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Interactive comment on "An introduction to the Australian and New Zealand flux tower network – OzFlux" *by* Jason Beringer et al.

Anonymous Referee #2

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The manuscript provides detailed introduction of the background of OzFlux network and its evolution. Synthetic description for various Australian sites is also informative. However, first of all, there is a discrepancy between the title (Australian and New Zealand flux tower network) and the contents (data only from Australian network). I would recommend changing the title to fit the contents such as "the Australian flux tower network". More desirably, the authors could modify discussions significantly including the data from sites located in New Zealand. Otherwise the main discussion would not match the title emphasizing "Australian and New Zealand flux tower network".

Secondly, I would like to encourage the authors to include more target-oriented data analyses. Figures 4-6 express static relationships between meteorological elements and carbon- and water-cycle components, and that would be important basic infor-

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mation. However, the authors could expand their analyses based on their matter of interest expressed in the introduction, for example, risks of fire, disease, management practices and land-use changes under future climate change. Technological advances have also accelerated during the past several years for better regional estimates based on both up-scaled flux-tower data-sets and inversion analyses (I suppose that CSIRO is one of the leading institutes on the topic). How well the Australian tower flux data would contribute to solve some of such issues or improve estimates of regional and global carbon- and water-cycles? I suggest that the authors would show some more new hypothesis or attempts in the manuscript in order to answer such questions using the Australian data-sets. At present, the manuscript includes sufficient information of introduction of Australian flux sites and reviews of their studies, however, original scientific findings are relatively limited.

Specific comments: Pages 4-5 “The role of flux research in Australia”: I would recommend referring more papers from Oceania and stating more region-specific issues. In particular, more recent papers would have been published for topics listed in Page 5, lines 93-100.

Pages 12-15 “Biotic and abiotic controls on land-surface exchanges”: This part well describes specific characteristics of Australian surface processes. However, the contents was relatively limited in the past studies and showing only Fig.5. More original and new scientific questions would be desirable to be discussed. For example; were there any long-term trends detected in spatial distribution of each flux, biomass, LAI, species composition, etc.? Since the OzFlux seemed to have a good collaboration with TERN as described in “Introduction”, I would expect that the data and understandings obtained by TERN could be used for interpretation of long-term trends in biotic and abiotic controls on land-surface exchanges.

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