



BLOCKEDGE

BLOCKCHAIN INFRASTRUCTURE

WHITEPAPER V1.0

Tokenization of Renewable Energy Certificates (RECs)

**To enable traceable, immutable,
and transparently accessible corporate sustainability**

Issuer: BlockEdge Co., Ltd.

Underlying Asset: Verified Renewable Energy Certificates (RECs)

Each REC Token represents the right equivalent to 1 MWh, subject to Central Pool allocation, FIFO by Vintage. It does not represent a specific certificate selectable by the holder.

Certification Standard: International REC Standard (I-REC)

Purpose of Tokenization

The tokenization initiative by BlockEdge Co., Ltd. aims to enhance the management of Renewable Energy Certificates (RECs) by transforming them into a more efficient, transparent, and accessible digital form.

By converting RECs into blockchain-based tokens, certificate data becomes traceable, verifiable, and tamper-resistant (immutable) throughout the entire lifecycle of the asset.

This structure enables users to conveniently access, manage, and utilize Renewable Energy Certificates in a transparent manner, while supporting their use for renewable energy claims and environmental reporting in a reliable and efficient way.

Registrar: REDEX (via ReHash Platform)

Official Registry: Evident

Smart Contract Auditor: Valix Consulting Co., Ltd.

Risk Warning for Token Purchasers: The purchase of digital tokens involves risks. Purchasers may lose all funds used for the purchase. Prior to making any decision, purchasers should carefully review the information contained in this document and assess the associated risks appropriately. REC Tokens are digital utility tokens designed for the management and verification of Renewable Energy Certificates. They are not financial instruments and are not intended for speculative purposes. These tokens do not provide any guarantee of dividends, returns, or profits of any kind. Purchasers should be aware of the limitations and conditions related to the transfer and use of digital tokens as specified. The publication of this document does not constitute any guarantee of price, returns, or project success.

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Definitions and Glossary

Category: Core Entities & Infrastructure

BlockEdge / Issuer

BlockEdge Co., Ltd., the technology provider and official issuer of REC Tokens, responsible for platform operations, process governance, and coordination with relevant stakeholders.

REDEX (Registrar)

A registrar and platform operator that supports the recording, locking, tracking, and management of I-REC certificates via the ReHash platform, with functional separation from BlockEdge's token issuance process.

ReHash Platform

A platform operated by REDEX for the locking, tracking, and management of I-REC certificates to support tokenization and prevent double usage.

Evident

An internationally recognized registry and platform for the issuance, management, and tracking of I-REC certificates.

NetZero Carbon

A strategic partner and asset aggregator responsible for sourcing, selecting, and conducting quality assurance of renewable energy projects prior to tokenization.

CO2e Chain

A Layer 3 blockchain network utilizing Optimistic Rollup technology, designed for recording REC Token transactions.

Central Pool

A liquidity mechanism that aggregates I-REC certificates from multiple projects and jurisdictions into a unified pool, enabling fungibility and system-wide liquidity without binding tokens to specific underlying projects.

Category: Asset & ESG Concepts

Renewable Energy Certificate (REC)

A certificate representing the environmental attributes of renewable energy, where one unit corresponds to the generation of one megawatt-hour (1 MWh) of renewable electricity.

International Renewable Energy Certificate (I-REC)

A globally recognized renewable energy certificate standard used to verify renewable electricity generation and support Scope 2 reporting under the GHG Protocol.

Energy Attribute Certificate (EAC)

A category of instruments representing the environmental attributes of electricity generation, which includes I-RECs.

Scope 2 Emissions

Indirect greenhouse gas emissions resulting from the consumption of purchased electricity, steam, heating, or cooling by an organization.

Market-based Method (GHG Protocol)

An accounting approach under Scope 2 that allows organizations to use Energy Attribute Certificates (such as I-RECs) to reflect renewable electricity consumption.

Vintage

The year in which the renewable electricity associated with an I-REC was generated, used for allocation prioritization and as an indicator of asset quality.

Impact Certificate

A document issued following the retirement of an I-REC, serving as proof for ESG reporting and environmental claims.

Category: Token Mechanics

REC Token

A digital utility token representing rights to renewable energy certificates, backed 1:1 by verified I-RECs.

Tokenization

The process of converting I-REC certificates into digital tokens, requiring that the underlying assets are locked in the ReHash platform and verified by REDEX prior to issuance.

Mint-on-Lock

A mechanism whereby tokens are minted only after verification that the corresponding I-RECs have been securely locked in the system, ensuring a strict 1:1 backing.

Redemption

The process by which token holders return tokens to the system in exchange for underlying I-RECs or to initiate certificate retirement, depending on the selected option.

Retirement (of I-REC)

The process of permanently cancelling an I-REC within the registry system to enable official environmental claims.

Token Burn (Burn)

The irreversible destruction of digital tokens, executed in conjunction with the exercise of rights over the underlying asset.

FIFO by Vintage Year Allocation (Oldest Vintage First)

An allocation method where I-RECs are assigned based on chronological order, prioritizing older vintages first.

Irreversibility

A property of token burning and certificate retirement processes that cannot be reversed, modified, or undone once executed.

Category: Governance, Security & Verification

Smart Contract

A program deployed on the CO2e Chain that defines the rules for minting, transferring, and burning REC Tokens. Execution is initiated and authorized by designated operators and secured through a Multi-Signature (Multi-sig) mechanism. All transactions are transparently recorded on the blockchain and are auditable.

Multi-Signature (Multi-sig)

A transaction authorization mechanism requiring cryptographic approval from multiple designated parties before execution, preventing unilateral control.

01 Executive Summary

1.1 General Information of the Digital Token

RECTOKEN

Item	Details
Token Name (English)	REC Token
Token Name (Thai)	โทเคนดิจิทัลเพื่อพลังงานหมุนเวียน (REC)
Token Type	Utility Token (Ready-to-Use)
Issuer	BlockEdge Co., Ltd. Registration No: 0205566011711 39/129 Moo 7, Baan Suan, Mueng Chonburi, Chonburi, 20000, THAILAND Website: blockedge.co Email: info@blockedge.co
Certification Standard	I-REC certified under I-TRACK standard
Underlying Asset	1 Token represents 1 MWh of renewable electricity <i>The token intended for trading on digital asset exchanges is the Pool Token.</i>
Blockchain Network	CO2e Chain (EVM-compatible Layer 3 Optimistic Rollup)
Project Pool Token Contract (CO2e Chain)	0x578f3B6133A3BF06b2988B68085DD9860D2cAbca
Project Pool Token Contract (Optimism Chain)	0xF4fEfEe4730Cf174608766877911F8D33735f9D7
Project Pool Token Contract (KUB Chain)	0x5555555555240EF13ef76C1dC35Aa5CD695616F8
Registrar	REDEX (via ReHash Platform)
Registry Platform	Evident
Legal Advisor	Baker & McKenzie Ltd.
Smart Contract Auditor	Valix Consulting Co., Ltd.

