

Dear Editor

Below follows our final corrections following the comments raised in the review (answers to the comments in italics).

Regarding the presentation quality it is unclear if anything or what is required here.

Non-public comments to the Author:

Both referees require technical corrections. In addition, one referee requires to improve the presentation quality. Please see the comments attached and address the concerns carefully.

### Comments to reviewer 1

I have no further comments. The manuscript can be published.

Technical Correction:

Figure 3. In the last sentence of the caption: numeric values of NO<sub>2</sub> Add Baltic 2014 and SO<sub>2</sub> Add Baltic are not shown.

*This correction has been made:*

*“Numeric values for NO<sub>2</sub> Add Baltic 2014 and for SO<sub>2</sub> Add Baltic not given as they are very small”*

### Comments to reviewer 3

The authors have addressed the reviewers comments and revised the manuscript accordingly. This paper clearly demonstrates the effect of Baltic Sea ship emissions on air quality and deposition under the SECA regulations and future NECAs, which has important implications for future emission regulations. The revised abstract and some paragraphs are helpful to better understand the results and to highlight the importance of this study. However, after this revision, I found there is one point that is necessary to be clarified before publication:

1. Page 9, line 11-14: In the manuscript, it states As shown in Figure 4 (green bars) from year 2016 to 2030 result in overall reductions in ozone levels.. Based on this statement, my understanding is that lower ozone level is expected in the future (that is:  $\text{Future\_Base} - \text{Present\_Base} < 0$ ) due to emission reductions in the future. The green bars in figure 4 also show negative ozone difference. However, the label and the caption of green bar are  $\text{Present\_Base} - \text{Future\_Base}$ , which is conflict to what it describes in the manuscript. To avoid confusion, the authors should check the label/caption or clarify the statement in the manuscript.

*We have corrected the caption in Figure 4 so that :*

*“..... ozone green bars represent changes in levels from 2016 to 2030 (Future\_Base – Present\_Base), .....”*