MicroPower

MPG Token
Whitepaper

Contents

Executive summary

The application of breakthrough thermoelectric technologies and the utilization of waste heat from high energy-consuming industrial processes can be used for Bitcoin mining and other purposes.

The result is environmentally-friendly mined Bitcoins, using energy that would otherwise have been wasted and disappeared into thin air. Instead, the waste heat is captured and converted into digital assets on site, circumventing the traditional limitations of converting waste heat to a useful resource, such as central heating or electricity to be fed into the public power grid.

Introduction

MPG Token is a specialized waste heat assets investment system that enables everyone to earn interest through appreciating assets generated by waste heat. By leveraging DEFI and crypto mechanics, MPG Token is able to revolutionize the utilization of waste heat and offer investors weekly yield payouts and competitive APY interests.

Token holders are valuable stakeholders of the MPG Token ecosystem by providing liquidity and validating transactions while passively supporting the prevalence and further development of groundbreaking thermoelectric systems from MPG.

The token holders can earn yield by participating in DeFi (Decentralized Finance) activities. The safest activity is staking MPG by simply holding it in the MPG Wallet. Providing liquidity in the various liquidity pools is a higher risk-reward activity where token holders can earn additional rewards (Liquidity Mining = LM). Staking rewards are paid out monthly in the first phases and eventually moved to weekly. Liquidity mining rewards are paid out continuously and therefore offer a quicker compounded yield.

Token holders that participate in the ecosystem by staking and providing liquidity will gain a stream of passive income and simultaneously support a crucial part of the MPG Token ecosystem and all of its stakeholders.

Increasing Energy Efficiency to Deliver Financial & Environmental Benefits

MicroPower delivers advanced waste heat energy conversion technology, generating emissions-free electricity at a cost of 2.0¢/kWh at scale to a Total Addressable Market (“TAM”) of greater than $100BN for industrial applications.

The approach is based on thermoelectrics, a technology that has been promising to provide an effective means of generating electricity from waste heat for decades, but has been held back by a number of fabrication and materials challenges resulting in low efficiency, high cost and an upper temperature limit of 250°C.

A considerable amount of time and effort has been spent addressing these deficiencies and advancing the technology to a stage where management feel it is ready to tackle large scale high temperature industrial applications, enabling plant owners in “hard to abate” industries such as steel and glass production to generate electricity from their own wasted heat. This reduces their reliance on traditional forms of electricity generation and therefore decreases the concurrent emission of CO_2 and other harmful gases.

Thermoelectric generators (“TEGs”) are solid-state devices that convert a heat differential directly into electrical energy – when one side of the device is hot and the other remains cool, an electric current is generated. TEGs offer an elegant energy-harvesting option as they have no moving parts, are not based on chemical reactions, have a long operating life with minimal maintenance requirements and can be applied in multiple industrial environments. While several technologies are being commercially applied to capture lower temperature (<250°C) waste heat, MicroPower’s technology is one of only a few that has the ability to capture high temperature (>300°C) waste heat and the inherently higher potential value associated with it.

MicroPower’s TEGs are composed of semiconductor chips resulting in reduced size and weight creating scalability to tackle multiple markets from very small to very large applications, without losing efficiency or cost-effectiveness. An additional benefit is that MicroPower’s TEGs can be designed to fit various geometric requirements, whether that means applying a flat device to a hot, flat surface, clamped around a hot pipe or a more irregular shape when necessary. A MicroPower TEG with semiconductor material covering an area the size of an 8 ½” x 11” or A4 sheet of paper can produce over 6 kW, enough electricity to power an average home.

The technology has been validated by organizations such as the National Renewable Energy Laboratory ("NREL") and the U.S. Army Research Laboratory ("ARL"), proven in real world conditions and protected with 22 patents and the Company is conducting a number of pilot projects in the steel, and power generation industries. At the same time, an experienced engineering team is working to automate the manufacturing process for volume production to enable larger scale pilots and full installations in the second half of 2022.

U.S. statistics indicate that 67% of all energy consumed is wasted, with only 33% used for its intended purpose. It is estimated that over 90% of that wasted energy comes in the form of discarded thermal energy, representing an immense untapped resource of an estimated 83,000 TWh each year in developed nations. Of that total, it is estimated that the amount of waste heat available to MicroPower's devices, from industrial sources and in a suitable temperature range for current materials (>300°C), would be 5,000 TWh annually.

