

Review of Different Business Models Applicable for a Community Microgrid

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The rising global energy demand and CO₂ emissions over the past decade have emphasized the need for sustainable energy solutions. Microgrid systems, integrating power generation from renewable energy, and demand-side management offer a promising approach in addressing these challenges. A systematic literature review was conducted with the main aim of exploring the role of business model flexibility in attaining a balance between reliability, sustainability and cost-effectiveness in the process of implementations and operation of community microgrids. Utilizing over twelve research papers sourced from electronic databases and journals such as IEEE, ResearchGate, ScienceDirect, and Google Scholar, the authors systematically reviewed the existing business models related to microgrids. This includes customer owned business models, utility-owned business models, third-party ownership business models, energy service company business models (ESCO), energy-as-a-service models (EaaS), anchor business models, and pay-as-you-go business models. The findings highlight the importance of business model flexibility in balancing reliability, sustainability, and cost effectiveness, thus ensuring the successful implementation of community microgrids.

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