

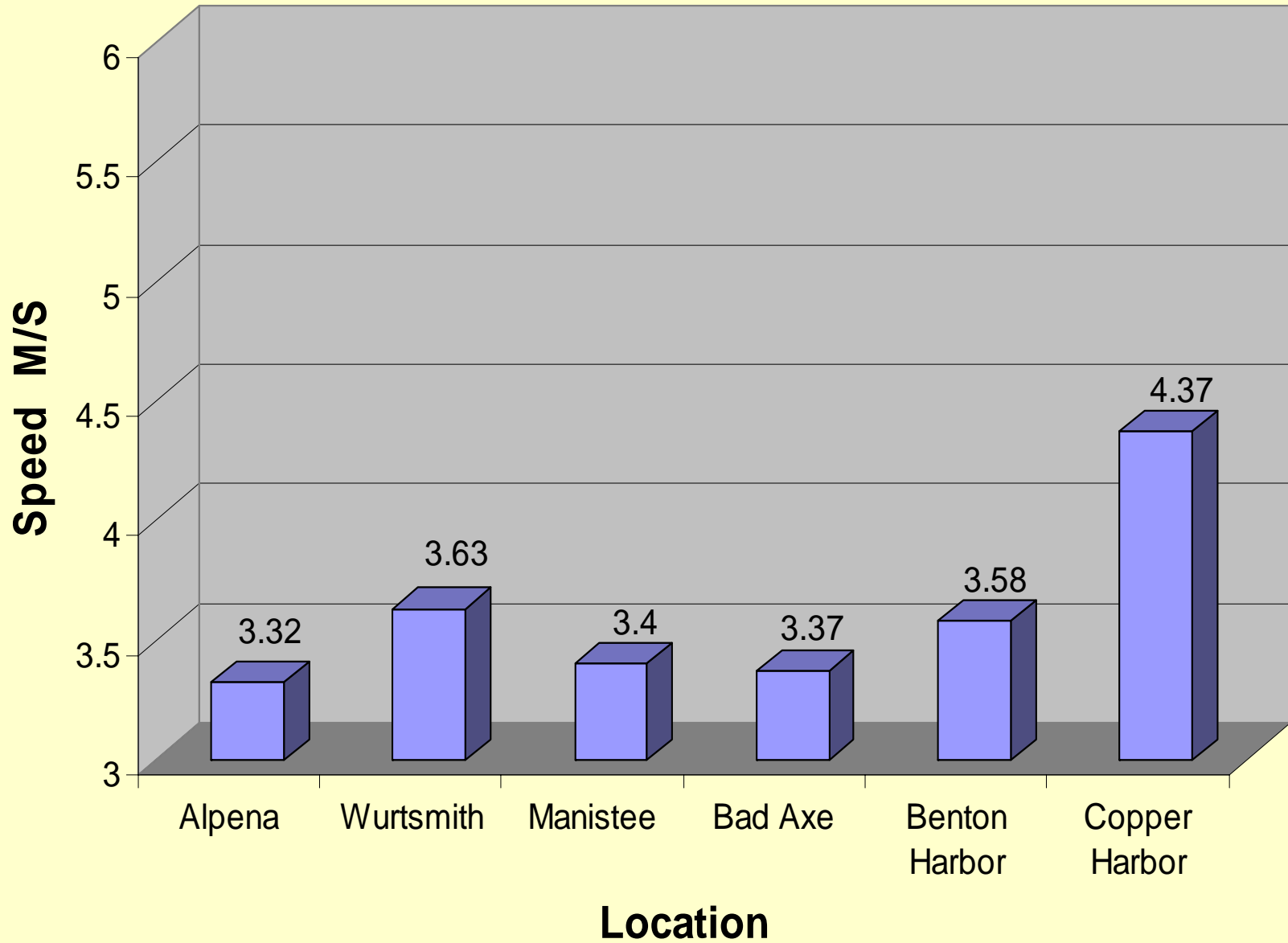


Michigan Public Service Commission
September 13, 2006
Wind Data Analysis

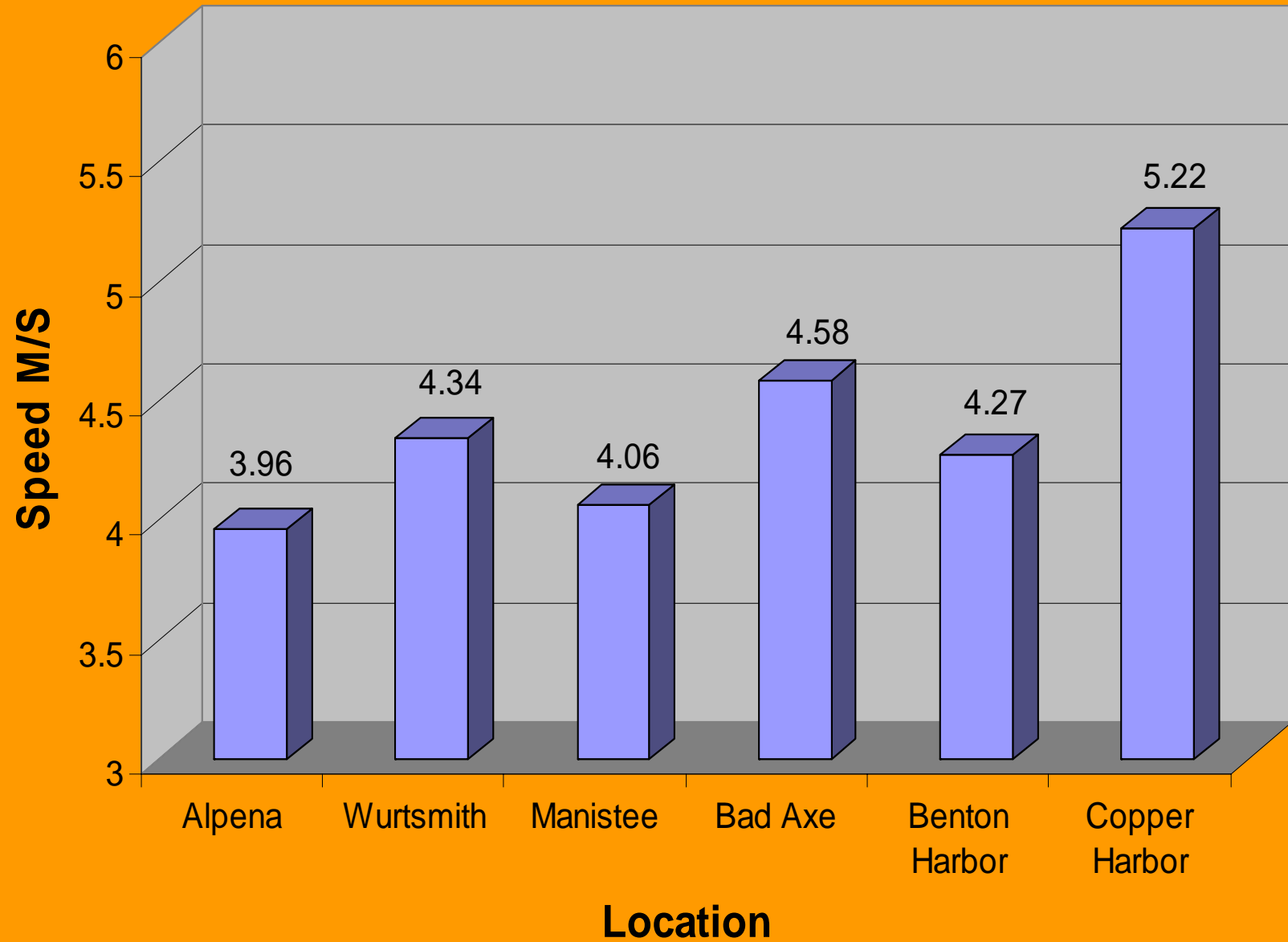
Outline

- Where the data came from
- What height it was taken at
- Different speeds extrapolated with Power Law
- Average speeds
- Potential for a 1.5 MW Turbine
- More data

