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Analysis of the BESSt location in the UK Electricity Network

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Energy storage is an essential link in the electricity network and can facilitate grid flexibility, increase penetration of renewable energy resources and improve the electricity network efficiency, as a result reducing environmental impact. This research aims to examine the best possible locations for utilising BESS (Battery Energy Storage Systems) across the UK electricity grid by considering its benefits and associated beneficiaries. Several locations ranging from the generation to the distribution network has been explored with the key focus on technical benefits. Analysis of the literature shows that locating BESS system close to intermittent renewable sources and the end consumer showed optimal results.

Speaker Biography

Patrick Agese is a multi-award-winning energy specialist with extensive research and consulting experience on technical, financial and policy development in energy systems. He has over 5 years of experience on large energy demand reduction projects and has developed energy performance contracts for large global organisations such as Costain Group PLC, Anesco and Givaudan. He is also a sustainability enthusiast and has dedicated his professional career to developing clean energy solutions. He is currently undergoing PhD research on Urban Energy Rhythms at the University of Reading. The Urban Energy Rhythms research aims to characterise distinct energy assets and develop infrastructure design recommendations for optimising the deployment of these assets. Previous research in this area combines a series of deterministic methods for network planning, although these methods have been associated with drawbacks such as unnecessary distribution grid reinforcement, making them a barrier to increase penetration of distributed generation assets.

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