

## ***Interactive comment on “Global warming projections derived from an observation-based minimal model” by K. Rypdal***

**Anonymous Referee #1**

Received and published: 13 November 2015

Reviews for the discussion paper “Global warming projections derived from an observation-based minimal model” by K. Rypdal.

The authors have basically used a simple conceptual model to analyze the global mean surface temperature response to carbon emissions with handful of meaningful parameters and without any loss of generality. Although the author’s logic as well as skepticism are quite rational and meaningful, the simple mathematical tools used in the study and the obtained results may provide certain insights to climate change and to climate scientists who handles more complex climate modeling systems to understand the climate response to CO<sub>2</sub> emissions, in particular to rapid responsive action by humans. The manuscript in its current form is more appealing for publication, however, with a few minor corrections/suggestions to the manuscript.

C799

Page 1790:

Abstract: Replace “main value” by “highlights”

Introduction

Replace “. . .and the broad community of scientists” by “scientific community”

Replace “. . .main driver of dangerous. . .” as “. . .main driver for”.

Page 1791:

“The unconvincing part is the above mentioned reliance on complex computer models” – is the author suggesting the reliance on ESMs not necessary at all? Some models may appear to exhibit the past reality better. The flow of the text appears to mislead, please rephrase the sentence emphasizing “reliance on what in ESMs” than the whole.

Sentence starting with “And decision” can be avoided. Remove “And”.

Replace “. . .labeled by meaningless acronyms” – meaningless for who? Rephrase “meaningless” with “various”.

Although the author’s plasma physicist perception is meaningful, the question “why do you think these horrendously complex models perform any better?” is not clear to me. The motivation for this study arose from questions from various scientists as the author mentions, it will be good if he makes the questions more clearly after “A major motivation for the present paper . . . . .”

Replace “in a more transparent manner”, better could be “. . .in a manner without resorting to complex ESMs for justification”.

The author can avoid addressing the first person singular “I. . .” in many places, it looks like the author is delivering a speech.

The author should elaborate the conclusions, irrespective of optimism or pessimism, more with the findings of the present study.

C800

