

# UCAP and CIR Determinations of Intermittent Resources

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Intermittent Resources Subcommittee  
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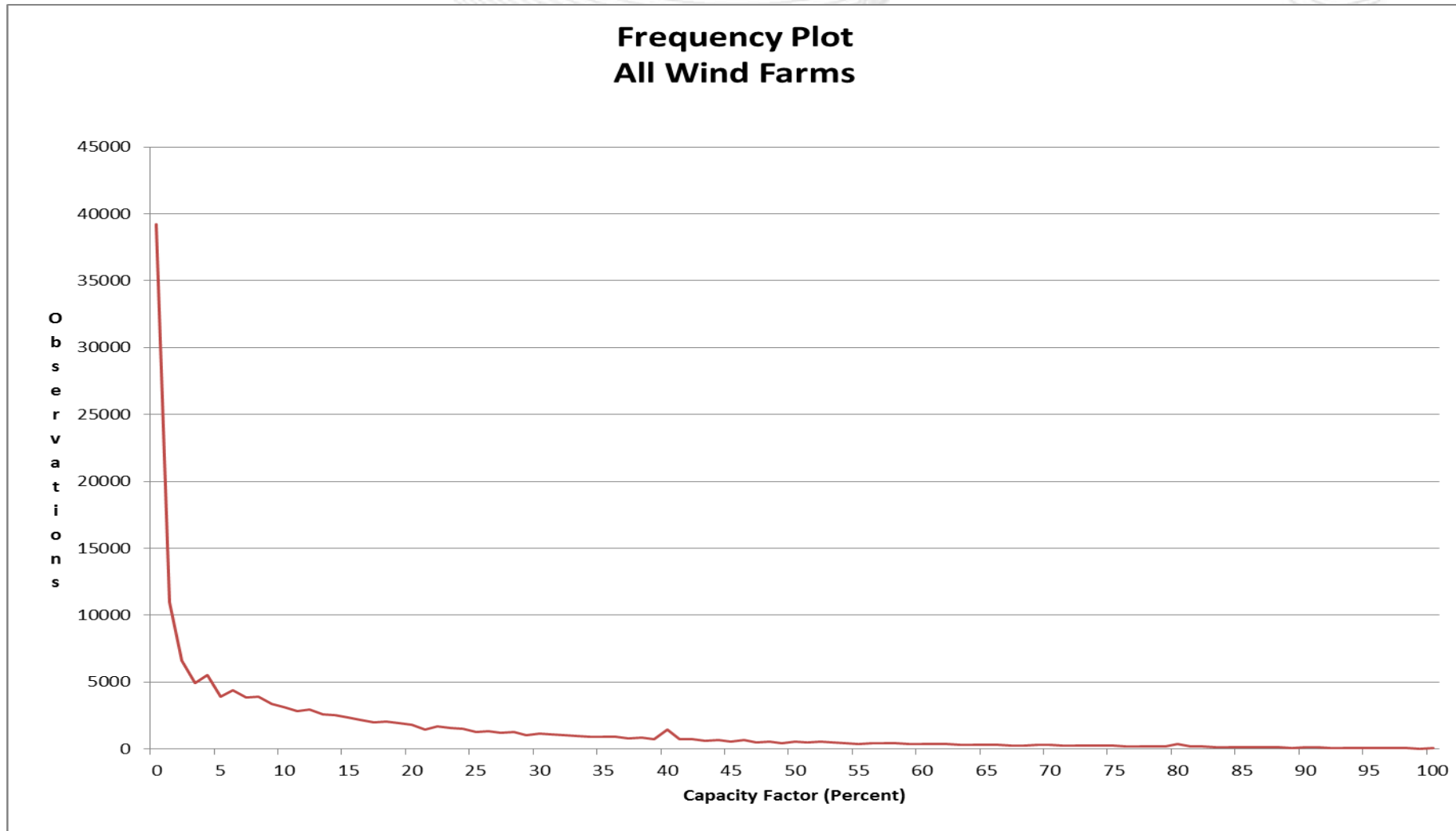
- PJM proposes to publish new class averages based on various types of wind and solar units. These class averages would be posted on [pjm.com](http://pjm.com) rather than in Manual 21. The new class averages would first be used in the 2017/18 DY.
- Wind (Currently have about 6,000 MW ICAP/900 MW UCAP)
  - Mountaintop
  - Ground Level

