

Arbitrum Gas Fees & Sequencer Revenue Proposal

Constitutional

Abstract

This proposal seeks to increase the amount of ETH flowing to the DAO's treasury through two milestone proposals: The first, increase the L2 minimum base fee from 0.01 gwei to either 0.03 or 0.05 gwei, and to establish a working group tasked with creating a subsequent Milestone 2 proposal that improves the DAO's ability to act swiftly when market forces signal a need for changes to Arbitrum's transaction fee mechanism.

Milestone 1 is a simple proposal to raise the L2 minimum base fee from 0.01 gwei to either 0.03 or 0.05 gwei. Milestone 2 will be a separate and subsequent proposal, created by the working group, that intends to create a more long-term solution. The decision to approach the subject in this manner was made on the working group call last week.

Motivation

The Arbitrum DAO has experienced a significant decline in ETH revenue, primarily due to recent transaction fee parameter changes brought about in the [ArbOS Atlas upgrade](#). From January to March 2024, the DAO spent an average of 13.8M ARB per month, primarily on protocol/user incentives. Additionally, the number of ARB funded programs continues to grow, which ultimately poses risks to the long-term value of ARB and subsequently, the DAO's treasury. Meanwhile the DAO's largest source of revenue—derived from the sequencer margin—has undergone a drastic reduction. This margin, a crucial component in achieving eventual DAO sustainability, has been impacted by reductions in L1 surplus fee and the minimum L2 base fee, as implemented in the ArbOS Atlas upgrade. Although these adjustments have reduced transaction costs on Arbitrum One, they have inadvertently flattened the ETH inflow into the DAO's treasury, as detailed in our recently [published research](#). We highly recommend reading this post prior to diving into the rest of this proposal.

This proposal aims to optimize the DAO's primary revenue mechanism to support the eventual long-term economic sustainability of the Arbitrum ecosystem without hindering protocol usage or growth. The DAO has missed out on substantial revenue since Atlas and this proposal looks to address that oversight. Implementation is particularly crucial during periods of aggressive user incentives, as these are times when the DAO misses out on material ETH revenue in return for the ARB it is spending.

While the DAO envisions diversifying its revenue streams through initiatives like the [GCP](#) and other capital allocation activities, licensing fees on the Arbitrum tech stack ([expansion program](#)), putting a portion of the treasury to work in [RWAs](#) and other yield-bearing strategies, the critical reliance on ETH revenue through sequencer margins remains paramount today and for the foreseeable future. This revenue is crucial not only for maintaining current operations but also for funding essential innovations that ensure Arbitrum retains its competitive edge such as the ETH denominated costs associated with BoLD. Building DAO revenue streams is of the utmost importance in order to secure the future of the ARB token and DAO.

Rationale

Ultimately, our goal is for the DAO to evolve into a sustainable entity, with robust and adaptable revenue mechanisms ensuring long-term stability and growth. For this to occur, adaptability is necessary. Dynamic adjustments to the minimum base fee variable will allow the DAO to swiftly respond to market conditions and protocol needs, ensuring that we can capitalize on opportunities and mitigate risks as they arise. A flexible approach will enable us to maintain a steady source of ETH denominated revenue, thus enhancing the DAO's treasury diversification, reducing dependence on ARB, and bolstering overall risk management.

While the need for flexibility in fee adjustments is evident given the dynamic nature of demand for Arbitrum's block space, properly designing such a system raises many open questions. Below are two potential paths for the DAO to consider as a part of Milestone 2, followed by a few open questions:

Option 1: Create a multisig through Hats protocol or a similar mechanism that has the ability to change the min base fee within a certain threshold, such as between 0.01 gwei and 0.1 gwei. Each signer would also have a legal agreement with the foundation that they are expected to change the min base fee variable based on a DAO snapshot vote that reaches a certain quorum (100M ARB). This mechanism maximizes community involvement in changes to the variable and reduces friction to adapt swiftly. However, we are not sure that the DAO is the best suited to make this granular level of decision in the context of the optimal minimum base fee.

Option 2: Implementing an RFP process to select service providers with optimistic control over the fee adjustments within certain thresholds. This mechanism provides a more responsive approach, leveraging decentralized governance tools like a Gnosis Safe, Hats protocol, and a X-day time lock with DAO oversight. This way, we can vote in the most suited entities to the role while minimizing their power. It is our suggested option that leads to many open questions. We dub this solution the Transaction Fee Mechanism Committee, or TFM Com.