To understand the size of the potential market for MicroPower's devices and the potential environmental impact, it is worth considering that if one was able to convert all of that heat into electricity at an average efficiency of 15%, it would generate 750 TWh, approximately the same amount of electricity consumed annually by France and the U.K. combined. If that amount of electricity was produced by MicroPower's technology in place of current methods of generation, approximately 0.356 Gigatonnes (0.387 U.S. Gigatons) less of CO_2 would be emitted into the atmosphere, approximately the same amount produced by the U.K. annually.

The pathway to automated semiconductor manufacturing is well established which limits the production risks. Additionally, the semiconductor design allows for a modular approach and therefore scalable production operations. The first automated line will produce 1 million cm^2 of thermoelectric material annually while subsequent lines will deliver 2 million cm^2 per annum. Multiple lines can be installed in a facility allowing for a progressive ramp-up of total production capacity.

Upon commencement of automated production, there is in practice a gradual build-up of volume production, but if MicroPower was to operate at a theoretical 90% of capacity in the first year, the Company's TEGs would be able to produce electricity at a Levelized Cost of Energy ("LCOE") of 3.0¢/kWh. Similar to other solid-state technologies, such as microprocessors, solar panels and batteries, MicroPower expects substantial decreases in its costs, through economies of scale in production and reduction in input costs with continuous supply chain improvements.

Combined with further increases in efficiencies from technology and manufacturing enhancements, such as the addition of MicroPower's proven barrier layer technology, costs are expected to further reduce projected LCOE to 2.0¢/kWh within three to five years.

While the projected LCOE of 2.0¢/kWh represents an attractive price in comparison to current global industrial electricity prices, MicroPower believes that the increasing focus on net-zero carbon emissions by governments, investors, and companies themselves will also be a demand driver and offer additional economic benefits through government incentives in certain markets. MicroPower presents the best option for many of these industries as it delivers a new emission-free power source with a positive impact on the bottom line and can be customized to the needs of individual customers. Additionally, the demand for electricity is expected to grow as economies progressively move towards greater electrification which in turn will require growth in electricity production.

MicroPower has purposely kept a low profile while its technology was being developed, refined and protected, and until its products demonstrated the potential to provide a competitive or better LCOE than other methods of producing electricity. The Company now hope to emerge as a major force in the marketplace for the long-term future, helping industry to become cleaner and more energy efficient, whilst reducing harmful emissions.

There is a short video on MicroPower's technology via the following link:

Technology Description

All MicroPower devices are powered using thermoelectrics to facilitate the conversion of heat to clean, cheap and reliable electricity. There are essentially four parts to any thermoelectric application, each requiring a different set of base technologies and engineering technology to operate effectively.

1. A Thermoelectric Chip is a small, typically cuboid, solid-state material which is the primary technological control point for system performance. The individual MicroPower chips have been made from a proprietary combination of materials: n-type chips based on PbTe and p-type chips

based on TAGS. Its proprietary materials, structure and dimensional ratios allow it to achieve far superior performance relative to other thermoelectric alternatives (3-5x efficiency).

2. A Thermoelectric Module is a mechanical assembly of chips electrically connected by hot contacts and metal interconnects, all sandwiched between a non-electrically conducting hot plate and cold plate. The improvements to this assembly are primarily driven by incremental improvements to mechanical and thermal design to enhance overall system efficiency. These improvements include chip reconfiguration, enhancement of base materials or contact structures and other changes.

3. A Thermoelectric Sub-assembly is a number of thermoelectric modules mechanically packaged to meet an application-dependent form factor. The thermoelectric modules are electrically connected in series or parallel, depending on the voltage and current requirements of the particular application.

4. A Thermoelectric System adds the interfacing electronics that conditions the power to meet the larger system's needs. The thermoelectric system may have one or more thermoelectric sub-assemblies.

