

Review Form 3

Journal Name:	Journal of Energy Research and Reviews
Manuscript Number:	Ms_JENRR_130166
Title of the Manuscript:	NON-RENEWABLE ENERGY CONSUMPTION AND ECONOMIC GROWTH: EVIDENCE FROM UGANDA
Type of the Article	Original Research Article

PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	<p>This paper focuses on explaining the causal relationship between non-renewable energy consumption and economic growth, with a special focus on Uganda, a region that is generally less studied in global energy studies. In this context, it is a scientifically acceptable study as it provides important information. Since the study utilizes advanced econometric techniques such as Vector Error Correction Model (VECM) and cumulative impulse response analysis, it can contribute to methodological studies in understanding energy-growth dynamics. Moreover, this study contributes to policy formulation by highlighting the consequences of non-renewable energy dependence, thereby addressing sustainable development issues in line with the global climate agenda. Its findings can serve as a basis for comparative studies in other emerging economies and enrich the academic debate on energy policy and economic sustainability.</p>	
Is the title of the article suitable? (If not please suggest an alternative title)	<p>The current title of the paper, "Non-Renewable Energy Consumption and Economic Growth: Evidence from Uganda". In this context, the title of the paper is clear and directly reflects the focus and scope of the study. However, it could be further developed to better emphasize the level of methodological contribution and its implications. The alternative titles I would suggest to the authors are as follows: (decisions are entirely up to the authors)</p> <ol style="list-style-type: none">1. Exploring the Link between Non-Renewable Energy Consumption and Economic Growth: Empirical Evidence from Uganda3. The Impact of Non-Renewable Energy Consumption on Economic Growth: Evidence from Uganda <p>With these alternative titles, energy economics can attract the attention of a wider academic audience with a keen interest.</p>	

Review Form 3

<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The summary of the paper is quite comprehensive and covers the key elements of the study, such as background, methodology, results and implications. However, some improvements could be made to increase clarity and engagement.</p> <ol style="list-style-type: none"> 1. The Abstract of the paper mentions the results but does not mention the quantitative results or the conclusions of the study that are considered important (e.g. the direction and magnitude of causality). Including a brief statement about the main findings, such as that non-renewable energy consumption was found to have a statistically significant long-term positive impact on GDP growth, would improve the clarity of the summary. 2. When mentioning the relevance of the study for policy making in the summary section, a clearer explanation of how the findings can guide specific policy actions in Uganda or similar economies should be provided. 3. Limitations of the study (e.g. reliance on secondary data, limitations in the Ugandan context) should be briefly mentioned, ensuring a balanced perspective. <p>Corrections:</p> <ol style="list-style-type: none"> 1. The phrase "insights into how energy supports economic growth and sustainable development" is repeated. Shortening this could make room for more specific details. 2. Terms such as 'Variance Decomposition Analysis (VDA)' and 'Cumulative Impulse Response (CIR)' could be briefly explained or omitted as they may not be meaningful to all readers. <p>Dear authors, in addition to your summary, the following additions can be made</p> <p>Suggestion for Abstract:</p> <p>This study investigates the causal relationship between non-renewable energy consumption and economic growth in Uganda between 1982 and 2018. Using advanced econometric techniques such as Vector Error Correction Model (VECM), Variance Decomposition Analysis (VDA) and Cumulative Impulse Response (CIR), this study finds that non-renewable energy consumption contributes significantly to long-term GDP growth. However, challenges such as dependence on imported fossil fuels and volatile energy prices undermine sustainability. The findings of the study clearly illustrate the need for strategic investments in the energy sector to balance economic growth and environmental sustainability. This research provides critical insights for policymakers and contributes to a broader awareness of energy-driven development in emerging economies.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The paper appears to be scientifically accurate on the basis of the methodological approaches, statistical tools and frameworks it uses.</p> <ol style="list-style-type: none"> 1. The paper has a sound methodology. The use of advanced econometric techniques such as Vector Error Correction Model (VECM), Granger causality tests and Variance Decomposition Analysis (VDA) shows a high level of methodological rigor. 2. The study uses a comprehensive data set. Time series data over a long period (1982-2018) are analyzed and appropriate stationarity and cointegration tests are applied to ensure data validity. 3. Hypotheses are clearly stated and systematically addressed through statistical analysis. 4. The paper supports practical relevance by linking its findings to broader policy implications. <p>Recommendations:</p> <ol style="list-style-type: none"> 1. While the results are statistically analyzed, the economic interpretation of some of the findings and broader implications (e.g., the role of FDI and domestic investment in reducing dependence on non-renewable energy) could be expanded. 2. The study claims that there is a long-run causal relationship between non-renewable energy consumption and GDP growth. Although supported by VECM, further robustness checks or alternative causality models (e.g. Dynamic Panel Models) could strengthen the findings. 3. Some variables show statistically insignificant results (e.g. Granger causality results), but their implications are not fully discussed. A more nuanced discussion of the lack of short-term causality is needed. 4. Although a large body of literature is cited in the paper, some references are listed without directly linking their findings to the contributions of the study. <p>Recommendations:</p> <ol style="list-style-type: none"> 1. The interpretation of statistically insignificant findings should be revisited and their implications for the hypotheses of the study should be explained. 2. Expand the discussion of the results to include practical implications for policy makers and 	

