RARE EARTH TOKEN

(RET)

Whitepaper v2.2

Project and Technical Information Document

A project by Szymon Turski

Ethereum Mainnet | 2026

VERIFIED CONTRACT

`0x9728da076538ff9781566b6040D8819fC5da3f37`

This document describes the RET project, its deployed smart-contract architecture, token structure, holder limitations, administrative controls and principal risks. It is not presented as a formal MiCA crypto-asset white paper or as evidence of regulatory approval, authorisation or endorsement.

0. Document Status

Whitepaper v2.2 is a public project and technical information document for Rare Earth Token (RET). It is intended to provide a concise, factual and verifiable description of the token and the deployed smart contract. It does not itself determine the legal classification of RET or of any future distribution, public offer, admission to trading, exchange activity or secondary-market arrangement. Those questions depend on applicable law and the facts at the relevant time.

Important distinction
The term “whitepaper” in the title is used as a project-document title. Whitepaper v2.2 is not presented as a formal crypto-asset white paper prepared for notification under Regulation (EU) 2023/1114 (MiCA).

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1. Executive Summary

Rare Earth Token (RET) is an ERC-20 digital asset deployed on Ethereum Mainnet. RET is inspired by the strategic importance of rare earth elements in modern industry and technology, but the token does not represent, track, redeem for, or provide ownership of any physical rare earth material or other commodity.

RET was deployed with an initial and maximum possible supply of 30,000,000 tokens. The deployed contract contains no mechanism capable of creating additional RET after deployment. Total supply can decrease when tokens are burned. The project is built around public smart-contract verification, on-chain transparency, a finite maximum supply, and clearly disclosed administrative controls.

RET does not purport to maintain a stable value by reference to an official currency, commodity, basket of commodities, index, right or other value. It has no peg, asset reserve, redemption mechanism or price-stabilisation mechanism. The RET smart contract does not implement staking, yield, automatic rewards, revenue sharing, rebasing, transfer taxes, price oracles, or holder governance.

Key facts

Parameter	Current project description
Network	Ethereum Mainnet
Token standard	ERC-20
Initial / maximum possible supply	30,000,000 RET
Post-deployment minting	Not available
Supply reduction	Possible through burn / burnFrom
Decimals	18
Physical-asset rights	None
Redemption rights	None
Peg or value-stabilisation mechanism	None
Administrative owner role	Present; address-level and publicly verifiable
Contract upgrade mechanism	None in the deployed RET contract

2. Project Overview

RET is an independent digital-asset project developed and maintained under an identifiable founder structure. Its thematic connection to rare earth elements is conceptual: rare earths provide the project with a strategic and technological context, while the token itself remains a blockchain-native digital asset.

The project does not use the price, market value, inventory or ownership of rare earth elements as a mechanism for determining or supporting the value of RET. No quantity of RET corresponds to a kilogram, unit, basket or other quantity of rare earth materials. Any rare earth materials or other assets personally owned by the founder or held by any other person are separate from RET and do not form a reserve or backing for the token.

The project emphasises verifiability over private representations. The token contract, transfers, balances, ownership changes and other contract interactions can be examined on the public Ethereum blockchain.

3. Nature of RET

The economic and technical nature of RET is defined by what the deployed token does and, equally importantly, by what it does not provide. RET is a transferable digital asset represented by ERC-20 balances on Ethereum, subject to the contract functions and risks described in this document.

- RET does not grant ownership of, title to, or a claim against physical rare earth elements or any other commodity.
- RET does not grant a right to redeem tokens for cash, commodities, securities, project assets or treasury assets.
- RET does not grant equity rights, dividend rights, profit-sharing rights, debt claims or contractual rights to receive financial returns from the founder or project.
- RET does not grant voting rights in an issuer, company or project governance body.
- RET does not purport to maintain a stable value by reference to a currency, commodity, basket, index, right or other value.
- RET has no project-level asset reserve, collateral pool, redemption reserve or mechanism intended to move its market price toward a referenced value.
- The deployed RET contract contains no staking, yield, APY, automatic reward, rebase, transfer-tax or price-oracle mechanism.

These statements describe the factual rights and mechanics of RET. They are not presented as a substitute for legal classification under any specific jurisdiction.

4. Technical Parameters

Technical parameter	Value
Network	Ethereum Mainnet
Standard	ERC-20
Contract name	RareEarthToken
Token name	Rare Earth Token
Symbol	RET
Decimals	18
Contract address	`0x9728da076538ff9781566b6040D8819fC5da3f37`
Compiler metadata	v0.8.30+commit.73712a01
Optimization	Disabled
License metadata	MIT
Source-code verification	Verified - Exact Match on Etherscan

The RET source code uses OpenZeppelin ERC-20, burnable, pausable and ownership modules. The deployed contract does not include an upgrade or proxy mechanism. Changes to the logic of the deployed contract cannot be introduced through an owner-only upgrade function contained in RET.

