

## ***Interactive comment on “Top Level Rotor Optimisations based on Actuator Disc Theory” by Peter Jamieson***

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Thank you for your comments. I will respond regarding derivation of Equation (10) with a few lines of introduction which should clarify the derivation "The power produced by the primary (VAWT) rotor is  $P=0.5U(0)^3 \times 2R(0) \times L \times C(P)$  and the total power extracted by  $n$  secondary rotors is  $p=np(n)=P(1-a)$ . For each secondary rotor,  $p(n)=0.5(\hat{a}^2 \times R(0))^3 \times \pi \times r(n)^2 \times 4a(1-a)$ . Hence the ratio of radius of one of  $n$  secondary rotors to that of the primary rotor can be expressed as; " ..... Eq 10 follows. Here I have bracketed some characters which will appear as subscripts in the text proper.

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2019-63>, 2019.

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Discussion paper

