GREENBLOCK

Initial Coin Offering

White Paper

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GreenBlock is a renewable energy development company dedicated to creating sustainable solutions through the use of our cutting-edge technologies in this ever-growing market. We specialize in the development of clean, green power by utilizing emerging technology and the most efficient financial platforms to deliver these solutions worldwide. By using smart contracts, GreenBlock allows users to choose the best and most sustainable event of green energy. The platform specializes in providing affordable and sustainable renewable energy on behalf of its users. GreenBlock is built on blockchain technology, which enables it to create an immutable

Abstract

GreenBlock is a company that aims to become an innovator that offers effective solutions to the world's problems. We are dedicated to providing clean, green, and low-carbon energy. The team uses cutting-edge technology such as blockchain, smart contracts, and artificial intelligence to create a seamless, efficient, reliable, and cost-effective infrastructure for businesses to implement their operations in the marketplace.

The main mission is to provide the world with sustainable energy so that we can reduce global warming and make the earth greener for future generations.

GreenBlock will be a fully decentralized green energy exchange platform where energy is traded virtually via cryptocurrency from peer to peer, business to business, and government to government. It will include a marketplace for energy products and services where buyers and sellers can do business with one another around the world.

This includes renewable projects like solar panels, wind turbines, hydroelectric dams, geothermal heat pump systems, biomass fuel sources such as palm oil trees, lumber waste, etc., and conventional power generators such as coal plants or nuclear power facilities that are equipped with carbon capture technology and storage units for their emissions reductions credits (XDR), which if they sell these they can offset some of their own emissions with those credits or if need be purchase them from other companies who lack them or did not participate in programs offering them upfront. Other participants in the marketplace could be utilities owned by local governments or perhaps even businesses such as electric car manufacturers who want green energy to power their charging stations along major highways in America.

Transforming energy processes will be collected from natural resources such as Biomass, Waste Materials, Wind, Water, Steam, and the Sun. In today's reality, state-of-the-art technologies are expensive to build and maintain, hard to deploy, and not good enough energy applicable. However, GreenBlock develops solely new green energy opportunities that will drastically decrease, mainly, dependence on fossil fuels and costs around the world.

Context

▪ On 12 December 2015, 196 countries and territories adopted the Paris Agreement, a legally binding international treaty on climate change. Signatories aim to achieve a climate-neutral world by mid-century. China has committed to achieving 'net zero carbon dioxide (CO2) emissions before 2060, the USA has committed for 2050.

▪ Global net human-caused emissions of CO2 shall fall by:

A. by 2030: 45% from 2010 levels

B. by 2050: reach 'net zero'

▪ Annual investments in low-carbon energy technologies and energy efficiency shall be upscaled by roughly a factor of six (range of a factor of 4 to 10) by 2050 compared to 2015. As of 2020, the annual size of the market is 250bn USD.

▪ Total annual average energy demand investments are projected to be between 640bn and 910bn USD2010 for the period 2016 to 2050. Annual investments in low-carbon technologies in end-use sectors are projected to rise from USD 530bn currently to USD 1.7tn in 2030.

Challenges

- Global investments in energy efficiency: shall be rapidly increased to meet the targets within the prescribed timeframe.

- Lack of large-scale unified marketplace. There is no major marketplace that connects the various parties – project owners, investors, and services providers.

- Lack of secondary market. Currently, there are no tools that allow the transfer or trading of energy efficiency contracts.

- Market fragmentation excludes institutional investors. The lack of a marketplace makes it challenging for institutional investors to deploy funds into portfolios of projects. The market fragmentation is multifaceted by geographical location, by project owner, and service provider.

- Technical resources. Energy efficiency projects require technical capacity for assessment which is not the core activity of most investors.

- Communication gap. There is a huge communication gap between the investors (with core activities in financial services) and the technical team that defines projects (with core activities in engineering services)

Platform Market Data & Mission

The GreenBlock platform is a highly sophisticated, advanced ecosystem that utilizes green energy, information, and peer-to-peer (P2P) solutions. GreenBlock represents the system that connects users on the platform with real-time power usage, and cost data, that will motivate these very specific users and entities to create and develop both green and cost-effective solutions for their power needs.

This information gives users of the ecosystem all the information they could want when it comes to investing, purchasing, or installing any of our green technologies. With this information, someone can decide the best green solution for them based on their geolocation and their power consumption needs. Some of GreenBlock's major solutions are for large-scale energy production. By providing statistics, on the blockchain, there is a transparent way to present data to cities, counties, government agencies, and energy companies to ensure faster and more effective implementation. We believe that information is the key to green energy growth.

Our solutions are both cost-efficient and produce better results. By providing more information for people to view, we hope we can overcome this issue and push green energy to the next level.