5. Token Supply and Initial Allocation

At deployment, 30,000,000 RET were created once by the constructor. The full amount was initially minted to the RET contract address. The constructor then transferred 1,000,000 RET to the hard-coded founder allocation address, leaving 29,000,000 RET at the contract address as the initial treasury balance.

Supply terminology
30,000,000 RET is the initial and maximum possible supply, not a permanently fixed current total supply. No additional RET can be minted after deployment, while total supply can decrease through token burning.

Deployment allocation	Amount at deployment	Description
Founder allocation	1,000,000 RET	Transferred by the constructor to the initial founder allocation address.
Contract treasury	29,000,000 RET	Remaining at the contract address after the initial founder allocation.

`Initial founder allocation address: 0x2A1C0Aa331158186c11bBB84CBC48B880431b8dD`

The address above is a constant embedded in the deployed contract and identifies the destination of the initial founder allocation. It should not be interpreted as a guarantee of the current balance of that address. Current balances and later transfers should be verified directly on-chain.

6. Treasury Structure

The RET contract address held 29,000,000 RET immediately after deployment. This balance is referred to as the contract treasury for project-documentation purposes. Treasury RET are token units held by the contract; they are not a pool of cash, commodities, collateral or reserve assets supporting the market value of RET.

Treasury distribution is controlled by the address returned by the contract's owner() function. The owner may use distribute(address,uint256) to transfer RET from the contract address to a specified address while the token is not paused. Treasury movements are recorded on Ethereum and can be independently verified.

The project does not state a fixed future distribution schedule in this document. The deployment allocation is historical and verifiable, while the current treasury balance may change over time through on-chain transactions. The current balance should therefore be verified on-chain rather than inferred from this document alone.

No backing or redemption
RET held in the contract treasury does not back RET, does not create a redemption value, and does not create any claim by holders against the treasury or against assets of the founder.

7. Smart Contract Functions

The following functions materially affect holder use, treasury movement or administrative control. The descriptions below distinguish intended project use from the actual technical permissions implemented in the deployed code.

Holder and standard ERC-20 functions

Function	Who can use it	Technical effect
transfer / transferFrom	Holder / approved spender	Standard ERC-20 transfers. transferFrom requires sufficient allowance.
approve	Holder	Sets an allowance for a spender. Approvals can be created even while RET is paused, but token movement remains blocked while paused.
burn(uint256)	Holder	Permanently destroys the caller's RET and reduces total supply.
burnFrom(address,uint256)	Approved spender	Permanently destroys RET from another address only when the caller has sufficient allowance from that address; the contract owner has no special ability to burn holder tokens without allowance.

Administrative functions

Function	Who can use it	Technical effect
distribute(address,uint256)	Owner only	Transfers RET from the contract treasury to a specified address; blocked while RET is paused.
pause / unpause	Owner only	Globally suspends or restores RET state updates. While paused, ordinary transfers, treasury distribution and token burning are blocked.
rescueTokens(IERC20,uint256,address)	Owner only	Intended to recover ERC-20 tokens sent to the contract by mistake. The code does not technically exclude RET itself, so the function can also move RET held by the contract while RET is not paused.
sweepETH(address)	Owner only	Transfers ETH held by the contract to a non-zero destination address.
transferOwnership(address)	Owner only	Immediately transfers the administrative owner role to a new non-zero address. The deployed contract does not require acceptance by the new address.
renounceOwnership()	Owner only	Irreversibly sets the owner to the zero address, permanently disabling functions restricted by onlyOwner.

Pause behaviour

RET integrates pausing at the ERC-20 update layer. A pause therefore affects transfers and burns globally rather than freezing a selected wallet. The contract contains no per-address blacklist function. Administrative utilities that do not update RET balances, such as sweeping ETH or recovering an unrelated external ERC-20 token, are not inherently disabled by RET's pause state.

Renounce ownership

renounceOwnership() exists as an extreme technical option rather than as a declared project milestone or routine operational action. If executed, all functions protected by onlyOwner become permanently unavailable. If treasury RET remain at the contract address at that time, the ordinary owner-controlled distribution function becomes unavailable. Renouncing ownership while RET is paused would be particularly severe because no owner would remain able to call unpause().

8. Ownership and Administrative Control

RET uses the OpenZeppelin Ownable access-control model. The administrative owner is an Ethereum address stored by the contract. The current owner address can be read publicly through the contract and may change through transferOwnership(address).

