

Review of: "Enhancing Electric Vehicle Reliability and Integration with Renewable Energy: A Multi-Faceted Review"

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Potential competing interests: No potential competing interests to declare.

The authors provided a comprehensive review of a novel approach known as "Innovative Incentive-Driven Fuzzy Fault Tree Analysis" (IIFFTA) tailored for power systems integrating EVs and renewable energy sources. This innovative method addresses the challenges posed by vague and imprecise events and data deficiencies in traditional fault tree analysis. IIFFTA takes into account various component failure rates and probability values of fault occurrences, offering a more effective risk assessment approach. Additionally, the paper investigates the impact of plug-in electric vehicles (PEVs) on distribution systems and explores distribution feeder reconfiguration (DFR) as a strategy to enhance reliability while coordinating vehicle-to-grid (V2G) services from PEV fleets within a stochastic framework. The study addresses uncertainties related to network demand, energy prices, wind power generation, and PEV fleet behavior using a self-adaptive evolutionary algorithm (SOS) to tackle the stochastic optimization problem.