Dear Author,
Your paper have been reviewed, with the decision for the paper to be accepted with minor corrections. Please provide new manuscript according to the schedule.
Below you can find the comments, that reviewers have provided about the manuscript.

Reviewer 1:

No comments.

Thank you for the review

Reviewer 2:

A sound paper presenting a basic elements of the concept. However abstract need to be shortened.

Thank you for the review and the recommendation. The abstact has been shortened to 300 words.

Reviewer 3:

The overall paper represents high standard and is written appropriately with sufficient comprehensive subject matter presentation. The references are applicable and sufficient for the topic of the research, which is important for the field of study. The calculations and used methodology is presented in the comprehensive manner and is well described, which makes it straightforward to be applied for other users or replicate for the purpose of other research. Below some of the specific comments will be presented, which could be proposed for the Author (if applicable) to be changed/improved:

Thank you for the detailed review and valuable recommendations.

1. Shorten the Abstract to the 300 words, as required. Abstract has been shortened to 300 words.
2. Page 2. 'These isotopes peak after 9 hours after power reduction and effectively reduce reactivity variably for around one day which makes it more challenging to change the power level of the plant" . Please add word concentrations, as they peak after 9 h. done
3. Page 4. Just before the Equation (1), please check the values given. "This estimate aligns well with published data indicating approximately 2.67×〖10〗^4 liter/MWh or 2.67 liter\/kWh\_e " Is the value 10^4 correct? The paper state 10^4. However, in Figure 5 of the referenced paper it is around 2500 liters per MWh. So, you are correct, the exponent should be 10^3. Thanks,
4. Page 4. "where approximately 2.24m^3/kW\_e of seawater is passed through once for cooling purposes. " Is the unit correctly given - maybe m^3/kWh?Ref: 2238 m3/(10^4 kwh)🡪 0.224 m3/kwh (electric is the assumed output type of a power plant). Thanks, again. 10 degree rise in water temperature is 42kJ/liter. Evaporating 1 liters is equivalent to raising 54 liters of water 10 degrees. Thus, 2.96 liters of evaporation is equivalent to warming 160 liters by 10 degrees. Or warming 224 liters by 7.1C degrees.
5. Page 4. "only 47 liter\/kWh\_e would be achieved as shown in Equation 3." Equation 3 gives different number. Corrected to 43 to match 42.9. Thanks,
6. Page 4. Please provide reference for the desalination cost. Added. There is no single number but this is an accepted estimate. As the technology progress the LCOW in $/m3 should go downward.
7. Page 6. Please make all of the Equations numbering ascending, taking into account previous Equations numbers. Yes; the numbers have been updated.
8. Page 7. Some bracket is put in the Table 1 (not closed). Please use the same values notation (decimal points) in the Table.corrected
9. Page 7. Sentence "Figure 3 illustrates the combined cost as a function of assumed nuclear power plant (NPP) cost on the horizontal axis and PV cost shown as different lines. The dashed line represents the NPP cost. " is repeated. Yes; corrected
10. Page 7. Increase the Figure 2. Space is limited to a single column width.

Overall the paper is very good and worth publishing.

Please provide improved version of the manuscript (according to the schedule), which includes the recommended changes. The paper has been modified as per the recommendations. Thank you,

Best regards, Track Chair for Nuclear Applications and Radiation Processing at the SCOPE conference