

# Historical Performance of Base Capacity Resources (Wind and Solar)

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PJM examined the performance of wind and solar resources over two sets of hours:

1. Suggested Intermittent Performance Hours under CP
  - Period covered is 6/1/2013 – 2/29/2016
  - All days in Jan. and Feb. HE 0600-0900 and 1800-2100 (1424 total hours)
  - All days in June, July and Aug. HE 1500-2000 (1656 total hours)
2. All hours in which load exceeded the 50/50 W/N seasonal peak (hours associated with loss of load risk)
  - Period covered is 6/1/2008 – 12/31/2015
  - 68 summer hours exceeded the 50/50 W/N summer peak
  - 143 winter hours exceeded the 50/50 W/N winter peak

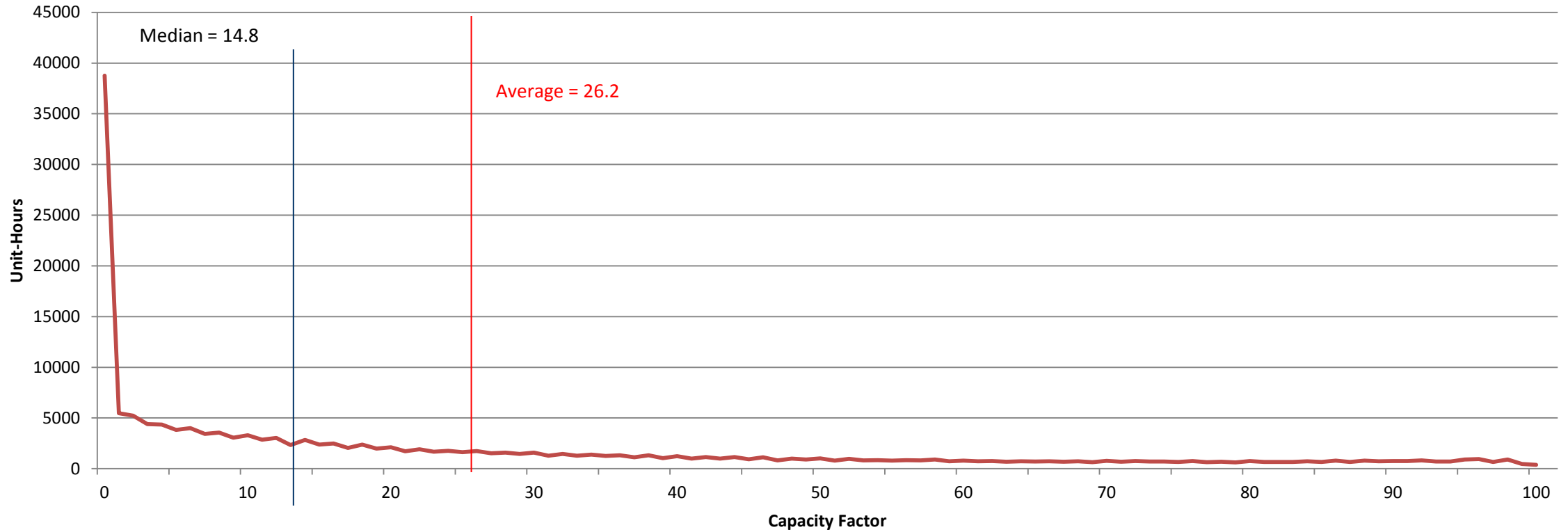


# Intermittent Unit Capacity Factors CP Performance Hours

| Unit Type | Summer Hours |        | Winter Hours |        | All Hours |        |
|-----------|--------------|--------|--------------|--------|-----------|--------|
|           | Average      | Median | Average      | Median | Average   | Median |
| Wind      | 15.0         | 7.4    | 39.0         | 33.3   | 26.2      | 14.8   |
| Solar     | 30.1         | 24.8   | 2.0          | 0.0    | 17.0      | 2.7    |

