MetaMine

MINE PAPER

v1.0

Abstract

In this article, the author proposes a DAO-managed community built on crypto minings as a solution for the currency in the Metaverse. MetaMine, the proposed name for the community, reflects the importance of mining in Metaverse development.

The article also addresses environmental concerns, which are currently a major issue in the mining industry, and suggests that the entire community work together to fight carbon emissions and help the community grow based on this green earth goal by revolutionizing the crypto mining industry with greener and cleaner energies.

The community is designed using DAO governance logic. The platform developers are working hard to guarantee that the community's operations are overseen by a publicly elected committee and refrain from affecting any management outcomes that are not built in the system, except for systematic failures and frauds.

In the long run, the developers seek an Ultimate DAO structure through a new public chain. As a result, all decisions and operations are voted on and executed on the blockchain.

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Introduction

In this chapter, we will briefly explain what MetaMine is and its origin.

In chapter II, we review bitcoin, blockchain and crypto mining. We want to emphasize the ESG consideration and the massive energy usage of crypto mining.

In chapter III, we explain the goal of MetaMine community and circulation logic of MINE token in detail.

In chapter IV, we demonstrate some future applications and key characteristics.

In chapter V, we provide a tentative road map with a timeline.

Mining as a fundamental activity

Mining is the process of extracting useful materials from the earth. Some examples of substances that are mined include coal, gold, or iron ore.

The process of mining dates back to prehistoric times. Prehistoric people first mined flint, which was ideal for tools and weapons since it breaks into shards with sharp edges. The mining of gold and copper also dates back to prehistoric times.

Many countries view the mining sector as a key engine of economic development. In fact, the mining industry provides all natural resources. Those resources act as the foundation of high-speed developments of all aspects of the world.

But what's the analog of mining in the Metaverse? Is there such an activity that provides resources that drive the development of Metaverse?

One will think this should be something related to the crypto mining industry. But how can we leverage the crypto mining business and make it a key driver for Metaverse development?

The ESG Considerations

Environmental advocates have long criticized the mining industry since it could harm the environment in many ways.

Likewise, crypto mining is also suffering environmental criticism due to its huge consumption of electricity. And a big chunk of the electricity it relies on comes from non-renewable energy resources.

A new report from Bloomberg estimates the machines that mine Bitcoin located around the world consume about as much power as all of Bangladesh, a country of more than 160 million people. The Cambridge Bitcoin Electricity Consumption Index estimates cryptocurrency uses more energy than entire nations like Sweden and Malaysia. For detail, see the Bitcoin Mining ESG consideration in Chapter II.

This brings us the urgency to advocate for a more sustainable crypto mining industry. Developing new technology and energy sources to drive global participation in greener and cleaner mining is on the edge of innovation.

The DAO Governance

While we look for the best organizational structure, we prioritize the democratic privilege of every participant. As a decentralized platform, we aim for democracy in a more stable, rational, or even cold way as opposed to current human organizations built on human judgments.

Just as Dr. Merkle writes:

“Modern research into ‘the wisdom of crowds’ provides new insights into how to combine the expertise of all participants without handing over control to ‘experts.’ Combined with research on Decentralized Autonomous Organizations (DAOs), this allows us to design a new form of democracy which is more stable, less prone to erratic behavior, better able to meet the needs of its citizens, and which better uses the expertise of all its citizens to make high-quality decisions.
We call this new form of democracy a DAO Democracy.”

This inspired us to adopt the DAO structure.

The MetaMine Project

Combining our views on Metaverse Currency, DAO Development, Green Mining ambition, and Global Policies, MetaMine introduces the world's first green mining community built on DAO governance.

MetaMine is an open-source project on multiple blockchains and a Decentralized Autonomous Organization. The project is managed by its circulating token holders. Through a system involving Committee Election and Operation Decision Voting, MetaMine community members can vote for all operational decisions of the MetaMine Project.

The MetaMine community has several key goals that we are devoted to achieve in one single ecosystem:

1. To provide a circulating currency for Metaverse that is based on crypto mining.
2. To revolutionize the crypto mining industry, making it greener and cleaner.
3. To bring democracy to the organization, so we don't fear being overruled by extreme power.

The community will act as a fundamental part of the virtual world, a.k.a. the Metaverse.

The community would issue a utility token. This token will be the key component for DAO governance, and at the same time, will function as a universal currency in Metaverse.

Currency or Resource?

One can always argue that resource is resource while currency is currency. And indeed, in today's world, due to split cultures and inter-sovereignty competitions, governments tend to create sovereign currency to protect each one's own economic system. But what if we only have a united society in the world? Do we need sovereign currency anymore?

