TAXGAS

A Deflationary Utility Token for Decentralized Tax Services

Network	Base (Superchain, Chain ID 8453)
Contract	0xAE153c5b73456Bc7b3cA2c2C09A3e77bdB5B515f
Standard	ERC-20 | ERC-2612 Permit | Burnable
Total Supply	100,000,000 TAXGAS (fixed, no further minting)
Version	v1.0 — April 2026

Contents

1. Abstract

TAXGAS is a fixed-supply, deflationary ERC-20 token deployed on the Base network (Optimism Superchain). It serves as the native utility token for a decentralized crypto tax reporting service that aggregates transaction data across EVM and Solana chains, classifies DeFi activity, and stores encrypted tax reports via IPFS with NFT-gated access.

The token combines three mechanisms to create sustained deflationary pressure: a subscription-driven buy-and-burn flywheel, a 365-day linear burn schedule (the SlowBurn Incinerator), and gasless approvals via EIP-2612 Permit for seamless DeFi integration. With a hard cap of 100 million tokens and no mint function, TAXGAS is designed to become progressively scarcer as the service gains adoption.

2. Problem Statement

Cryptocurrency tax reporting is fragmented, opaque, and expensive. Users face several challenges:

- **Multi-chain complexity:** portfolios span EVM chains and Solana, yet most tools support only a subset.
- **DeFi classification gaps:** swaps, liquidity provision, yield farming, and airdrops are often misclassified by generic tools.
- **Data sovereignty:** centralized services store sensitive financial data on their own servers, creating honeypot targets.
- **Lack of token-aligned incentives:** existing services charge flat fees with no mechanism to align user and platform interests.

TAXGAS addresses each of these by pairing a purpose-built tax aggregation service with a token economy where every subscription directly reduces circulating supply.

3. The CryptoTax dApp

The CryptoTax dApp is a decentralized tax reporting service that aggregates wallet transactions across multiple blockchains and exchanges, classifies DeFi activity, computes tax liabilities, and exports encrypted reports for self-sovereign storage. It operates on a freemium model: transaction fetching, classification, and gain computation are free for any authenticated user; IPFS persistence and export require an active subscription (CryptoTaxNFT).

3.1 User Workflow

- **Connect wallet:** SWETH (Sign With ETH) wallet-based authentication on Base (chain 8453).
- **Fetch transactions:** Multi-chain support via Etherscan, GoldRush, and Solscan APIs for EVM and Solana blockchains.

- **CEX integration:** Optional credential-based import from Binance, Coinbase, Gemini, and Kraken.
- **Classify DeFi:** Heuristic-driven classification engine categorizes transactions by type.
- **Compute gains:** Fee-free tax calculation using CoinGecko pricing data.
- **Export and persist:** Subscription holders can export encrypted reports to IPFS and mint a soulbound NFT with retrieval credentials.

3.2 Multi-Chain and Exchange Support

The service supports EVM chains (Ethereum, Base, Optimism, Arbitrum, Polygon, etc.) and Solana via public blockchain APIs. It integrates credential-verified CEX account exports for a holistic portfolio view without exposing API keys to the platform. Transaction caching reduces API calls and improves response times.

3.3 DeFi Classification Engine

The dApp uses seven semantic transaction classifiers:

Classifier	Purpose
Bridge	Cross-chain token transfers detected by ERC-165 or signature analysis
Disposal	Sales, swaps, and liquidations of assets
Income	Staking rewards, airdrops, and protocol incentives
LP	Liquidity provision deposits and withdrawals (pool tokens minted/burned)
Staking	Validator deposits, solo staking, and derivative staking contracts
Transfer	Token movements between wallets (non-exchange)
Uniswap-specific	V2/V3 fee claims, concentrated liquidity management, and flashloans

Solana-specific features include NFT LP detection (identifying Raydium and Magic Eden liquidity positions) and spam token fingerprinting to exclude dust and suspicious tokens from gain calculations.

3.4 Data Sovereignty Model

Tax reports are encrypted client-side using the user's private key and pinned to IPFS via Pinata. Only the NFT holder can retrieve their content identifier (CID) and decryption key. This design ensures that the platform never stores or has access to unencrypted tax data, eliminating the honeypot risk of centralized tax services.

3.5 Freemium Economics

The service layers access on subscription status: free users can fetch, classify, and compute tax gains without any token or NFT requirement. Exporting encrypted reports to IPFS and minting the soulbound CryptoTaxNFT credential requires an active paid subscription. This model enables discovery and adoption while driving recurring revenue through TAXGAS token burn.

3.6 Authentication via SWETH

SWETH (Sign With ETH) replaces traditional passwords with wallet-based cryptographic signatures on Base. Users sign a message with their wallet to authenticate, enabling seamless integration with Web3 wallets and eliminating dependency on centralized identity providers.

