Whitepaper - Blockchain for Tracking and Certification of Carbon Credits

1. Executive Summary The project proposes an innovative solution for the carbon market by utilizing blockchain technology to ensure transparency, security, and traceability in the issuance, sale, and burning of carbon credits. Through smart contracts and tokens backed by real credits, we will create a decentralized ecosystem for companies and individuals to reliably offset their CO2 emissions.

2. Introduction to the Carbon Market The carbon market is a mechanism created to mitigate climate change, allowing companies to offset their greenhouse gas emissions by purchasing carbon credits from sustainable projects. However, this market faces challenges such as fraud, double counting of credits, and lack of transparency.

3. Blockchain-Based Solution Our project addresses these issues by using blockchain to immutably record each carbon credit. The system operates as follows:

   ● Certifiers (Verra, Gold Standard, UN REDD+) register credits on the blockchain.

   ● Companies and individuals can buy and transfer credits transparently.

   ● Automatic burning occurs when a credit is used for compensation.

4. Token Model We are creating a utility token to facilitate transactions within the ecosystem:

   ● Fungible Token (ERC-20): Payment method for acquiring carbon credits.

   ● Carbon Credit NFTs (ERC-721 or ERC-1155): Represent each issued carbon credit.

   ● Rewards and Staking: Companies can receive incentives for offsetting more than they emit.

5. Technology and Architecture The system will be developed on Ethereum, Solana, or Algorand, featuring:

   ● Smart contracts to ensure secure issuance, sale, and burning of credits.

   ● Oracles for integration with external data and audits.

   ● A marketplace platform for trading credits.

6. Governance and DAO The project will be managed by a Decentralized Autonomous Organization (DAO), allowing the community to participate in decisions regarding:

   ● Transaction fees.

   ● Inclusion of new certifiers.

   ● Adjustments to the economic model.

7. Roadmap and Development

   a. Phase 1 - Research and Planning (3 months) ○ Development of smart contracts. ○ Partnerships with certified carbon credit providers.

   b. Phase 2 - MVP and Testing (6 months) ○ Launch of the beta version on the testnet. ○ Security audit and validation with stakeholders.

   c. Phase 3 - Official Launch (9 months) ○ Deployment on the mainnet. ○ Expansion to global markets.

8. Tokenomics

   ● Initial Supply: 1 billion tokens (adjustable as needed).

   ● Distribution: Marketplace (40%), Staking (25%), Team (15%), Marketing and Partnerships (10%), Strategic Reserve (10%).

   ● Emission Control: Future issuance limited to 5-10% per year, with possible adjustments as the project develops and grows.

- Incentives: Rewards for carbon offsetting.

9. Funding Summary

- Phase 1 ($20 million): Seed Capital, ICO, or crowdfunding.

- Phase 2 ($15 million): Series A investors, Public Token Sale, and corporate partnerships.

- Phase 3 ($10 million): ICO/IDO, institutional investors, and green loans.

- Phase 4 ($5 million): Strategic partnerships, token burn, or crowdfunding.