REC Token is a utility token and does not constitute equity, shares, or any form of securities. Holding REC Tokens does not grant any ownership rights, profit participation, or any other rights in Blockedge Co., Ltd. This document does not constitute a prospectus and is not intended as an offer or solicitation to purchase or invest in securities in any jurisdiction.

1.2 Nature and Structure of the Offering

Global demand for renewable energy and Energy Attribute Certificates (EACs), including I-RECs, continues to grow, driven by regulators, investors, and consumers seeking tangible climate action. However, traditional renewable energy certificate markets and renewable energy procurement processes still face several key limitations, including:

- Limited traceability, creating risks of double counting
- Complex and inefficient operational processes, particularly in traditional procurement
- Credibility risks, including concerns related to greenwashing

The REC Token is designed to address these challenges by functioning as a blockchain-based digital twin of verified I-RECs. The system operates under a multi-party framework consisting of:

- **NetZero Carbon** (asset aggregator)
- **REDEX / ReHash Platform** (registry and locking platform operator)
- **BlockEdge** (tokenization operator and issuer)

This structure ensures that environmental claims are transparent, verifiable, and tamper-resistant. Upon redemption, tokens are permanently removed from circulation, ensuring the integrity of the underlying environmental benefit.

For clarity, REC Tokens are backed by I-RECs and are not carbon credits or carbon offsets.

1.3 Summary of Operational Workflow

1.3.1 Verification and Issuance

Renewable energy projects (e.g., hydropower) submit project and generation data to Evident, which verifies compliance with the I-REC standard and issues I-REC certificates.

1.3.2 Aggregation and Asset Locking

NetZero Carbon sources and selects I-REC certificates from verified projects. These certificates are transferred to an account opened in the name of BlockEdge and operated through REDEX and the ReHash platform, where they are recorded and locked for tokenization purposes.

1.3.3 Tokenization (Two-Tier Structure)

Once I-RECs are verified and locked, BlockEdge tokenizes the assets by issuing project-specific I-REC tokens at a 1:1 ratio. These represent the first-tier tokens.

1.3.4 Central Pool and Trading

Holders of project-specific tokens may transfer them into the Central Pool, where they are converted into pooled tokens (second-tier tokens).

Pool Tokens are the primary tradable tokens on digital asset exchanges and represent a fungible claim on the Central Pool, not any specific certificate, project, country, or vintage until allocation is made during the redemption process.

1.3.5 Redemption and Retirement

Token holders may initiate redemption or retirement only with a minimum of 100 REC Tokens per request. Holders below this threshold cannot submit such requests directly. Pooled tokens are burned and converted back into project-specific allocations based on a First-In, First-Out by Vintage Year (FIFO by Vintage Year) methodology, determined by vintage year (older vintages are allocated first).

The underlying I-RECs are then either: Transferred to the user's REDEX account, or Retired on behalf of the user. This process ensures the full and verifiable realization of environmental claims.

Token holders who require I-RECs for specific purposes, such as domestic programs, tax incentives, or reporting frameworks requiring a particular country of origin, should verify certificate eligibility before purchasing, redeeming, or retiring the certificates.

02 Issuer, Management, and Ecosystem Partners

2.1 Digital Asset Issuer (Token Issuer): BlockEdge Co., Ltd.

BlockEdge Co., Ltd. is a limited company incorporated under the laws of Thailand. The company is responsible for token issuance and platform governance authority, serves as the technical developer and issuer of REC Tokens, applies its eligibility criteria to select qualifying I-RECs (hydropower projects in Southeast Asia with an I-REC vintage year no older than two (2) years), procures the selected I-RECs from the asset aggregator, tokenizes the selected I-RECs into project-specific REC Tokens (1:1), and admits them into the Central Pool.

BlockEdge is responsible for the design, development, deployment, and maintenance of smart contracts related to REC Tokens on the CO2e Layer 3 network. The company also oversees governance processes to ensure that operations comply with defined rules and standards.

Management Team

Mr. Dom Charoenyos (Founder & Chief Executive Officer)

An expert in information technology and digital transformation, responsible for strategic direction and aligning platform development with market demand.

Ms. Getsara Tienchai (General Manager)

Responsible for day-to-day operations, regulatory compliance, and coordination with ecosystem partners.

2.2 Strategic Partner: NetZero Carbon Co., Ltd. (Asset Aggregator)

NetZero Carbon Co., Ltd. is responsible for identifying, selecting, and sourcing renewable energy projects to ensure that only high-quality assets enter the system.

All projects must meet the following selection criteria:

2.2.1 Geographic Scope

Projects must be located within Southeast Asia (SEA).

2.2.2 Asset Type Restriction (Hydropower Only)

Assets must be certified under the I-REC standard and originate exclusively from hydropower projects. Other energy sources, including solar, wind, and biomass, are not included.

2.2.3 Certificate Age Requirement

I-REC certificates must not exceed 2 years from the vintage year under the I-REC standard.

2.2.4 Due Diligence

Preliminary verification of generation data and supporting documentation is conducted to ensure strict compliance with the defined selection criteria prior to sourcing.

2.2.5 Procurement and Transfer

All I-RECs are acquired through legally compliant processes, and their transfer into the REDEX custody system is fully executed and verified.

2.3 Underlying Asset Account and ReHash Framework

To support asset traceability and reduce double-use risk, the REC Token ecosystem adopts a registry and platform-based control framework for the recording, locking, and verification of underlying I-REC certificates.

2.3.1 REDEX and ReHash Platform

The underlying I-REC certificates are held or recorded in an account opened in the name of BlockEdge and operated through REDEX and the ReHash platform. REDEX and ReHash provide the platform and operational controls for recording, locking, tracking, and verifying the I-REC certificates used to support REC Token issuance.

For the avoidance of doubt, REDEX, ReHash, and Evident do not act as independent custodians, trustees, or asset segregators for REC Token holders, except to the extent expressly specified in the applicable platform rules or agreements.

2.3.2 Account and Locking Structure

I-REC certificates used as underlying assets are locked within the ReHash platform for the purposes of token backing, reconciliation, redemption, and retirement in accordance with the processes specified in this Whitepaper.

2.3.3 Immutability and Issuance Control

BlockEdge cannot mint REC Tokens without formal confirmation that the corresponding I-RECs have been recorded and locked through the ReHash platform.

Such confirmation requires:

- Official communication via authorized email; and
- Independent verification through the official ReHash platform.

This verification framework is designed to prevent double use by ensuring that I-RECs recorded and locked for REC Token issuance cannot be simultaneously traded or otherwise used in traditional OTC markets while the corresponding REC Tokens remain in circulation.

03 Business Plan, Market Overview, and Pricing Mechanism

3.1 Concept of International Renewable Energy Certificates (I-REC) and Scope 2 Emissions

3.1.1 What is I-REC

An International Renewable Energy Certificate (I-REC) is a globally recognized Energy Attribute Certificate (EAC).