Thermoelectric Technology

MicroPower's technology is based on thermoelectric principles. The science behind the thermoelectric effect was first discovered in the 19th century but it wasn't until the development of semiconductors that practical thermoelectric products became viable. The technology joins two dissimilar metallic or semiconducting plates and adds heat to produce a low-voltage, direct current. However, the historical disadvantages have been (a) low efficiency (typically below 6%), (b) low temperature range (<250˚C) and (c) difficult to justify economically. As a result, thermoelectric conversion technology in the Power Mode has generally only been utilised for applications in which thermoelectrics is the only reliable technology solution available, such as NASA's deep space probes and power generation for remote oil pipeline monitoring equipment.

Power Mode

MicroPower's Power Mode converter addresses the traditional limitations of thermoelectrics. Operating at 550°C, MicroPower's modules have demonstrated a conversion efficiency of 14% and are expected to increase to ~30% with the development of future configurations. While

MicroPower modules exhibit their maximum efficiency at 550°C, the design of the thermoelectric system can be adjusted to allow for applications up to 1200°C. In other words, MicroPower's patented technology has been able to achieve high efficiency at higher temperature ranges than traditional thermoelectrics.

In addition to its high efficiency at intermediate and high temperatures, like all thermoelectric devices, MicroPower modules are solid-state with no moving parts. This means they are noiseless, vibration-free, durable and produce no emissions.

Breakthrough in Performance

MicroPower's proprietary materials growth methods, barrier layer and contact structures differentiate the Company from other thermoelectric technology providers by delivering energy and power conversion at three to five times greater efficiency.

MicroPower's first generation of products can deliver 14% efficiency. MicroPower believes with future development and design work, the Company can achieve absolute efficiencies approaching ~30%. Second and third generation products will be able to deliver higher efficiencies due to planned developments in base materials, chip configuration and other technical advancements that the Company believes will be achievable as future R&D is conducted.

This dramatic breakthrough exceeds the performance thresholds required to open the waste heat recovery markets for which thermoelectrics were not previously considered viable, as well as expanding the existing thermoelectric market itself.

High temperature environments (e.g. gas streams above 1000°C) can be engineered so that the surface temperature delivered to MicroPower modules is lower and within limits which do not prejudice the integrity of the base material.

Several other important benefits inherent in MicroPower technology are noted below:

- Higher efficiencies lead to greater power and energy density per unit area, resulting in lower unit weight or unit volume than alternative products. This allows MicroPower to produce a specific light weight system which takes up a limited space for the amount of power it can deliver. Power density is a critical factor in the design and manufacture of advanced products, and is particularly useful for power/weight sensitive applications seen in aerospace and compact power needed for portable devices. MicroPower modules currently demonstrate chip energy density of 11W/cm^2 and higher, compared with energy density of ~0.5W/cm^2 for alternatives methods such as Stirling Engines.

- Configuration flexibility that can scale from small to very large. A MicroPower application can consist of a single MicroPower chip to an array of hundreds or thousands of MicroPower modules covering many square meters, depending on the amount of power required. An array of MicroPower thermoelectric modules can also be made to cover the unique geometry of the heat source (e.g. the circular shape of a pipe), a feature that is particularly important in waste heat to electricity conversion.

- Long projected service life with low or no maintenance. MicroPower's technology is solid-state. Without moving components, a MicroPower device silently generates electricity without deterioration or causing electrical interference. Common modes of failure associated with moving elements are eliminated. The longevity of the base materials is expected to be similar to what NASA has demonstrated with PbTe/TAGS TEGs producing power successfully over a 30 year lifetime.Terrestrial applications will present different conditions and long life will need to be proven in actual applications. MicroPower has conducted cycling tests at various temperatures with modules remaining within specifications for up to thousands of cycles and months of testing. An accelerated lifetime model has not yet been developed and would be necessary to firmly estimate longer lifetimes. Further, specific field applications may impose additional adverse boundary conditions that are not yet encompassed in the laboratory testing which may impact lifetime. Longevity remains an active aspect of the development work.

- The ability to operate at higher temperatures allows for MicroPower to capture waste heat that is unable to be harvested using traditional waste heat capture technologies such as Organic Rankine Cycles (“ORCs”) and standard thermoelectrics.

- Environmentally friendly. Once a MicroPower device is manufactured and installed into an application, it generates electricity or refrigerates without generating any emissions or using any harmful chemicals or gases. At the end-of-life, devices will be recycled.