If we read the history prior to and during most of the 19th century, international trade was denominated in terms of currencies representing gold's weights. Most national currencies at the time were merely different ways of measuring gold weights

Back in the pre-1970s, the Bretton Woods system essentially links U.S. Dollar to Gold, in the sense that sovereign currency, the USD, represents Gold. The system eventually collapsed due to the limit of sovereign currency, which tried to benefit from the sovereignty.

We also saw Pound Sterling and Spanish Dollar play similar roles in the earlier age, but both eventually failed.

All that we can see is, there is always the fundamental natural resource that acts like a super currency, and all sovereign currencies are merely the local denominator and less-costly representative of that.

So why don't we combine the concept of currency and natural resources, say use gold directly? One key reason is that the friction cost and storage cost are high in the physical world. And the use of state-backed currency unarguably minimizes these costs. However, this is not true in the Metaverse.

The MINE Token

MetaMine introduces the world's first fungible token, ticker as MINE, that allows every holder to participate in the forging of crypto mining society democratically and can also be used as universal currency in Metaverse.

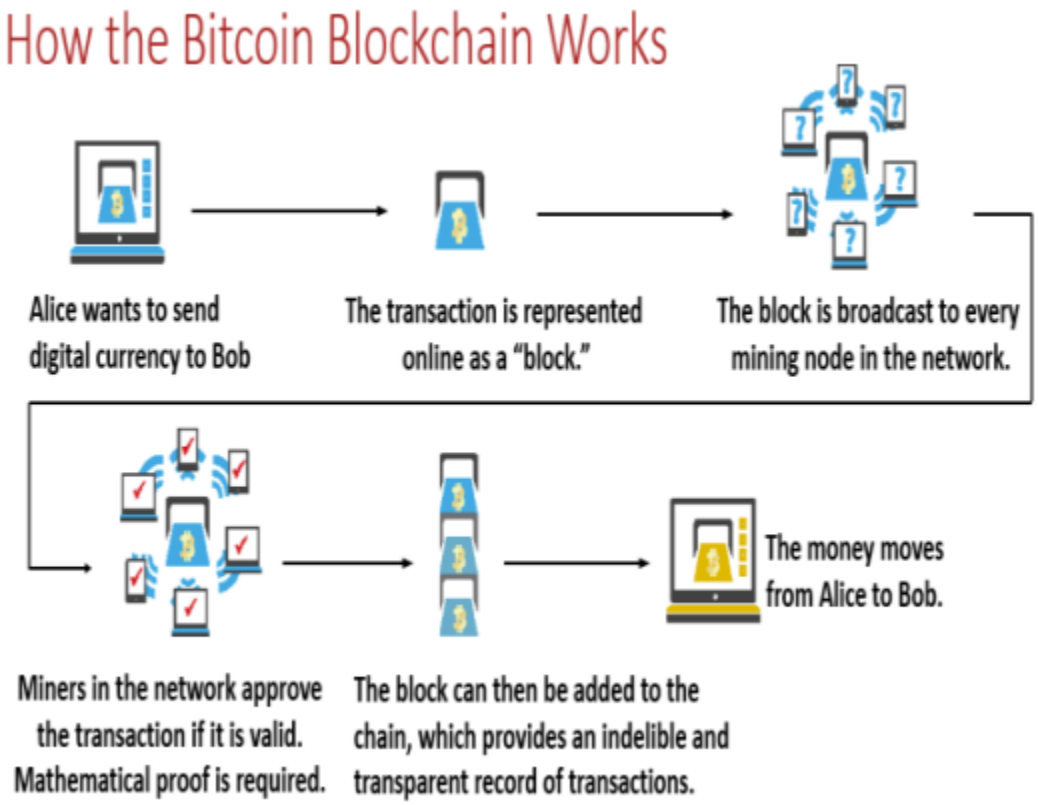
One can be an advocate to steer the direction of the MetaMine community to revolutionize the mining industry by holding the MINE token and proactively submitting the ballot. One can also spend the MINE as a universal currency in exchange for other properties in the Metaverse. The initial issuance of MINE will be fixed, and no extra MINE will be issued unless the community members vote to do so.

MINE's voting weight is proportional to the average MINE tokens held in the voters' address during a voting period. In other words, the more MINE tokens held in the address and the longer the MINE tokens are held, the greater the voter's decision-making power.

Bitcoin, Blockchain and Bitcoin Mining

Bitcoin (BTC) and Blockchain

Bitcoin was created by Satoshi Nakamoto, who published the invention and later implemented it as open-source code. Bitcoin is a digital asset generated and transferred through a public, distributed ledger known as the Bitcoin blockchain. Bitcoin's innovation lies in its ability to coordinate trust and facilitate the transfer of value without relying on a centralized authority.