Every single day energy is getting closer to being like a currency, however, the system that enables individuals to trade energy does not exist yet. With the help of our network, users will be able to trade energy freely, without any delay even in their neighborhood originating from green sources around them. In the early stages, users that are on the same "power zone" will be connected to the platform and they will be able to buy and sell power based on regions and "power zones". First time ever, users will be able to buy energy from their neighbors. This energy exchange program will give investors and users a new way to generate income and give consumers a choice to decide from where they want their power to come.

Our platform is based on an advanced algorithm for prompt consensus, extra security, and overall performance. GreenBlock is built upon a smart contract chain that enables the process to be automated. This also makes it possible to support renewable energy directly by participating in the “green” powered blockchain platform and creating value through the exchange and trade of GreenBlock (GBLC) Utility tokens.
GreenBlock will be able to showcase its unique GBLC token, which has been carefully designed by a team of expert developers to bring consumers a wide range of functionality. By entering into the top-tier exchanges where high volumes are traded, we give our platform more exposure to users who are interested in buying and selling green energy with our GBLC#152 Blockchain as well as additional sources of income for investors through our GBLCUtility Token.
The benefits of this listing also include

- Capacity to fund and develop projects for the purpose of power utilization and generation.
- Cost coverage to establish joint venture associations with the platform partners.
- Increased funding to further develop and explore the blockchain platform.
- Generation of global and high-profile PR and marketing coverage for the GreenBlock Trading platform.
- Acquisition and procuration of high-level blockchain executives, computer engineers, and scientists.

Our mission is to be the first regulated, transparent, fair, and simple energy trading platform that allows users to invest in and trade energy across a decentralized grid of renewable energy generation. We aim to achieve the UN targets for carbon neutrality by 2050 using blockchain technology and artificial intelligence.

Blockchain Applications In the Green Energy Sector

Blockchain technologies are gaining increasing attention in the energy industry. The potential applications include the monetization of distributed energy resources, management of alternative and renewable energy sources, utility billing and payments, distributed trading platforms for electricity, trusted identity and reputation management, and more.

In order to meet future energy needs, energy systems must pursue three key principles

- De-carbonization;
- Decentralization;
- Digitalization;

Distributed Ledger (DLT) platform developers and IT groups are establishing a transactional digital ecosystem that aims to be completely decentralized and can get fully accessible for Peer-To-Peer energy trading.

Our Smart Grid and Microgrid Energy Management applications are focused on the development of dynamic energy markets and the Internet of Things (IoT) that can play a significant role in the vision of a smart grid. Our IoT applications have been proven to be highly efficient and reliable in various industrial and commercial applications.

According to PricewaterhouseCoopers UK (PWC), energy firm sectors are increasingly reporting higher energy costs and lower revenues. At the same time, utilities face demands for increased transparency by the regulatory authorities.

As a result, any possibility of cost savings and efficiency improvement in the operation of energy systems and markets is significant. Potential gains in transparency and competition could benefit other key policy targets related to energy affordability and fuel poverty. According to a UK Government Report by the Competition and Markets Authority, poorly designed tariff prices and lack of mobility in the marketplace have led electricity consumers to pay 1.4 billion on average a year in excessive prices for the period 2012-2015. We note that UK retail electricity prices have increased in recent years irrespectively to wholesale electricity prices, indicating that there is significant room for improvement.

Distributed Ledger Transaction (DLT) - enabled transactional platforms will continue to disrupt the energy sector. They can offer operational cost reductions, increased efficiency, fast and automated processes, transparency, and the possibility of reducing capital requirements for energy firms. The cost savings potential is not restricted to utilities and can be relevant to energy consumers, who are facing increasing energy prices and the removal of Renewable Energy Standards (RES) incentives.

The relative novelty of blockchain technology leaves immense room for growth and its flexibility carries the strong potential to revolutionize the energy industry. Other factors which drive the global blockchain for the energy market include the increased growth in decentralized energy generation and the increasing demand for increased automation in the energy sector with a focus on data integrity and security.

Presently, there is no standardization or regulatory framework for blockchain technology which may prove challenging for the growth of the market. The U.S. Federal Trade Commission has created a blockchain working group to navigate this uncharted territory through resource sharing and hosting experts from around the globe. Since blockchain technology is still in its initial stages of growth and implementation, the development of new business models that utilize blockchain is expected to promote novel opportunities during the review period.

For application, the market is segmented into grid management, energy trading, control & security, payment schemes, and supply chain & logistics. The energy trading sector is expected to achieve the highest point while maintaining its leading market size. The use of blockchain technology is emerging primarily in areas such as energy trading, maintenance of distributed energy systems, and peer-to-peer energy trading systems.

Business Models

The GreenBlock business model considers these models. Below we shortly break our model down based on each market incorporating the use of the ecosystem and GreenBlock's own cryptocurrency.