The founder identity and the contract owner address are distinct concepts. The FOUNDER constant embedded in the contract identifies the destination used for the initial 1,000,000 RET allocation. Administrative authority, by contrast, follows the current owner() address. A change from one wallet address controlled by the founder to another wallet address controlled by the same founder - for example, migration to a hardware-controlled address - changes the technical owner address without, by itself, establishing that the founder identity or project stewardship has changed.

The owner can distribute treasury RET, pause or unpause token state updates, recover tokens held by the contract, sweep ETH, transfer ownership, or renounce ownership. The owner cannot use these permissions to mint new RET, impose a transfer tax, rebase balances, blacklist an individual holder, or seize RET directly from a holder wallet through a special owner function.

Key-control risk
Because administrative functions depend on the owner key, compromise, loss, incorrect transfer of ownership or misuse of that key may materially affect treasury operations and token functionality. transferOwnership() is immediate and does not use a two-step acceptance mechanism in the deployed contract.

9. Holder Rights and Limitations

A holder controls RET associated with an Ethereum address through the private-key or wallet system controlling that address. Subject to Ethereum operation, sufficient gas, token balance, allowances and the RET pause state, holders can use standard ERC-20 transfer and approval functionality and can burn their own RET.

Holding RET does not, by itself, create any of the following rights:

- ownership of or title to rare earth elements, commodities or other physical assets;
- a right to redeem RET for cash, ETH, commodities or any other asset;
- a claim against the contract treasury or against property of the founder;
- equity, shares, dividends, profit participation, interest, yield or revenue-sharing rights;
- a debt claim or contractual claim to repayment by the founder or project;
- voting or governance rights in an issuer, company or project body;
- a guaranteed market, sale opportunity, price, minimum value or level of liquidity.

Holders should also understand the ERC-20 allowance model. An allowance authorises a spender to act on the holder’s tokens up to the approved amount. In RET, an approved spender may use both transferFrom() and burnFrom() within the applicable allowance. Holders should therefore grant allowances only to addresses or applications they intend to authorise.

10. Market and Liquidity

RET does not contain a mechanism intended to determine, guarantee, defend or stabilise a market price. If secondary-market trading becomes available, market prices may be determined by market conditions,

including supply, demand and available liquidity. The founder and project do not guarantee a specific price or a specific relationship between RET and the value of rare earth elements, any commodity basket, any currency or any index.

The project does not guarantee the existence, continuity or depth of any market for RET. Liquidity may be limited, particularly during early stages of market activity. A holder may be unable to sell RET at a desired time, at an expected price, or at all. The existence of a liquidity pool, trading venue or third-party market interface would not itself guarantee continuous execution, a minimum market depth or the ability to exit a position.

This document intentionally does not specify a starting price, launch date, liquidity-pool size, trading pair or purchase route. Such details, if relevant, are separate from the technical description of RET and must be assessed and communicated in the appropriate context at the relevant time.

11. Risk Factors

RET involves material technological, operational, market and regulatory risks. The list below is intended to describe principal known categories and is not exhaustive.

Loss of value: RET may lose part or all of its market value. No mechanism in the contract protects a market price or provides a minimum value.

Liquidity risk: A market for RET may be thin, intermittent, unavailable or may cease to exist. Limited liquidity can increase price impact and make transactions difficult or impossible.

Volatility risk: If a market exists, RET may experience substantial and rapid price movements that are unrelated to the thematic rare-earth context of the project.

Smart-contract risk: The deployed logic is public and non-upgradeable through the RET contract. A defect, unexpected interaction or limitation may not be repairable in place. Emergency pausing can stop RET state updates but cannot rewrite deployed code.

Administrative-key risk: Loss, compromise, mistaken use or incorrect transfer of the owner key can affect treasury distribution, pausing and other owner-only functions. transferOwnership() is immediate.

Pause risk: The owner can globally pause RET transfers and burns. A pause may temporarily prevent holders from moving or burning tokens and may interrupt treasury distribution.

Renounce risk: renounceOwnership() is irreversible. If used while treasury RET remain in the contract or while RET is paused, important administrative functions may become permanently unavailable.

Treasury concentration risk: A large portion of the deployment supply was initially held at the contract address. Owner-authorised treasury distributions can materially alter circulating balances and market conditions.

Allowance and application risk: Approving an untrusted spender can expose RET to transferFrom() and burnFrom() within the approved allowance. Third-party wallets and applications may introduce additional risks.

Ethereum network risk: RET depends on Ethereum Mainnet, its consensus, transaction inclusion, network availability, client software and surrounding infrastructure. Congestion, outages, protocol changes or other network events can affect RET use.