Bitcoin can be used like fiat currency to conduct transactions, or it can be exchanged for fiat currency itself on digital asset exchanges. Blockchain consists of records known as "blocks" cryptographically linked and timestamped as they are added to the chain. The Bitcoin blockchain is the public ledger specific to Bitcoin,

upon which Bitcoin transactions and ownership are recorded. One of the key features of the ledger is immutability, or the inability to manipulate entries after they are entered into the blockchain. Because the ledger is public and distributed, it is not owned by any individual entity that uses it. This feature is designed to increase security and trust in the network. Individual users interact with the public network through their wallets, which store each individual's Bitcoin holdings and are secured by a private key that the individual owns.

As of this writing, Bitcoin's network value, or market capitalization, is roughly $2.3 trillion, making bitcoin mining one of the most significant beneficiaries of its appreciation over the last decade. Once dominated by hobbyists drawing central processing units (CPU) from desktops, mining has evolved into a hyper-competitive, multibillion-dollar industry2 harnessing specialized chip hardware.

Bitcoin Mining

Bitcoins don't exist physically and are merely a sequence of virtual data. There's no central authority for Bitcoins, similar to a central bank that controls currencies. Instead, programmers solve complex puzzles to endorse Bitcoin transactions and get Bitcoins as a reward. This activity is called Bitcoin mining.

Some Tedious Tech Details about Bitcoins Mining

Specifically, Bitcoin miners use the purpose-built application-specific integrated circuits (ASICs), or mining rights, to validate transactions on the BTC blockchain network. The validation process involves confirming transaction parameters and avoiding the double-spending issue inherent in digital currencies. After the validation is done, the mining party gets rewarded with the newly issued BTC, thus the mining analogy.

Here is how it works in more detail. Get a dominant CPU with the best processing power. A blazing speedy internet link. Next step, many online networks list out the newest Bitcoin transactions taking place in real-time. Log on with a Bitcoin client and attempt to validate those transactions by evaluating blocks of data, called the hash. The communication travel through several systems, called nodes, which are

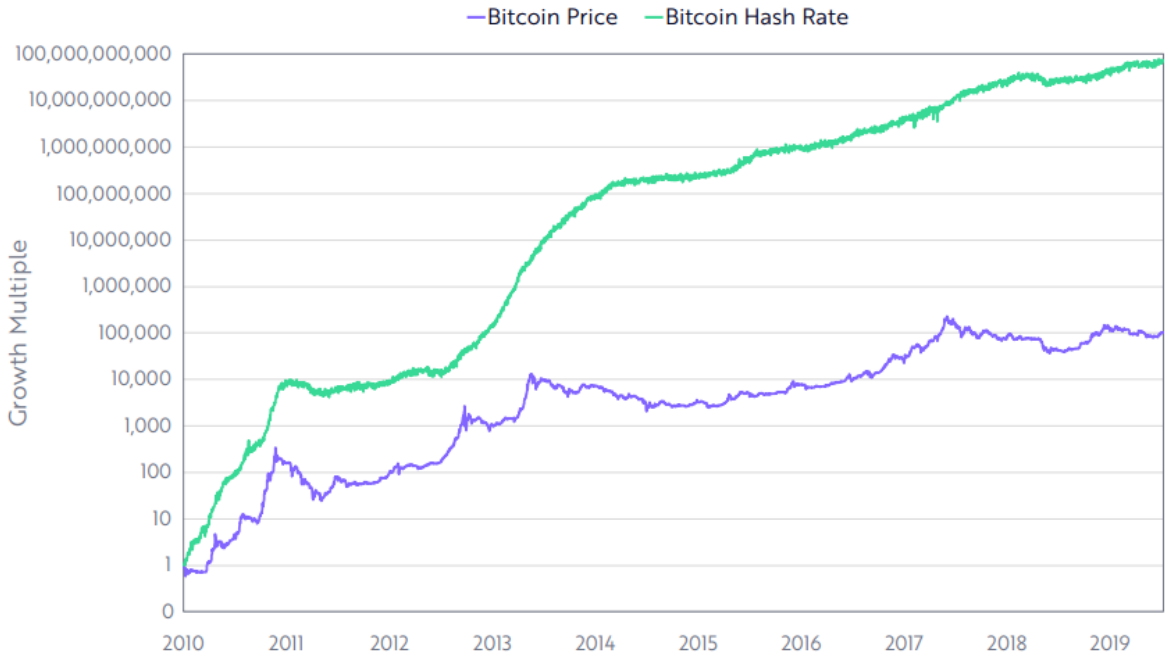
blocks of data. And since the information is encoded, a miner is required to check if his solutions are exact.

Once the nodes get confirmed, a transaction becomes successful, and the miner is rewarded with some Bitcoins. In short, you're acting as a bank clerk, along with many other bank clerks meeting online. Whosoever verifies the deal gets rich. Miners from all over the planet try to be the first to match their hash with the solution, and it takes an average of 10 minutes for the correct solution to appear. The mathematical brain teaser is designed to alter the difficulty level automatically. If the average time to guess the right answer falls less than 10 minutes, the puzzle becomes harder to crack, and vice versa. Also, after fixed intervals, the incentives keep getting halved until it reaches nil. Then, the programmers who crack the right solutions are rewarded with a transaction fee for their approval.

