

## I. IDENTIFICATION DATA

<b>Thesis title:</b>	Power supply system for an isolated consumer in the North
<b>Author's name:</b>	Dmitrii Peremitin
<b>Type of thesis :</b>	master
<b>Faculty/Institute:</b>	Faculty of Electrical Engineering (FEE)
<b>Department:</b>	Department of Economics, Management and Humanities
<b>Thesis reviewer:</b>	Ing. Miroslav Vitek, CSc.
<b>Reviewer's department:</b>	Department of Economics, Management and Humanities

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>challenging</b>
<i>How demanding was the assigned project?</i>	
<b>The task of the diploma thesis was to design and compare variants of the source of electricity supply of a lone plant for the extraction and processing of wood located in the middle of the taiga from an economic point of view.</b>	

<b>Fulfilment of assignment</b>	<b>fulfilled</b>
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
Please insert your comments here.	

<b>Activity and independence when creating final thesis</b>	<b>B - very good.</b>
<i>Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.</i>	
The graduate regularly consulted with me on the results of his work and he have positive approach for my recommendation. But sometimes it was to understand not well - the mistake was on my side.	

<b>Technical level</b>	<b>C - good.</b>
<i>Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?</i>	
The student sufficiently described the technical aspects of the proposed variants. Particularly difficult was the design of a hybrid variant, where he examined three subvariants with different proportions of intermittent wind / sun sources. On the other hand, the repayment of the loan of 15 million rubles was quite superfluous when it is not included in the calculation of NPV and EAA. I am also not sure if he well understood influence of inflation and escalation on economical evaluation.	

<b>Formal level and language level, scope of thesis</b>	<b>B - very good.</b>
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
The work has a logical structure, reads well, but a few typos can be found.	

<b>Selection of sources, citation correctness</b>	<b>B - very good.</b>
<i>Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?</i>	
The student drew information mainly from the Internet, which is understandable in his situation. It would certainly be useful to study another classic book on electricity sources and criteria of economic efficiency. On the other hand, he managed to find the necessary information on capital and operating expenses of all five variants. Student clearly separated his work from information taken and his bibliographic citations have standard.	

**Additional commentary and evaluation (optional)**

*Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.*

The student had to diligently catch up with certain gaps in his electrical and economic education, but in the end the work was successful. Due to spatial reasons, only the results are given in the diploma thesis, maybe some appendix documenting the performed calculations is a bit missing.

**III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE**

*Summarize your opinion on the thesis and explain your final grading.*

I have one question regarding figure number 5 on page 18: is it necessary to connect the diesel generator via AC / DC to the ATS controller inverter or can it be connected directly to the AC bus? It is not a shame to lose energy in the rectifier and inverter, then, when the diesel generator can be directly connected to AC consumption?

The grade that I award for the thesis is **B - very good**.

Date: **9.6.2020**

Signature: