



**SDI Review Form 1.6**

Journal Name:	<a href="#">Journal of Energy Research and Reviews</a>
Manuscript Number:	Ms_JENRR_60806
Title of the Manuscript:	Comprehensive Analysis of Planning Operation and Protection of Microgrid Systems
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:

(<http://www.sciencedomain.org/journal/10/editorial-policy> )



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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)
<b>Compulsory</b> REVISION comments	<p>In this paper, the Authors present a small review and MATLAB simulation results concerning the operation of microgrids, especially a test system that consists of a solar power source, a wind power source and a diesel power source and is connected to residential, commercial and industrial loads. Also, a very interesting hardware development that may simulate the operation of the microgrid is demonstrated by the Authors. The paper does not have enough novelty but the contribution can be considered decent and publishable. In the Reviewer's opinion, the most interesting part of the paper is the Section 4 where the Authors deploy an experimental test bed for microgrids. Little changes have to be made in the Reviewer's opinion, as follows (minor revision):</p> <p>Section1 (Introduction): The Section is divided into three subsections that give a review concerning the planning, operation and protection of the microgrid. The Authors give the framework of the test system that is going to be implemented in the following analysis. In order to explain their assumptions, the quality and number of References is considered to be good.</p> <p>Section2 (Methodology): This Section is little vague for the potential reader. The Authors should more explain the operation settings as well as the fault management. But the most important in this Section is the conceptual connection of this Section with the Authors' proposal and testbed.</p> <p>Figs.7-11: Here, the Authors give more explanations concerning the internal operation of the modules. The Authors should explain whether they take the modules ready to use from Simulink or they create from scratch the modules.</p> <p>Fig.21: Here, the flowchart of the Newton's method is very helpful. Indeed, it synthesizes the applied algorithms for the fine operation. But apart from the formulation of the Lagrange Function, the Authors should explain the handling (minimization) of the cost function more.</p> <p>Section4: The most interesting Section of the paper. The Authors implement a hardware testbed that simulates the operation of the proposed microgrid.</p> <p>References: It could be better. Anyway, the references can be considered to be updated.</p>	
<b>Minor</b> REVISION comments	NO	
<b>Optional/General</b> comments	NO	

**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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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