When a renewable energy power plant (e.g., hydropower) generates 1 megawatt-hour (MWh) of electricity and injects it into the grid, it is issued 1 I-REC.

This certificate serves as verified proof that:

- 1 MWh of renewable electricity has been generated, and
- the environmental attributes of that electricity are assigned to the certificate holder

3.1.2 Difference Between I-REC and Carbon Credits

I-RECs and carbon credits are often confused but serve fundamentally different purposes:

Carbon Credits represent the reduction or removal of 1 metric ton of CO₂ equivalent (tCO₂e), typically from projects such as reforestation or carbon capture. These are generally used for Scope 1 and Scope 3 emissions.

I-RECs represent renewable electricity generation and are recognized under the GHG Protocol as a valid instrument for managing Scope 2 emissions, which are indirect emissions from purchased electricity.

The retirement of an I-REC enables organizations to credibly and transparently claim that a portion or all of their electricity consumption is sourced from renewable energy, supporting ESG and sustainability objectives.

3.2 Market Trends and Increasing Corporate Demand

Although voluntary in nature, demand for I-RECs—particularly in Southeast Asia—has been growing significantly.

What was once considered a CSR activity has evolved into a business-critical requirement, driven by:

- global supply chain expectations
- increasing demand for verifiable ESG disclosures

3.2.1 RE100 Initiative

RE100 is a global corporate initiative committed to 100% renewable electricity.

Large multinational corporations participating in RE100 often require their suppliers—especially in Southeast Asia—to adopt renewable energy, significantly increasing regional demand for I-RECs.

It should be noted, however, that RE100 requires Energy Attribute Certificates to be sourced from the same market boundary as the electricity consumption. An I-REC issued in one country may therefore not be eligible to support an RE100 claim for operations in another country. Holding REC Tokens does not guarantee eligibility for RE100, and token holders should verify eligibility with their reporting framework before use.

REC Tokens are not limited to RE100 participants. Any organization may use them to support renewable energy claims and ESG goals, subject to the applicable eligibility requirements.

3.2.2 Science Based Targets initiative (SBTi)

Many organizations adopt emissions reduction targets aligned with scientific pathways (SBTi). Within this framework, EACs such as I-RECs are one of the recognized mechanisms for managing Scope 2 emissions under the market-based method.

The use of I-RECs for SBTi claims is subject to GHG Protocol requirements, including that certificates be sourced from the same market/region as the consumption and cancelled on behalf of the reporting organization. Eligibility depends on each user's circumstances and is not guaranteed by the Company.

3.2.3 Market Growth Trends

Data from Evident Global Registry and the I-REC Standard Foundation indicates continuous growth in both issuance and retirement of I-RECs globally, particularly in Asia.

This growth is further supported by international climate policies, such as the Carbon Border Adjustment Mechanism (CBAM).

These structural changes may support demand for verifiable renewable energy certificates. However, such demand is not guaranteed and will depend on market conditions, regulatory developments, and the evolving requirements of corporate ESG frameworks.

3.3 I-REC Standard, Jurisdictional Validity, and Cross-Border Usage

3.3.1 I-REC Standard

The I-REC Standard is an international framework for issuing Energy Attribute Certificates (EACs) that verify renewable electricity generation.

Under the GHG Protocol, and SBTi guidelines, I-RECs are recognized as a valid mechanism for Scope 2 reporting under the market-based method, enabling structured and auditable renewable energy claims.

3.3.2 Jurisdictional Validity

I-RECs are internationally recognized and designed for markets where national renewable tracking systems may not yet exist.

In Southeast Asia, countries such as:

- Thailand
- Vietnam
- Malaysia
- Indonesia

play a significant role as issuers.

All I-RECs used within the REC Token system are:

- officially registered
- verifiable
- aligned with applicable regulatory and voluntary environmental frameworks

3.3.3 Cross-Border Usage and Claims

Under the GHG Protocol Scope 2 guidance and other environmental reporting frameworks, the use of Energy Attribute Certificates (EACs) sourced from another country may be permitted only where the relevant conditions are satisfied, including market boundary requirements, source disclosure, generation period, technology type, project age, and any specific requirements of the applicable reporting framework or assurance provider.

REC Tokens may be backed by I-RECs from multiple Southeast Asian countries through the Central Pool. However, whether such I-RECs may be used for Scope 2 reporting, RE100, SBTi, CDP, tax incentives, green electricity procurement programs, or any other environmental claim depends on the laws, policies, standards, and reporting framework requirements applicable to each user.

Token holders should therefore verify the country of origin, Vintage, technology type, project age, and applicable usage conditions with their reporting framework, assurance provider, or relevant advisor before purchasing, holding, redeeming, or retiring I-RECs for reporting or environmental claim purposes

3.4 Pricing Mechanism

REC Tokens are utility tokens whose value is derived from the actual cost of sourcing, verification, custody, and tokenization of I-RECs within a verifiable framework.

The primary market price reflects these cost components and is not fixed, but calculated as:

$$\text{REC Token Price} = \text{Underlying Asset Value (OTC)} + \text{Platform Fee}$$

3.4.1 Underlying Asset Value (OTC)

Based on the over-the-counter (OTC) market price of I-RECs per 1 MWh.

Prices may vary depending on:

- supply and demand
- geographic origin
- certificate vintage

Although the Central Pool is limited to hydropower, pricing reflects broader regional market conditions.

3.4.2 Platform Fee

The Platform Fee covers the costs of asset digitization and related operations, including BlockEdge technology costs, such as smart contract development and deployment, token issuance on the CO2e Layer 3 network, and blockchain transaction fees, as well as REDEX / ReHash platform and system costs, such as the recording, locking, tracking, and management of I-REC certificates within the ReHash platform.

REC Token Pricing Structure



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COST COMPONENT	DESCRIPTION	ESTIMATED RATIO / VALUE	PRICE IMPACT
Base Asset Value (OTC)	The real-world cost to procure 1 MWh of certified renewable energy (I-REC). Fluctuates based on project type (Solar, Wind, Hydro), geographic location, and Vintage Year.	Variable (Market Driven)	Base Price
REDEX Custody Fee	Costs associated with securing and locking the physical I-REC certificates within the ReHash accredited custodian platform.	Included in Platform Fee	+ 0.00 THB (Bundled)
Tokenization Platform Fee	Blockedge's fee for smart contract deployment, token minting, infrastructure maintenance, and platform operations.	Fixed Operational Fee	+ Platform Fee
Network Gas Fees (L3)	Blockchain transaction fees required for minting, transferring, or burning the tokens on the CO2e Layer 3 network.	~ 0.01 - 0.05 THB / Tx	Negligible

ISSUANCE
PRICING
FORMULA

Asset
1 MWh I-REC (OTC)

+

Platform
Standardized Platform Fees

=

Final Price
1 REC Token

3.4.3 Rationale for the Initial Listing Reference Price

The Company sets the Initial Listing Reference Price of the REC Token at **40 THB per token**, based on the cost structure of the underlying asset and the overall cost of operating the tokenization system. Each REC Token represents the right to 1 MWh of renewable electricity under the I-REC standard, with the underlying certificate locked and maintained through a verifiable custody and tracking system.

