JOY Coin

Change the world

with new and renewable energy technology

Brought to you by Azure Ciel Enterprise.

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Executive summary

- **Smart Farm and Solar Power Market Overview**

Smart farm and solar power technologies are being highlighted as key elements for a sustainable future. Smart farming maximizes agricultural productivity by using technologies such as the Internet of Things (IoT), artificial intelligence (AI), big data, and blockchain, while solar power enhances sustainability in agriculture as an eco-friendly energy source.

For example, AI analyzes crop growth conditions in real time to provide optimal environments, while IoT sensors automatically monitor temperature, humidity, and soil conditions to optimize crop growth environments. Blockchain transparently records the production and distribution of agricultural products, offering trust to consumers.

In recent years, the global increase in agricultural automation and renewable energy adoption has rapidly expanded both smart farm and solar power markets. As of 2024, the smart farm market is expected to exceed $20 billion, and the global solar power market is projected to grow beyond $300 billion. Especially in countries leading in agricultural technology and eco-friendly energy—such as the Netherlands, Japan, and South Korea—various smart farm and solar integration projects are being actively supported by governments. For instance, the Netherlands is increasing production efficiency through smart greenhouses, while Japan combines solar power with vertical farming to maximize agricultural output in limited spaces.

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- **Future Prospects of Smart Farming and Solar Power**

The future of smart farming and solar technologies lies in the development of more sophisticated, data-driven agriculture and eco-friendly energy integration models. Key emerging technologies include real-time crop growth analysis using AI, automation of farming operations with drones and robots, and supply chain management through blockchain. For example, drones can quickly assess crop conditions over large fields, while robots automate harvesting tasks, significantly reducing labor demands.

Solar-powered smart farms, in particular, enable the establishment of self-sufficient agricultural systems, helping to solve the energy cost issues of traditional farming. The integration of smart farms with solar energy is expected to provide sustainable agricultural solutions by combining with vertical farming and smart greenhouses, maximizing urbanization and land use efficiency. Moreover, data collected from smart farms can be utilized in various sectors such as agricultural technology development, distribution network improvements, and the provision of consumer-tailored agricultural products—positively influencing the agricultural industry as a whole. For instance, vertical farms allow efficient crop cultivation in limited spaces, while smart greenhouses offer optimized environments for crop growth in response to climate change.

- **Impact on Traditional Agriculture and Related Industries**

The introduction of smart farming and solar energy is driving structural innovation in traditional agriculture and related sectors.

(1) Transformation of Traditional Agriculture

Conventional farming methods heavily rely on manual labor and are vulnerable to climate changes. By adopting smart farming, automated systems can optimize crop growth environments and reduce labor requirements. For example, automated irrigation systems deliver water precisely when needed, minimizing waste, while AI-powered agricultural software analyzes crop growth in real time to suggest improved management strategies. When combined with solar power, this creates an environmentally friendly and cost-efficient energy solution, fostering a sustainable agricultural environment.

(2) Innovation in Distribution and Supply Chains

Blockchain-based smart farm systems enhance transparency in the production, processing, and distribution of agricultural products. Data collected during production is recorded in real time using blockchain technology, enabling consumers to purchase trustworthy products and ensuring fair transactions for producers. Furthermore, solar-powered farms can obtain eco-friendly certifications, further boosting consumer trust.

(3) Growth of Agricultural Equipment and Technology Industries

The integration of smart farming and solar technology has led to a surge in demand for IoT sensors, automated equipment, AI analytics, and solar power systems. As a result, agricultural tech companies are continuously developing new solutions, promoting the growth of the entire smart farming ecosystem. For instance, solar power facilities combined with smart agricultural equipment support cost reduction and efficient operations.

Problem & Solution

Smart Farms and Solar Technology: Innovative Solutions for Traditional Agriculture

Challenges

Smart farming and solar technologies offer innovative solutions to longstanding problems in traditional agriculture. Conventional farming methods heavily rely on manual labor and are highly vulnerable to climate change. As the agricultural workforce ages and labor shortages worsen, productivity declines. Furthermore, natural disasters caused by climate change increasingly threaten agricultural output.

