Bachelor thesis opponent’s review

Master thesis: Distribution systems with renewable sources
Author: Dauren Karimov
Thesis opponent: doc. Ing. Zdeněk Müller, Ph.D.

Rating (1 – 5)
(1 = best; 5 = worst):

1. Fulfillment of assignment requirements: 1
2. Systematic solutions of individual tasks: 1
3. Ability to apply knowledge and to use literature: 1
4. Thesis formal and language level: 2
5. Thesis readability and structuring: 2
6. Thesis professional level: 2
7. Conclusions and their formulation: 2
8. Final mark evaluation (A, B, C, D, E, F):
   verbal: B

Brief summary evaluation of the thesis (compulsory):
The bachelor thesis is focused on distributed generation - renewable energy sources and its connection into the grid. The thesis consists of theoretical and practical part. The theoretical part consists of distributed resources description and key grid connection parameters. Provided figures are too large in comparison with their simplicity. I suggest to use the same font size for equations as the rest of the text (simple equations are displayed in huge fonts). This makes the bachelor project “easy looking”. Each chapter has different paragraph formatting.
Practical part is concentrated on calculations related to grid connection. At this point student describes mathematical conditions and its application on case study. The case study is well documented and contain all necessary information and conclusion. From the formal point of view the thesis should contain one final conclusion, not only partial conclusions after both thesis parts. I recommend author to include all figures citations (and sources) according to standards.

Questions:
1. Describe the model of the grid in case study (fig. 7.1). How are these elements modeled?
Notes:
  1) The total thesis evaluation needn’t be determined by the partial evaluations average.
  2) The total evaluation (item 8) should be from the following scale:

<table>
<thead>
<tr>
<th>excellent</th>
<th>very good</th>
<th>good</th>
<th>satisfactory</th>
<th>sufficient</th>
<th>insufficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>