The initial price is determined by two key components:

3.4.3.1 Underlying I-REC Asset Value

The Company uses market data for I-REC in Thailand as a reference, particularly for hydropower, which is the primary asset type included in the Central Pool during the initial phase. The market price data published by the Energy Regulatory Commission of Thailand for 2025 indicates that the price of hydropower I-REC ranges approximately from THB 12.7 to THB 44.5 per MWh, with an average of approximately THB 28.6 per MWh. In addition, the public consultation document on Utility Green Tariff type 1, or UGT1, for 2026 proposes an overall premium of approximately THB 37.5 per MWh, consisting of the I-REC cost and related charges.

3.4.3.2 Platform Fee and Exchange-Ready Premium

In addition to the cost of the I-REC itself, tokenizing renewable energy certificates involves operational costs, verification costs, custody arrangements, integration with the custodian, token issuance and management on blockchain, traceability infrastructure, as well as costs related to liquidity support and secondary market risk management. These include, for example, market maker inventory costs, order-book obligations, transaction monitoring, abnormal trading surveillance, and periodic audit cadence.

Accordingly, the initial price of **40 THB per token** reflects both the value of the underlying I-REC and the additional costs required to provide the infrastructure for holding, transferring, trading, redeeming, and retiring certificates in a transparent, verifiable, and ready-to-use tokenized format.

The initial price is not intended to guarantee any future value or return to token holders. It serves as the Initial Listing Reference Price for the primary market. The trading price in the secondary market may fluctuate depending on supply and demand, liquidity, the quality of the underlying assets, certificate vintage, and other relevant market factors.

For the avoidance of doubt, the 40% portion of REC Tokens allocated for direct user allocation may be subject to bilateral commercial arrangements between the relevant allocation participants and the Asset Aggregator, in accordance with the terms agreed by the relevant counterparties. Such arrangements are specific to the relevant counterparties, do not form part of the general rights of REC Token holders in the secondary market, and do not constitute any price guarantee, buyback commitment, liquidity support, value assurance, investment return, or principal protection for token holders or the public.

3.5 Cross-Border Eligibility and Domestic Policy Considerations

I-RECs included in the Central Pool may originate from multiple countries in Southeast Asia. Although such I-RECs are issued under an internationally recognized standard, their use for specific purposes, such as Scope 2 reporting, RE100, SBTi, CDP, tax incentives, or green electricity procurement programs in Thailand, may be subject to additional limitations relating to country of origin, market boundary, project age, technology type, or specific requirements imposed by relevant authorities or reporting frameworks.

In Thailand, certain domestic programs or policies, such as green electricity programs, tax incentives, or procurement requirements of certain organizations, may require certificates originating from Thailand or impose other specific conditions that I-RECs allocated from the Central Pool may not satisfy.

The Company does not guarantee that I-RECs obtained through redemption or retirement via the REC Token system will be eligible for all reporting frameworks, domestic policies, or purposes of token holders. Token holders are responsible for verifying the eligibility and suitability of the certificates with their applicable reporting framework, assurance provider, regulator, or relevant professional advisor before purchasing, redeeming, or retiring the certificates.

3.5.1 Domestic Policy Considerations

While cross-border I-REC usage aligns with international voluntary standards, certain domestic policies may impose limitations.

In Thailand, specific programs e.g. green electricity tariffs (UGT), tax incentives, may require domestically sourced RECs.

Users should verify eligibility criteria prior to redemption.

Since the Central Pool aggregates I-RECs from multiple Southeast Asian countries, users should ensure that the certificate origin aligns with their intended use case.

04 Token Details, Functional Design, and Anti-Double Counting Mechanisms

4.1 Tokenomics, Total Supply, and Allocation

4.1.1 Token Characteristics and Technology Architecture

REC Token is a utility token compliant with the ERC-20 standard, deployed on the CO2e Chain, an EVM-compatible Layer 3 blockchain utilizing Optimistic Rollup technology.

The network is specifically designed for environmental asset management, providing:

- security inherited from Ethereum, and
- enhanced transaction speed and cost efficiency suitable for enterprise use

4.1.2 Supply Mechanism

The REC Token has a maximum supply cap of 100,000,000 tokens, with no pre-minting.

The circulating supply is dynamic and strictly tied to the underlying assets:

- Tokens are minted only when verified I-REC certificates are deposited and locked within the REDEX ReHash platform
- Tokens are burned upon redemption of REC Tokens, whether the corresponding I-REC certificates are transferred to the eligible token holder's designated account or retired for environmental claim purposes.

This mechanism ensures continuous 1:1 backing integrity:

1 REC Token = 1 MWh of verified renewable energy, represented by a locked I-REC

4.1.3 Token Issuance and Allocation Mechanism

The system operates under an on-demand minting model, ensuring that no tokens are created without corresponding underlying assets.

Token allocation is structured into two main categories:

- **40% – Direct User Allocation**
Tokens in this category are minted and allocated to organizations or users who supply the underlying I-REC assets.
These tokens may be used for renewable energy claims, trading, or digital asset storage.
- **60% – System Liquidity Reserve**
This portion is reserved to support system liquidity and market accessibility. These tokens may be introduced into the Central Pool and digital asset exchanges to facilitate continuous market participation.
This reserve is strictly intended for operational purposes and does not constitute any profit-generating or yield mechanism.

4.1.4 Traceability and Immutability

Regardless of whether tokens are held in private wallets or within the Central Pool, full traceability of the underlying assets is preserved.

Each token is associated with immutable metadata, ensuring that origin and attributes can be verified at all times.

Key metadata includes:

I-REC certificate ID	generation technology and capacity
certification standard (I-REC)	generation period and issuance date
issuing body	energy vintage year (must be no older than two (2) years, per 4.6.1 Inclusion Policy)
project developer	verification status
project location (country/region)	registry verification link
project type (e.g., hydropower)	usage status (active / retired)

4.2 Anti-Double Counting Mechanisms

Double counting—where a single environmental attribute is claimed more than once—is a critical risk in renewable energy and carbon markets.

BlockEdge implements a multi-party control framework to mitigate this risk through the following mechanisms:

4.2.1 One-Way Binding Mechanism

Once an I-REC is transferred into the REDEX system, and tokenized into REC Tokens, the underlying asset is locked within the system and cannot be traded externally.

Release of the asset is only possible if the corresponding REC Tokens are first burned. This ensures that environmental claims cannot be duplicated or reused across markets

4.2.2 Periodic Reconciliation

To ensure transparency, accuracy, and system integrity, the company conducts regular reconciliation between:

- total REC Tokens in circulation on the blockchain, and
- total I-REC certificates recorded and locked through the ReHash platform or relevant registry/platform system

Reconciliation is conducted quarterly by the company, based on clearly defined methodologies and scope.