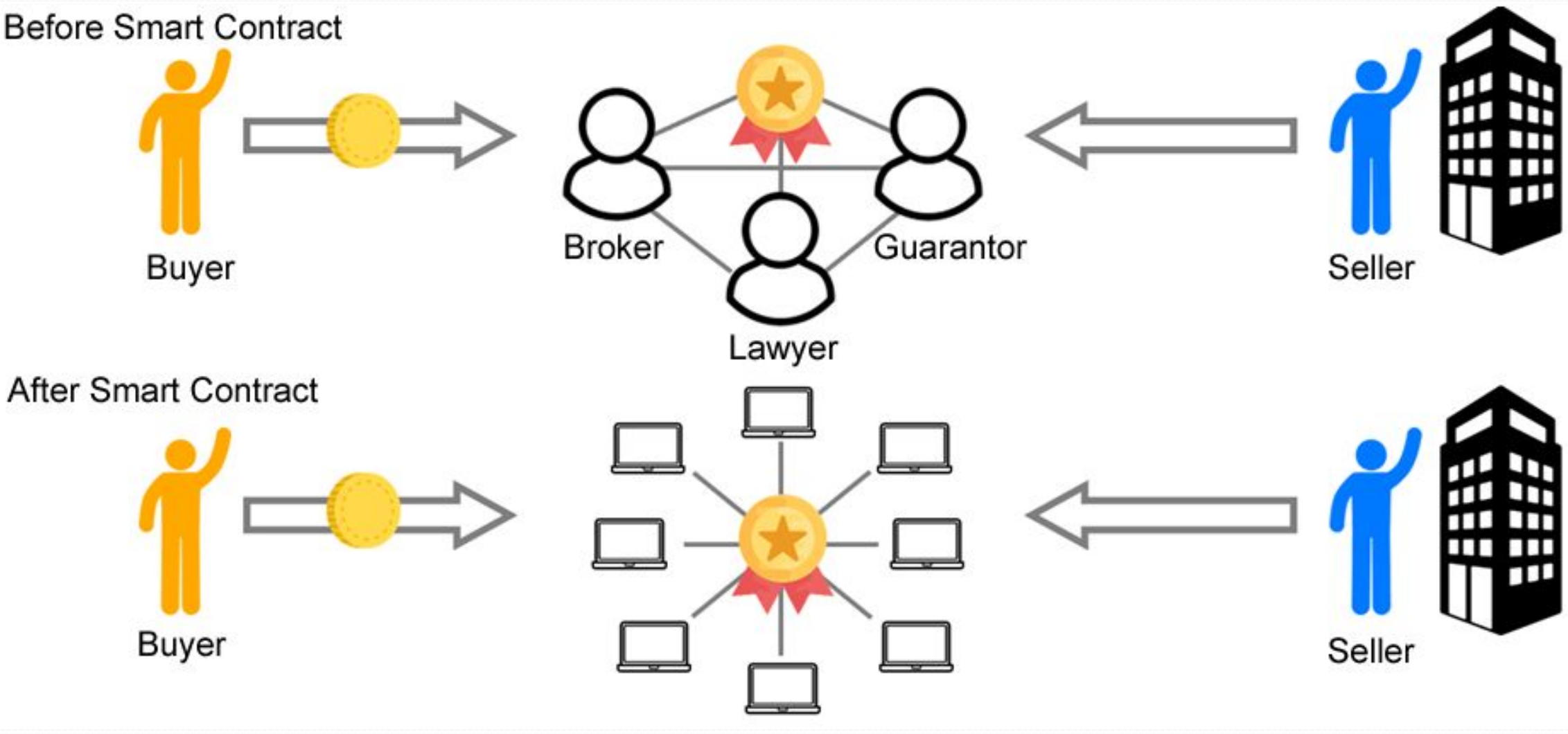
To address these issues, smart farming utilizes IoT, AI, and robotics to automate agricultural processes. This not only mitigates labor shortages but also creates a more efficient and climate-resilient agricultural environment. For instance, drones and AI systems can monitor crop growth in real-time and automatically adjust conditions to optimize yields.

Another significant challenge in agriculture is the high energy cost and environmental impact. Traditional farming consumes large amounts of energy, often relying on fossil fuels, which contributes to environmental degradation. A sustainable alternative is the adoption of solar-powered, self-sufficient energy systems. Installing solar panels on farms can provide clean, renewable energy for agricultural operations and even supply surplus energy to nearby areas, maximizing energy efficiency. This not only reduces energy costs but also cuts greenhouse gas emissions.

Moreover, transparency and trust issues in the agricultural supply chain—such as unclear product origins or quality—can be addressed through blockchain and cryptocurrency systems. In many cases, consumers cannot verify the production history or quality of agricultural products. However, blockchain technology records every step from production to distribution and consumption in a transparent and immutable way. This allows real-time tracking of product history and quality. As a result, consumers can easily verify product authenticity and make informed purchasing decisions.

