Answers to the Reviewer B

Issue 1.
In the introduction part, the first sentence (line 40-42) where the pressure values are stated the reference should be provided. Further in the Introduction part Authors should provide the main motivation for the performed research. According to the reviewer's point of view the LHW treatment of raw biomass for increasing the heating value below 6% it's not economic viable related to the overall energy balance and pellet fuel production.

The missing reference is provided (line 42), as well as the motivation for this research (line 111-119).

Issue 2.
In Section 2.1 Authors should provide further information about the used beech wood as a raw material. For example, the particle size and bark content.

Added information concerning the raw material (line 122-129).

Issue 3.
In Section 2.2 it will be useful if the Authors could provide briefly the energy consumption for the raw material pre-treatment in order to establish the energy balance of the whole process which could be compared with the pellet production without the LHW pre-treatment.

The analysis of the energy consumption (the level of its increase) was not performed in this work. The main focus was to evaluate the influence of the treatment on heating value and other properties of the pellets. Further research will be addressed to the analysis of carbohydrates collected in the hydrolysate, and the possibilities for their further utilization, which would - together with the improvement of pellet properties - economically justify the potential increase of the energy consumption. (added in the conclusions - line 386-389)

Issue 4.
In Section 2.5 Authors should provide a brief explanation of the sieve selection for the performed experimental research of particle size determination. Did this selection made by the standard procedure given in SRPS EN ISO 17830:2017.

System of sieves was not selected according to SRPS EN ISO 17830:2017 *Solid biofuels — Particle size distribution of disintegrated pellets*. However, sieves were selected not only for determination of size distribution, but also to select the fraction needed for analysis of chemical composition (0.5-1 mm). Stated in the text (line 155-158).

Issue 5.

The data of the elemental composition of considered samples presented in Table 3 should be declared on which basis was determined (dry, as received or air-dried). Also, the how the oxygen content in the same table were determined, by the difference or by some other method.

It is stated in the chapter 2.6. that the particles and pellet samples (for determination of elemental composition) were “brought to the state of EMC in the laboratory” (line 183), and that the “proportion of oxygen was determined by calculation” (line 191-192). It is also added for the tables 3 and 7.

Issue 6.
Also, in Table 3 it's not quite clear for the reviewer how the sum of elemental composition is equal to 100% (C+H+N+S+O=100%) for both samples.
It's well documented in the literature as well as in standard SRPS EN ISO 16993:2017 that for the dry basis the sum of the elemental composition should be C+H+N+S+O+Ash=100% and for the as-received or air-dried samples C+H+N+S+O+Ash+Moisture=100%. A brief explanation for this issue should be provided by the Authors.

Authors have made an oversight (omission), hence the ash content was not included in calculations. This mistake is corrected in text and in the tables 3 and 7. A huge thanks to the reviewer for noticing this irregularity.

Issue 7.
The Conclusions part should be extended with wider findings in order to improve the novelty of the presented research in this manuscript. The authors should give a brief overview of the raw material selection for the considered pre-treatment. Are there any restrictions for different raw materials that could be used for the LHW treatment and further for pellet production process?

The conclusions are expanded.

Issue 8.
Authors should carefully check the English language in order to correct all typing mistakes which are existing the manuscript.

The noticed typing mistakes are corrected.

All corrections are marked in red.