

Review Form 3

Journal Name:	Journal of Energy Research and Reviews
Manuscript Number:	Ms_JENRR_124549
Title of the Manuscript:	Development Of Predictive Models For Energy Demand And Co2 Emission Trends For Households In Makurdi Metropolis
Type of the Article	research article

Review Form 3

PART 1: Review Comments

Compulsory REVISION 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>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript is important for the scientific community as it addresses a pressing global issue—energy consumption and CO2 emissions—by developing predictive models specific to households in Makurdi, Nigeria. It provides valuable insights into how local energy consumption patterns, particularly from power generators and cooking fuels, contribute to greenhouse gas emissions. I appreciate the manuscript's relevance, especially given the need for sustainable energy practices in developing regions. However, I would have liked a more detailed exploration of the limitations and broader applicability of the models beyond the selected households in Makurdi.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title of the article, "Development of Predictive Models for Energy Demand and CO2 Emission Trends for Households in Makurdi Metropolis," is suitable as it clearly reflects the core focus of the study</p>	
<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 abstract is generally comprehensive, providing a clear overview of the study's objectives, methodology, key findings, and significance. However, a few suggestions for improvement could enhance its clarity and impact:</p> <ol style="list-style-type: none"> 1. Clarification of Methodology: Briefly mention how the data were collected (e.g., the number of respondents in surveys) to provide a better understanding of the sample size and representation. 2. Specificity in Findings: While it mentions significant model results, adding a sentence about the implications of these findings (e.g., potential applications or how they can influence energy policy) could make the impact clearer. 3. Elaboration on CO2 Emissions: It might be beneficial to specify the range of CO2 emissions calculated or any particular trends observed to give readers a more detailed snapshot of the results. 4. Mention of Limitations: Including a brief mention of any limitations or areas for future research could provide a more balanced view. <p>Incorporating these points could lead to a more thorough and informative abstract.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, the subsections and structure of the manuscript appear to be appropriate for the topic and type of research presented. The organization facilitates a logical flow of information, making it easy for readers to follow the study from introduction to conclusion. Here are some specific observations:</p> <ol style="list-style-type: none"> 1. Clear Hierarchical Structure: The manuscript is divided into clear sections (Introduction, Materials and Methods, Results and Discussion, Conclusion), which is standard for scientific papers and aids in navigation. 2. Subsections: The use of subsections (e.g., Energy Audit, IPCC Guidelines, Data Analysis) under relevant main sections provides detailed focus on specific aspects of the study, allowing for better comprehension of the methods and findings. 3. Logical Progression: The flow from the introduction of the problem to the methodology, followed by results and discussion, and concluding with implications, ensures that the reader can easily understand the research context, execution, and significance. 4. Recommendations: While the structure is appropriate, consider ensuring that each subsection is adequately detailed to provide sufficient information. For example, the Results and Discussion section could benefit from more detailed explanations of key figures and tables. 	

Review Form 3

	Overall, the structure and subsections support the objectives of the manuscript effectively.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	The manuscript demonstrates scientific correctness through its use of established methodologies and adherence to recognized guidelines, such as those set forth by the Intergovernmental Panel on Climate Change (IPCC) for greenhouse gas emissions inventory. The application of statistical analysis, specifically ANOVA and the calculation of R-squared values, lends credibility to the predictive models developed for CO2 emissions and energy demand, indicating a robust relationship between the variables assessed. Additionally, the research addresses a critical issue in energy consumption and CO2 emissions, particularly in the context of Nigerian households, making it both relevant and timely. The thorough data collection process, which includes a well-structured questionnaire and interviews with household heads, further supports the manuscript's technical soundness and reliability.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. :	he references in the manuscript appear to be relevant to the study and cover key aspects of energy consumption and CO2 emissions. However, while they provide a foundational understanding, it may be beneficial to include more recent studies or reviews to enhance the manuscript's relevance, particularly those published within the last five years	

Review Form 3

<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are generally suitable for scholarly communication, as the writing is clear and conveys the necessary information effectively. However, there are a few areas where improvements could enhance clarity and readability. Suggestions for improvement include:</p> <ol style="list-style-type: none"> Grammar and Syntax: Some sentences could be restructured for better flow and coherence. For example, reducing the use of long sentences or splitting complex ideas into simpler statements can improve readability. Terminology Consistency: Ensuring that technical terms are used consistently throughout the manuscript will help in maintaining clarity. Proofreading: A thorough proofreading to correct any typographical errors or awkward phrasing would elevate the manuscript's quality. <p>Overall, while the article communicates its ideas well, addressing these points could further enhance its suitability for scholarly communication.</p>	
<p>Optional/General comments</p>	<p>Here are some optional/general comments regarding the manuscript:</p> <ol style="list-style-type: none"> Relevance and Impact: The study addresses a significant issue in energy consumption and CO2 emissions within residential settings, particularly in the context of Nigeria. This relevance enhances its potential impact on both local and broader discussions on energy sustainability and climate change. Methodological Rigor: The methodology, including the use of a structured questionnaire and established models for data analysis, appears to be well thought out. However, a more detailed explanation of the statistical methods employed could further strengthen the robustness of the findings. Visual Aids: The inclusion of figures and tables effectively supports the text. Ensuring that all figures are clearly labeled and referenced in the text will help readers follow the discussion more easily. Future Work: It might be beneficial to include a brief section on potential avenues for future research. This could help to inspire subsequent studies and further investigations into energy consumption patterns and mitigation strategies. Broader Implications: Consider discussing how the findings could inform policy-making or energy management strategies in Nigeria or similar contexts. This could enhance the manuscript's practical relevance and applicability. <p>Overall, the manuscript is well-structured and presents valuable insights, but there is room for further refinement and contextual discussion to enhance its impact.</p>	

PART 2:

	<p>Reviewer's comment</p>	<p>Author's comment (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)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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