This process ensures that all circulating REC Tokens remain fully backed at a 1:1 ratio by underlying I-RECs.

Summary reports and relevant disclosures will be publicly released within 7 business days after the end of each reporting period.

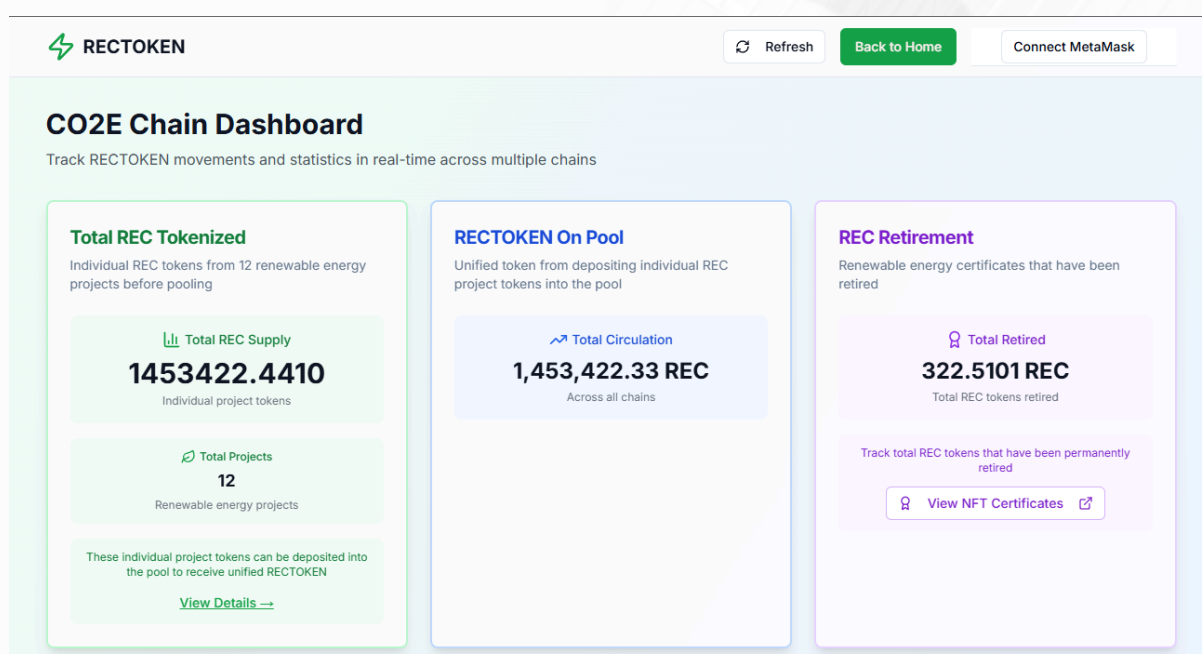
The company may additionally appoint independent auditors or assurance providers to enhance credibility and provide external validation where appropriate.

4.2.3 Public Transparency Dashboard

The system provides a public-facing dashboard that displays key information in near real-time, including:

- total token supply
- circulating supply
- number of tokens retired (burned)
- underlying asset data at the project level

Users can access this information through the BlockEdge platform to continuously monitor and verify the status of the system.



Data From <https://rectoken.xyz/dashboard>
As of 20 June 2026 at 03:20

4.3 Asset Quality Review

To maintain the quality of underlying assets and market confidence, BlockEdge conducts an annual review of I-REC assets within the Central Pool.

The review considers key factors, including:

- certificate vintage (issuance year)
- project origin
- market acceptance
- alignment with international standards (e.g., GHG Protocol, SBTi)

In cases where certain assets are identified as:

- having vintage considered too old for market acceptance.
For example, where such certificates can no longer be utilized for regulatory or compliance purposes
- presenting ESG or compliance-related risks
- no longer aligned with corporate demand.
For example, where certificates from specific countries are no longer accepted within the corporate market

BlockEdge reserves the right to remove such assets from the Central Pool and allocate them to other suitable use cases of the Company, such as the issuance of I-REC-backed renewable energy claim labels or stamps for relevant products or services.

Such actions:

- do not affect the overall 1:1 backing principle of REC Tokens, and
- will be disclosed via the public dashboard for transparency

4.4 Holder Rights, Transfers, and Retirement Policy

4.4.1 Token Transfer

REC Tokens may be transferred peer-to-peer between standard digital wallets and traded on legally authorized digital asset exchanges.

4.4.2 Utility Rights

Token holders have the right to use REC Tokens for retirement, enabling verified claims of renewable energy usage for Scope 2 emissions reporting.

Upon retirement, users will receive a digital proof of retirement.

(Refer to Section 5.1 for detailed conditions and limitations.)

4.4.3 Pre-Confirmation Transaction Policy

If a transfer or trade transaction has not yet been confirmed on the blockchain, or is canceled prior to confirmation, the asset remains under the user's ownership.

4.4.4 Irreversibility of Retirement

Once REC Tokens are retired, the tokens are permanently burned, and the corresponding I-RECs are permanently retired in the registry.

This process is final and irreversible, and cannot be undone under any circumstances.

4.4.5 Project Termination or Certificate Revocation

If an underlying I-REC is revoked, suspended, or determined to be unusable by the relevant registry, regulatory authority, or competent body, BlockEdge will carry out appropriate remediation measures, including notifying affected token holders within 14 days after the Company becomes aware of such event, suspending the allocation or redemption of the affected underlying asset, and using reasonable efforts to replace the affected I-REC with another I-REC of equivalent or substantially similar value and attributes.

If replacement I-RECs cannot be obtained within 90 days, BlockEdge will implement remediation measures in accordance with the methodology determined by the Company and appropriately disclosed to the affected token holders. Any burn of affected tokens will be executed only after the relevant remediation process has been completed, and the outcome will be confirmed through custodian records, registry records, independent auditor confirmation, or other appropriate disclosure channels.

4.5 Project Scope, Central Pool Operation, and Document Updates

4.5.1 Dual-Token Structure

The system operates under a dual-token structure:

- Project-specific tokens
- Pool tokens (Central Pool tokens)

Users may:

- deposit project-specific tokens into the Central Pool to receive pool tokens, and
- convert pool tokens back into project-specific tokens

Allocation follows a FIFO by Vintage Year mechanism based on vintage year (oldest first).

4.5.2 Pooling Mechanism

When project-specific tokens are deposited into the Central Pool, users receive pool tokens automatically on a 1:1 basis:

$$1 \text{ Pool Token} = 1 \text{ Project Token} = 1 \text{ I-REC} = 1 \text{ MWh}$$

Pool tokens:

- are fungible utility tokens
- represent a basket of qualified I-REC assets
- preserve holder rights to underlying environmental attributes

4.5.3 Disclosure and Document Updates

As the composition of the Central Pool changes dynamically, asset composition and token supply are disclosed via the public dashboard in real time. The whitepaper will be updated only in material cases, including:

- changes in system architecture, smart contracts, or legal structure
- inclusion of new renewable energy asset classes
- changes in asset aggregators

Routine operational changes (e.g., asset inflow/outflow within the pool) do not require immediate document updates, provided they remain within defined parameters.

