

Summary

This is a proposal for adding borrow/lend support for StakeWise's sETH2 on AAVE.

Motivation

Staking is foundational to the Ethereum network, with liquid staking specifically providing users with the opportunity to unlock the power of their staked capital. One of the most requested features within our protocol is the ability to utilise sETH2 as collateral to borrow against.

sETH2 is ideal collateral for borrowing ETH specifically, given the high correlation between asset prices. Following the launch of eMode within Aave V3, sETH2 would allow for leveraged ETH staking without taking on a lot of risk. Lido's stETH has proven to be a valuable collateral asset within the Aave ecosystem and it's time to explore adding sETH2, the second most liquid ETH staking token. This integration would benefit both StakeWise and Aave, bringing new users to both platforms.

Relevant Links

[Website](#)

[Dune Dashboard](#)

[Audits - Runtime Verification, Certik and Omniscia](#)

[Documentation](#)

[Medium](#)

[Github Page

](<https://github.com/stakewise/contracts>)[sETH2 contract](#)

[StakeWise dual tokenomics](#)

[StakeWise Metro Upgrade](#)

Communities: [Discord](#) / [Twitter](#) / [Forum](#)

Specifications

What is the link between the author of the AIP and the Asset?

I (Jordan Sutcliffe) am the BizDev Lead at StakeWise, submitting the proposal on behalf of StakeWise DAO.

Provide a brief high-level overview of the project and the token

→ StakeWise Overview

StakeWise is a liquid ETH2 staking platform that removes key barriers to entry, such as requiring 32 ETH and the expertise needed for maintaining staking infrastructure, allowing anyone to benefit from the rewards of the Beacon Chain.

ETH deposits into the staking pool are tokenised into sETH2, representing users' interest-bearing (staked) capital. Staking rewards passively accrue in a separate token, rETH2 (note this application will focus solely on sETH2).

As a liquid staking platform, users are free to un-stake at any time by trading their sETH2 back into ETH utilising the protocol's deep liquidity pools.

Dmitri Tsumak first announced StakeWise was under development in April 2020. StakeWise launched on mainnet in March 2021, following a 9-month beta phase. StakeWise was the first staking pool to move to non-custodial staking in April 2021 and has since grown to over 70k ETH staked, helping DAOs, whales and individuals alike. In January 2022, the StakeWise Metro upgrade was announced, commencing the decentralisation of the protocol. Further information on Metro can be found [here](#).

StakeWise has been audited by [Runtime Verification, Certik and Omniscia](#).

→ sETH2 Overview

sETH2 tokens (ERC-20) represent a tokenised staking deposit into StakeWise's staking pool. sETH2 is consequently

backed 1-to-1 with ETH held within validators. sETH2 acts as an interest-bearing form of wrapped ETH (not re-pricing or rebalancing), providing holders with the right to a share of the staking pool rewards. These rewards are distributed in the form of rETH2.

sETH2 supply sits at [59,266](#) (~\$200M), held by ~3k individual users. The main liquidity pool for sETH2 is on UniSwap ([here](#)). This pool has ~\$160M TVL, consisting of ~26k ETH and ~30k sETH2. StakeWise is in the process of launching a second liquidity pool on Curve, with further details provided below.

Explain the positioning of token in the AAVE ecosystem. Why would it be a good borrow or collateral asset?

sETH2 is ideal collateral for borrowing ETH, given the high correlation and the proven peg stability of sETH2 (detailed further below). This makes sETH2 a prime candidate for Aave's new eMode to enable leveraged staking.

sETH2 collateral would also allow holders to take speculative positions, such as shorting an asset or taking a leveraged long position on ETH, for example.

sETH2 has deep liquidity with ~\$160M TVL, soon to be spread across multiple pools.

Provide a brief history of the project and the different components: DAO (is it live?), products (are they live?). How did it overcome some of the challenges it faced?

StakeWise's background is detailed above.