In addition, cryptocurrencies used within blockchain networks can serve as new payment methods in agriculture. Through smart contracts, agricultural transactions can be automated, enhancing transparency and efficiency. This boosts trust between producers and consumers and facilitates more direct and seamless trade.

Thus, smart farming, solar technology, blockchain, and cryptocurrency present innovative solutions that can significantly enhance sustainability, productivity, energy efficiency, and transparency in agriculture. Blockchain’s ability to securely record data, combined with cryptocurrency-based transaction systems, enables a more transparent and efficient agricultural supply chain—ensuring fair trade for producers. The integration of smart farming and solar energy leads agriculture in a more eco-friendly and sustainable direction, paving the way for a brighter future for the agricultural industry.



Smart Contract

JOY Value

- **Rapid User Expansion Driven by the Eco-Friendly Perception of Smart Farming and Solar Energy Projects**

In response to the growing global emphasis on sustainable development, the smart farming and solar energy industries have been expanding rapidly. These two sectors, both recognized for their eco-friendly technologies, are drawing increasing attention for their contributions to environmental protection and energy efficiency. Smart farming leverages cutting-edge technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data to enhance agricultural productivity while minimizing environmental impact. For example, automated irrigation systems and optimized temperature and humidity controls help conserve water and resources, while reducing the use of chemical fertilizers and pesticides, thereby lessening soil and environmental damage.

The solar energy sector has also emerged as a key pillar of sustainable energy. By installing solar panels, farms can achieve energy self-sufficiency, lowering operational costs while significantly reducing greenhouse gas emissions. When integrated with smart farming systems, solar energy becomes even more effective—generating power while simultaneously supporting the ideal growing conditions for crops. For instance, solar panels can provide shade that benefits certain crops by creating a more favorable microclimate.

These smart farming and solar technologies go beyond cost savings and efficiency—they are also shifting consumer awareness toward environmental responsibility. As public concern grows around climate change and environmental degradation, the demand for sustainable agriculture and renewable energy solutions continues to rise. This shift marks a major paradigm change not only in agriculture but also in the global energy sector, sparking rapid user interest and participation in these technologies.

Ultimately, the eco-friendly technologies of smart farming and solar energy deliver a powerful message of sustainable and responsible production and consumption. They play a crucial role in building a forward-looking ecosystem for agriculture and energy, helping shape a more sustainable future.

JOY Coin

Smart Farm(Multi-Story Vertical Glass Green House)

- A.C.E. has 2 types of Smart Farms and patents. (Air Dome & Glass Green House)

There are two core technologies that define our smart farming capabilities: the multi-layered (three-story high) glass greenhouse and the air dome system. Both of these systems utilize AI to enable a highly automated crop cultivation process. Regardless of weather, season, or temperature, they allow for the safe and consistent year-round production of clean, organic crops—operating 24/7, 365 days a year. As a result, consumers are provided with high-quality, flavorful produce such as fruits, vegetables, and medicinal herbs.

Features of the Multi-Layered Vertical Glass Greenhouse

Height: Designed as a multi-story structure, equivalent to three floors.

Year-Round Operation: Fully automated system allows for continuous crop cultivation 365 days a year.

Area: Each unit occupies approximately 3,550 sq ft (100 pyeong ≈ 330 m² ≈ 3,550 sq ft).

Efficiency: Thanks to the 3-story vertical design, each unit produces the equivalent of 10,650 sq ft of organic crops (3,550 sq ft × 3).

Smart Farm + Solar Farm Integration: 30 smart farm units can be combined to form a single solar farm system.

Labor Efficiency: With AI and advanced technologies managing the farming process, minimal labor is required—significantly reducing labor costs.

- The Air Dome **maximizes oxygen** levels within the structure, creating a **forest-like** atmosphere that promotes **natural healing** and **wellness effects**.

Effects on Humans

An environment with high oxygen concentration increases the supply of oxygen throughout the body, which can reduce fatigue and boost energy levels—similar to treatments used to counteract oxygen deficiency in high-altitude regions. During physical activity, improved oxygen availability helps deliver more energy to the muscles, enhancing performance. Additionally, when the brain receives ample oxygen, focus and memory can improve, leading to enhanced cognitive function. As a result, high-oxygen environments can help prevent conditions such as hypoxia and positively contribute to overall health.

Effects on Plants

Increased oxygen levels can promote faster and healthier plant growth by allowing plants to utilize more oxygen for cellular functions. This also enhances their immunity, making them more resistant to pests and diseases.

Effects on Animals

Higher oxygen levels reduce the effort required for breathing in animals, leading to increased activity and stamina. Their immune systems may also be strengthened, improving recovery rates and contributing to better overall health.