4.6 Underlying Asset Vintage Management Policy

Under the I-REC standard and REDEX framework, I-REC certificates do not expire in terms of usability, as they can be retired regardless of age.

However, market acceptance and ESG relevance may vary depending on the certificate vintage.

To maintain asset quality aligned with market expectations, BlockEdge adopts the following policies:

4.6.1 Inclusion Policy

BlockEdge does not tokenize I-REC certificates that are older than 2 years from the vintage year under the I-REC standard, ensuring that all assets within the system meet ESG usability expectations.

4.6.2 Continuous Monitoring

BlockEdge continuously monitors the vintage of I-RECs held within the system, particularly those supporting liquidity, to assess market relevance and usability.

4.6.3 Aging Asset Management

If underlying assets exceed two (2) years from their vintage year, or are otherwise determined by BlockEdge to have become less suitable for market use due to age, BlockEdge shall:

- remove them from the Central Pool, or
- reallocate them for internal use cases

Such actions do not affect the overall 1:1 backing integrity of REC Tokens.

4.6.4 Quality Maintenance

To maintain system integrity, BlockEdge replenishes liquidity using tokens backed by I-RECs within acceptable vintage ranges.

This ensures that:

- asset quality remains high
- market expectations are met
- ESG usability is preserved

05 Burn, Redemption, and Retirement Mechanism

The burn and redemption process represents the final stage of the REC Token lifecycle, through which digital tokens are permanently removed from circulation and the corresponding I-REC certificates are either transferred to the eligible token holder's designated account or retired to support verifiable environmental (ESG) claims.

5.1 Redemption and Retirement Process

5.1.1 Eligibility and Requirements

Redemption is available to both legal entities and individuals, subject to a minimum of 100 tokens per request.

Conditions are as follows:

- **Legal Entities**

Must maintain an active account on the REDEX platform.

- **Individuals**

Where an individual is unable to retire I-RECs through the individual's own registry account, BlockEdge will perform the retirement through BlockEdge's registry account in the name or for the benefit of such individuals. The individual's name or a user-designated beneficiary name will be recorded in the retirement purpose field. The user must confirm that the designated name is the user's own name or the name of a person or entity that the user is duly authorized to represent, and BlockEdge may request additional documents or information to verify such designation before proceeding.

5.1.2 Process Flow

Step 1: Submission of Request

Token holders submit a request via BlockEdge, providing required details such as:

- legal name
- REDEX account details
- token amount
- redemption option

Step 2: Verification

BlockEdge verifies the submitted information and confirms eligibility within 3–14 business days.

Step 3: Token Transfer

After verification and preliminary confirmation of the request details, the token holder shall transfer the Pool Tokens to the designated segregated redemption wallet specified by the Company. Such tokens will be held pending execution and will not be burned until final verification has been completed and the token holder has confirmed the allocated underlying asset details in accordance with Section 5.5.

If final verification is not completed, the token holder does not confirm the allocated underlying asset details, or the Company is unable to execute the request in accordance with the applicable conditions, the transferred tokens will be returned to the originating wallet within 5 business days after the Company notifies the cancellation.

Step 4: Redemption Execution (FIFO by Vintage Year)

Upon completion of final verification, confirmation of the allocated underlying asset details by the token holder, and receipt of the tokens:

- tokens are burned, and
- I-RECs are allocated under a FIFO by Vintage Year mechanism based on vintage year (oldest first)

Users may select one of the following options:

- **Option 1: Receive I-REC without retirement (Legal Entities only)**
I-RECs are transferred to the user's REDEX account.
- **Option 2: Retirement under Legal Entity**
I-RECs are retired on the REDEX platform, and an official retirement certificate is issued.
- **Option 3: Retirement on behalf of an Individual**
I-RECs are retired under BlockEdge's account, with the individual's name (or designated name) recorded in the retirement details.

Step 5: Confirmation

- **For transfer:**
Users verify receipt via REDEX and receive supporting documentation
- **For retirement:**
Users receive an Impact Certificate for ESG reporting purposes

5.2 System Continuity and Verifiable Process

5.2.1 Service Level Agreement (SLA)

Following successful verification of the request, and once the token holder has provided all required information or destination account details, redemption by way of transfer of the certificate to the token holder's designated destination account will be completed within 7 business days from the date on which such information or destination account details are complete.

In the case of redemption by retirement of the certificate and issuance of the relevant retirement evidence, the process will be completed within 3 to 14 business days without requiring any further action from the token holder, unless additional information, documents, or confirmation from the token holder is required.

In any event, the total period from the submission of a valid and complete request until completion of the process will not exceed 30 business days.

5.2.2 Control and Security Mechanisms

All redemption operations are subject to strict controls:

- confirmation of token burn on the blockchain
- mandatory multi-signature (multi-sig) authorization
- certificate transfer or retirement, as applicable, executed only by authorized operators via REDEX
- full audit trail recorded for all events
- records subject to periodic review by independent auditors

5.3 Process Integrity Assurance

The issuer confirms that:

- redemption and retirement are performed strictly in accordance with the **intended utility of the token**
- outcomes are deterministic and executed at a **1:1 ratio** relative to burned tokens

The process:

- does not involve randomness
- does not involve chance or speculation
- does not constitute gambling under applicable Thai law

5.4 Fees and Charges

Redemption may involve fees imposed by third parties, including REDEX platform fees and I-REC registry fees. Such fees are borne directly by the token holder and must be settled prior to execution.

BlockEdge may update applicable fees from time to time, with notice provided in advance through official communication channels.

5.5 Appeal Mechanism and Dispute Handling

To ensure transparency and align user expectations. Prior to confirming a redemption request, users are provided with advance visibility of the underlying assets to be allocated, including project type, country of origin, energy technology and vintage year.

Prior to token burn execution, BlockEdge will provide the token holder with pre-burn confirmation displaying the details of the underlying assets to be allocated, including key information such as project type, country of origin, energy technology, certificate year or Vintage, and any conditions relevant to redemption or retirement. The token holder may cancel the request without penalty at any time before token burn execution if the holder does not wish to accept the allocated asset details.

Upon confirmation by the token holder after disclosure of the allocated underlying assets, the token holder shall be deemed to have acknowledged and accepted such asset details, and BlockEdge will proceed with token burn execution and redemption or retirement in accordance with the specified process.

After confirmation, if a user encounters issues in utilizing the allocated I-REC (e.g.,) ESG eligibility concerns, regulatory limitations, technical issues related to retirement, the user may submit an appeal within 14 days through designated channels.

The appeals must include: transaction details, description of the issue, and supporting documentation (if any).

BlockEdge will evaluate appeals based on: pre-disclosed asset information, FIFO by Vintage Year allocation, asset status at the time of allocation, registry rules (Evident / REDEX), and applicable ESG standards.

