

The authors present a detailed methodology for determining the efficiency of drive systems, focusing on the generator (or motor) and power converter. In general, the paper is well structured and written; however, I have made several recommendations regarding the look of the Equations and Figures which are currently substandard for a journal article and detract from the quality of the paper.

The paper title could be more specific, for example, I recommend “Validation of a traceable efficiency determination method for wind turbine drivetrains with a focus on measurement uncertainty”.

- [Has been corrected.](#)

In line 28, I believe what is being described is “...the most accurate measurement of efficiency with the lowest possible...” I also recommend reviewing the remainder of the paper for the same issue.

Equation (1) and throughout. The equations themselves should be larger. Most of the symbols are quite small. The symbology in the text and figures could be improved to look nicer (without “_”, for example) with MathType (in Word) or relatively easily in Latex.

- [Equation 1 and through has been changed as requested. Equations font sizes 10 had been made.](#)
- [Symbology in the text and figures has been changed as requested.](#)

I believe there may be a small typo in either Equation (8) of the following text, where there appears $\mu_{n,inst}$ and $\mu_{\eta,inst}$. I am not sure though, I just recommend the authors check.

- [Equation 8 \$\mu_{n,inst}^2\$ is \$\mu\$ related to speed. Its only shows the relative expanded \$\mu\$ in mechanical power measurements not the efficiency.](#)

The majority of the paper focuses on the efficiency of the electrical systems (generator and/or converter) and the SSTB. However, the NTB and nacelle shown in Figure 6 includes a gearbox and main bearing with mechanical power measured between the prime mover and the nacelle. Therefore, I assume that the resulting efficiencies include losses in the gearbox. Is this correct? I don't believe though that any of this was discussed or referenced when it came to the short results in Section 6. I recommend some additional text be added on this subject, possibly with a reference or two to papers discussing the efficiency of gearboxes. This could be done within Section 6, which is very short right now. It might also be of interest to the reader to understand the relative contributions to efficiency of the gearbox versus the generator/converter.

- [In figures of SSTB \(Figure 4\) and NTB \(Figure 6\), measurements points \(Electrical and Mechanical quantities\) have been specified.](#)

Many Figures, such as 3, 8, 10-11, 13-17, and 19, could themselves be larger, and the text within the plots themselves should be larger. Some of them are the most interesting plots in the paper, but they are quite hard to read currently. It would also be preferable in Figure 18 to use the same symbology as the text, specifically the subscripts. This should be achievable with most plotting packages (Excel, Matlab, etc). Figure 19a should label the color scale with the efficiency variable. In general, the figures could be of better quality – in terms of size,

labels, symbology and the image quality itself. Most are somewhat blurry. The paper is quite well written, but the figures could be improved, as right now they do detract from the paper's quality.

- Figures are reformatted in high resolution picture And are in similar style. Almost all figures are reformatted. Now there is harmonization of the figures.

The lengthy variable names in lines 298 and 299, are a bit hard to decipher. I recommend describing in text what the various subscripts mean, such as “the efficiency of X as determined by the IEC method with Y”.

- Figure 3 is reformatted in high resolution picture. Now Fig 1, Fig 3 and Fig 7 are in similar style. Almost all figures are reformatted. Now there is harmonization of the figures.

A minor note in lines 421 and 423, I do not believe the degree symbol is needed when using Kelvin.

- It has been changed and corrected.