Smart Farm (Air Dome)

• Our air dome is not only used for smart farms, but can also serve various purposes such as gyms, ice hockey arenas/ice rinks, concert stages, skating rinks, and healing centers.

Features of the Air Dome

Size Options: Available in three sizes — approximately 3,300 sq ft, 16,500 sq ft, and 33,000 sq ft

Health & Healing Benefits: Designed with a high-oxygen environment to promote wellness and provide therapeutic effects

Structure: Built with a three-story vertical design, similar to the glass greenhouse model

Year-Round Organic Farming: Enables safe and clean year-round cultivation of organic vegetables, fruits, and herbs thanks to the oxygen-rich atmosphere

Larger Crops: The abundant oxygen promotes crop growth, resulting in produce that is more than 20% larger than average

Solar Panel Modules

- CIGS Ultra-thin Film Solar Panel, Ultra-Light PV Module

CIGS Thin-Film Solar Panels:

CIGS (Copper Indium Gallium Selenide) thin-film solar panels offer exceptional resistance to extreme temperatures, withstanding conditions as low as -90°C and as high as 150°C. Meanwhile, ultra-thin PV modules are also highly temperature-resistant, operating reliably between -50°C and 90°C. This makes them ideal for installation in countries with extreme climates such as Southeast Asia, Africa, India, the Middle East, and Russia.

Even if the panels are partially damaged—torn or punctured—they can continue to generate electricity. They are engineered to withstand harsh weather conditions, including hail and typhoons, and their building-integrated design ensures minimal visual impact.

With a high light absorption rate, these panels can still produce electricity even on cloudy days, delivering higher energy yields compared to traditional silicon-based solar cells.

Furthermore, their ultra-lightweight (2.3 kg/m²) and ultra-thin (2mm) flexible structure imposes no load stress, allowing installation without angle constraints. This flexibility means they can be mounted on curved rooftops, walls, and facades, and are also suitable for military, automotive, and recreational applications.






JOY Coin Introduction

JOY Coin, developed by SPSI and invested in by Azure Ciel Enterprise (holding 10% of JOY coins as an investment parking) is a high-performance digital asset built on the **Solana blockchain**, offering fast transaction processing, low fees, and high scalability. It is optimized for **decentralized applications (DApps)** and **smart contracts**, providing a robust technical foundation for seamless integration into the global economic system.

With these capabilities, JOY Coin delivers **efficient and transparent transaction solutions** in a decentralized economic environment.

In particular, JOY Coin leverages Solana's unique **Proof of History (PoH)** consensus algorithm to overcome the limitations of traditional blockchain systems—namely, low throughput and high transaction costs—enabling **fast and cost-effective transactions**.

JOY Coin aims to achieve the following key objectives:

- **Ultra-Fast Transaction Processing**: By leveraging Solana's **Proof of History (PoH)** and **Proof of Stake (PoS)** consensus algorithms, JOY Coin can process thousands of transactions per second. This enables real-time transactions and services on a global scale.
- **Low Transaction Fees**: Solana's network offers extremely low transaction costs, providing a significant economic advantage for large-scale transactions and global user adoption. This allows users to access services at a minimal cost.
- **Scalable Platform**: **SP JOY Coin** is designed to maximize blockchain scalability, making it highly adaptable for a wide range of use cases, including decentralized applications (DApps), DeFi services, and NFTs.
- **Decentralization & Security**: Operating on a fully decentralized network, **SP JOY Coin** ensures robust security and reliability through the combined use of PoH and PoS consensus mechanisms.

JOY Coin – Built on the Solana Blockchain

JOY Coin is designed to fully leverage the technological advantages of the **Solana** blockchain platform. Solana introduces the innovative **Proof of History (PoH)** consensus algorithm, which solves the problem of time sequencing in blockchain transactions and dramatically enhances transaction speed. As a result, **JOY Coin** effectively overcomes the performance and scalability limitations often found in traditional **Proof of Work (PoW)** or **Proof of Stake (PoS)** systems.

Proof of History (PoH)

PoH is used to verify the order and timestamp of each transaction recorded on the blockchain. By accurately processing the timing of each transaction, this algorithm ensures high throughput and fast network performance.

Proof of Stake (PoS)

To enhance network security and encourage user participation, **JOY Coin** incorporates staking functionality. Participants can earn economic rewards by staking, which helps maintain a stable and decentralized ecosystem.