Appeals are considered only for functional usability issues and do not cover personal preferences, subjective dissatisfaction.

BlockEdge will notify the applicant of the outcome through the designated channels within 7 days of receiving a complete appeal. Appeals do not cover cases where a token holder changes their decision after confirming the request and token burn has been executed, provided that the process was carried out in accordance with the pre-disclosed asset information.

06 Technical Infrastructure and Security Framework

6.1 CO2e Chain (Layer 3 Optimistic Rollup)

REC Tokens operate on the CO2e Chain, an EVM-compatible Layer 3 blockchain that applies Optimistic Rollup concepts and is specifically designed for environmental asset applications. The network is intended to provide lower transaction costs, faster processing, and verifiable on-chain transaction records.

6.1.1 Cost Efficiency

Operating on Layer 3 significantly reduces transaction costs compared to Ethereum Layer 1, enabling high transaction throughput, and efficient handling of small-value transactions.

6.1.2 Transaction Performance

Token operations, including minting and transfers, are processed with low latency, with transaction confirmations typically occurring within seconds.

6.1.3 Network Security

The security and operational continuity of the CO2e Chain depend on its own technical architecture, smart contracts, cross-chain connectivity mechanisms, infrastructure providers, key management arrangements, and related risk controls. Accordingly, the CO2e Chain should not be interpreted as automatically receiving the same level of security guarantees as Ethereum Layer 1.

6.2 Smart Contract Audit and Security Controls

6.2.1 Smart Contract Audit

All smart contracts related to REC Tokens undergo comprehensive security assessments, including:

- static code analysis
- dynamic testing
- expert review

These audits are conducted by an independent third party: Valix Consulting Co., Ltd.

6.2.2 Access Control and Multi-Signature (Multi-sig)

Critical system functions, including contract state changes, and asset-impacting operations are governed through multi-signature wallets, requiring approval from multiple authorized parties.

This mechanism reduces the risk of unauthorized access, and enforces multi-party governance.

6.2.3 Administrative Recovery Process (Emergency Handling)

If an enterprise user loses access to its wallet or experiences a verified security incident, BlockEdge may carry out an administrative recovery process under limited conditions to assist the affected user in transferring tokens to a new wallet controlled or confirmed by such user.

Such recovery may be performed only upon a formal request from the affected user, together with evidence of identity, authority, ownership or entitlement to the relevant tokens, and confirmation of the destination wallet. All recovery actions must be approved through a multi-signature process and recorded in the system for audit and verification purposes.

This recovery mechanism is intended solely for emergency access recovery. It does not constitute a general authority for BlockEdge to freeze, seize, transfer, or otherwise move tokens of token holders at the Company's discretion, except where required by applicable law, an order of a competent authority, emergency security measures, or conditions expressly specified in this Whitepaper.

07 Risk Factors

7.1 Regulatory and Compliance Risks

7.1.1 Changes in Digital Asset Regulations

Laws, regulations, or regulatory guidance in Thailand or other jurisdictions may change, which could affect the issuance, trading, transfer, or holding of REC Tokens.

7.1.2 Changes in Environmental Standards

Updates to international frameworks such as GHG Protocol, Science Based Targets initiative (SBTi) or I-REC Standard, may impact the eligibility of I-RECs for Scope 2 claims and could reduce the utility and acceptance of REC Tokens.

7.1.3 Domestic Policy Restrictions

Although cross-border use of I-RECs may be accepted under certain reporting frameworks or for certain purposes, domestic laws, policies, or programs, such as green electricity tariffs, tax incentives, green electricity procurement programs, or requirements of certain organizations, may require certificates originating from the same country or impose specific conditions relating to country of origin, energy technology, project age, or generation year.

Because Pool Tokens represent a fungible claim on the Central Pool and I-REC allocation is conducted on a FIFO by Vintage basis, token holders may not be able to determine the country of origin or specific attributes of the certificates at the time of trading. However, before token burn and redemption or retirement execution, BlockEdge will provide pre-burn confirmation of the underlying assets to be allocated, and token holders may cancel the request before token burn if the allocated asset details do not meet their intended use.

Token holders who require I-RECs for specific purposes, such as participation in Thai domestic programs, tax incentives, customer requirements, or reporting frameworks that require a particular country of origin, should verify the eligibility of the certificates with the relevant authority, assurance provider, or professional advisor before purchasing, redeeming, or retiring the certificates.

7.2 Technology and Security Risks

7.2.1 Blockchain Infrastructure Risk

Network congestion, delays, or disruptions on Ethereum or Layer 3 infrastructure may affect transaction processing and system availability.

7.2.2 Smart Contract Risk

Despite security audits, smart contracts may contain undiscovered vulnerabilities, which could be exploited and lead to loss of assets or system malfunction.

7.2.3 Integration Risk

System operations depend on integrations with third-party platforms, including REDEX and Evident.

Service interruptions or failures in these systems may affect redemption and operational continuity.

7.2.4 Transaction Processing and Ordering Risk

The system applies FIFO by Vintage for the allocation of I-RECs from the Central Pool, based primarily on the Vintage of the certificates. This allocation methodology does not depend on the order in which transactions are recorded on the blockchain or on the level of network fees paid.

However, blockchain transaction recording may be affected by network conditions, transaction fees, confirmation times, or limitations of infrastructure providers. As a result, the time at which a transaction appears on-chain may differ from the timing expected by users.

For clarity, the processing order of redemption or retirement requests will be based on the time at which the request has been verified and confirmed in BlockEdge's system in accordance with the specified process, not the order of blockchain transaction confirmation, except in cases of technical disruption, security incidents, or other conditions specified in this Whitepaper.

7.3 Market and Liquidity Risks

7.3.1 Underlying Price Volatility

The value of REC Tokens is linked to the market price of I-RECs, which may fluctuate based on supply and demand and market conditions.

7.3.2 Liquidity Risk

Market liquidity may be limited at times, potentially affecting the ability to transfer or trade tokens at desired prices.

7.4 Operational Risks

7.4.1 Dependency on Ecosystem Partners

The system relies on key partners, including NetZero Carbon, REDEX and Evident. Any disruption, operational failure, or change in status of these parties may impact the overall system.

7.4.2 Dependency on External Standards and Registries

Changes to the I-REC Standard or registry operations, including suspension, termination, or rule modifications, may affect the usability and recognition of REC Tokens.

7.5 Business Continuity and Disaster Recovery (BCDR)

To mitigate the above risks, the system implements the following continuity and resilience measures:

7.5.1 Data and Infrastructure Redundancy

Platform data is hosted on high-availability cloud infrastructure, with regular backups and geographically separated storage environments.

7.5.2 Blockchain State Anchoring

Transaction data and system state are anchored to Ethereum Layer 1, enabling verifiability and recovery at the protocol level.

7.5.3 Operational Fallback Procedures

In the event of failure in automated integrations, controlled manual processes may be executed by authorized personnel under defined procedures and verification controls.