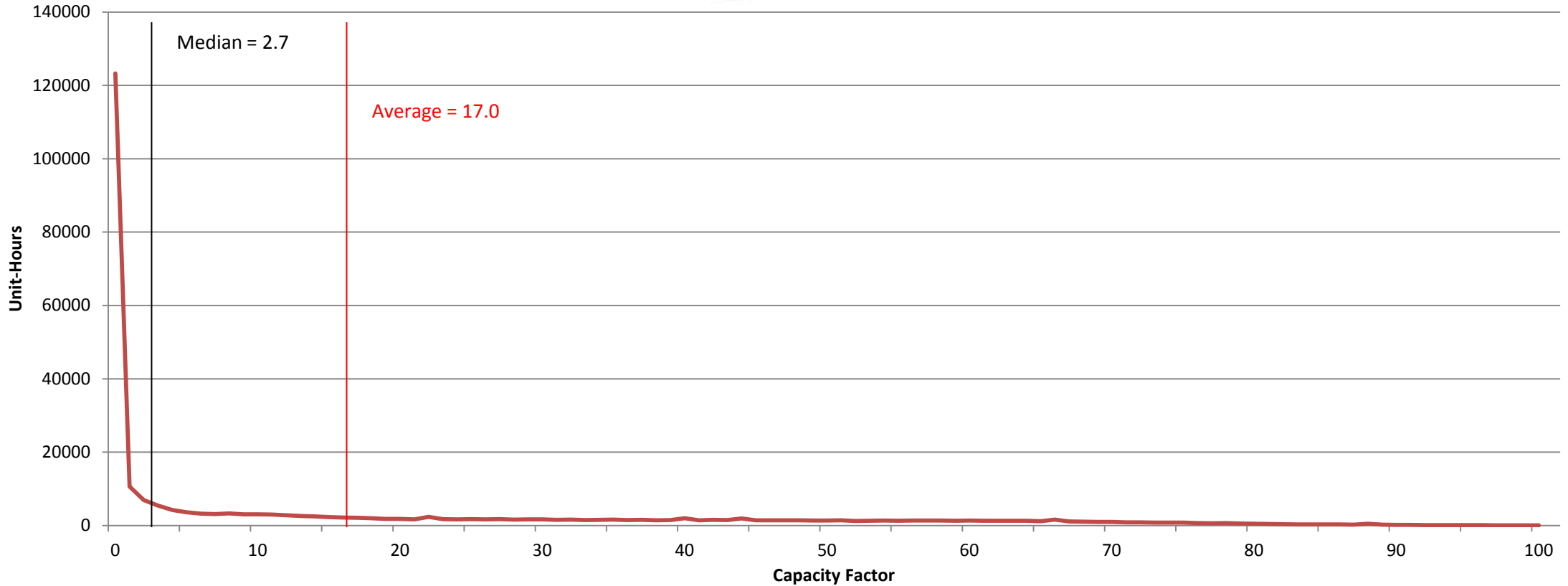
# Wind Performance in CP Hours Capacity Factor Data Profile

## Wind Performance Across all CP hours 2013-2016



# Solar Performance in CP Hours Capacity Factor Data Profile

Solar Performance Across all CP hours  
2013-2016



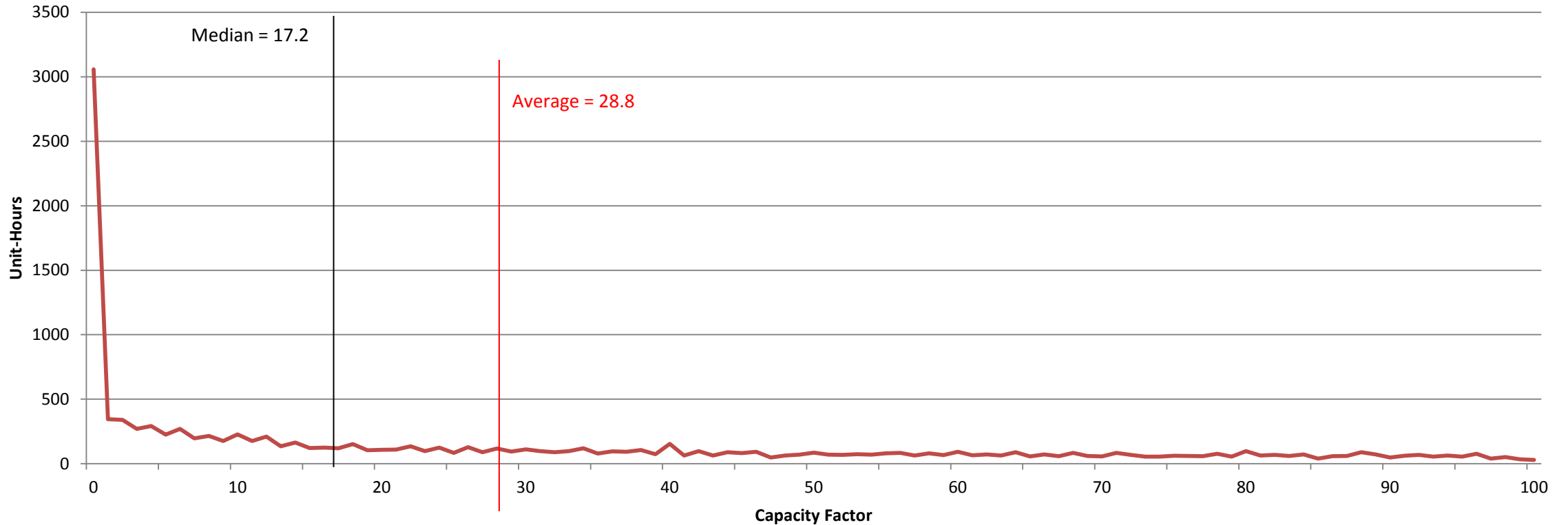


# Intermittent Unit Capacity Factors Hours when Load > 50/50 W/N Peak

| Unit Type | Summer Hours |        | Winter Hours |        | All Hours |        |
|-----------|--------------|--------|--------------|--------|-----------|--------|
|           | Average      | Median | Average      | Median | Average   | Median |
| Wind      | 11.2         | 4.5    | 36.8         | 31.6   | 28.8      | 17.2   |
| Solar     | 42.2         | 42.1   | 15.3         | 0.0    | 21.3      | 3.2    |

# Wind Performance Hours when Load > 50/50 WN Peak Capacity Factor Data Profile

## Wind Performance Across all Hours when Load > 50/50 WN Peak 2008-2015





# Solar Performance Hours when Load > 50/50 WN Peak Capacity Factor Data Profile

## Solar Performance Across all Hours when Load > 50/50 WN Peak 2008-2015