StakeWise DAO is live and manages the protocol. Whether it is changing the protocol fees, adding node operators to the network or making amendments to smart contracts, all changes require DAO approval. The StakeWise DAO is [community-owned](#) with all voting rights falling to holders of SWISE, the StakeWise governance token.

Investors in the StakeWise DAO consist of Blockdaemon, boldstart Ventures, Greenfield One, Collider Ventures, Lionschain Capital and gumi Cryptos.

The StakeWise product suite consists of liquid staking on both Ethereum and Gnosis chain, branching out into other PoS networks over time.

How is the asset currently used?

First and foremost, sETH2 provides holders, from individual retail stakers to DAOs, the rights to staking rewards from the Beacon Chain.

Creating utility for sETH2 is of the highest priority. Currently, sETH2 can be used to provide liquidity on AMMs, such as UniSwap and Curve. Multiple other integrations are lined up involving sETH2, such as using sETH2 as collateral to borrow against.

Emission schedule

There is no emission schedule. sETH2 is minted only when ETH is deposited into the StakeWise staking pool.

Token (& Protocol) permissions (minting) and upgradability. Is there a multisig? What can it do? Who are the signers?

→ Multi-sigs

StakeWise has run non-custodial ETH staking since April 2021. Prior to April 2021, a multi-sig was used, named the Horcrux, with ~18k ETH of the StakeWise pool currently controlled by the Horcrux. More info can be found [here](#).

The DAO treasury is a [Gnosis Safe](#) with a DAO committee of 7 persons. The goal of the DAO committee is to monitor transactions voted upon via Snapshot and reject malicious transactions that would harm the protocol. In order to reject a transaction, a threshold of 4 out of 7 committee members must sign the rejection.

1. [Anthony Sassano](#) - 0x648aA14e4424e0825A5cE739C8C68610e143FB79
2. [Auryn Macmillan](#) - 0x9Aa6Db877742aD8D8c7fE209F561fbd2bE19D5F4
3. [Dmitri Tsumak](#) - 0x61B01a33Aea3e827B3941Ab097778bd3FA48a332
4. [Jascha Samadi](#) - 0x152E9Af50257Fc12a84Bb47241cc0bd01ECD2ac1
5. [Mikko Ohtamaa](#) - 0x9cC9c3de8e710781983a65b90B7efEaaD2D3D7D8
6. [Miko Matsumura](#) - 0xA2E49855d672C3258A8442FA15F9Bc28f5A55980
7. [Otto de Voogd](#) - 0x1C86117156Ba31b5d62f02eB56bE9aC5a06610d3

→ Upgradable Contracts:

Yes (DAO approval only)

A successful Snapshot vote is required to make any changes to StakeWise smart contracts. The DAO is [community owned](#) and all voting rights fall to holders of SWISE, the StakeWise governance token.

Market data (Market Cap, 24h Volume, Volatility, Exchanges, Maturity)

Market Cap ~\$167M

Volatility -

sETH2 has proven peg stability. Superimposing stETH / ETH with sETH2 / ETH highlights this stability when compared against stETH which is already whitelisted for Aave.

Note that StakeWise will soon be adjusting the main UniSwap pool by reducing the fee tier from 0.3% to 0.01%, which is expected to close the remaining gap between sETH2 and ETH. StakeWise is also in the process of launching a new pool on Curve which will further increase sETH2's peg resilience.

Volumes and DEXs

→ [UniSwap V3 Pool \(sETH2/ETH\)](#)

Liquidity: \$160M

Volume (24h): ~\$350k on avg.

→ [Curve Pool \(sETH2/stETH\)](#)

This pool is in the final stages of being set up, with the addition of a liquidity gauge ([gauge proposal](#)) passing recently and at least 5k ETH of seed liquidity to be added ([proposal here](#)).

→ StakeWise is in discussions with multiple other protocols to create further liquidity pools with a diverse range of assets. Updates will be provided where relevant to this application.

