

Jury Member Report – Doctor of Philosophy thesis.

Name of Candidate: Vladimir Frolov

PhD Program: Engineering Systems

Title of Thesis: Operational and uncertainty aware planning of power systems

Supervisor: Professor Michael Chertkov

Name of the Reviewer: Clement Fortin

I confirm the absence of any conflict of interest Date: 15-06-2021 Ultat

The purpose of this report is to obtain an independent review from the members of PhD defense Jury before the thesis defense. The members of PhD defense Jury are asked to submit signed copy of the report at least 30 days prior the thesis defense. The Reviewers are asked to bring a copy of the completed report to the thesis defense and to discuss the contents of each report with each other before the thesis defense.

If the reviewers have any queries about the thesis which they wish to raise in advance, please contact the Chair of the Jury.

Reviewer's Report

The PhD thesis of Vladimir Frolov is generally well written. It comprises eight chapters and one appendix which presents two advanced approaches to the planning of evolving transmission grids including operational considerations and uncertainties.

The approaches are clearly presented and discussed with relevant use cases which are very well illustrated. The extensive appendix is well presented and clearly presents the fundamental concepts of the research.

The quality of the papers published confirm the relevance of the submitted thesis to the field and indicate the significance of the research work with the current state of the art.

Some of the acronyms are not defined before they are presented, and a careful proof reading of the document is necessary to avoid those and eliminate several small language errors.

Provisional Recommendation

I recommend that the candidate should defend the thesis by means of a formal thesis defense

I recommend that the candidate should defend the thesis by means of a formal thesis defense only after appropriate changes would be introduced in candidate's thesis according to the recommendations of the present report

The thesis is not acceptable and I recommend that the candidate be exempt from the formal thesis defense