

Date-09/19/12

CombinedCycleUnits
 NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
 GENERATING AVAILABILITY DATA SYSTEM

COMBINED CYCLE All MW Sizes 2007-2011 Data

2007-2011
 ANNUAL UNIT PERFORMANCE STATISTICS

| | AGE | NCF | SF | NOF | AF | EAF | FOR | EFOR | EFORd | SOF | FOF | SR | ART |
|---------|-------|-------|-------|-------|-------|-------|------|------|-------|------|------|-------|-------|
| 2007 | 11.62 | 35.34 | 43.61 | 72.43 | 91.29 | 88.50 | 4.96 | 6.89 | 4.42 | 6.43 | 2.28 | 98.94 | 40.36 |
| 2008 | 12.06 | 34.16 | 38.86 | 73.26 | 89.85 | 87.63 | 5.44 | 7.07 | 4.45 | 7.91 | 2.24 | 98.73 | 37.57 |
| 2009 | 12.22 | 39.56 | 44.49 | 74.84 | 89.15 | 87.17 | 5.03 | 6.21 | 4.31 | 8.50 | 2.36 | 98.63 | 53.63 |
| 2010 | 12.91 | 45.08 | 48.48 | 76.76 | 87.67 | 85.77 | 5.04 | 6.52 | 4.75 | 9.76 | 2.57 | 98.86 | 66.15 |
| 2011 | 13.79 | 47.21 | 49.81 | 77.14 | 87.65 | 84.82 | 4.84 | 5.34 | 3.79 | 9.68 | 2.53 | 99.36 | 71.75 |
| 2007-11 | | 40.36 | 45.12 | 75.11 | 89.09 | 86.76 | 5.05 | 6.36 | 4.35 | 8.48 | 2.40 | 98.88 | 51.87 |

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2007-11 |
|------------------------------|----------------|----------|-----------|-----------|-----------|-----------|
| Unit-Years | 148.42 | 148.33 | 169.50 | 163.58 | 154.25 | 784.08 |
| Maximum Capacity (MW) | GROSS: 288 | 288 | 296 | 296 | 290 | 287 |
| | NET: 280 | 288 | 288 | 283 | 280 | 284 |
| Dependable Capacity (MW) | GROSS: 284 | 291 | 293 | 288 | 282 | 288 |
| | NET: 275 | 284 | 286 | 281 | 275 | 280 |
| Actual Generation (MWh) | GROSS: 893,598 | 892,751 | 1,031,251 | 1,139,958 | 1,190,468 | 1,001,677 |
| | NET: 863,325 | 863,632 | 999,039 | 1,107,577 | 1,158,137 | 1,001,677 |
| Attempted Unit Starts | 95.35 | 92.03 | 73.68 | 63.88 | 60.64 | 76.64 |
| Actual Unit Starts | 94.34 | 90.86 | 72.67 | 63.15 | 60.25 | 75.78 |
| Service Hours | 3,807.79 | 3,413.18 | 3,897.34 | 4,177.60 | 4,323.04 | 3,931.01 |
| Reserve Shutdown Hours | 4,158.80 | 4,479.32 | 3,912.24 | 3,377.00 | 3,283.76 | 3,830.88 |
| Number of Occurrences | 89.75 | 86.41 | 72.44 | 62.81 | 33.04 | 68.60 |
| Pumping Hours | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Synchronous Condensing Hours | 4.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.86 |
| TOTAL AVAILABLE HOURS | 7,971.12 | 7,892.50 | 7,809.58 | 7,554.59 | 7,606.79 | 7,762.75 |

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|-------------------------------|--------|--------|--------|----------|----------|--------|
| Forced Outage Hours | 199.17 | 196.37 | 206.40 | 221.61 | 219.69 | 208.92 |
| Number of Occurrences | 6.08 | 6.65 | 6.20 | 6.76 | 3.53 | 5.85 |
| Planned Outages: | | | | | | |
| Planned Outage Hours | 437.52 | 565.04 | 544.75 | 621.42 | 637.25 | 562.48 |
| Number of Occurrences | 1.95 | 1.83 | 2.01 | 2.16 | 1.03 | 1.80 |
| Planned Outage Ext. Hours | 9.94 | 15.54 | 18.98 | 27.72 | 22.05 | 19.05 |
| Number of Occurrences | 0.05 | 0.09 | 0.10 | 0.15 | 0.08 | 0.10 |
| Maintenance Outages: | | | | | | |
| Maintenance Outage Hours | 113.59 | 113.89 | 180.36 | 190.58 | 180.36 | 157.28 |
| Number of Occurrences | 2.03 | 2.12 | 3.37 | 2.76 | 1.71 | 2.43 |
| Maintenance Outage Ext. Hours | 0.00 | 0.33 | 0.15 | 1.18 | 0.24 | 0.39 |
| Number of Occurrences | 0.00 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 |
| TOTAL UNAVAILABLE HOURS | 760.61 | 891.16 | 950.63 | 1,062.51 | 1,071.61 | 950.55 |

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|--------------------|----------|----------|----------|----------|----------|--|
| TOTAL PERIOD HOURS | 8,731.73 | 8,783.66 | 8,760.21 | 8,617.11 | 8,678.40 | |
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CombinedCycleUnits

8,713.30

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|--------------------------------|---|--------|--------|-------|-------|--------|--------|
| Equiv. Forced Hours | : | 79.70 | 60.16 | 50.09 | 66.82 | 23.39 | 55.84 |
| Equiv. Scheduled Hours | : | 37.21 | 25.68 | 38.19 | 31.94 | 35.86 | 33.87 |
| Equiv. Forced Hours During RS | : | 38.66 | 19.76 | 24.30 | 24.76 | 6.34 | 22.72 |
| Equiv. Seasonal Derated Hours | : | 126.93 | 109.70 | 85.36 | 64.88 | 186.80 | 113.52 |
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| TOTAL EQUIVALENT DERATED HOURS | : | 116.90 | 85.84 | 88.28 | 98.76 | 59.25 | 89.71 |