Social channels data (Size of communities, activity on Github)

[Discord](#) - 3K members

[Telegram](#) - 1.4K members

[Twitter](#) - 5.25K followers

[GitHub](#) - Active and managed

Contracts date of deployments, number of transactions, number of holders for tokens

Date of Deployment: [January 25th, 2021

](<https://etherscan.io/tx/0x36713d91ebe27af027d9e6c39b487cbd06b8f676348f44730363e459eac62a15>) Number of Transactions (stETH): [16.360+](#)

Unique Holders: [2.916](#)

Risk Assessment

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image

1555×198 8.91 KB

](<https://europe1.discourse-cdn.com/business20/uploads/aave/original/2X/8/8b2e7c5f703c14e39f523cd4037ed76f08c36af5.png>)

Note that the Average volume numbers are currently on the low side due to only one liquidity pool being active for sETH2. Once the new Curve pool is seeded and incentivised, these average volume numbers will pick up due to arbitrage opportunities across the pools.

Security Considerations

→ Counterparty risks

StakeWise relies on an Oracle network to accurately report daily staking rewards to the rETH2 smart contract in order to mint and distribute the correct amount of rETH2. Currently, there are 5 oracles live with details provided [here](#). Note that the number of oracles on the network will be increasing from 5 to 10 over the coming months.

4 out of the 5 oracles are required to submit the same rewards data for the total supply of rETH2 is updated. Further information is found [here](#).

As previously detailed, the protocol is ultimately governed by the StakeWise DAO. Extra security features are in place to stop malicious transactions from passing through the DAO. For example, each successful on-chain proposal must undergo two days of escalation game, before entering one day of the multi-sig backstop period.

→ Staking risks

sETH2 holders are exposed to risks associated with staking, such as slashing events and downtime penalties. The StakeWise DAO has taken steps to mitigate these risks:

- Prospective node operators are vetted by the validator committee, required to enter a testnet and must pass situational stress testing. Only then will the StakeWise DAO vote for whether an operator can join the network. StakeWise only on-boards leading node operators to ensure the highest security and yield for its users.
- StakeWise provides node operators with an institutional-grade deployment package with embedded security features, such as the ability to quickly transition between staking clients on demand.
- There is no staking insurance currently in place, however we are working with a third-party to provide protocol-level insurance as a high priority (expected to be in place by early May).

Note that hostage risks are common in liquid staking pools, however this does not apply to StakeWise. The StakeWise DAO controls the exit signatures for its operators, allowing the DAO to force exit validators from the network should the situation arise. This makes it impossible for operators to hold pool funds hostage and will ensure that all future staking rewards, such as MEV and tips, flow to the pool.

StakeWise has experienced no slashing or downtime penalties to date.

→ Smart Contract Risks

Stakers are exposed to smart contract risk. To mitigate this, the protocol has undergone audits by 3 separate auditors: Runtime Verification, Certik and Omniscia ([reports are here](#)). Our code is open-source and available [here](#).

Despite having no security concerns to date, StakeWise is committed to reducing the risk for its users and is in the process of adding a \$200,000 bug bounty program with ImmuneFI.

→ Price Oracles

sETH2 currently relies on a UniSwap TWAP oracle. With the addition of new liquidity pools, we will be upgrading our oracle to a Chainlink oracle over the coming months.

Proposed Risk Parameters

- LTV: 70% (vs 82.5% for ETH)
- Liquidation Threshold: 75% (vs 85% for ETH)
- Liquidation Bonus: 7.5% (vs 5% for ETH)
- Reserve Factor: 10% (vs 10% for ETH)

The proposed sETH2 risk parameters are presented vs those of ETH and are in line with the current risk parameters of stETH. ETH and sETH2 are highly correlated, and as such, have similar volatility profiles. The LTV and liquidity threshold below that of ETH account for the extra risks associated with liquidating sETH2.

Interest Rate Model:

UOptimal: 50%

Base: 0%

Slope 1: 8%

Slope 2: 200%

sETH2 is best suited as a collateral asset, with the above interest rate model highlighting this fact. There is even an argument to on-board sETH2 as a collateral only asset, as is the case for stETH.

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Thanks for reading! We will open a snapshot after ~1 week to allow the community time to provide feedback.