- Ability to significantly reduce carbon emissions. As mentioned in the executive summary, MicroPower has the ability to indirectly reduce global emissions by converting waste heat into electricity and therefore reducing the need for traditional carbon-intensive forms of generation and the emissions subsequently generated. See section 6.2.2 for more detail.

Pilots, Testing & Prototype Projects

Given the potential benefits in terms of cost savings and improved sustainability, it is no surprise that a number of parties have expressed interest in deploying MicroPower’s technology in their facilities or products. Prior to 2020, the Company had carried out various successful field tests and prototype efforts, particularly in the portable power sector, but, for the most part, there was a desire to wait until the technology was sufficiently mature before tackling larger industrial applications.

In 2020, the Company began the process of establishing relationships with parties who could help develop industry-specific solutions and ultimately become long-term partners or customers. This has led to a number of pilot projects, primarily in the steel and turbine/genset sectors, as well as a strong pipeline for future initiatives.

In addition to industrial applications, several projects are ongoing in other sectors, notably in portable power generation and power harvesting applications. An overview of each of the pilot projects is provided below:

Steel

Commercial Metals Company (2020 - Current)

CMC is a large manufacturer and fabricator of steel reinforcing bar, based in the U.S. with additional operations in Poland and is a global leader in concrete reinforcement. CMC has 131 global facilities, over 11,000 employees and revenues in excess of $5.4B in 2019. The company was founded in 1915 and is headquartered in Irving, Texas.

In 2020, Micropower and CMC began a collaborative effort to develop a pilot thermoelectric WHR system for evaluation at CMC's plant in Seguin, Texas. CMC provided an energy balance model for an Electric Arc Furnace (EAF) that uses relatively large amounts of carbon and oxygen with a total energy input of 800 kWh per ton of liquid steel. Only 40% of the total energy input goes into the liquid steel; 44% of the total energy goes into off-gas, meaning 352 kWh per ton of liquid steel goes into off-gas and must be treated.

The pilot project at Seguin was split into three separate phases: Thermal Profiling, Partial Module Population & Optimal Module Population. The initial test unit is intended to be a 50W water-cooled PowerBlock installed on the inside of a water-cooled duct maintenance access hatch.

MicroPower concluded that the revenue opportunity was substantial as CMC Texas produces ~1 million tons of liquid steel annually in batch sizes (heats) of 123 tons; loss per heat ~28 MWh or 228 GWh per year. A scalable MicroPower WHR system utilizing 50% of energy losses would generate over 11 GWh annually based on an initial efficiency of 10%. With over 6 million tons of global capacity, capture of 50% of waste heat would generate 66 GWh annually, resulting in ~$4.6MM in annual PPA revenue.

The initial tests indicated the need to reach in further in order to grab additional thermal energy by inserting pins on the hot side. While that improved the temps seen at the modules' hot side significantly, it also showed that the harsh environment in the duct creates a deposit build-up between the pins leading to the formation of a thick insulative layer that eventually prevented sufficient thermal energy to be delivered to modules. Using a copper-clad plate (with no pins, copper side exposed to duct's inside) has improved the profile. In general, the initial assessment is that the system can operate in one of the harshest environments in steel manufacturing.

Additional work is currently in progress to install a second pilot in a different part of the plant where cleaner radiant thermal energy can be tapped into.

Gerdau (2021 - Current)

Brazilian steelmaker Gerdau is the largest producer of long steel in America, with facilities throughout North, Central and South America, and an installed capacity of 26 million metric tons providing steel to the civil construction, automobile, industrial, agricultural and various other sectors. Gerdau has approximately 30,000 employees and generated $11.6BN in revenue in 2018.

MicroPower engaged Gerdau in January 2021 with a view to carrying out a small-scale pilot at their facility in Manitoba, Canada. Similar to the CMC project, the pilot is focused on capturing the thermal energy flowing through a cooling duct at the facility by retrofitting a maintenance hatch with MicroPower devices. The thermal profiling stage of the project was completed in the second half of 2021 with phase two (small unit for power generation) installed shortly after. Results so far indicate performance as expected.

ArcelorMittal (2021 - Current)

Headquartered in Luxembourg, ArcelorMittal (“AM”) is the world’s second largest steelmaker, with over 168,000 employees and revenues of $76.5BN in 2021.