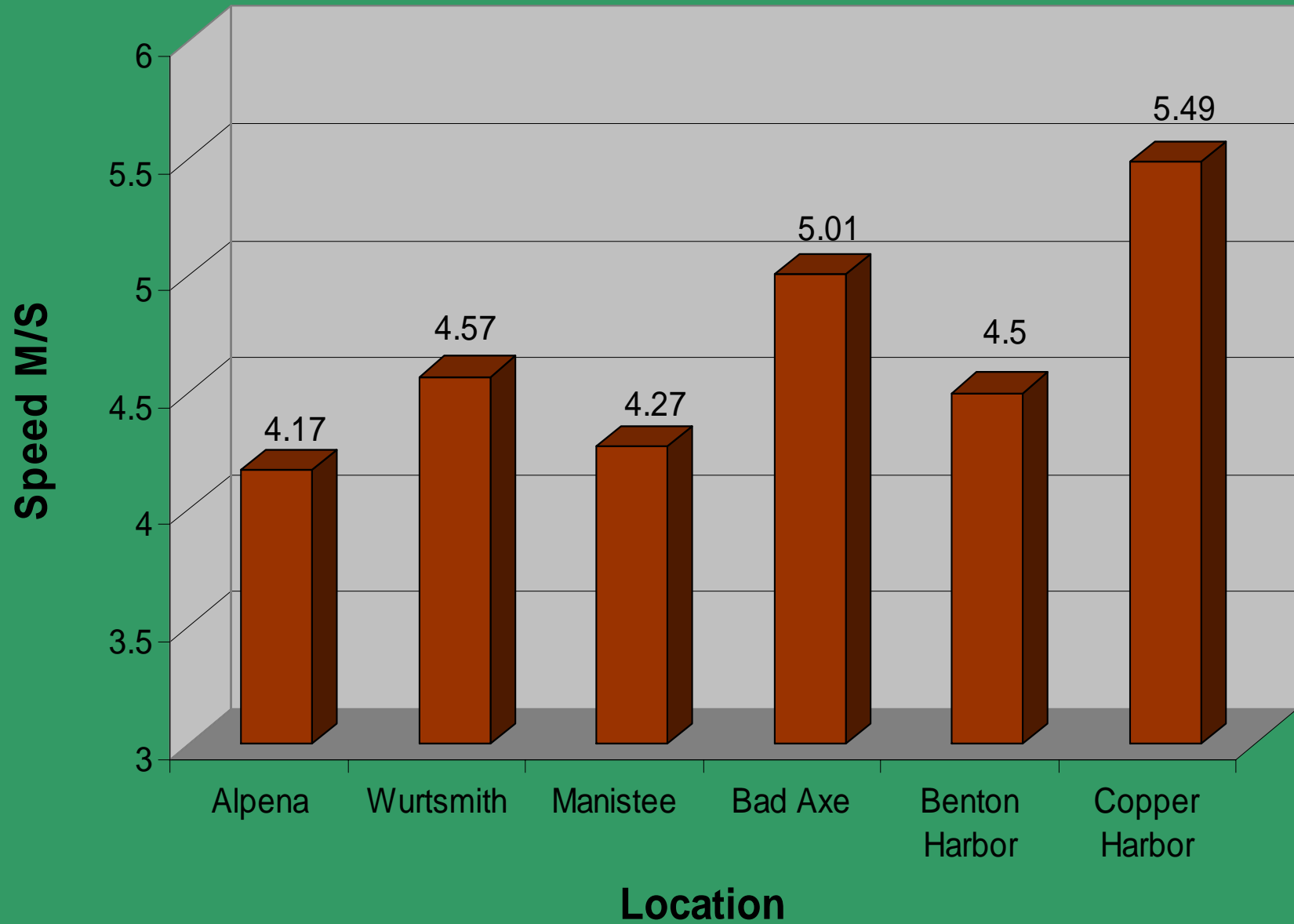
2003 - 2005 Average Annual Wind 10M



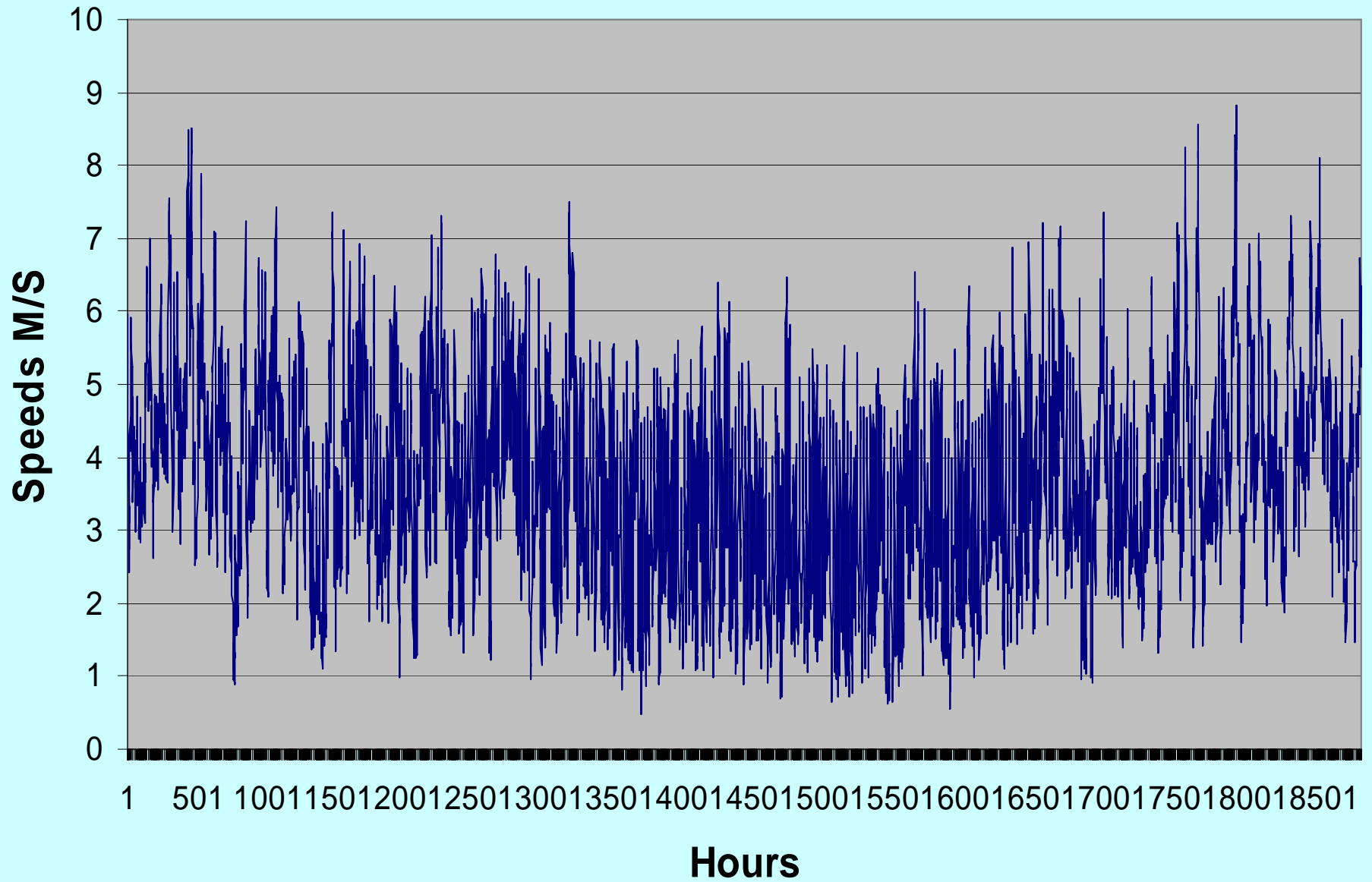
2003 - 2005 Average Annual Wind 50M



2003 - 2005 Average Annual Wind 80M



Average Speeds 03-05 All Sites At 10M



Potential Energy w/ 1.5 MW GE Turbine At 80 M

Capacity Factor 28%

Annual Energy Output

AEO = (Density) (V³) (A) (CF) (8760 hr/yr) (1.5x10⁻⁶ MW/1.5W)

