This study with a title of “A daily and 500m coupled evapotranspiration and gross primary production product across China during 2000-2020” has been seriously reviewed. Overall, this paper is well organized, including written English, structures, and the conclusions. Importantly, I believe that the PML-V2(China) product could provide a great opportunity for academic communities and various agencies for scientific studies and applications. However, before acceptance the authors should give the reasonable explanations to the following questions. So, I would like to recommend this paper to be conducted a major revision.

Comments:

- In the section 2.2.2, I found that the different meteorological forcings were used here, i.e., CMFD during 2000 to 2018, but GLDAS during 2019 to 2020. Although the authors compare the difference between PML-V2(China)\textsubscript{GLDAS-2.1} and PML-V2(China)\textsubscript{CMFD} at the national scale. However, the author did not compare the liner trends of these simulations. Maybe, the authors could add the evaluations of the linear trends of ML-V2(China)\textsubscript{GLDAS-2.1} and PML-V2(China)\textsubscript{CMFD} GPP and ET during 2000-2018 at different spatial scales (i.e., grid and national scales). Mainly because this product has a great potential to use for study the linear trends of GPP and ET by the scholars.

- Line 180-181: The authors did not correct the energy imbalance issues within the EC observations? Although the authors stated that “correcting such a problem may also introduce more uncertainties (Foken, 2008)”, I insist to think that not correcting the energy imbalance issues would like to greatly impact the estimated ET. Because to date there were so many studies to do the correction before using the EC observations.

- In section 2.6, the authors simply describe the calibration for the model. I think that the authors should added some necessary description about the calibration. For example, how did you determined the final parameters for each PFT? Please clarify.

- In section 3.1, was the estimated ET and GPP based on the EC observational meteorological variables? How the calibrated model perform at EC sites when the model was run with the CMFD forcings?
The used hydrological sites should shown in figure 1. Considering the high spatial resolution, the validation may be better at the small basins rather the water resources regions (i.e., Yangtze River Basin, Yellow River Basin, and so on). Additionally, the linear trends of the PML-V2 ET should be compared with the water balance-based ET at the basin scale.