Business to Governments:
Local governments create yearly budgets and rely on federal funding and taxpayers to fund new opportunities and sustain the area. Our business plan when it comes to governments is to provide a plan they can submit for funding and assist them in the process. Then hopefully they will be willing to spend their found money that's outside of the area's budget on our new GreenBlock technology. The process is straightforward, we help these governments develop plans to implement our technology, and then they use the money they receive to continue a relationship with GreenBlock

Business to Business:
In the early stages of the company, B2B sales will be a major driver for the success of GreenBlock. With our solutions being targeted toward businesses and larger-scale operations, we expect B2B to be a big part of GreenBlock's revenue stream. Businesses will be targeted and approached based on geo-location. Once these businesses are identified we will select which one of our technologies are best suited for them. Initially, businesses will be approached with a profit-sharing agreement, which will have them cover the costs of implementation, but we receive a certain % of the cost savings. This allows us to build up case studies and clientele for the business and provides an easier path to implementation.

Business to Consumer:
In the long term we believe the B2C market will be the focus of GreenBlock. By creating an ecosystem that allows individuals to exchange power with other individuals and companies, we see a massive opportunity to grow within this market. Our token will play a huge part for companies wanting to sell power to individuals through our platform. In fact, simply listing their offer will cost GreenBlock tokens.

GreenBlock Ecosystem Key Advantages:

- GreenBlock is a decentralized platform that allows for direct engagement between parties without 3rd party financial institutions involved.

- Consumers can sell current and future Power Purchase Agreements (PPA) on a global exchange.

- Empowers individuals to profit from the energy sector.

- Generates possibilities to use solar panels, smart vehicles, etc.

- Tokenization of ongoing energy contracts and creates a secondary market for ongoing energy contracts on and off the Platform.

- Establishes new platforms to keep the markets competitive.

- Transforms achieved energy savings into digitalized carbon credits and integrate with the markets for carbon credit trading.

- Reduces costs and budgets for companies/consumers spending high costs on energy consumption.

- Provides crowdfunding to enable retail investors

Examples of GreenBlock's Energy Solutions

"BlockPowered" Facilities

With the exponential growth in the IT industry and considering the amount of energy that data centers and bitcoin mining operations consume to operate, GreenBlock anticipates building a green-powered bitcoin mining operation using our own cutting-edge renewable energy technologies to power the facility.

Thermal Energy Storage

GreenBlock is in discussions with the Inventor of a proven Thermal Energy Storage System, a Smart Phase Hybrid System to bring this remarkable technology to the market. This technology captures and stores wasted thermal energy, which then can be discharged to produce thermal energy and or electricity. The technology utilizes a Synthetic Phase Change Material (SPCM) to capture and discharge thermal energy.
This technology stores thermal energy to then create electricity from the captured and wasted heat. This waste heat represents both additional revenue and revenue saved by applying the thermal energy storage system to any commercial-grade power system including geothermal, solar, and all other types of energy-producing facilities.

Waste Plastics to Biofuels & Solvents

GreenBlock is currently working together with highly advanced technology to address the answer to this problem, a pollution elimination conversion technology, (Waste Plastics to Biofuels and Solvents). This technology specializes in producing ultra-clean sulfur-free biodiesel and gasoline and other high-grade solvents. Only a broad, international industry-led approach will keep plastics in the economy and out of the environment, and GreenBlock intends to be at the forefront of this movement

Technology & Token Distribution

Token Symbol	GBLC
Token Sale	50%
Team & Advisors	25%
Business Development	15%
Marketing & Reserve	10%
Governance and Utility Token	ERC-20
GBLC#152 contract implementation	Ethereum Smart Contract
Means of transactions	BTC (Phase 1), Other currencies (Phase 2)
Smart-contract	Smart-contract will be available on our website during the crowd sale

A token sale is an innovative fundraising method based on Blockchain technology. Our token sale and the corresponding token creation process are covered by GreenBlock. For maximum transparency and participant protection, the sale is regulated by a Smart Contract deployed on the Ethereum Blockchain.

Conclusion

The implementation of blockchain technology in the energy sector has a significant impact on operating costs, capital expenditure, risk management and security, making the technology increasingly popular with industry leaders. The relative novelty of blockchain technology leaves immense room for growth and its flexibility carries the strong potential to revolutionize the energy industry. Other factors which drive the global blockchain for the energy market include the increased growth in decentralized energy generation and the increasing demand for increased automation in the energy sector with a focus on data integrity and security. In addition, individuals will also be able to purchase our technology to implement in their own homes. If the individual or company purchases our technology, they will receive a free listing on the exchange if they want to sell the energy that they produce. An example of a transaction on the electricity exchange could look like this; User 1 wants to sell X amount of energy, they can either pay the full fee in energy or fiat (USD etc.), or they can decide to pay the fee using the GreenBlock token. On major sales, they could save thousands of dollars by using our GBLC tokens.

Important Notice

The detailed information presented in this paper is given to provide a general overview of GreenBlock. This information can be updated or changed without a prior warning.
This paper carries only an informational purpose and does not promote GreenBlock as an offer. It intends to inform potentially interested entities. In case of any doubts in the GreenBlock project we strongly recommend consulting with an expert adviser. The document does not convey any legal liability in any form.