The Evolvement

Hash rate has increased by roughly an order of magnitude every year for the last 6 years and at a rate 4 times faster than the appreciation in bitcoin’s price during the last 5 years, a function of hardware technology advances and miners’ expectations of the rise in bitcoin’s price. As of March 1, 2020, Bitcoin’s hash rate was at all-time highs, standing at 136 quintillion hashes per second, as shown below.

Bitcoin Price vs. Hash Rate Growth



Source: ARK Investment Managvement LLC, 2020; Data Sourced from: coinmetrics.io

Mining operations have changed substantially as the industry has professionalized. Mining data centers are now industrial-scale facilities with management and service on par with traditional cloud data centers. Contracts are often long-term and built for multiple hardware cycles requiring significant upfront capital spending and power supplies ranging in the hundreds of megawatts. Electricity is a critical consideration in the economics of mining facilities, with low-cost stranded renewables particularly attractive. Miners have also begun to leverage vented and flared natural gas at upstream oil and gas facilities. Additionally, governments are offering electricity subsidies to attract miners who will set up operations and steer their countries toward the leading edge of innovation.

The ESG Consideration

For years, critics have maligned Bitcoin for polluting the planet. However, things have begun to change.

New data from Cambridge University shows that the geography of mining has drastically changed over the last six months, and this will improve Bitcoin's carbon

footprint.

The geography shift resulted from the chain reaction set off by China's expelling its miners in May 2021. According to the Cambridge Center for Alternative Finance, China has long been the mecca of the crypto mining world, accounting for nearly three-quarters of all bitcoin miners at its peak. But after Beijing decided to expel its miners in May 2021, more than 50% of the hash rate – the collective computing power of miners worldwide – dropped off the network. However, China shutting its doors to crypto mining has set off a massive migration. Miners are now heading to the cheapest sources of energy on the planet, which more often than not are renewable, leading to a big win for Bitcoin's carbon footprint.

The United States has fast become the new hotspot for the world's global crypto miners. Since early 2021, the US has jumped from fifth to second place and now accounts for nearly 17% of global bitcoin miners. Most miners new to North America will be powered by renewables or gas offset by renewable energy credits. It's estimated that bitcoin mining in the U.S. is more than 50% powered by renewables.[1] Miners migrating to North America are also preparing for a future in which their energy usage is questioned by putative investors -- and possibly regulated.

The industry realizes that public markets nowadays have no appetite for proof of work mining that is powered by non-renewable energy sources. And they hedge themselves against regulatory risks in the future by establishing new facilities in primarily renewable-powered locations.

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[1] Source: Lazard Energy Analysis

The MINE Token

The MINE token is the core of the MetaMine community. It plays a key role in serving different purposes. Through one token, everyone will have the same amount of incentive to contribute to the MetaMine community.

We first introduce several terms

Official Accounts, the accounts on different chains that hold issued by un-released MINE tokens and community funds. The community owns the MINE tokens on these accounts and will be released in a well-defined way.

Total Circulating Token, all tokens that are vested and issued but are not in official accounts. These also refer to all MINE tokens that have voting power.

Committee Election Motion (CEM), the smart contract used to elect, remove or replace Committee members for the MetaMine Community.

Token Distribution

MINE Token will have a total issuance of one billion or 1,000,000,000 MINEs. The initial distribution will be:

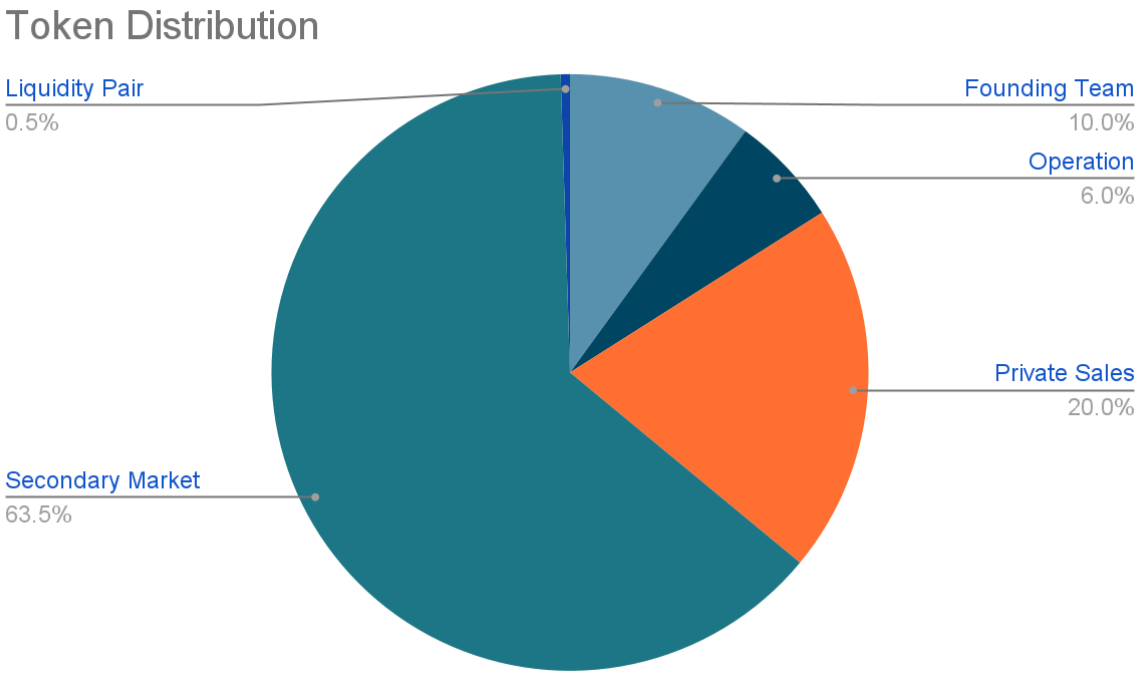
10%: Funding Team. Token will be released linearly for 5 years.

6%: Operation, marketing, and PR. Token will be released linearly for 1 year.

20%: Private Sales. Token will be released linearly for 1-4 years.

0.5%: Liquidity Pool on DEX(s).

63.5%: Official Account(s) for future release.



The DAO Committee

As a DAO-based community, the project needs a voted committee to monitor and supervise the DAO resolutions. We want to ensure a fair and efficient voting system to select the committee members and guarantee a smooth transition of committee assignment when a re-vote of committee members happens.

There will be a list of at most 50 acting committee members, defined as blockchain addresses. The acting number of committee members should be no less than 5.

Minimal Committee Size

Suppose the list of acting committee members is less than 5. In that case, the DAO structure will stop any other function except for the Committee Election Motion until the community elects at least 5 committee members.

Committee members are subjected to change anytime when a Committee

Election Motion is approved.

Committee Election Motion

The Committee Election Motion (CEM) is a special smart contract on the blockchain that any address can trigger. Once an address triggers the CEM, the address is called **Proposer**. The amount of MINE token in Proposer's account will be staked until the CEM is concluded. In principle, The Proposer should not be granted another CEM within 90 days if a CEM is concluded as rejected, but we will not reinforce this for now.

The CEM motion includes 3 classes of actions:

1. To delist a list of members (addresses) from the DAO Committee.
2. To enlist a list of members (addresses) to the DAO Committee if the total count of committee members does not exceed 50.
3. To replace a list of members (addresses) from the DAO Committee.

Once a CEM is triggered, the MINE holders will have 14 days of voting period. There are three voting choices: **Approve**, **Reject** and **Abstain**. All MINE holding accounts other than official accounts (defined in Token Circulation below and published) will have the right to vote.

At the end of the voting period, the system will snapshot the MINE holding distribution and calculate the voting results based on the snapshot.

Total Voting Power, same as the Total Circulating Token at the end of the voting.

Voting Ratio, the percentage of Voting Powers that submitted the vote.

Approval Ratio, the Voting Power that Voted Approve among all submitted Voting Power that didn't vote abstain

A CEM is considered approved and will become a resolution if all of the following criteria are fulfilled:

1. The Voting Ratio is no less than 50%.
2. The Approval Ratio is greater than 50%

Once a CEM is approved, the Committee list will be updated immediately.

Committee Responsibility

The Committee is not responsible for any managerial task of community proposed projects. Instead, each project proposal should include hiring a management team to handle the project while the Committee is functioning as a safeguard to monitor the DAO resolutions to be executed correctly.

There are two major tasks for the Committee:

Substantive Testing for Community Proposals

The Committee acts as the gatekeeper to check whether a proposal meets certain criteria to go through the voting process. Whenever a proposal is made on-chain, the Committee members should read and decide whether to bring this proposal into voting. If more than 50% of total Committee members support the proposal, the proposal will be brought to vote.

Criteria of the Substantive includes:

1. Be specific on execution plans, with no ambiguity in what to do.
2. Within the scope of mining and/or metaverse.
3. Executable.
4. Brings positive impact to green mining goal.
5. Supports Metaverse development.

Other criteria can be developed within the community.

Resolution Execution Monitoring and Report

Committee members should monitor the execution of the resolution once a proposal is passed and deemed a resolution.

A report of project initiation and subsequent reports of ongoing management should be submitted on the official website.

The DAO Governance

DAO governance is the feature of democracy for the MetaMine Community. We split our DAO ambition into three Phases:

1. Phase I, or DAO Initiative
2. Phase II, DAO on-Chain
3. Phase III, the Ultimate DAO

We will gradually update our DAO until we have the Ultimate DAO platform.

DAO Initiative

We will first demonstrate the community structure in the DAO initiative phase at ICO launch.

Voting Process

Anyone who holds MINE will be able to initiate a motion in the MetaMine Community. The motion provider should advertise their own motion.

The motion should be direct and explicit about what is expected to be done to satisfy the executable characteristic. The Committee will read the motion and decide if the motion is worth a vote.

If the motion is backed by more than 50% of Committee members, it will trigger a voting process by any committee member. The voting process will last online for 30 days.

Each address can allocate all its MINE voting power to **A**. **Approve the motion**. **B**. **Reject the motion** or **C**. **Abstain**. No split voting is accepted.

At the end of the voting process, the DAO will snap the voting result based on the MINE holding balances. And announce the voting results:

Total Voting Power, same as the Total Circulating Token at the end of the voting.

Voting Ratio, the percentage of Voting Powers that submitted the vote.

Approval Ratio, the Voting Power that Voted Approve among all submitted Voting Power that didn't vote abstain

After the voting process, voting will be concluded based on the voting topics of the motion.

Voting Topics

There are mainly two types of motions regarding the MetaMine project.

1. The **motion on MetaMine fund ssage** includes any topics related to the funding spending in the MetaMine Pool.

2. The **motion on token circulation** includes any topic that affects the circulation of MINE tokens.

Any motion that the above two types can't categorize will be regarded as a miscellaneous motion and will be subject to community discussion.

Voting Conclusion on Motion regarding MetaMine Fund Usage

For motions on the MetaMine Fund, the requirement to pass the motion is:

1. At least 30% vote participation rate
2. At least 50% of all voted MINEs approve the motion

If both criteria are fulfilled, the motion is concluded as passed and becomes the resolution.

After the voting concludes, the Committee team will take responsibility to monitor the fund and allow the spending budget from the community's public address based on the conclusion.

Voting Conclusion on Motion regarding Token Circulation

For motions on token circulation, the requirement to pass the motion is:

1. At least 80% vote participation rate
2. At least 60% of all voted MINEs support the motion

If both criteria are fulfilled, the motion is concluded as passed and becomes the resolution.

After the voting concludes, the Committee member will monitor the implementation of voted changes based on the voting conclusion.

The Core Dev Team will be responsible for implementing the new changes.

If the change relates to significant code development, a portion of the community fund will be withdrawn to pay for the development and will be seeable in the explorer. And the development should be delivered reasonably.

DAO on-Chain

DAO on-Chain phase is considered an intermediate phase when we put most of the executable resolution on-Chain. In this phase, we will free an enormous part of the Committee's monitoring duty by automatically executing the approved resolution using on-chain code. We will also make the CEM fully on-chain to ensure seamless execution.

For instance, the DAO resolution’s smart contract will automatically update taken circulation parameters if a related motion is approved.

Voting Score

In DAO Phase II, the MetaMine community will assign voting scores to each account to replace MINE as the voting ballots. Each 24 hours holding of 1 MINE will be assigned 1 voting score, and no fractional voting score will be assigned. Each voting score will expire after 180 days.

Official accounts will not be assigned any voting score.

Token stored in CEXs will use CEX as a proxy to vote. The detailed implementation is dependent on each specific CEX.

The Ultimate DAO

The governance mechanism in the first two phases still involves the Committee’s intervention. Some of the processes are not fully automated on-chain.

In the Ultimate DAO process, we aim to put all DAO logic fully on-chain.

The development is an ongoing process based on the experience we accumulated in Phase I and II DAO structure.

Token Circulation

The MINE token is the core of the MetaMine community. It plays a key role in different purposes. Through one token, everyone will have the same amount of incentive to contribute to the MetaMine community.

There are specific important components to ensure the token's smooth circulation and maximize the money usage efficiency.

In the early stage, MetaMine community will also accept committed hash rate powers in exchange for MINE token and will release the token linearly to the donor.

MetaMine Fund Pool

MetaMine Fund Pool is used to hold all tokens from MINE swapped on DEXs and CEXs. MetaMine Fund Pool is a general name for the combination of funds in different official accounts.

Private Sales Proceed

The first part of funds comes from private sales. The proceeds will be used to establish the initial MetaMine Fund Pool for the MetaMine project. On day 1 of the launch, we will have a fully spendable pool to ensure the operation of the community.

DEXs Liquidity Pool

On the day of launch, 0.5% of the total MINE issuance along with the same value amount of USDT will be first locked to a list of DEXs as liquidity pool pairs.

The pairs will never be removed.

The amount of liquidity pool stakes will not change unless there is a passed resolution through our DAO voting process in the future.

Rebalance Account(RA)

Rebalance Account is a public account used to rebalance against DEXs following certain rules. All transactions in the RA account and the reasons for the transactions will be viewable through our MINE explorer on our official website.

On day 1 of launch, 63.5% of total issuance will be locked into RA. The amount of MINEs in RA and the amount of MINEs in DEXs will be kept at **127:1**(we define this ratio as **RA Ratio**):

The account will monitor the total amount of MINE locked into all DEXs.

If there is a net output of MINE from the DEXs, the total amount of MINE on DEXs will be less than **1/RA Ratio** of the amount in RA. In this case, rebalacer will swap part of its MINE to DEXs, to maintain the **1/RA Ratio**. All the swapped tokens from this exchange will be part of the MetaMine Fund Pool.

To reduce gas fees and other trading frictions and avoid heavy liquidity effects, the rebalance will be done smoothly over a period of time and will allow a 5% deviation buffer of the **RA Ratio**. The 5% deviation here is defined as **RA Ratio Buffer**.

Institutional Participation and Large Scale Purchase

After token launching, we still expect further institutional entering the community.

Since the RA and DEX will maintain the fixed **RA ratio**, for any large purchase, we will allow the large investor to exchange the majority of their MINE needs directly from RA, with a fixed rule:

1. The large-scale investment is only available before the DAO initiative. After the DAO initiative, we assume the MINE token is fully released in the market; thus, market impact should be small.
2. The minimal investment to be defined as Large Scale Purchase is $200,000, defined as **Institution Threshold**.
3. The large investor needs to contact the founding team. The founding team will aggregate the market exchange rate of the MINE token.
4. The founding team will announce the swap on the official website. Then provide large investors with a special smart contract to make the purchase directly through RA.
5. The founding team will record this swap in the MINE explorer on MetaMine official website, same as all other RA-related transactions.

In the next chapter, we will discuss some featured characteristics and applications of MINE token.

MetaMine Features

Green Mining Project

Mining as Energy-Intensive Industry

The impact of mining activities on the environment is a major worry for the industry. The Surface Mining Control and Reclamation Act, enacted in 1977, provides many regulations to ensure mine sites are operated, and any environmental damage is remediated responsibly.

Likewise, bitcoin was infamous for wasting enough electricity to add 40 million tons of carbon dioxide to the atmosphere a year in crypto mining.

Satoshi Nakamoto himself also commented on the potential energy usage back in 2010:" It's the same situation as gold and gold mining. The marginal cost of gold mining tends to stay near the price of gold. Gold mining is a waste, but that waste is far less than the utility of having gold available as a medium of exchange. I think the case will be the same for bitcoin. Exchanges utility made possible by Bitcoin will far exceed the cost of electricity used."

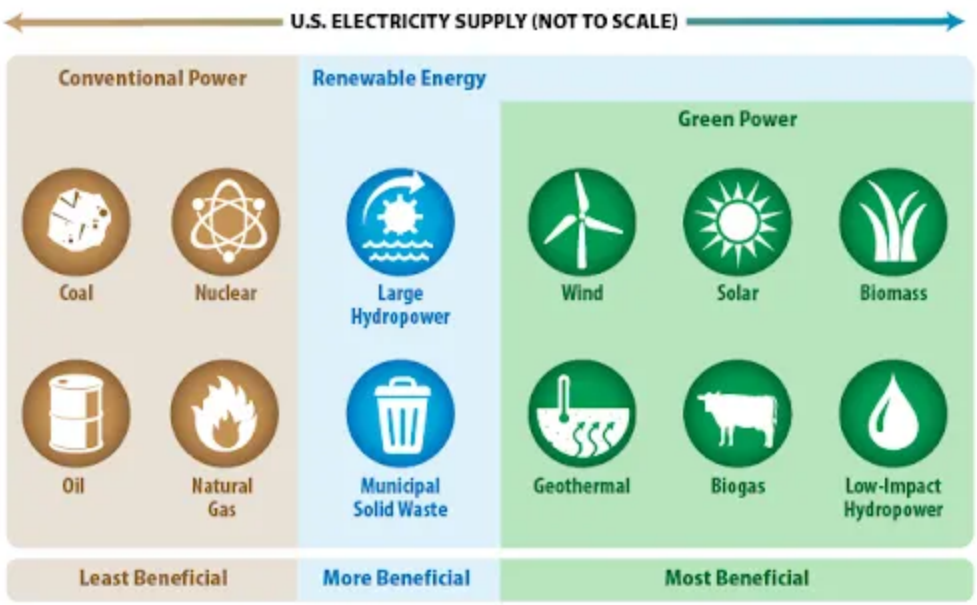
In fact, the most significant criticism regarding bitcoin mining comes from environmental concerns.

In May 2021, Elon Musk threatened that Tesla had halted purchases of vehicles with bitcoin due to concerns over the "rapidly increasing use of fossil fuels for bitcoin mining."

The Demand for Green Mining

On the other hand, ESG investing, a.k.a. environmental, social and corporate governance, has become a growing trend in financial markets, with portfolio managers increasingly incorporating sustainable investments into their strategies. It's vital to conduct green energy mining efficiency and sustainable development strategies for the mining industry.

The following illustration by the U.S. Environmental Protection Agency shows green energy as a subset of renewable energy sources.



Source: U.S. Environmental Protection Agency

The global supply of fossil fuels is likely to end by 2060, according to Octopus Energy estimations. However, green sources such as wind, solar, geothermal, or hydropower will continue to be there for as long as the earth sustains.

As bitcoin mining is expected to continue until 2140, miners must rely on energy sources that are sustainable for such a long time according to its protocol.

MetaMine's Green Mining Principle and Road Map

The MetaMine community founders have committed to making a significant contribution to the crypto mining community. The team takes it seriously to promote more Green Mining.

The community would also enter into the crypto mining industry. And we will measure our community-size mining rigs.

In the initial launch phase of MINE token, we will prioritize cooperating with renewable energy sources. We call this the Green Mining Initiative to select the best available hosting service compromising both electricity price and energy source. We will also propose to get involved with these well-selected industry participants to improve the overall mining environment.

When the community scale reaches a certain level, say 3000 mining rigs equivalent, we will use the scale advantage and negotiate the best price with

renewable energy-only host facilities. We can vote to decide if we want to engage with these parties to lead the green mining project.

When the pool scale reaches even larger, the project will spend part of the budget building its own green energy hosting facilities. With the community attracting expertise in the renewable energy and crypto mining industries, we will select the most policy-friendly location to minimize the green mining cost.

Currency of MetaVerse

NFT and Game as Major Metaverse Entry Point

Since time immemorial, humans have developed various technologies to derive interactive communication and entertainment by tricking our senses from speakers to televisions to modern evolutions like VR and AR. We also see the trends of even highly advanced technological tools to trick our other senses, such as smell or touch.

The Metaverse is the recent technological advance towards that futuristic objective. Powered by blockchain technology, Metaverse platforms allow people to build, own and trade decentralized digital assets using cryptocurrency and non-fungible tokens (NFTs).

On the other hand, the speed at which gaming has proliferated is matched only by the pace of new buzzwords inundating the ecosystem. Marketers and decision-makers, already suffering from FOMO about opportunities within gaming, have latched onto buzzy trends like the applications of blockchain in gaming and the Metaverse in an effort to get ahead of the trend rather than constantly play catch-up. The trend is clear, as the relationship between the blockchain, Metaverse, and gaming makes sense.

People believe that the Metaverse will one day be a huge economy, representing up to 10x the total value of the entire current global economy. They also believe that blockchain technology will be the driving force of the Metaverse evolution.

MINE, The Resource, and Currency for Metaverse

As discussed in Chapter 1 Introduction, Metaverse can be imaged as a higher dimension of the physical society like a human society built on natural resources, buffed with technological advances. To empower the Metaverse development, we

need certain forms of the concept of natural resources.

MINE Token is a perfect candidate in this context and an even advanced one.

First, MINE token represents the mining industry, which mines cryptos as its income source. This supports the fundamental values of MINE token. It was discussed the roles of resources and currencies back in the introduction. So making MINE as the currency or MINE like precious metals in Metaverse is an instant idea.

Second, MINE's community will adopt a DAO Governance. Blockchain enables automated trusted transactions and value exchanges. But even so, internet users around the world want to organize themselves in a "Safe and effective way to work with like-minded folks around the globe," according to Ethereum. MINE's three DAO Phases are aimed to give democracy back to the whole community.

Third, unlike the precious physical metals that induce significant storage and transportation costs while delivering, the MINE token has negligible friction cost and zero storage cost. This eliminates all the disadvantages of gold, making MINE a perfect Metaverse currency candidate.

Metaverse Identity Solution

Blockchains are fundamentally built with blocks through mining. Much like a person's identity is decided by their experience. A Metaverse being's identity can be viewed through their contribution to the blockchain's foundation through mining. By owning MINE, one contributes to the mining of blocks, hence building the blockchain and further establishing the Metaverse ecosystem. We want to make it possible for MINE owners to be proud of their role as blockchain and Metaverse foundation builders. We will make it possible by translating MINE's unique history and ongoing ownership, which is both unique and Metaverse-specific. The identity will have the dual properties of being a Metaverse identity and a presentable visualization like an NFT. We will provide a secured algorithm that maps an account's MINE holding history to a dynamic NFT object called Mining Badge. The mapping will be encoded to ensure no one can fake the ID. We will also provide an ID verification API, that given the Mining Badge, we can recover the user's identity.

Road Map

Here is a tentative roadmap timeline for the MetaMine project.