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35-Blockchain-based Smart Contracts Application for Energy Trading

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The need to restructure the energy markets has become a pressing matter in recent years. As the energy market evolves to integrate more sustainable energy sources, new agents that consume but can also produce energy - the so called prosumers - start to participate in the market. Consequently, the traditional centralized structure solution can no longer support the challenges that the energy market brings today. It becomes crucial to create new business models, decentralized, efficient and running in secure platforms, to support energy interactions within a community such that the use of sustainable energy becomes more affordable and reliable.

This project proposes the development of a platform, using a blockchain-based solution, that implements smart contracts that automatically validate and audit energy transitions, contributing in this way to a more sustainable society. Apart from contributing to emissions reduction and energy efficiency, it may also have significant financial impacts, by shielding the market from fossil fuels market instability. Therefore, compared to the systems in place today, we can increase the efficiency, speed, reliability, scalability, and security of the energy markets.

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