4. The TAXGAS Solution

The TAXGAS ecosystem is a vertically integrated stack consisting of three on-chain contracts and one off-chain service, all deployed on the Base L2 for low gas costs and Superchain interoperability.

4.1 CryptoTax Service

A Node.js backend that connects to EVM RPC endpoints and the Solana JSON-RPC to pull wallet transaction histories. It classifies each transaction (swap, transfer, NFT mint, yield harvest, etc.) using heuristic-based analysis and produces tax-ready reports. Reports are encrypted and pinned to IPFS; only NFT holders can retrieve their CID and decrypt.

4.2 CryptoTaxNFT (Subscription Gate)

A soulbound ERC-721 contract that serves as the subscription and access layer. When a user subscribes, the contract collects USDC and a small ETH gas fee. The USDC enters a multi-step swap pipeline: USDC is swapped to WETH via Uniswap V3 (leveraging deep existing liquidity), WETH is unwrapped to native ETH, and the resulting ETH is split — 50% (configurable via burnPercentage) is used to buy TAXGAS via the project's Uniswap V4 pool and deposited entirely into the SlowBurn Incinerator for permanent destruction, while the remaining 50% ETH is sent directly to the revenue wallet as platform income. No TAXGAS is ever sold back — only bought and burned.

4.3 TAXGAS Token

The ERC-20 token itself: 100 million fixed supply, burnable by any holder, with EIP-2612 gasless approvals. Built on OpenZeppelin v5 contracts compiled with Solidity 0.8.24, optimized for the Cancun EVM version.

4.4 SlowBurn Incinerator

A time-locked burn contract that distributes deposited tokens across 365 daily "jars" and permanently burns one jar per day. This creates a smooth, predictable supply reduction curve rather than sudden large burns. The crank function is permissionless, meaning anyone (including automated keepers) can trigger daily burns.

5. Token Architecture

The TAXGAS contract inherits from three OpenZeppelin v5 modules:

Module	Purpose
ERC20	Standard fungible token interface (transfer, approve, balanceOf)

Module	Purpose
ERC20Burnable	Allows any holder to permanently destroy their tokens via burn()
ERC20Permit	EIP-2612 gasless approvals — sign off-chain, execute on-chain

The constructor mints the entire 100M supply to the deployer address in a single transaction. No mint function exists post-deployment, making the supply permanently capped. Solidity version 0.8.24 with optimizer enabled (200 runs) targets the Cancun EVM, taking advantage of Base L2 gas economics.

6. Ecosystem Components

6.1 Subscription Flywheel

Each subscription triggers a deterministic on-chain flow:

- **Step 1:** User pays subscription fee in USDC + a small ETH gas fee.
- **Step 2:** ETH gas fee is routed to the gas wallet (funds keeper automation for SlowBurn cranks).
- **Step 3:** USDC is swapped to WETH via Uniswap V3 (leveraging deep existing USDC/WETH liquidity).
- **Step 4:** WETH is unwrapped to native ETH.
- **Step 5:** ETH is split by burnPercentage (default 50%). The burn portion is swapped to TAXGAS via the project's Uniswap V4 pool (1% fee tier), and ALL purchased TAXGAS is deposited into the SlowBurn Incinerator for permanent destruction over 365 days.
- **Step 6:** The remaining ETH (50%) is sent directly to the revenue wallet as platform income.

This design creates pure buy pressure on TAXGAS with zero sell-back — every token acquired through the flywheel is permanently destroyed. The revenue leg stays in ETH and never touches the TAXGAS market.

6.1.1 ETH Micro-Fee Crank

In addition to the subscription flywheel, the CryptoTaxNFT contract accumulates small ETH gas fees from each subscription. A permissionless crankETH() function allows anyone to trigger the same split-and-burn cycle on this accumulated ETH: burnPercentage% buys TAXGAS via V4 and deposits it into SlowBurn, the remainder goes to the revenue wallet. This creates a secondary burn channel funded by gas fees.

6.2 NFT-Gated Data Access

The CryptoTaxNFT is soulbound (non-transferable) and serves as a verifiable on-chain credential. Each NFT stores an IPFS CID pointing to the holder's encrypted tax report. Only the NFT holder can retrieve and decrypt their data, ensuring self-sovereign data ownership with no reliance on a central database.

6.3 Hybrid DEX Routing (V3 + V4)

The contract uses a hybrid routing strategy: Uniswap V3 for the USDC/WETH leg (where deep third-party liquidity already exists) and Uniswap V4 for the ETH/TAXGAS leg (the project's own pool with native ETH support and hook extensibility). This architecture maximizes execution quality while keeping the TAXGAS pool under protocol control.