Gas-cost risk: Ethereum transactions require gas paid in ETH. Fees vary and can make transfers or contract interactions uneconomic at certain times.

Wallet and private-key risk: Loss or compromise of a holder's private key, seed phrase or wallet access can result in irreversible loss or unauthorised transfer of tokens.

Third-party market risk: DEX interfaces, wallets, explorers, RPC providers and other third parties are outside the RET contract and may fail, restrict access, display incorrect information or be subject to separate rules.

Regulatory risk: The legal treatment of crypto-assets, offers, trading activity, services, marketing and related conduct can change and may differ across jurisdictions. Future project activity may require separate legal assessment and documentation.

Operational and reputational risk: Errors in project operations, communications, security practices or third-party relationships can affect the project and the perceived value or usability of RET.

12. Transparency and Public Verification

RET operates on public Ethereum infrastructure. The project's core technical claims can be checked independently through blockchain data and the verified smart-contract source code. Publicly observable information includes token transfers, balances, total supply, ownership-transfer events, pause/unpause events and interactions with the deployed contract.

The project treats on-chain data as the primary source for current balances and contract state. Historical allocation figures in this document describe deployment and should not be substituted for current blockchain verification.

```
Etherscan: https://etherscan.io/address/0x9728da076538ff9781566b6040D8819fC5da3f37
Contract:  0x9728da076538ff9781566b6040D8819fC5da3f37
```

13. Regulatory Information

Whitepaper v2.2 is a project and technical information document. It is not presented as evidence that RET, the founder, a future offer, a future market arrangement or any service has been approved, authorised, endorsed or registered by a competent authority. It is also not presented as a formal MiCA crypto-asset white paper.

This document describes factual token characteristics relevant to later legal analysis: RET has no redemption right, no physical-asset claim, no project-level asset backing, no peg, no value-stabilisation mechanism, no dividend or profit-sharing right, no debt claim and no holder governance right implemented by the contract. Those characteristics should not be read as a self-issued legal ruling on the classification of RET under MiCA, MiFID II, Polish law, United States law or any other legal regime.

Any future public distribution, public offer, admission to trading, market activity, marketing communication, exchange activity, custody arrangement, advice, transfer service or other crypto-asset-related activity must be assessed separately against the law applicable at the relevant time. Publication of this project document does not replace any formal document, notification, authorisation, disclosure or procedure that may be legally required for such future activity.

Nothing in this document constitutes personalised investment advice or a promise of financial return. Persons interacting with RET are responsible for understanding the technical and legal risks relevant to their circumstances and jurisdiction.

14. Network and Environmental Context

RET is deployed on Ethereum Mainnet and therefore relies on Ethereum rather than operating an independent consensus network. Ethereum uses a proof-of-stake-based consensus mechanism. RET transactions and smart-contract interactions consume Ethereum network resources and normally require gas fees paid in ETH.

The environmental and infrastructure characteristics attributable to RET are therefore linked to the operation and use of Ethereum, transaction activity and the broader network environment. This project document does not present the formal sustainability indicators or machine-readable environmental disclosures that may be required in a formal regulatory document.

15. Project Documentation and Contact

Resource	Location
Website	https://rareearthret.com
Email	contact@rareearthret.com
GitHub	https://github.com/RareEarthToken-gif/ret-site
LinkedIn	https://linkedin.com/in/szymon-turski
Etherscan	https://etherscan.io/address/ 0x9728da076538ff9781566b6040D8819fC5da3f37

Founder: Szymon Turski - Founder of Rare Earth Token (RET)

16. Version History

RET maintains previous project-document versions as part of its transparency history. Older versions should be read as historical documents and not as descriptions of later technical or regulatory positions.

Version	Status / principal purpose
v1.0	Archival project document retained as part of the transparency history.
v2.1	Technical and structural project overview published in 2026.
v2.2	Expanded project and technical information document. Clarifies supply terminology, holder rights and limitations, treasury status, administrative controls, burn mechanics, pause behaviour, renounce risk, market/liquidity risk and regulatory-document separation.

17. Closing Information

Whitepaper v2.2 presents the RET project and deployed contract architecture as understood at the time of publication. It is designed to remain technically accurate by distinguishing immutable deployment facts from current on-chain state and from future project decisions.

Future versions may be issued when material technical, structural, legal or disclosure developments justify an update. Current token balances, current owner address, total supply after burns and other live contract state should always be verified on-chain.

Core project principle
RET is a blockchain-native ERC-20 token inspired by the strategic context of rare earth elements. It provides no ownership of rare earths, no asset backing, no redemption claim and no mechanism intended to maintain a stable value by reference to an external asset or value.