Alpena = 507 MWh/yr

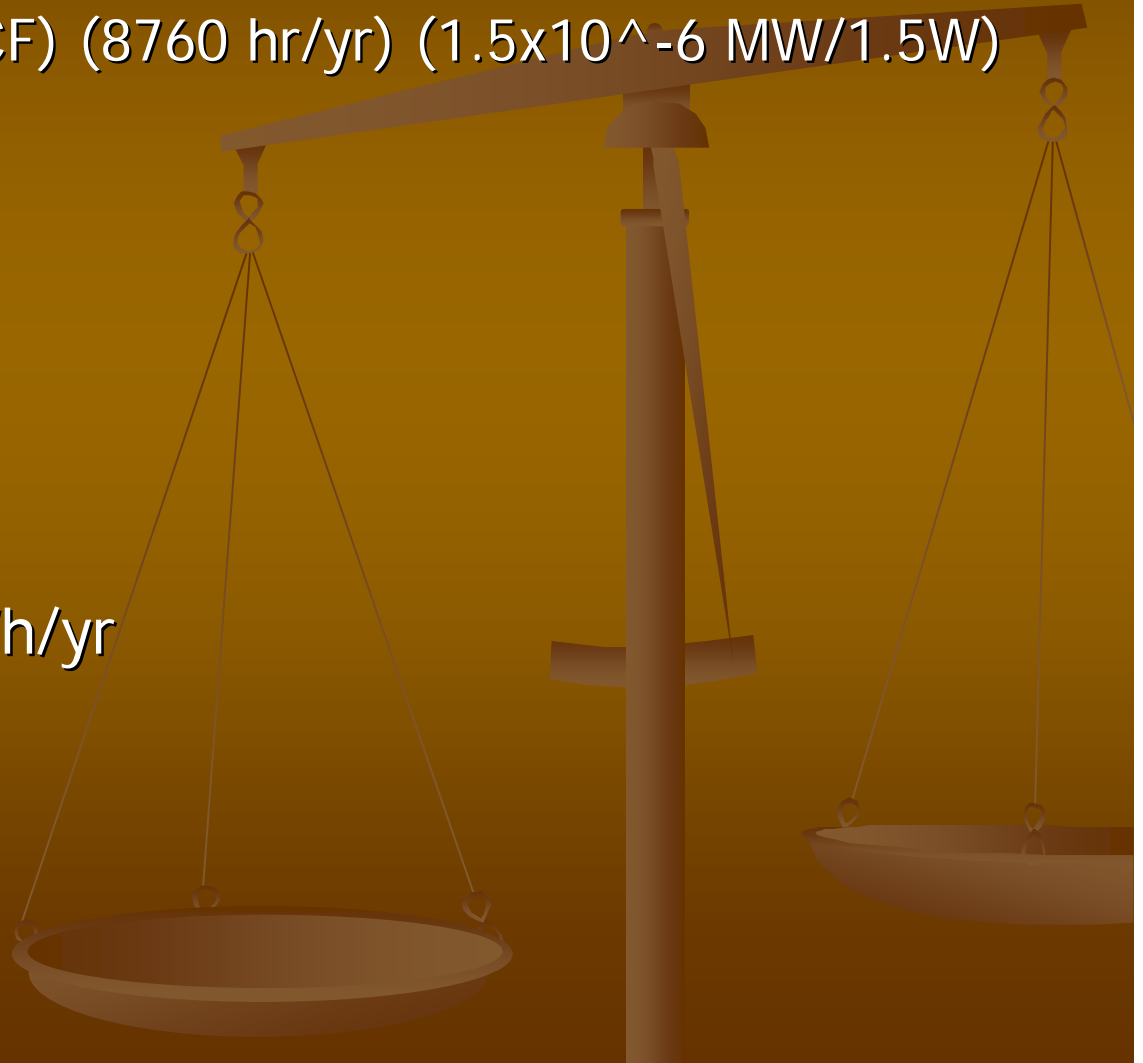
Wurtsmith = 667 MWh/yr

Manistee = 544 MWh/yr

Bad Axe = 879 MWh/yr

Sawyer = 778 MWh/yr

Copper Harbor = 1157 MWh/yr



THE END