Round 1

Authors' response to Reviewer 2 comments

Rishikesh Joshi

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We appreciate your feedback and comments on our manuscript. Following are our responses.

The provided comments are in the standard black font, and our responses to the comments are in blue. The associated changes are in the revised manuscript submitted with this document.

Provided comments

1. Please define consistently and clearly throughout the paper which are independent and dependent variables.
   We have checked and corrected for instances where this was unclear. We have also added an additional table (Table 3 in the updated version) listing the operational design variables which are dependent on the system design variables. The last paragraph of Section 2.2 has additional text that explains the workflow better.

2. A variable dependency network diagram could be useful prior to the system design framework under 2.2
   The extended design structure matrix (XDSM) in Figure 3 shows the dependency through colour coding of design variables, coupling variables and the analysis blocks.

3. Lines 129 to 131 appear convoluted and not fully consistent. Please define what remains constant.
   We have modified this text for clarity.

4. In Line 140 and later one could change from "Developers" to "Developments" or "Technology Developments" to move from entity to process
   We decided to not change this since we do want to address the entities who would design the systems.

5. 144 Please correct "area of operation A_oper is the ground area density". Either area or areas density. If area density, the please define the quantity the area relates to. "Area per what"
   'Density' was a typo and is now removed from the text.

6. 622 and several times before: Please, always specify which cost you refer to OpEx or CapEx or even more detailed.
   Modified the text to include specifics.

7. 626 to 629. The repetition of the working principle in the conclusions is not required.
   Removed.