Review Form 1.7

Journal Name:	**Journal of Energy Research and Reviews**
Manuscript Number:	**Ms_JENRR_103917**
Title of the Manuscript:	**A COMPARATIVE STUDY FOR ESTIMATING REFERENCE EVAPOTRANSPIRATION MODELS OVER KANO, NIGERIA**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	**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)*
Compulsory REVISION comments **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	1-Yes, This research is important for the sustainability of agriculture in the Sahel region, where limited water availability is a constant concern. The efficient use of water in agriculture is essential to ensure food production and economic development in the region. Furthermore, this methodological approach can be replicated and adapted in other areas with similar water scarcity challenges, contributing to food security and sustainable use of water resources across the world. **2-Yes** **3-Yes** **4-Yes** **5-Yes**	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	the methodology that could add value to the scientific community, it is a daily work, but of relevance for the regional study. It uses monthly data from thirty-one years of global solar radiation, hours of sunlight, speed of wind, maximum and minimum temperature and relative humidity obtained from the Nigerian Meteorological Agency (NIMET) to calculate and compare six evapotranspiration (ET) models with the aim of determining the most suitable model capable of estimating ET in Kano, located in the climate zone of the Sahel, Nigeria. The FAO-56 PM model was used as the standard ET model. The results of this study show that the highest ET value was found in April, with 10.0256 mm/day, and the lowest value of 5.0804 mm/day was recorded in August. The Blaney-Morin Nigeria model was considered the most appropriate for calculating ET based on the statistical tests performed in comparison with other models in Kano. This study provides information on evapotranspiration, which, if used correctly, can provide accurate estimates of daily water use and therefore help irrigation managers in Kano and places with similar climate information to make important decisions about when to apply water and amount to be applied to the design, operation and management of irrigation systems. Analysis: The study addresses the issue of estimating evapotranspiration (ET) in Kano, Nigeria, a region facing water scarcity and where agriculture is heavily dependent on adequate water supply for crops. ET is a critical factor in determining irrigation needs and efficient use of water in agricultural activities. The researchers collected important meteorological data, such as solar radiation, hours of sunshine, wind speed, maximum and minimum temperature and relative humidity, over thirty-one years, which allowed them a comprehensive analysis of the ET pattern over time. . By comparing six ET models, they found that the Blaney-Morin Nigeria model was the most appropriate for calculating ET in Kano, based on statistical tests. This means that this model performed better in estimating water loss by evaporation and transpiration of crops in the studied region. The results of this study have significant implications for irrigation managers in Kano and other areas with similar climatic conditions, as they provide valuable information for proper planning of water use in agriculture. By understanding evapotranspiration and having a reliable model to estimate it, it is possible to make informed decisions about the appropriate time to irrigate, as well	

	as the amount of water needed to meet crop needs. This research is important for the sustainability of agriculture in the Sahel region, where limited water availability is a constant concern. The efficient use of water in agriculture is essential to ensure food production and economic development in the region. Furthermore, this methodological approach can be replicated and adapted in other areas with similar water scarcity challenges, contributing to food security and sustainable use of water resources worldwide. I	
Optional/General comments		

PART 2:

	Reviewer's comment	**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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Amaury de Souza**
Department, University & Country	**Federal University of Mato Grosso do Sul, Brazil**