 105 | 106 | | Ft. Lupton - Henry Lake 230 kV |
| Ft. Lupton - St. Vrain #1 230 kV | 435 | | | 104 | 129 | 114 | 119 | | Ft. Lupton - St. Vrain #2 230 kV |
| Ft. Lupton - St. Vrain #2 230 kV | 435 | | | 104 | 129 | 114 | 119 | | Ft. Lupton - St. Vrain #1 230 kV |
| Cherokee - Conoco 115 kV | 135 | | | | 109 | 102 | 104 | 105 | Ckerokee - Mapleton 115 kV |
| Cherokee - Silver Saddle 230 kV | 326 | | | | 112 | | 100 | | Ft. Lupton - JL Green 230 kV |
| Silver Saddle - Reunion 230 kV | 326 | | 104 | 106 | 120 | 109 | 109 | | Ft. Lupton - JL Green 230 kV |
| Note: Peetz Logan total generation at 400 MW (MW) > TOT3=1225 TOT3=1510 TOT3=1630 TOT3=2425 TOT3=2478 TOT3=2483 TOT3=2492 Peetz Logan - Pawnee impedance data revised (MW) > TOT7=520 TOT7=735 TOT7=842 TOT7=1091 TOT7=920 TOT7=1000 TOT7=1000 | | | | | | | | | |

(1) Many contingencies around LRS and Pawnee did not solve (blew up) due to lack of reactive margin. Results obtained with non-divergent solution and actuals may vary significantly