In principle, it is possible to obtain even a better fit than $P \sim u^2$.For example, the sin function suggested by Anders Levermann, in the form

$$P = 502.41 + 491.24 \sin(0.27(u - 9.19))$$

gives the fit with the determination coefficient R^2= 0.9988.

However it is not the purpose of Fig.1 to find out what the best possible fit to the power curve may be. The aim of this figure is to demonstrate that the physical considerations which resulted in Eq(7) ,i.e. that $P \sim u^2$ are well supported by the measurements (R^2= 0.95). Further refinement of the equation for the power curve would not be consistent with other approximations assumed in the paper: the specific power curve of a tidal turbine may be different from the wind device, a real energy farm may have a different shape, distribution of turbines with the farm may be not Gaussian etc. For the first estimates of the effects in question, the quadratic approximation of the power curve seems to be more than adequate.