AM approached MicroPower in 2021 to carry out a pilot at AM Dofasco, based near Hamilton in Ontario, Canada. With approximately 5,000 employees, Dofasco is one of the largest steel plants in North America, shipping 4.5 million net tons of steel annually. MicroPower has designed a system to capture the heat being radiated from hot rolls of steel as they cool. Testing is expected to commence shortly following the fabrication of the final pieces of the system by both MicroPower and AM Dofasco.

The pilot system designed for installation at the Hamilton Dofasco plant collects thermal energy from the steel coils traveling on the conveyer system. Collaborative efforts between Dofasco and MPG continues currently. The infrastructure is installed and the live TEG system is in the process of being installed.

Harsco (2021 - Current)

Harsco is a global provider of industrial services and engineered products primarily serving the steel, railways, and energy industries. The company has 11,000 employees and generated revenues of $1.5BN in 2018.

Given their customers in the steel industry are constantly looking for ways to reduce energy consumption, Harsco approached MicroPower in 2021 to conduct a trial focused on capturing heat from molten steel or slag after the smelting process. This project is well under way with the pilot unit already delivered to the Celsa's Barcelona plant where the initial thermal profile testing is to take place.

Power Generation Systems

Elliott Company (2021 – Current)

Elliott is a wholly owned subsidiary of the Japan-based company, Ebara Corporation, and is a unit of Elliott Group, Ebara Corporation's worldwide turbomachinery business which employs more than 2,000 employees worldwide at 32 locations.

Elliott currently designs and builds heavy-duty steam turbines, air and gas compressors, power recovery turbines and power generating equipment used in oil and gas fields, refineries, chemical processing plants, steel mills, electric generating stations, sugar and paper mills, and various mining operations.

Elliott approached MicroPower in 2021 to carry out a pilot at the company's R&D facility near Pittsburgh, Pennsylvania where a system has been designed to capture the heat contained in a steam pipe that serves the facility. The focus of the pilot, which started in early 2022, is to demonstrate the durability and longevity of MicroPower's technology in an industrial setting. Success is likely to lead to product integration opportunities, particularly in relation to compressors for which new regulations are likely to see a drive towards increased efficiency and reduced emissions.

The pilot system has been installed and collecting data for the past two months. The data shows module performance as expected at the low temperatures (250-300°C) at the surface of the high-pressure steam pipe to which the TEG modules are in contact.

Brasil GTW (2020 - Current)

MicroPower has also planned a pilot project in partnership with Brasil GTW to test the effectiveness of its thermoelectric devices on GTW's natural gas-fired micro power generating units. The MicroPower team will be conducting two separate trips to the facilities: the first with partially populated PowerRings to provide proof of concept and the second trip with fully populated PowerRings once proof of concept has been established. The key objectives of the pilot project are:

1) Evaluate the impact and performance of PowerRing units installed in pre-selected positions along the exhaust stream

2) Determine the optimal positions for PowerRing & PowerBlock configuration

3) Install the optimal configuration and leave for longevity evaluation

MicroPower will continue to expand the number of installations at the Brasil GTW facilities as rapidly as manufacturing restrictions permit. Upon success of the pilot, GTW has indicated interest in installing MicroPower devices ranging in capacity from 10-25kW on 50 generators which would represent an estimated $400,000 in annual Power Purchase Agreement ("PPA") revenue in the first year.Further, GTW has indicated it has expansion plans for more than 300 units annually, each of which would be candidates for MicroPower devices. Moreover, a successful GTW pilot will immediately open a huge market for MicroPower in large scale legacy, modular, and "behind the fence" gas and diesel fired power generators, and pipeline compression units commonly used in the oil and gas and other extractive industries worldwide.

MicroPower estimates that the average capacity installed per generator is approximately 31.5 kW and based on the approximately 1 million equivalent generators globally, the total market is estimated to be 31.5 GW.

Why DeFi in MPG?

New opportunities

During recent years DeFi (Decentralized Finance) has opened up doors and alternatives to traditional banks and finance that were previously thought unimaginable. In our case, DeFi makes it possible to increase yield by taking advantage of waste energy that would otherwise go unexploited. By tokenizing, new financial opportunities arise where the MPG token is used to create DeFi positions that can generate additional yield for investors.

