PHL and CityCoins

A Bold Fundraising Opportunity

December 15, 2021

MIA

$24,458,519.51

USD | STX
MIA City Wallet

NYC

$27,084,567.96

USD | STX
NYC City Wallet

Start of fundraising: August 2021

Start of fundraising: November 2021

City reserve wallet balances as of Dec 7th, 2021

What is CityCoins?

- A not-for-profit setup to bring the value of the Web 3.0 technology to cities.

- Created a new model of fundraising for cities using the cryptocurrency aspects of digital tokens.

- Philosophically and technically, CityCoins operates in a decentralized manner.

- Decentralization is the key differentiator of Web 3.0 technologies: blockchain, smart contracts, NFTs, etc.

- Decisions by CityCoins, including which cities get tokens, are directed by the community of individuals who participate in and invest money into Citycoins programs: Miamicoin, NYCcoin, Austincoin.

CityCoins is like a Lottery or Silent Auction

What CityCoins is Not

- **Not** a request of citizens by the city to purchase and hold cryptocurrency to pay for city bills, taxes or other services.

- **Not** a requirement for the City to hold cryptocurrency as a financial asset.

- **Not** the means by which the crypto industry can lobby and influence Philly politicians outside of campaign finance rules.

How CityCoins Works – High Level

STEP 1

The community mines to create CityCoins

Mining CityCoins is performed by forwarding STX tokens into the smart contract in a given Stacks block, and is a one-way process. Miners are rewarded with new CityCoins tokens.

STEP 2

Stackers receive the STX spent to mine the CityCoins

70% of mining rewards are distributed to people who chose to stack their CityCoins (Stackers).
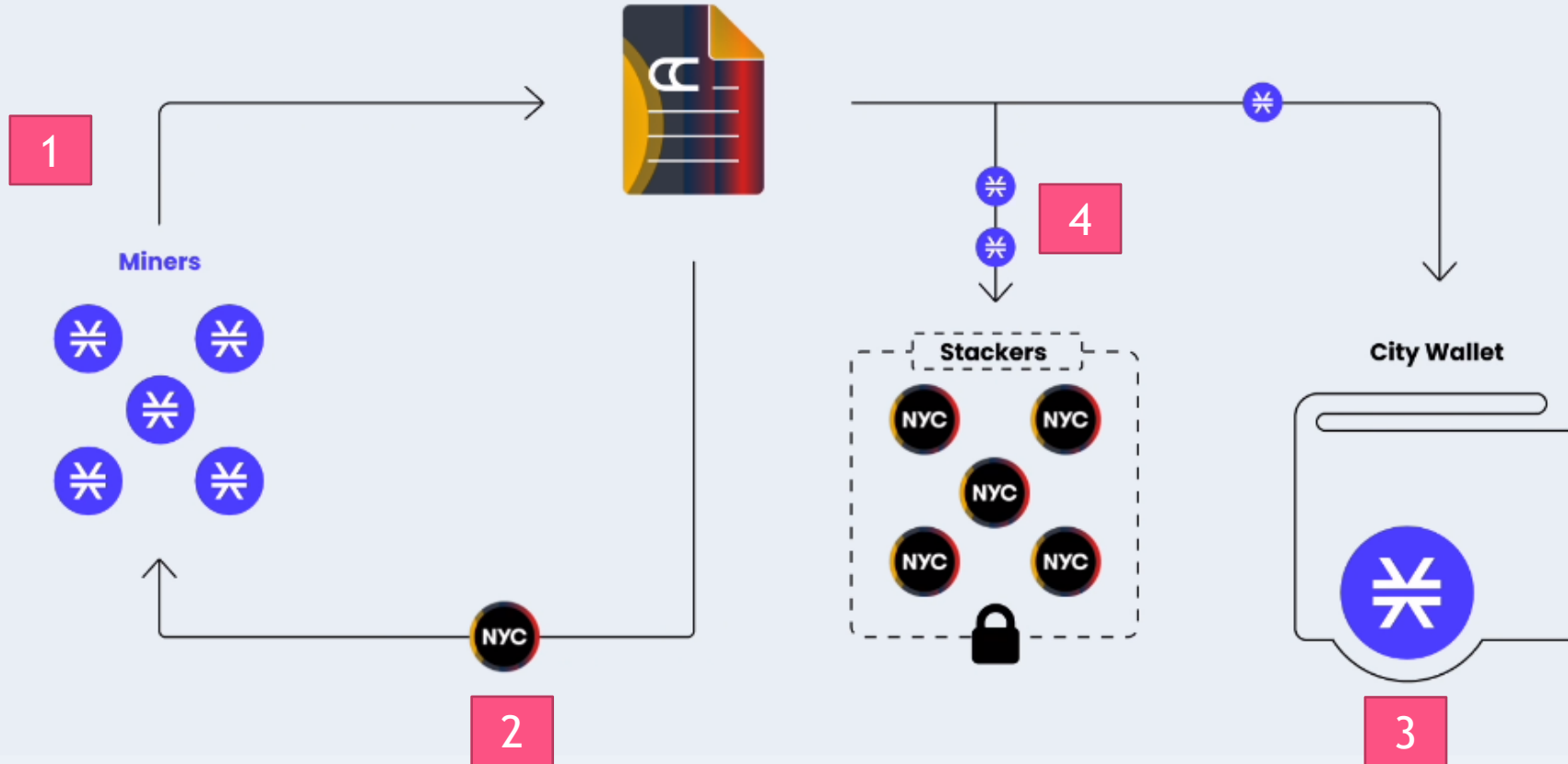
STEP 3

The city's reserved wallet grows

30% of mining rewards are sent (in STX) to a city's custodied reserve wallet.

The city can claim this and convert their STX to USD whenever they want.

See Appendix, slides 16-18 for definitions of terms

The Protocol

1. Individuals (miners) commit STX tokens to a smart contract for a mining cycle.

2. The winning miner(s) is selected at random and awarded Citycoins.

3. **30% of STX committed to a mining cycle goes to the city's dedicated wallet.**

4. 70% of STX goes to individuals that have "stacked" CityCoins in a collective smart contract.

How are Funds Donated to the City?

- Gift agreement between CityCoins Inc. and the city.

- The STX tokens are held in a **custodial multi-signature wallet** by CityCoins.

- CityCoins exchanges STX for $USD on a crypto marketplace.

- City accepts the donation in $USD under a gift agreement with CityCoins and designates a municipal authority or mayor's fund as receiver.

Incentives for Participants

1. Altruism – supporters of cities.

2. Desire to see crypto and Web 3.0 technologies gain greater adoption and proof of value.

3. Playing the lottery aspects of the program.

4. Passive income from stacking Citycoins in smart contracts.
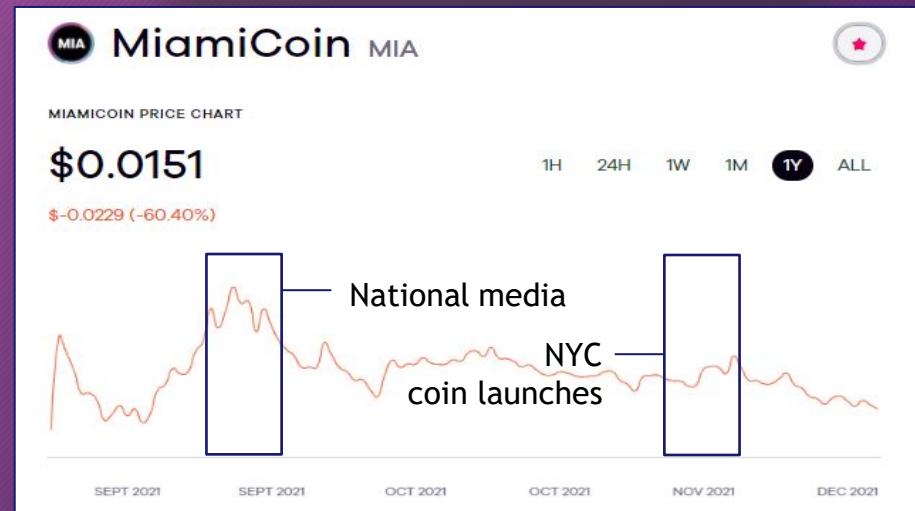
Incentives for Cities

1. No capital, computing, or dedicated staff resources required of city government.

2. Raises city's profile as innovative, forward thinking, and pro technology.

3. No-risk experiment with digital tokens and opportunity for local tech community to partner with city on innovative projects.

Miami Officially Votes to Accept $4.3M in MiamiCoin Protocol Contributions

CityCoins Community
September 13, 2021

Eric Adams ✔
@ericadamsfornyc

We're glad to welcome you to the global home of Web3! We're counting on tech and innovation to help drive our city forward.

CityCoins @mineCityCoins
It's official: CityCoins are coming to the Big Apple 🍎

Last week, NYC's Mayor-elect @ericadamsfornyc said that he wants to have a CityCoin for NYC like Miami's.

This week the CityCoins community is responding by activating NYCCoin mining!

citycoins.co/nyccoin

3:11 PM · Nov 8, 2021

Downside Risks

- Doners are anonymous – as in all lotteries, silent actions and across philanthropy.

- Technical – a bug in the smart contract.
   Chance is very low based on months of trouble free operation with Miami.

- Administrative – change of leadership at Citycoins.

- Reputational - participation is less than with other cities.

- Political – Negative beliefs about cryptocurrencies.

- Tokens Devalue – as more cities onboard the value of tokens might drop weaking the incentives for participation.

Appendix

Definitions

Blockchain

An append-only ledger of transactions. Each block is a set of transactions.

Decentralized - No single owner. Operators are incentivized with tokens to append transaction to the chain, validate transaction and run the network.

Secured by cryptography, each block is one-way encrypted to subsequent blocks.

Permissionless – public and open, anyone can use, no one group can restrict use.

Mining

The means by which blockchain operators compete to write transactions to the append-only ledger and **create digital tokens or cryptocurrency**.

Mining is executed under a consensus model for who wins the right to append to the blockchain. Consensus may require miners to solve a complex math proof or have ownership of large qty of tokens or be selection via probability formula.

CityCoins uses a probability formula in a smart contract. CityCoins miners **do not** need to own or operate dedicated computing equipment for mining.

Definitions

Smart Contract

Programmable and auditable software for use on blockchains.

Protocol – a set of smart contracts or software code on a blockchain designed to achieve governance and execute operations like mining.

The means by which Citycoins tokens mined, locked-up (stacked) & distributed.

Stacks (STX)

The native token of the Stacks decentralized blockchain and network.

Developed at Princeton U. in mid-2010s. Commercial applications: smart contracts, identity management, and NFT functionality for Bitcoin ecosystem

Reuses Bitcoin in its consensus mechanism as to avoid additional, expensive computational power and energy consumption to run the network and apps.

Definitions

Stacking

The process by which individuals lock-up or "stack" their CityCoins in a smart contract as means for accruing additional rewards.

Rewards are generated by the 70% of STX tokens committed by miners in each mining cycle.

Stacking is also a means for securing the Stacks blockchain.

Digital Wallet

Software application for storing digital assets (e.g., cryptocurrency).

Hiro is native wallet for Stacks and Citycoins.

Wallets have public and private key pairs to manage ownership and transfer of tokens to and from blockchains and Web 3 apps. On the blockchain the public key is always required for public viewing.

Cryptocurrency Regulations

- Cryptocurrency owned by individuals is classified as "property" and unregulated by federal agencies: FDIC, SEC, FinCEN. (1)

- PA Department of Banking Services guidelines on Money Transmitter Licenses and Virtual Currency states that: (2)

  "Pennsylvania law has defined money as 'lawful money of the United States.' Virtual currency, including Bitcoin, is not considered 'money' under the MTA. To date, no jurisdiction in the United States has designated virtual currency as legal tender"

(1) Frequently Asked Questions on Virtual Currency Transactions https://www.irs.gov/individuals/international-taxpayers/frequently-asked-questions-on-virtual-currency-transactions (2) Money Transmitter Act Guidance for Virtual Currency Businesses,' https://www.dobs.pa.gov/Documents/Securities%20Resources/MTA%20Guidance%20for%20Virtual%20Currency%20Businesses.pdf

How it Works – Mining Rewards

Issuance Schedule

Miners receive coinbase rewards for mining the CityCoin outlined in the table below. The "halvings" occur at intervals similar to Bitcoin and Stacks, every 210,000 blocks, and there is a 10,000 block bonus reward for early miners.

The issuance schedule does not begin until mining is activated, and once it begins, the current block height of the Stacks blockchain is recorded in the contract. From there, the issuance continues as follows:

Time Period	Reward	Notes
First 10,000 Stacks Blocks	250,000 CityCoins	approx. 3 months
Next 200,000 Stacks Blocks	100,000 CityCoins	approx. 4 years, minus bonus period
Next 210,000 Stacks Blocks	50,000 CityCoins	approx. 4 years
Next 210,000 Stacks Blocks	25,000 CityCoins	approx. 4 years
Next 210,000 Stacks Blocks	12,500 CityCoins	approx. 4 years
Next 210,000 Stacks Blocks	6,250 CityCoins	approx. 4 years
After 1,050,000 Stacks Blocks	3,125 CityCoins	continues indefinitely

How it Works - Mining CityCoins

Mining

CityCoins are mined by forwarding STX (the Stacks token) to the CityCoins smart contract on the Stacks protocol. The winning miner can claim their rewarded CityCoins from their Stacks address at any time.

30% of the STX that miners forward to the Stacks protocol is sent directly to a wallet that is reserved for each city that is part of the CityCoins ecosystem. The mayor of a city may elect at any time to accept the reserved wallet to access the treasury for use by the city.

Stacking

CityCoins earn for holders in STX and BTC through a function on the Stacks protocol known as *Stacking.*

The remaining 70% of the STX that miners forward to the Stacks protocol is distributed to holders of CityCoins who choose to stack their tokens. Stacking requires holders to lock their CityCoins for determined "reward cycles."

Stacking CityCoins earns STX rewards. STX rewards can further be stacked on Stacks to earn BTC rewards.