

***Interactive comment on “The influence of
constrained fossil fuel emissions scenarios on
climate and water resource projections” by
J. D. Ward et al.***

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It is pleasing to see Australian scientists incorporating the work of Prof Koutsoyiannis and his colleagues into their research. However, I think the author's paper would be strengthened if greater use were made of that work. For example, normally the results of work like Anagnostopoulos et al (2010), which falsifies the IPCC AGW hypothesis, would result in the proponents of that hypothesis going back to basics and starting all over again, hopefully this time with more science and less ideology. But that is not happening. Maybe part of the problem is the inchoate nature of the theoretical base of the IPCC GCM models. Of course, the authors need not get into the politics

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and ideology of the IPCC's output, but at least they could draw the obvious inference. More importantly, one area of their paper which if further developed, would improve the paper significantly, I suggest. This is to include several new paragraphs picking up on the sentences at lines 18 to 25 which would explain what the author's refer to as Prof Koutsoyiannis' stochastic approach. It should be noted that Koutsoyiannis uses the concept as Bernoulli intended, not as it is defined in most standard text books. If the authors were to do this, they would identify one of the larger achilles' heels in the IPCC's way of thinking which is embedded in the GCM models.

I suggest this additional analysis is warranted as the idea of "uncertainty" is central to the authors' paper and Prof Koutsoyiannis has brought greater clarity to this concept than most in recent history. If the authors' added the additional paragraphs they would help greatly in the dissemination of this understanding as their paper is a significant development and will be widely studied and thereby have a paper of even greater value.

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