Review Form 3

	<p>stakeholders in Uganda's energy and economic sectors. 3. It would be more appropriate if robustness checks (e.g. using alternative econometric models) could be included to further validate the findings.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>The paper refers to a significant number of studies, including fundamental studies and recent contributions, particularly in the area of energy economics and the link between energy consumption and economic growth. However, it would be appropriate if the references were strengthened.</p> <p>The article provides a broad perspective by referring to classical studies (e.g. de Janosi and Grayson, Nordhaus) and contemporary studies. Studies focusing on econometric methodologies such as VECM and Granger causality tests are well represented. However, although the article includes recent references (up to 2021), it is clear that there have been rapid developments in the field of energy economics. Including studies from 2022-2024 would ensure that the paper reflects the latest findings. While global studies are cited, more references focusing on sub-Saharan Africa or similar emerging economies would strengthen contextual relevance. While the paper discusses LINEX production function theory, it would benefit from additional references to modern production theories or alternative approaches to economic modeling.</p> <p>Suggested Additional References:</p> <ol style="list-style-type: none"> 1. Stern, D. I., & Burke, P. J. (2023). Energy and Economic Growth in a Global Context. <i>Annual Review of Resource Economics</i>. 2. Apergis, N., & Payne, J. E. (2022). Renewable and Nonrenewable Energy Consumption and Economic Growth: A Global Perspective. <i>Energy Economics</i>. 3. Oladipo, S. O., & Adegbite, T. A. (2023). Energy Consumption and Economic Growth in Sub-Saharan Africa: A Panel Data Approach. <i>African Development Review</i>. 4. Kanyomozi, A., & Mugume, A. (2022). Uganda's Energy Sector and Economic Development: Challenges and Opportunities. <i>East African Economic Review</i>. 5. Pesaran, M. H., & Shin, Y. (2023). Advances in Panel Cointegration Techniques: Applications to the Energy Sector. <i>Studies. Journal of Econometric Methods</i>. <p>Incorporating these references would enhance the manuscript's currency, regional specificity, and methodological depth.</p>	

Review Form 3

<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and quality of the article are generally appropriate for academic communication, as the text is clear and conveys the key concepts effectively. However, there are areas where the language could be improved for greater precision, readability and compliance with academic standards.</p> <p>The article maintains an appropriate academic tone through the use of formal language and technical terminology. The methods section of the article is detailed and well explained, reflecting the complexity of the analysis.</p> <p>There are occasional grammatical errors throughout the study, such as inconsistent verb tenses and inappropriate articles (e.g., "Uganda imoports" should be "Uganda imports"). Some sentences unnecessarily repeat information, which can be streamlined to improve readability (e.g., policy implications and study objectives are stated in similar terms more than once). Complex sentences consisting of multiple sentences can be simplified for better readability without compromising depth of information. Some technical terms (e.g., "Variance Decomposition Analysis" or "Cumulative Impulse Response") are not explained, potentially limiting accessibility for readers unfamiliar with these methods.</p> <p>Conduct a comprehensive proofreading session to correct minor grammatical errors and improve sentence flow. Break long, complex sentences into shorter, more digestible pieces while maintaining an academic tone. Provide brief explanations or context for specialized terms when they are first introduced, especially for a broader academic audience. Check for consistent use of tenses and terminology throughout the paper.</p> <p>Sample Revision: Original: "The conclusion is therefore that non-renewable energy consumption in terms of economic growth is mainly attributed to imported fossil fuels, particularly diesel fuel used to power thermal generators, and therefore cannot support growth in the long run." Revised: "The study concluded that the contribution of non-renewable energy consumption to economic growth is mainly attributed to imported fossil fuels, particularly diesel fuel used to power thermal generators. However, this dependency undermines long-term economic sustainability."</p>	
<p>Optional/General comments</p>	<p>The paper addresses a critical issue by examining the relationship between non-renewable energy consumption and economic growth in Uganda, a region with limited representation in the literature. This adds originality and practical value to the study. The paper is well structured with clear sections for introduction, methodology, results and implications. The roadmap provided in the introduction makes it easy for the reader to navigate. The discussion on policy implications is well framed and highlights the need for strategic investments and diversification in the energy sector to support sustainable development. The use of VECM, Granger causality tests and variance decomposition analysis is appropriate and demonstrates a robust approach to exploring causality and dynamics in the dataset.</p> <p>However, the study could also explore possible linkages to renewable energy as a complementary factor and expand its relevance to global sustainability agendas. A brief comparison with other emerging economies would increase the global applicability of the findings. More graphical explanations could be added to summarize the key findings. While the policy implications are clear, the paper should provide more details on how the findings contribute to theoretical developments in the energy growth literature. Overall, the study provides a valuable contribution to the field of energy economics; however, improvements in the language, structure and interpretation of the results will increase the level of academic contribution.</p>	

Review Form 3

PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Ferhat Pehlivanoglu
Department, University & Country	Kocaeli University, Turkiye