

# Day Ahead Limiting Constraints

| Time Stamp       | Time Zone | Limiting Facility           | Facility PTID | Contingency                   | Constraint Cost (\$) |
|------------------|-----------|-----------------------------|---------------|-------------------------------|----------------------|
| 12/26/2018 00:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 20.52                |
| 12/26/2018 01:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 12.47                |
| 12/26/2018 02:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 11.31                |
| 12/26/2018 03:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 11.69                |
| 12/26/2018 04:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 12.81                |
| 12/26/2018 05:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 16.81                |
| 12/26/2018 06:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 19.14                |
| 12/26/2018 07:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 27.16                |
| 12/26/2018 08:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 18.76                |
| 12/26/2018 09:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 15.25                |
| 12/26/2018 10:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 20.88                |
| 12/26/2018 11:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 24.41                |
| 12/26/2018 12:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 21.95                |
| 12/26/2018 13:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 24.35                |
| 12/26/2018 14:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 25.25                |
| 12/26/2018 15:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 26.38                |
| 12/26/2018 16:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 35.9                 |
| 12/26/2018 17:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 44.7                 |
| 12/26/2018 18:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 18.12                |
| 12/26/2018 19:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 12.33                |
| 12/26/2018 20:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 10.95                |
| 12/26/2018 21:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 10.57                |
| 12/26/2018 22:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 21.11                |
| 12/26/2018 23:00 | EST       | CENTRAL EAST - VC           | 23330         | BASE CASE                     | 16.82                |
| 12/26/2018 10:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | BASE CASE                     | 0.87                 |
| 12/26/2018 12:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | BASE CASE                     | 2.68                 |
| 12/26/2018 17:00 | EST       | FRESHKLS 138 WILLWBRK 138 1 | 25319         | BASE CASE                     | 0.02                 |
| 12/26/2018 10:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 39.06                |
| 12/26/2018 11:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 47.61                |
| 12/26/2018 12:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 52.85                |
| 12/26/2018 13:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 56.13                |
| 12/26/2018 14:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 47.18                |
| 12/26/2018 15:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 55.22                |
| 12/26/2018 16:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 15.12                |
| 12/26/2018 17:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 21.52                |
| 12/26/2018 18:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 96.26                |
| 12/26/2018 19:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 46.54                |
| 12/26/2018 20:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 104.83               |
| 12/26/2018 21:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | BUS:BARRETT 292&459&G2&IC9-12 | 42.37                |
| 12/26/2018 06:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 1.11                 |
| 12/26/2018 07:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 0.73                 |
| 12/26/2018 08:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 0.64                 |
| 12/26/2018 09:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 0.91                 |
| 12/26/2018 11:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 3.66                 |
| 12/26/2018 13:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 4.45                 |
| 12/26/2018 14:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 3.74                 |
| 12/26/2018 15:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 4.38                 |
| 12/26/2018 18:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 6.4                  |
| 12/26/2018 19:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 3.03                 |
| 12/26/2018 20:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 6.92                 |
| 12/26/2018 22:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 1.51                 |
| 12/26/2018 23:00 | EST       | DUNWODIE 345 SHORE_RD 345 1 | 25091         | NEPTUNE HVDC TIE LINE         | 1.31                 |
| 12/26/2018 06:00 | EST       | EGRDNCTY 138 NEWBRDGE 138 1 | 25303         | NEPTUNE HVDC TIE LINE         | 3.0                  |
| 12/26/2018 07:00 | EST       | EGRDNCTY 138 NEWBRDGE 138 1 | 25303         | NEPTUNE HVDC TIE LINE         | 4.33                 |
| 12/26/2018 00:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 0.1                  |
| 12/26/2018 01:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 0.1                  |
| 12/26/2018 02:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 0.1                  |
| 12/26/2018 03:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 0.1                  |
| 12/26/2018 04:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 0.1                  |
| 12/26/2018 05:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 0.1                  |
| 12/26/2018 06:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 12.14                |
| 12/26/2018 07:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 11.18                |
| 12/26/2018 08:00 | EST       | EGRDNCTY 138 VALLYSTR 138 1 | 25244         | SCB:NEWBRDG 1380 461&BK6+4    | 7.73                 |

|                  |     |                             |       |                               |       |
|------------------|-----|-----------------------------|-------|-------------------------------|-------|
| 12/26/2018 09:00 | EST | EGRDNCTY 138 VALLYSTR 138 1 | 25244 | SCB:NEWBRDG 1380 461&BK6+4    | 10.91 |
| 12/26/2018 16:00 | EST | EGRDNCTY 138 VALLYSTR 138 1 | 25244 | SCB:NEWBRDG 1380 461&BK6+4    | 0.08  |
| 12/26/2018 22:00 | EST | EGRDNCTY 138 VALLYSTR 138 1 | 25244 | SCB:NEWBRDG 1380 461&BK6+4    | 18.05 |
| 12/26/2018 23:00 | EST | EGRDNCTY 138 VALLYSTR 138 1 | 25244 | SCB:NEWBRDG 1380 461&BK6+4    | 15.62 |
| 12/26/2018 07:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 0.69  |
| 12/26/2018 10:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 4.5   |
| 12/26/2018 11:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 0.22  |
| 12/26/2018 12:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 3.06  |
| 12/26/2018 16:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 2.43  |
| 12/26/2018 17:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 3.44  |
| 12/26/2018 18:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 2.51  |
| 12/26/2018 19:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 1.33  |
| 12/26/2018 20:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 2.82  |
| 12/26/2018 21:00 | EST | DUNWODIE 345 SHORE_RD 345 1 | 25091 | SCB:SPBK(RNS2):Y49&M29&Y49_ST | 6.83  |
| 12/26/2018 17:00 | EST | EDIC 345 MARCY 345 1        | 25229 | TWR:12& UNS-18                | -0.27 |