EPS { European Politics and Society

Joint Dissertation Review

Name of the student:	Douwe C. Roest
Title of the thesis:	Natural Gas Lock-in: Does Hydrogen Pose a Risk to a Natural Gas Phase-out in the Netherlands?
Reviewer:	Eliška Ullrichová

1. KNOWLEDGE AND CONNECTION TO THE FIELD
(relevance of the research question, research objective, literature review):

The thesis is embedded in the socio-technical transition literature which predominantly focuses on the coal lock-in effects but the natural gas (NG) lock-in effect is mostly omitted. As the research identified the literature gap clearly, the MA thesis studies the NG lock-in with the connection to the use of hydrogen. The research is determined by the following research questions: (1) How do actors' perceptions and the interaction with material conditionalities regarding existing NG production and consumption influence the production and use of hydrogen? and (2) To what extent can interactions between actors' perceptions and material conditionalities with increased production and use of hydrogen affect NG lock-in? In order to answer research questions, the MA thesis aims to apply the exploratory research design using material and actor analysis on the Netherlands as a case study. The literature review and identification of the gap is a very solid part of the thesis that is written in an accessible way to readers without technical knowledge about transition which is highly important and appreciated.

2. ANALYSIS
(methodology, argument, theoretical backing, appropriate work with sources):

The analysis is very complex encompassing techno-economic, political, and socio-technical perspectives of the transition and therefore it makes it reasonable to include material analysis such as interviews. The chosen framework builds on the work of Braus et al. (2021), Brauers (2022), Seto et al. (2016), and Cherp et al. (2018) The author explains comprehensively the methodological approach applied to each above-mentioned perspective. However, as is oftentimes the case with complex approaches, it is not clear how the student managed to identify causal mechanisms to prove the causality in research questions. I would thus invite the student to elaborate on the operationalization of the causal mechanisms in his analysis. The same applies to the coding details of material analysis on the techno-economic and socio-technical perspectives.

3. CONCLUSIONS
(persuasiveness, link between data and conclusions, achievement of research objectives):

The thesis clearly answers the research question(s) and discusses the findings in the context of broader literature. The conclusion is persuasive, well-argued, and supported by a robust and complex analysis. The conclusion also goes beyond the MA thesis analysis indicating ways of further investigation.

4. FORMAL ASPECTS AND LANGUAGE
(appropriate language, adherence to academic standards, citation style, layout):

The thesis is written with very appropriate language (with only marginal typos, i.e., p. 10 l. 15, p. 14, l. 7), meets all formal aspects, and is highly in compliance with academic standards.

5. SUMMARY ASSESSMENT
(strong and weak points of the dissertation, other issues)

The thesis includes all required parts of the MA thesis on a very high-quality level. The literature review, identification of the gap, empirical results, and discussion parts are on an excellent level. The methodological parts include some unclear sections as indicated above which seem to be given by a highly complex methodological approach. The chapter dealing with limitation of the research is also

very welcome. Although the research touches the technical field, it is written in a comprehensive and accessible manner. The MA thesis of Douwe Roest is a high-quality thesis.

Grade (A-F):	A
Date: 10. 09. 2023	Signature:

classification scheme

Percentile	Prague		Krakow		Leiden		Barcelona	
A (91–100)	91–100 %	8,5%	5	6,7%	8,5-10	5,3%	9-10	5,5 %
B (81–90)	81–90 %	16,3%	4,5	11,7%	7.5-8.4	16.4%	8-8.9	11,0 %
C (71–80)	71–80 %	16,3%	4	20%	6,5-7,4	36,2%	7-7.9	18,4 %
D (61–70)	61–70 %	24%	3,5	28,3%			6-6,9	35,2 %
E (51–60)	51–60 %	34,9%	3	33,4 %	6-6,4	42,1 %	5-5,9	30,1 %

Assessment criteria:

Excellent (A): "Outstanding performance with only minor errors";
Very good (B): "Above the average standard but with some errors";
Good (C): "Generally sound work but with a number of notable errors";
Satisfactory (D): "Fair but with significant shortcomings";
Sufficient (E): "Performance meets the minimum criteria";
Fail: "Some/considerable more work required before the credit can be awarded".