The MPG Wallet

The general bank today offers you zero or even negative interest on your funds. By holding tokens in your MPG wallet, you will be able to earn positive interest in your tokens while investing in the green technologies of the future, ensuring natural prosperity for future generations.

Through MPG's crypto wallet you can easily safely store your assets while getting access to the following features and benefits:

- Store your MPG and other tokens - backed by FIREBLOCKS-security
- Stake your MPG to earn yield

Stake & Earn Yield

When the MPG Token is deposited and held in the wallet it will automatically be staked and you will receive X% APY based on the results of the project divided into monthly payments. The yield will be paid in MPG tokens equivalent to the USD value of the yearly yield acquired from the underlying assets paid out proportionally to MPG token holders. The yield will be deposited directly in the user's wallet balance each month. In the long run, we aim to incorporate weekly payouts.

How it works

1. ***Waste heat is converted into tokens***
   MPG thermoelectric technologies are applied and convert waste heat into electricity, used to mine Bitcoin.

2. ***You purchase MPG tokens***

   Here's the easy part - you set up an account in a few simple steps, and invest at the click of a button. The transaction is recorded securely on the blockchain, and the tokens are safely stored in your wallet. While in your wallet, the tokens will be automatically staked and you will receive staking rewards.

3. ***Key risks***

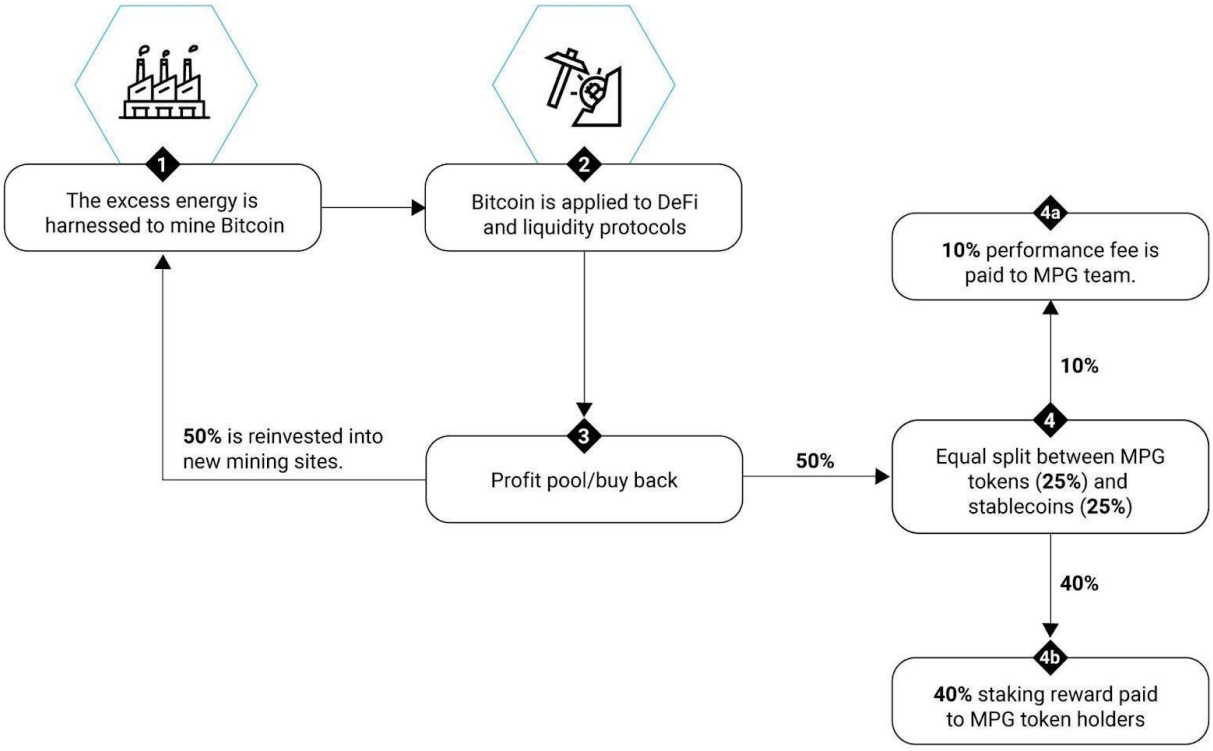
   It is important to us that you understand the risks involved when investing. Key risks include loss of capital, variable mining income, political risk, foreign exchange risk, as well as liquidity risk.