**OR**

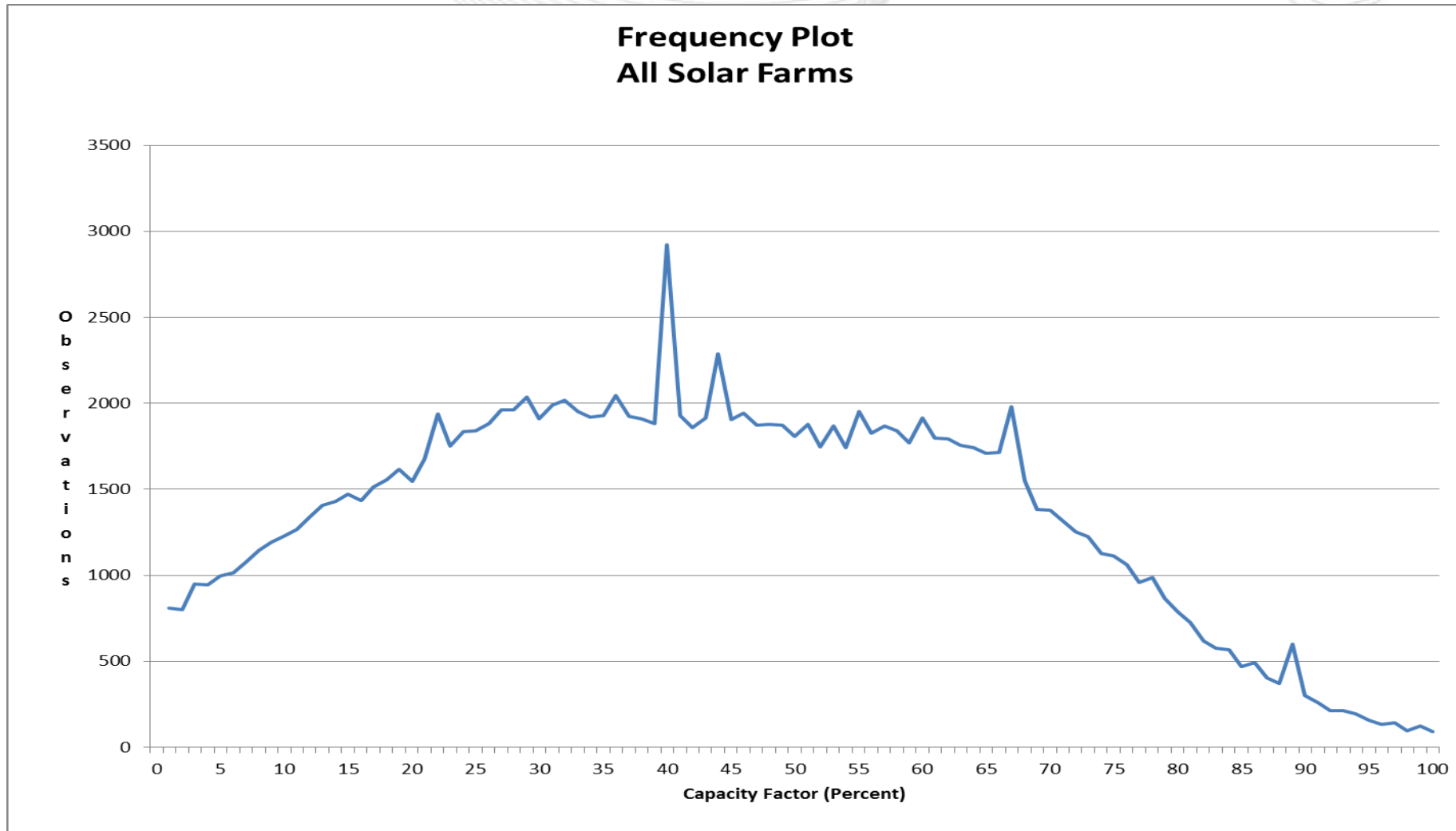
A general equation relating altitude and wind speed to wind output