7.5.4 Emergency Pause Mechanism

Smart contracts include a pause function, which may be activated under multi-signature authorization to temporarily suspend operations in response to security incidents.

08 Legal Framework, Governance, and Conflict of Interest Management

8.1 Governance, Token Issuance Authority, and Conflict of Interest Mitigation

BlockEdge operates in accordance with applicable legal and regulatory frameworks, with a strong emphasis on transparency, auditability, and systemic risk control.

To prevent conflicts of interest and unauthorized token issuance, the following governance principles are enforced:

8.1.1 Mint-on-Lock Mechanism

REC Tokens are minted only upon verifiable confirmation that the corresponding I-REC certificates have been transferred to an account opened in the name of BlockEdge and locked through the ReHash platform.

No pre-minting is permitted under any circumstances.

8.1.2 Multi-Signature Authorization

Token minting requires approval through a multi-signature (multi-sig) mechanism, involving authorized parties from:

- BlockEdge (issuer), and
- NetZero Carbon (asset aggregator)

This process is executed only after confirmation of asset lock by REDEX.

8.1.3 Segregation of Duties

Roles within the ecosystem are clearly separated as follows:

- BlockEdge: token issuer, technology developer, and technical operator of the REC Token system
- NetZero Carbon: sourcing and selection of underlying assets
- REDEX or ReHash: platform provider, account service provider, or service provider for the custody and administration of relevant certificates
- Evident or the relevant registry body: registry system or certificate issuer under the I-REC Standard

I-RECs used as underlying assets for REC Tokens may be held or recorded in a registry or custody account opened in the name of BlockEdge, or operated through the relevant platform, solely for the purposes of underlying asset custody, token backing, redemption, retirement, reconciliation, and the operations described in this Whitepaper.

BlockEdge shall not use, dispose of, transfer, retire, or allocate the underlying I-RECs at its own discretion for any purpose other than the processes specified in this Whitepaper, the relevant agreements, and applicable laws or orders of competent authorities. The rights and obligations of each party shall be governed by the relevant contracts, governance documents, and the terms of the applicable registry or platform.

8.1.4 System Transparency

Token issuance mechanisms, allocation structures, and operational conditions are:

- predefined
- verifiable
- publicly accessible

Note: These governance measures are designed to ensure transparency and system integrity, and do not constitute any guarantee of economic benefits or outcomes for token holders.

8.2 Custody of Underlying Assets

REC Tokens are issued under a 1:1 linkage principle with I-REC certificates. The I-RECs used as underlying assets may be held or recorded in a registry or custody account opened in the name of BlockEdge, or operated through REDEX, ReHash, Evident, or other relevant platforms or systems, solely for the purposes of token backing, reconciliation, redemption, and retirement in accordance with the processes specified in this Whitepaper.

The system is designed such that:

- no commingling with carbon credits or other asset classes occurs;
- no underlying assets other than I-RECs are used for the backing of REC Tokens;
- records of underlying assets are maintained and reconciled against the relevant token amounts in accordance with the system processes; and
- any use, transfer, retirement, or allocation of underlying I-RECs may be conducted only in accordance with the processes specified in this Whitepaper, the relevant agreements, applicable laws, or orders of competent authorities.

In the event of circumstances affecting the Company, the underlying assets, or the relevant systems, the treatment of the underlying I-RECs shall be governed by applicable laws, the relevant agreements, the terms of the applicable registry or platform, and the processes specified in this Whitepaper.

The underlying I-RECs are held in the name of BlockEdge and are not subject to any trust, segregated account, or other insolvency-remote arrangement separating them from BlockEdge's own assets. REDEX, ReHash, and Evident operate the account in which BlockEdge holds the I-RECs and do not act as independent custodians for token holders. Accordingly, if BlockEdge becomes insolvent, the underlying I-RECs may form part of its general estate and token holders may rank as unsecured creditors. The 1:1 linkage principle does not, by itself, confer any proprietary, secured, or preferential right over the underlying assets.

8.3 Interoperability

REC Tokens are developed under the ERC-20 standard to support compatibility with blockchain infrastructure, digital wallets, and systems that support such standard.

In general, REC Tokens may be transferred between compatible wallets in accordance with the smart contract mechanism. However, the use, transfer, or trading of REC Tokens may be subject to relevant limitations or conditions, including applicable laws and regulations, policies of digital asset exchanges or platform providers, security measures, emergency measures, temporary system suspension, or recovery processes specified in this Whitepaper.

For clarity, such controls are not intended to restrict ordinary token transfers at the Company's discretion, but are intended to support legal compliance, system security, incident remediation, or processes expressly specified in this Whitepaper.

8.4 Governing Law and Dispute Resolution

The use of REC Tokens and all related systems shall be governed by the laws of the Kingdom of Thailand, unless otherwise specified.

Any disputes arising out of or in connection with the system shall be resolved through:

- courts of competent jurisdiction in Thailand, or
- arbitration under Thai law

8.5 Disclaimer and Limitation of Liability

It is acknowledged that BlockEdge (the "Issuer") is the issuer of the REC Tokens and the Project-specific tokens. Accordingly, the Issuer shall be solely responsible and liable for the issuance, utility, Pool and relevant mechanisms relating to the REC Tokens, the Project-specific tokens and the underlying I-RECs, including the related processes such as the redemption and retirement processes thereof.

Upon the occurrence of any of the following events:

- (i) Where the underlying I-RECs are nearing the end of their useful life or are of an older vintage, and the Issuer decides to reduce the number of the REC Tokens, the Project-specific tokens and the underlying I-RECs by reason of such matter;
- (ii) Where the REC Token, the Project-specific tokens and the underlying I-RECs are otherwise to be disposed of by reason of disqualification under the laws of Thailand, any rules imposed by Bitkub Exchange or the whitelist disclosed by the Issuer; or
- (iii) Where there is any fraud, Adverse Incident, misconduct or violation of the I-REC Code and/or any applicable standard, the laws of Thailand and/or any other governing law in connection with the underlying I-RECs, the Project-specific tokens, the REC Token, the eligibility criteria disclosed by the Issuer, the project, the pool, or the redemption or retirement process of the underlying I-RECs, the Project-specific tokens and/or the REC Token,

the Issuer may decide to (1) reduce the number of the REC Token, the Project-specific tokens and/or the underlying I-RECs; or (2) take any other action that the Issuer deems appropriate to protect the rights and benefits of the token holders. The Issuer shall disclose any such decision to the token holders in advance of implementation.

Definition: "Adverse Incident"

Any unauthorized access, intrusion, penetration, hack, theft, loss, fraud, misappropriation, malware, ransomware, unlawful attack, social engineering, unauthorized transfer or any other unlawful activity, or any act or omission by the Issuer or any other person that causes or may cause any harm, loss, depletion, encumbrance or adverse impact to or in respect of the underlying I-RECs, the Project-specific tokens and/or the REC Token.



BLOCKEDGE
BLOCKCHAIN INFRASTRUCTURE

Together, We build a
Greener Future