Token System

MPG Token Economics: Unlocking Compound Dynamics

We have created a solution that allows us to make use of the value locked up in physical assets and use it to obtain yield through the DeFi markets. Our solution offers an investment vehicle for people to speculate on the future growth of MPG technologies. Proceeds from the sale of MPG tokens are used to fund the development and production of systems to harness cheap sustainable excess energy to mine Bitcoins. The mined Bitcoin is then applied to DeFi (Decentralized Finance) and liquidity protocols which generates additional yield for MPG token investors (MPG token holders). The next section presents a flywheel of the mining and DeFi dual yield model in more detail.

Dual yield model backed by stable physical assets



1. Proceeds from the sale of MPG tokens are used to fund the development and production of harnessing cheap sustainable excess energy to mine Bitcoins

The MicroPower system utilizes thermoelectric technology to harness excess energy from heat. The excess energy is transformed from the heat that is generated by the production of steel, glass, power, oil & gas, marine, etc. The majority of the energy is used to mine Bitcoins and some go back into the facilities. MPG manages these projects with a project lifespan of 20 years with target yields of 20% APY. The mined Bitcoins are applied to DeFi protocols.

2 & 3. Bitcoin is applied to DeFi and liquidity protocols to obtain additional yields

The mined Bitcoins are invested in DeFi protocols and liquidity protocols to obtain additional yields with a 20% APY target. The profit generated from the DeFi protocols and liquidity protocols is split 50/50. Half of the profits (50%) are reinvested into new mining sites to compound the excess energy harnessed. The excess energy is used to mine more Bitcoin and therefore the pool of assets expands.

4. Profits are equally split between MPG tokens and stablecoins before they are distributed to token holders and MPG management

The remaining 50% of the profit is used as buybacks of the MPG tokens (25%) and stablecoins (25%) from the open markets through DeFi and central crypto exchanges. Stablecoins are cryptocurrencies where the price is designed to be pegged to the US dollar. These MPG tokens and stablecoins are directly paid out as a form of dividend or yield to MPG token holders (staking reward).

4a. Buyback of MPG token and distribution of dividend yield (40% staking reward paid to MPG token holders)

Through financial engineering token holders receive 40% of the profit pool in MPG tokens and stablecoin as a dividend yield (staking reward). Staking rewards are automatically paid out monthly to the holder's MPG wallet. For the first phases, there will be monthly staking rewards and eventually moved to weekly staking rewards. These buybacks continuously ensure upward pressure on the MPG token price. The engineering of split staking rewards between MPG tokens and stablecoins reduces the overall risk for investors. Investors that passively hold MPG tokens in their wallets will automatically gain compounded returns.

4b. Management fee creating additional value

The last 10% of the profit pool will be distributed to the MPG team as a management fee to fund development, selection of new mining sites, and ongoing management. The MPG team receives the management fee in MPG tokens and stablecoins.

Tokenomics

MPG Token

The MPG token will have a limited supply of 500 million tokens. The MPG token will eventually increase in price as the pool of assets increases and more assets will create higher returns which are then used to fund the repurchasing of MPG tokens in the open market. Due to the scarcity of tokens, the consistent buying pressure should force the price of MPG tokens to increase, as illustrated in the flywheel above. A healthy self-strengthening spiral is created which expands the pool of assets and ensures the existence of price pressure on the MPG token through the token ecosystem.

Open Ledger

With the MPG platform, millions of transactions will take place in the form of weekly payouts and traditional trading. An open ledger is key for transparency on our platform.

Global Footprint

We are building MPG to be a global decentralized platform that allows MPG token holders from anywhere in the world to earn interest and be part of the MPG token project, regardless of their base currency or the local laws they operate under.

