



# Monetary Policy

April 24, 2018

## Aion: Enabling the decentralized internet

# MONETARY POLICY

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### ABSTRACT

This document provides a high-level summary of the general monetary policy for the Aion Network. The Kilimanjaro release was launched on April 25th, 2018. Validator\* rewards will be based on a fixed inflationary model, with an annual 1% inflation of total supply to be allocated to validator rewards. Considerations for the individual reward structures of future Aion blockchains with different consensus models is under active research. This monetary policy has been developed with the goal of achieving the economic needs of our Aion-Everest network design, while providing sufficient incentives for the adoption and growth of the Kilimanjaro release.

We are requesting any comments, ideas, and feedback from the community as we continue to update the model for future releases.

*\*The term "validator" generally refers to participants in the consensus process (Ex: Miners, Backers, Stakers, Solvers)*

### VALIDATOR REWARDS

Validator rewards in the Aion Kilimanjaro release, take the form of traditional mining rewards, which are calculated based on a 1% annual inflation of the total Aion supply. This results in a inflationary mining reward of ~4.56M AION in the first year. This inflationary model rewards mining participants through new coins, while addressing annual coin loss (key loss, lockup, etc). This is important to ensure a sufficient amount of active circulating supply to promote network utilization and to meet increasing demand. When the hybrid consensus network is launched (Aion-Everest), the inflationary reward model will support the incentive structure for broad participation in the active backing of validators.

This results in daily rewards of 12,942.627 AION in the first year (Post ramp-up period). Mining rewards are in the form of the native AION coin.

Below are the formulas that will be used to calculate the per block mining reward. The Kilimanjaro mining reward is calculated based on a 10 second block time.

$$D_r = \frac{P_{supply} * 1\%}{360}$$

$$B_r = \frac{D_r}{\left(\frac{86,400}{B_t}\right)}$$

$P_{supply}$  = Total AION supply at the start of the period (Ex: Year 1: 465,934,587.66)

$D_r$  = Daily Reward

$B_t$  = Block Time

$B_r$  = Block Reward

360 = Days per year (Normalized standard)

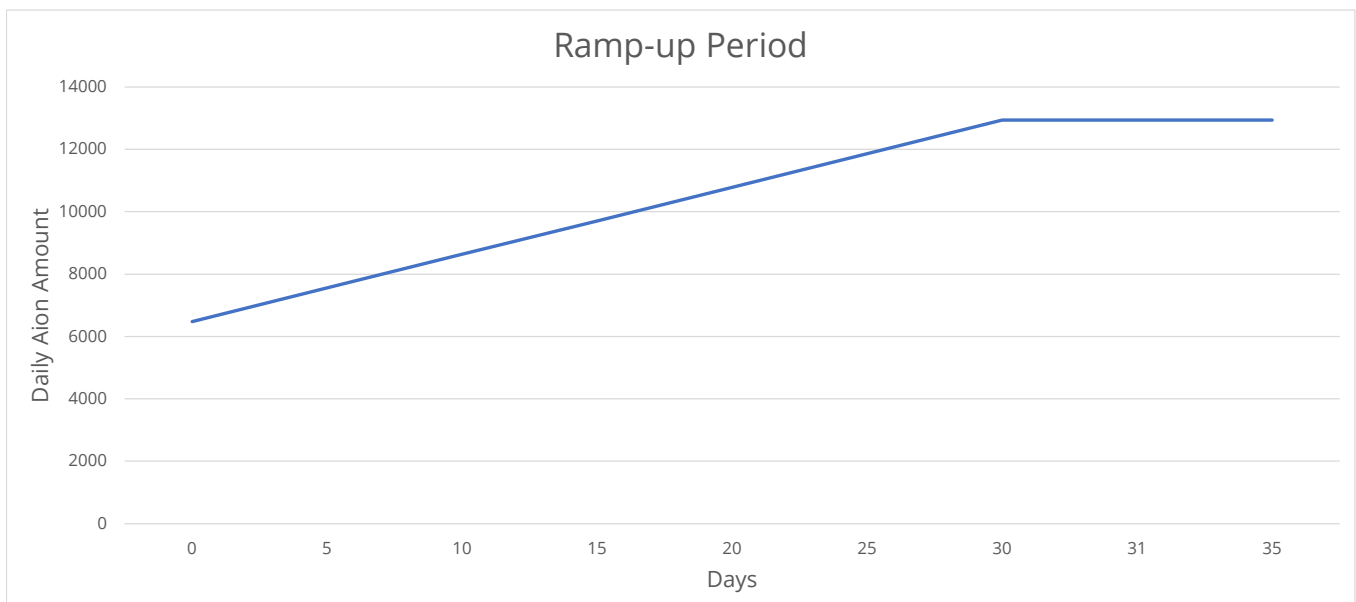
86,400 = Seconds per day

### Three Year Supply Inflation Estimate

End of Year 1 Supply	End of Year 2 Supply	End of Year 3 Supply
470,496,864.20	475,201,832.85	479,953,851.18

*\*Projected based on 360 days/year. Actual time intervals based on block times*

### RAMP-UP PERIOD



Start Reward (Day 0)	Daily Increase	Final Reward (Day 30)
6579.18 AION	215.71 AION	12,834.78 AION

*\*Mining rewards increase per block during ramp-up phase. Values are rounded up.*

The Kilimanjaro release of the Aion blockchain will be based on an optimized proof-of-work consensus algorithm named Equihash210\_9. This release is intended to serve as a platform to onboard miners, dApp developers, and enterprise users in a real-world environment. This will promote use, feedback, and improvements as we build and test future releases.

## UPCOMING CONSIDERATIONS & ONGOING RESEARCH

### HYBRID CONSENSUS

Following the Kilimanjaro release, the next major milestone will be the launch of Aion-Denali. As we launch upgraded blockchains, like Aion-Denali, a bridge will be created between the existing Aion blockchain (Kilimanjaro) and the new one (Denali). With multiple native\* Aion blockchains connected and operating in parallel the total supply of AION will live across multiple blockchains. The 1% inflation-based mining/validation reward will operate across native Aion blockchains, with research on-going on the particular reward structures for the unique consensus models on each native Aion blockchain.

*\*A native Aion blockchain, is a blockchain that is launched by the Aion Foundation. AION coins will only exist on native Aion blockchains (Ex: Kilimanjaro, Denali, Everest).*

### MULTI-CHAIN REWARD CONSIDERATIONS

We believe that rewards should be proportional to the utility of a network. The experiments we are conducting relate to providing sufficient rewards that scale with the growth of each Aion blockchain. AION coins will be free-flowing across native Aion blockchains and we want to promote the stability of existing networks, while rewarding the adoption of new Aion blockchains as they are deployed. The mechanism by which the mining reward is proportionally and dynamically allocated to multiple native Aion blockchains is under research. In addition, the method by which rewards are allocated in each native Aion blockchain will meet the economic requirements of that chain's consensus model.

## COMMUNITY ENGAGEMENT

As an open-source project, transparency and community engagement is key to Aion's success. This high-level summary is the first of multiple economic blogs and papers to be released in the coming months as we develop and test hypotheses, models and scale the network. We are requesting anyone with any ideas, comments or feedback to engage with us on the [Aion Forum - Monetary Policy](#) thread. Looking forward to your thoughts.