Reply on RC2
Simon Ricard et al.

Author comment on "Producing hydrologic scenarios from raw climate model outputs using an asynchronous modelling framework" by Simon Ricard et al., Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2021-451-AC2, 2021

The validation of the framework proposed in the submitted manuscript will be improved, detailed, and supported by additional results. Reviewer 2 provides sound solutions to enforce the validation framework. A formal comparison of empirical cumulative distributions and additional statistical criteria issued from historical scenarios against observations will be added and discussed as proposed.

We would argue however that a strict comparison between the reference scenarios and the observations could be hazardous in assessing the confidence attributed to the method. Indeed, this method excludes both the drawbacks of the statistical post-processing on the consistency of the simulated climate variables and the scope and finality of the study. To give an example, the trust attributed to a scenario will be different depending if a study focuses on spring floods or water stress. These elements will be fully discussed in the revised manuscript.

The comment given by reviewer 2 on the structure of the manuscript finally confirms that we must revise the document according to a more conventional form, with sections specifically dedicated to the methods and results (see also the reply to RC1).