7. Deflationary Mechanism: SlowBurn Incinerator

7.1 The 365-Jar Model

The SlowBurn contract maintains 365 storage slots ("jars"), each representing one day in a rolling annual window. When tokens are deposited, they are divided equally across all 365 jars. Any remainder dust (0–364 wei) is added to the current day's jar.

The crank() function is permissionless: anyone can call it to burn all jars from the last cranked day through today. If called daily, it burns exactly one jar. If multiple days are missed, a single crank catches up by burning all overdue jars in one transaction. This design guarantees that tokens are always burned on schedule, regardless of crank frequency.

7.2 Gas Efficiency on Base L2

A deposit writes to up to 365 storage slots (~1.8M gas worst-case). On Base L2 at typical gas prices of ~0.01 gwei, this costs less than $0.01. Daily crank operations require just one SSTORE and one burn call, making automated keeper operation economically trivial.

7.3 Burn Predictability

Unlike protocols that burn in unpredictable lump sums, SlowBurn creates a smooth, linear supply reduction. Holders and analysts can calculate the exact burn schedule from on-chain data: totalScheduled(), pendingBurn(), and jarBalance(index) are all public view functions.

8. Revenue Model

The platform generates revenue from two primary sources:

Source	Mechanism	Destination
Subscription Fees	50% of ETH (after USDC swap) sent directly as platform revenue	Revenue wallet
V4 Pool Fees	1% fee on all ETH/TAXGAS swaps via the Uniswap V4 pool	LP position (protocol-owned)

The gas fee collected in ETH at subscription time funds the automated keeper that calls crank() daily on the SlowBurn contract, ensuring burn operations remain self-sustaining. Additionally, accumulated gas fee ETH can be cranked via the crankETH() function on the CryptoTaxNFT contract, feeding the same buy-and-burn pipeline.

9. Tokenomics

Parameter	Value
Total Supply	100,000,000 TAXGAS
Decimals	18
Minting	One-time at deployment; no further minting possible
Burning	Continuous via SlowBurn (subscription-driven) + voluntary holder burns
Permit	EIP-2612 gasless approvals for DeFi composability
Primary Market	Uniswap V4 ETH/TAXGAS pool on Base (1% fee tier)
Bridge Compatibility	OP Standard Bridge for Superchain interop (OP, Zora, Mode, etc.)

9.1 Supply Dynamics

TAXGAS is strictly deflationary. There is no inflation mechanism, no admin mint function, and no upgrade proxy. Every subscription permanently removes tokens from circulation through the SlowBurn pipeline. The rate of supply reduction is directly proportional to service adoption — more subscribers means faster burn.

10. Roadmap

Phase	Milestone	Status
Phase 1	TAXGAS token deployment on Base Mainnet	Complete
Phase 1	Contract verification on BaseScan	Complete
Phase 2	SlowBurn Incinerator deployment	Complete
Phase 2	Uniswap V4 ETH/TAXGAS liquidity pool	In progress
Phase 3	CryptoTaxNFT deployment (subscription gate + flywheel)	In progress
Phase 3	CryptoTax service launch (EVM + Solana aggregation)	In progress
Phase 4	Superchain bridge integration (OP, Zora, Mode)	Planned
Phase 4	Token list submissions (CoinGecko, Trustwallet, Superchain)	Planned

Phase	Milestone	Status
Phase 5	Automated keeper network for SlowBurn cranks	Planned
Phase 5	Governance framework exploration	Planned

11. Security Considerations

- **No admin keys on token:** The TAXGAS ERC-20 has no owner, no pause, and no mint function post-deployment. It is immutable.
- **OpenZeppelin v5:** All contracts use audited, battle-tested OpenZeppelin libraries.
- **SlowBurn access control:** Only the authorized depositor address can deposit tokens; the crank function is permissionless. Owner can update the depositor address if the service wallet rotates.
- **Soulbound NFTs:** CryptoTaxNFT subscriptions are non-transferable, preventing secondary market abuse of subscription access.
- **IPFS + encryption:** Tax reports are encrypted client-side before IPFS pinning. The CID is stored on-chain, but only the NFT holder possesses the decryption key.
- **Verified contracts:** All deployments are source-verified on BaseScan via the Etherscan V2 API.

12. Conclusion

TAXGAS unifies decentralized tax reporting with a deflationary token model where usage directly reduces supply. The SlowBurn Incinerator's predictable 365-day linear burn schedule provides transparency and steadiness, while the subscription flywheel creates organic, sustained buy pressure with zero sell-back — every TAXGAS token acquired through the flywheel is permanently destroyed. Built on Base for minimal gas costs and Superchain-native bridging, TAXGAS is positioned to serve the growing need for on-chain tax infrastructure across the multi-chain ecosystem.

Contract Address: 0xAE153c5b73456Bc7b3cA2c2C09A3e77bdB5B515f (Base Mainnet)

BaseScan | Uniswap V4 | MIT License