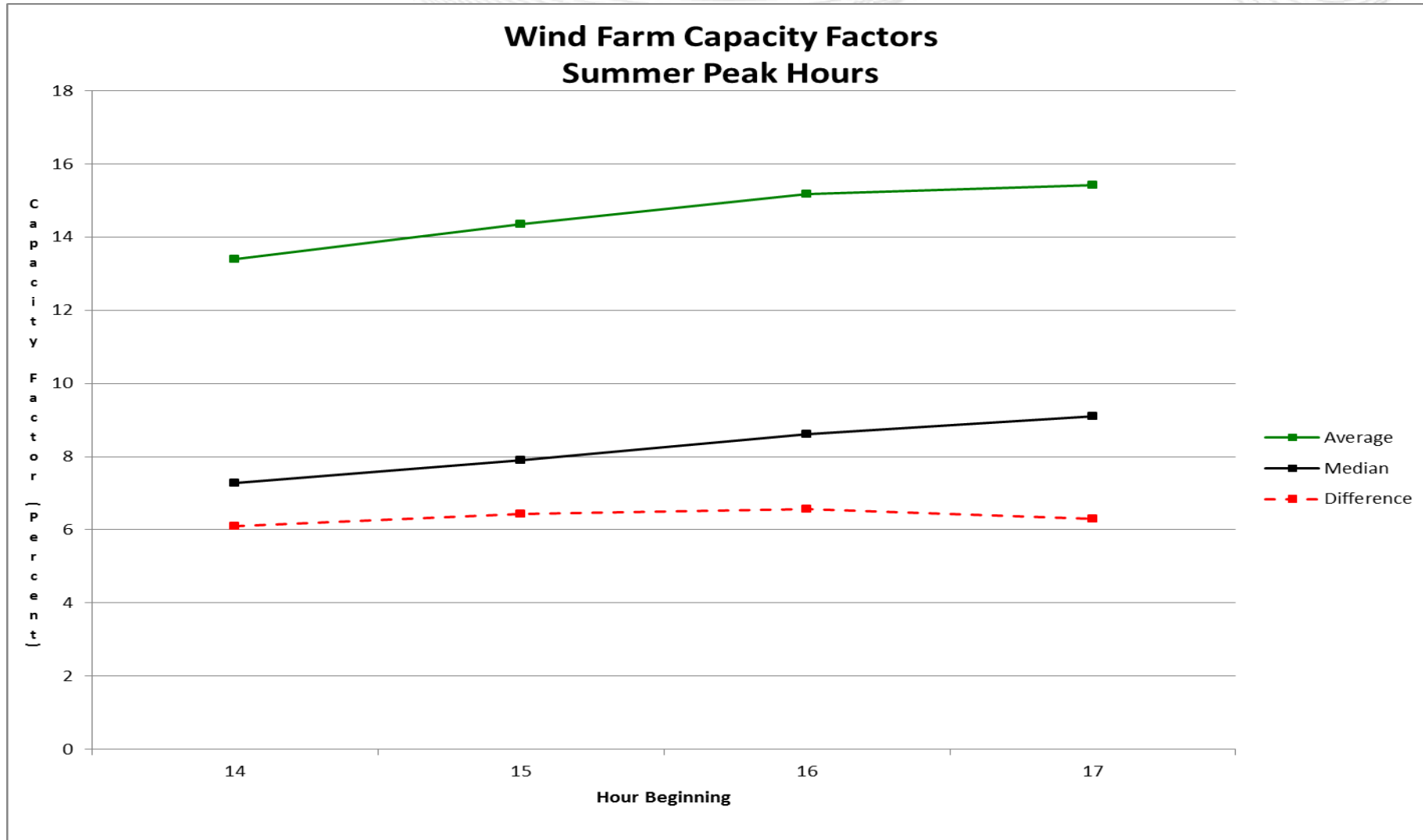
- Solar (Currently have about 350 MW ICAP/150 MW CAP)
  - Fixed Panel
  - Tracking Panel
- Note that class average values are applied only to new resources or to existing resources that have not yet accumulated three years of operating data.

- Wind and Solar resources use the 3 year average summer peak capacity factor to set and retain CIRs and to set annual capability (UCAP) to be used in RPM. The summer peak capacity factor is based on output for HE 1500-1800 for all days in June, July and August (total hours = 92 days \* 4 hours/day = 368 hours). The UCAP value is equal to the average of the summer peak capacity factors in each of the last three summers.
- It is assumed that the average 368 peak hour capacity factor over any single summer is similar to the median capacity factor during the 368 peak summer hours.



# Solar Capacity Factors Peak Summer Hours (2008-2015)





Hours in which load exceeded the 50/50 W/N peak (2011-2013 because 2014 and 2015 had no qualifying hours):

Unit type	Average CF	Median CF
Solar	48.3%	51.3%
Wind	7.8%	4.6%

These wind results are consistent with what PJM LOLE analyses have indicated.

Should the current procedure be modified to better reflect the reliability value of intermittent resources during times of system risk?