Open Questions:

1. In addition to regular reporting and term limits, what are other accountability methods to ensure selected service providers answer to the DAO?
2. Negotiations and research will have to be conducted to determine a proper budget.
3. Should selected providers be given powers over more aspects, such as target gas per block, in addition to just the L2 minimum base gas fee? This would also give the Transaction Fee Mechanism Committee (TFM Com) the ability to conduct valuable research into the economic parameters of Arbitrum and potentially change them in future (with DAO approval)

Since it is a long-term strategic necessity for Arbitrum DAO to be adaptable amid constantly evolving market conditions, these questions should begin to be addressed by the already stood up working group. However given its current missed revenue and expenditure, there still remains an immediate need for the DAO to consider increasing the minimum base fee. This proposal seeks to address both of aforementioned problems in two milestones detailed further below.

Specifications

Milestone 1

Milestone 1 will proceed to Snapshot in the coming week(s) and is a constitutional proposal to increase the minimum base fee to 0.03 or 0.05 gwei. This represents a straightforward approach and addresses the immediate missed revenue of the DAO. These numbers have been chosen as they all fall substantially below the 0.10 gwei L2 minimum base fee that the protocol implemented prior, and still allow Arbitrum to be one of the cheapest Ethereum L2s. It is clear from the analysis of the competitive landscape that in general real users are not fee sensitive at these thresholds.

Milestone 1 is a swift change, addressing the immediate and [urgent revenue challenges](#) while we fine-tune the operational details of the TFM Com. For further motivation and reasoning around Milestone 1, again, please refer to our research post. This approach ensures we stop the ongoing loss of revenue as soon as possible. Concurrently, Milestone 2 will introduce a long-term solution, establishing a sustainable framework for the future. This dual-phased strategy underscores our commitment to both immediate improvements and enduring success.

Milestone 2

As Milestone 1 is working its way through the Constitutional AIP process, working group discussions will begin for Milestone 2. The purpose of these discussions is to determine the TFM Com's mechanisms, expectations, budget, and methods of accountability. Post working group discussions, we believe the first stage of Milestone 2 will be hosting an RFP process, in which we seek three quantitative mechanism design firms to sit on the TFM Com.

Assuming the working group is aligned with our thought process, after the three service providers have been decided, they will each be added as a signer to a $\frac{2}{3}$ SAFE multi-sig they will create. We will then utilize a role-based access control mechanism, such as [hats protocol](#), to give this multisig the ability to alter the minimum base fee between 0.01 and 0.1 gwei, or some other agreed upon range that is approved by the DAO. Each change must be reported to the DAO X (tbd) days before being made and go through an X (tbd) day timelock. The multisig will be created with upgradeexecutor as a module, allowing the DAO to replace members at anytime through an onchain vote.

Potential TFM Com Expectations (TBD in Milestone 2)

We envision the TFM Com being tasked with the strategic oversight and dynamic management of Arbitrum's min base fee variable. The committee's primary goal is to enhance the DAO's revenue adaptability and sustainability, ensuring that the platform remains competitive and financially healthy. While many details are still to be determined by the working group, below is how we anticipate some of the responsibilities and accountability measures.

Fee Adjustment Oversight:

- Monitor and analyze market conditions, user activity, and network demand to inform fee adjustments.
- Manage the minimum base fee within a predetermined range (initially set between 0.01 to 0.1 gwei) to optimize network usage without compromising the DAO's revenue streams or network stability.

Research and Reporting:

- Conduct ongoing research into various components of the fee mechanism, including but not limited to the target gas per block and the impact of fee changes on user behavior and network health.
- Prepare and present regular reports to the DAO on current fee structures, proposed changes, and the impact of implemented adjustments.

Community Engagement and Feedback:

- Actively engage with the community to gather feedback on transaction fee policies and their impact on the user

experience.

- Facilitate discussions and workshops to educate the community about the fee mechanism and the rationale behind proposed changes.

Accountability:

- The TFM Com will be held accountable to the DAO through regular updates and a robust audit process. Community feedback will be actively sought to assess the committee's performance and alignment with the DAO's long-term goals.
- The TFM Com will serve a predefined term length, but members can be replaced or the program terminated by the DAO through an onchain proposal at any time.

Timeline

June 17 - Forum Post

June 24 - Milestone 1 Snapshot Vote, ranked choice, with options:

- Do Not Change Min Base Fee
- Min base 0.03
- Min base 0.05

July 1 - Proceed to Tally for constitutional vote

Budget

Milestone 1 is free to implement for the DAO and the proposal process will be facilitated by Entropy Advisors.

Milestone 2 will require an additional DAO vote and a yet to be determined amount of funding, but these details fall outside of the scope of this initial proposal. The scope of the TFM Com's work still requires more input from the wider Arbitrum community, and will heavily influence the compensation of the Com's members.