

## 2021A4

## (SCALE FACTORS, CHARTS)

**Level 1:** To calculate the production estimate for each P-Value, multiply the Net AEP by the Scale Factor.

$$P - \text{Value Production Estimate (kWh)} = P - \text{Value Scale Factor} * \text{Net AEP (kWh)}$$

$$P50 \text{ Production Estimate (kWh)} = P50 \text{ Scale Factor} * \text{Net AEP (kWh)}$$

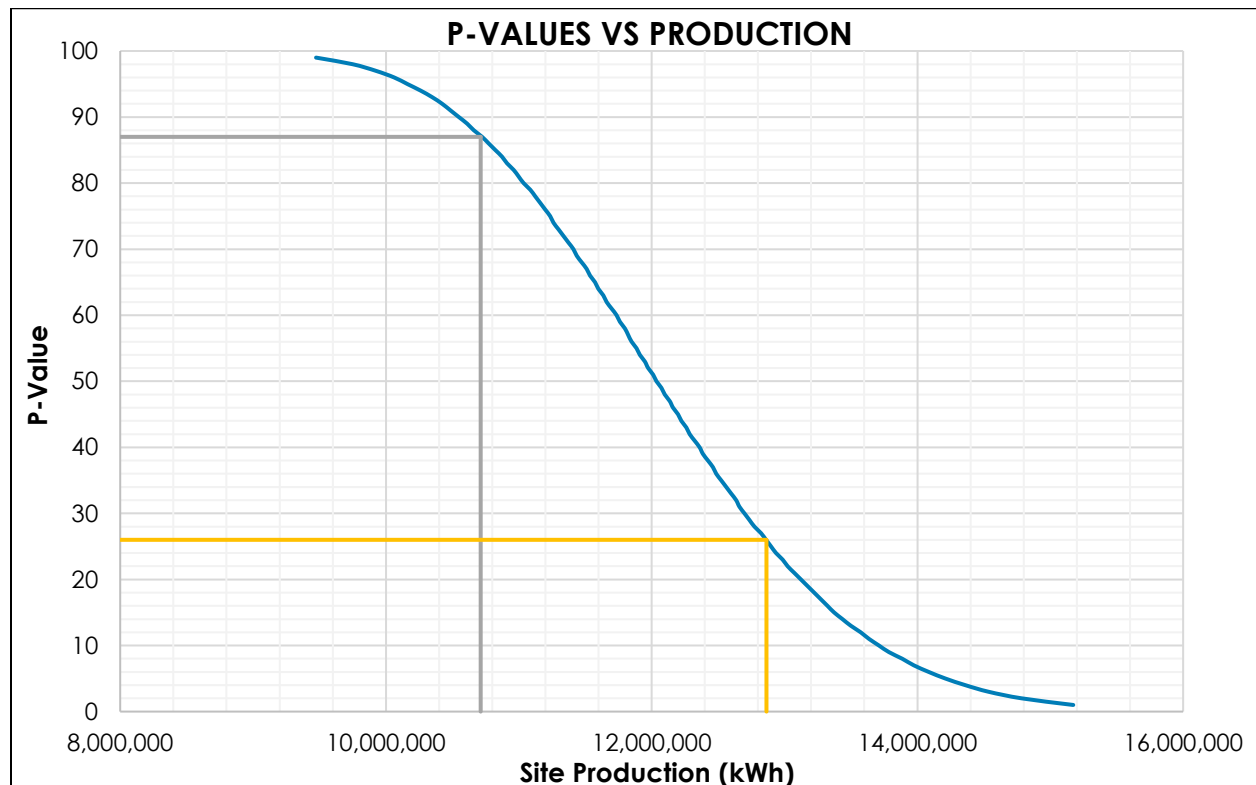
$$P50 \text{ Production Estimate (kWh)} = 0.947 * 9,172,000 \text{ kWh}$$

$$P50 \text{ Production Estimate (kWh)} = 8,685,884 \text{ kWh}$$

Rounding to the nearest thousand gives a P50 Production Estimate of 8,686,000 kWh. Repeat for the other P-Values.

P-VALUE	PRODUCTION ESTIMATE (kWh)
P1	10,520,000
P50	8,686,000
P99	7,319,000

**Level 2:** Use the included chart to determine the closest P-Value. Find the production for each year on the x-axis and follow a line up to the P-Value curve. Then, draw a horizontal line from the P-Value curve to the y-axis. This will give the P-Value for the year. Year 1 is shown in gray and Year 2 is shown in yellow below.



The range of P-Values that would be considered acceptable answers are shown below.

# WIND STUDY

Wind Study is intended for grades 5-8 and 8-11

Questions posted on: Monday    Answers posted on: Friday

Find downloadable one pagers at [www.oneenergy.com/one-energy-feed](http://www.oneenergy.com/one-energy-feed)

YEAR	P-VALUE RANGE
1	85-89
2	24-28