Bigcoin: A Peer-to-Peer Electronic Big Cash System

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Abstract

Bitcoin is the most iconic and successful cryptocurrency ever created. Its simplicity, fixed supply, and halving-based emission schedule have stood the test of time. This is objectively the greatest token mechanic ever created. Bigcoin is built on this truth. Bigcoin's mission is simple: to become the most recognized token in the world; it is Bitcoin, but bigger. It takes the exact mechanics that made Bitcoin legendary and scales it with precision and purpose. Bigcoin is launching as the largest token economy on Abstract, the biggest consumer chain. With a fixed supply of 21 million, a halving schedule every 4,200,000 blocks, and a fully onchain mining system, Bigcoin reboots the Bitcoin playbook for a new generation of users.

1 Introduction

Everyone knows Bitcoin. It's the most well-known and widely recognized cryptocurrency in the world. People understand it: a fixed supply, decentralized mining, and halving every few years. But for the next generation of users, gamers, creators, investors, new entrants to crypto; Bitcoin is too expensive, too slow, and too disconnected from the worlds they live in.

Bitcoin relies on proof-of-work mining. However, buying physical mining hardware is expensive, dominated by monopolistic mining pools, and nearly impossible for new entrants to participate meaningfully. Bigcoin flips this dynamic, offering accessible, onchain mining with no hardware requirements, using the same economic foundation and decentralization that made Bitcoin work. By utilizing onchain mining, Bigcoin makes the most iconic token model accessible, earnable, and understandable by anyone.

Bigcoin aims to become the most recognized coin on the planet by combining the proven emission mechanics of Bitcoin with viral, community-driven incentives.

2 Supply Cap and Distribution

Bigcoin has a fixed supply of 21 million tokens. Emission follows a geometric distribution:

$$S = \sum_{i=0}^{\infty} R_0 \cdot N_h \cdot \left(\frac{1}{2}\right)^i = 21,000,000 \tag{1}$$

3 Halving Schedule

Bigcoin follows a halving mechanism inspired by Bitcoin. The reward per block is 2.3 $ BIG and halves every 4,200,000 blocks, approximately every 53.5 days assuming a 1.1-second average block time.

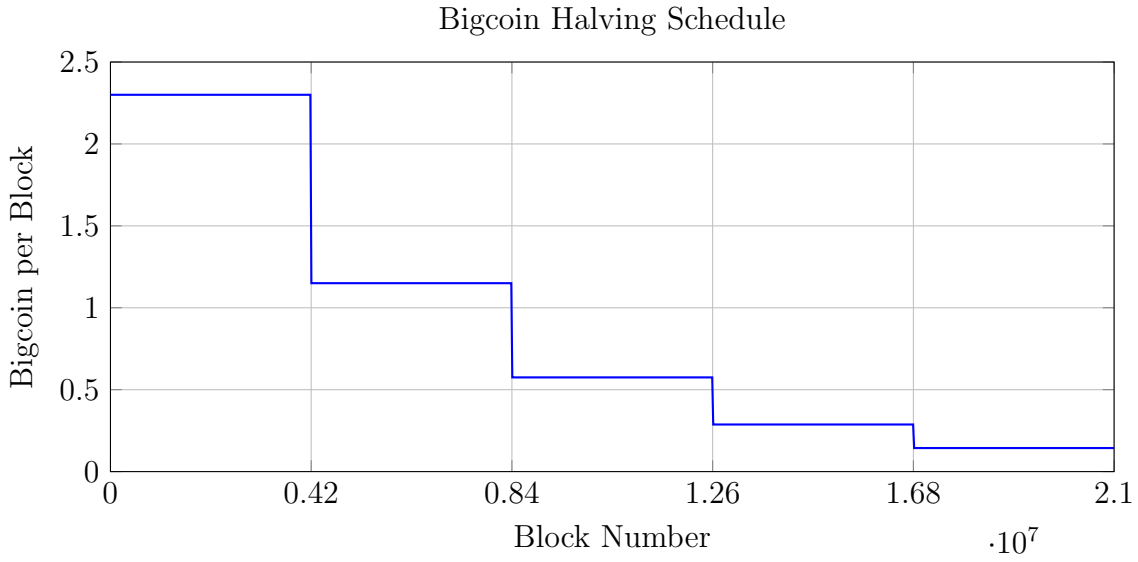

Figure 1: Emission rate of Bigcoin per block over time. Halves every 4,200,000 blocks.

Block Emission Formula

$$R_b(n) = R_0 \cdot \left(\frac{1}{2}\right)^{\left\lfloor \frac{n}{N_h} \right\rfloor} \tag{2}$$

Where:

- $R_0 = 2.3$ is the initial emission rate (Bigcoin per block)
- n is the current block number
- $N_h = 4,200,000$ is the halving interval in blocks

4 Onchain Mining

Players acquire miners and facilities, each contributing to a user's total hashpower. Mining rewards are distributed every block, proportionally to each player's share of the network hashrate.

Hashpower Contribution

Let:

- h_i be the hashpower of player i
- H be the total network hashpower: $H = \sum h_i$
- R_b be the Bigcoin emission rate per block

Then the Bigcoin reward for player i in a block is:

$$R_i = \frac{h_i}{H} \cdot R_b \tag{3}$$

Miners

Miners are used to gain hashrate in the network. Every miner has three fields:

- **Hashrate**: The amount of hashrate provided by this miner.
- **Power Consumption**: The amount of electrical power required to operate this miner.
- **Cost**: The cost in $ BIG required to purchase this miner.

Miners can be purchased at any time using $ BIG, as long as the facility has room.

Facilities

Facilities house miners. Facilities can be upgraded using $ BIG, but there is a 24-hour cooldown before the next upgrade. Every facility has three fields:

- **Total Miners**: The total number of miners this facility can hold.
- **Power Output**: The total amount of electrical power this facility can output.
- **Cost**: The cost in $ BIG required to upgrade to this facility.

The following constraint must be satisfied:

$$\sum(\text{Power Consumption of all miners in facility}) \leq \text{Facility Power Output}$$

5 Initialization, Referrals, and Burn Mechanics

Players begin by purchasing their initial facility with a small amount of ETH to prevent sybil attacks. This facility comes with an optional free miner to kickstart mining immediately. After initialization, all further miners and facility upgrades are purchased in $ BIG.

Bigcoin incorporates both deflationary pressure and viral growth incentives through its referral and burn mechanics:

- **Burn Mechanic**: 75% of all miner purchases and facility upgrades are permanently burned, reducing total supply over time.
- **Referral Rewards**: 2.5% of all mined rewards are allocated to the referring address, creating a sustainable incentive for user-driven onboarding.

These systems ensure there's a constant $ BIG sink while rewarding early growth and long-term participation.

6 Contract Address

- **Bigcoin Token**: 0xDf70075737E9F96B078ab4461EeE3e055E061223
- **Main Program**: 0x09Ee83D8fA0f3F03f2aefad6a82353c1e5DE5705