3.2 Smart Contracts and DApp Support

JOY Coin supports **smart contracts**, enabling the development of decentralized applications (**DApps**). Smart contracts are self-executing agreements that automatically carry out predefined conditions, allowing for automation in blockchain transactions and services. By harnessing Solana's powerful smart contract capabilities, **JOY Coin** can be widely applied across various industries, including real-time payment systems, asset management, and secure data sharing.

3.3 Transaction Speed and Efficiency

Solana’s industry-leading transaction throughput is one of **JOY Coin’s** most significant strengths. With the ability to process over **65,000 transactions per second (TPS)**, Solana outpaces most other blockchain platforms by hundreds of times. This exceptional speed and efficiency make **SP JOY Coin** an ideal solution for use cases such as real-time payments, high-frequency trading, and fast data transmission across diverse sectors.

JOY Coin is a digital asset built on the innovative technology of the **Solana blockchain**, offering **high-speed transactions**, **low fees**, and **smart contract functionality**. Designed for versatility, JOY Coin can be used across a wide range of applications including **DeFi**, **NFTs**, and **smart contracts**. Leveraging the scalability of blockchain technology, it is poised to play a key role in the evolving **global digital economy**.

Distribution

- **JOY Coin**

Total Supply	
JOY COIN	5,000,000,000

Distribution	
Private Sale	10%
Operations / Marketing / Team	4%
Overseas & Affiliate Investments	6%
Company Reserve (Azure Ciel Enterprise 90% SPSI 10%)	80%
Coin Listing Price	20 Cents per Coin (USD $)

JOY Coin

Roadmap

Phases	Duration	Goals & Activities
Phase 1 : White Paper Announcement & Sale	2025. 3/17 ~	Release of Whitepaper and Launch of Private/Public Sale
Phase 2 : Listing	2026. 3/18~	Listing on Major Exchanges in global market and the United States (except Canada)
Phase 3 : Global Listing	2026. 6/18~	Expansion to International Exchanges, Including South Korea

Social Responsibility

JOY Coin recognizes the impact of digital assets and blockchain technology on society and the economy, and has adopted a range of initiatives and principles to fulfill its social responsibilities. Our goal is not merely to generate economic profit, but to operate in a sustainable way that makes a positive social impact. Our key focus areas include:

1. **Environmental Sustainability**

   Blockchain technology is often criticized for its environmental impact. **JOY Coin** leverages the energy-efficient nature of the Solana blockchain to operate in an environmentally friendly and sustainable manner. We are committed to minimizing carbon emissions by supporting carbon-neutral initiatives and green technology development. To this end, we plan to implement policies that prioritize the use of eco-friendly energy sources and aim to reduce the carbon footprint of our blockchain network.

2. **Financial Inclusion**

   JOY Coin recognizes that many people around the world lack access to traditional banking services. Our mission is to improve financial accessibility through blockchain and digital assets, enabling people in underserved or unbanked regions and communities to participate in the economy. By offering decentralized finance (DeFi) services, we aim to provide financial tools and opportunities to those excluded from the traditional financial system.

3. **Education & Technological Advancement**

   JOY Coin places strong emphasis on education to promote the understanding and adoption of blockchain technology. We offer digital asset education programs that align with ongoing technological advancements and changes. Our goal is to make blockchain more accessible and easier to understand for everyone. In collaboration with global communities, we also work to improve digital literacy and expand access to technology, helping more people engage with the digital economy.

4. Creating Social Value

JOY Coin continuously seeks ways to contribute beyond economic success by creating social value. For example, it will invest in social enterprises or social projects, and operate programs that fulfill its social responsibilities through donations and charitable activities. These social value initiatives focus on promoting community development, reducing inequality, and contributing to the betterment of society.

5. Transparency & Ethical Operation

JOY Coin will maintain transparency in all transactions and activities, and operate in an ethical and responsible manner. To achieve this, it will leverage the open and verifiable nature of blockchain so that all participants can easily review transaction records and activities, ensuring fair and trustworthy operations. Furthermore, policies that ensure ethical investment and the fairness of smart contracts will be implemented to guarantee that the coin always upholds its social responsibilities.

6. Diversity & Inclusivity

JOY Coin aims to build an inclusive economic system where everyone can participate equally. It supports diverse communities that include people from various backgrounds and experiences, striving to ensure that digital assets and blockchain technology provide opportunities for all. To this end, it offers an environment where anyone can participate regardless of gender, age, or ethnicity, and implements policies to bridge the digital divide and provide equal opportunities to all users.

JOY Coin will continue to explore ways to use blockchain technology responsibly to support sustainable economic development and create social value. Through this, it aims to go beyond economic success, exert positive social influence, and bring meaningful change to the global economic landscape.

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