Token summary and metrics

Project Name	Micro Power Global
Network	ERC20
Token Name	$MPG
Token Launch	Q1 2020

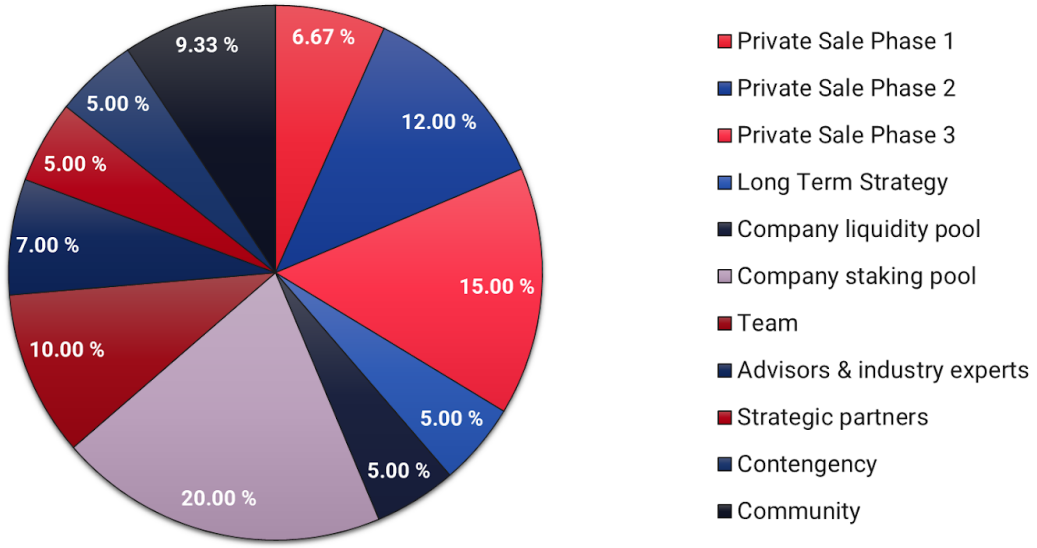
Total Token Supply	500 000 000
Total Fundraise	$50 000 000
Total Diluted Marketcap	$200 000 000

Initial Circulating Supply	TBA
Initial Marketcap	TBA

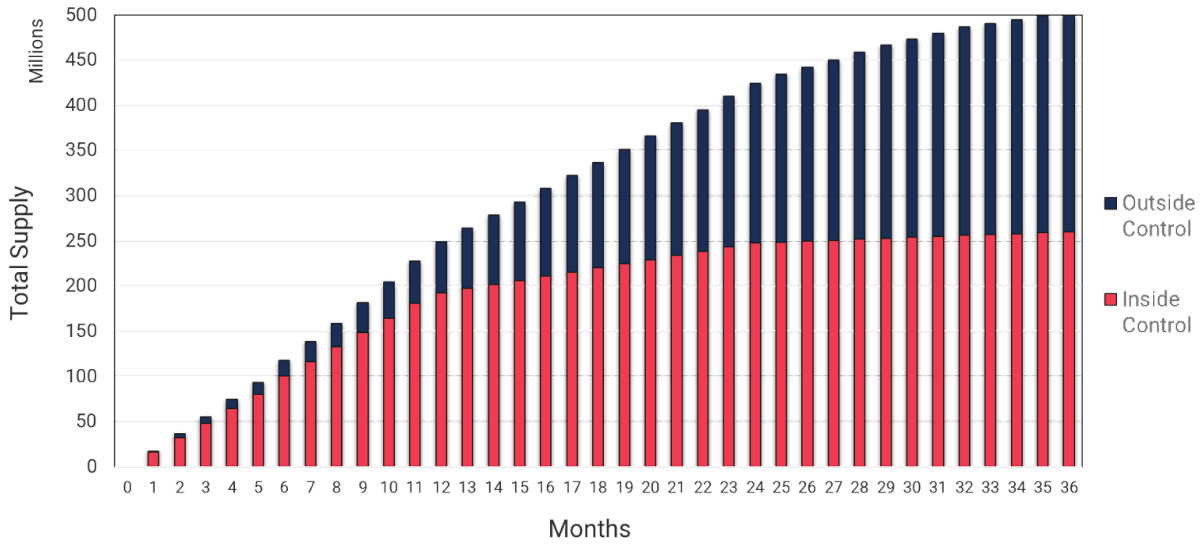
Private Sale Phase 1 ($0.15)	$5 000 000
Private Sale Phase 2 ($0.25)	$15 000 000
Private Sale Phase 3 ($0.40)	$30 000 000

Token economy and Vesting

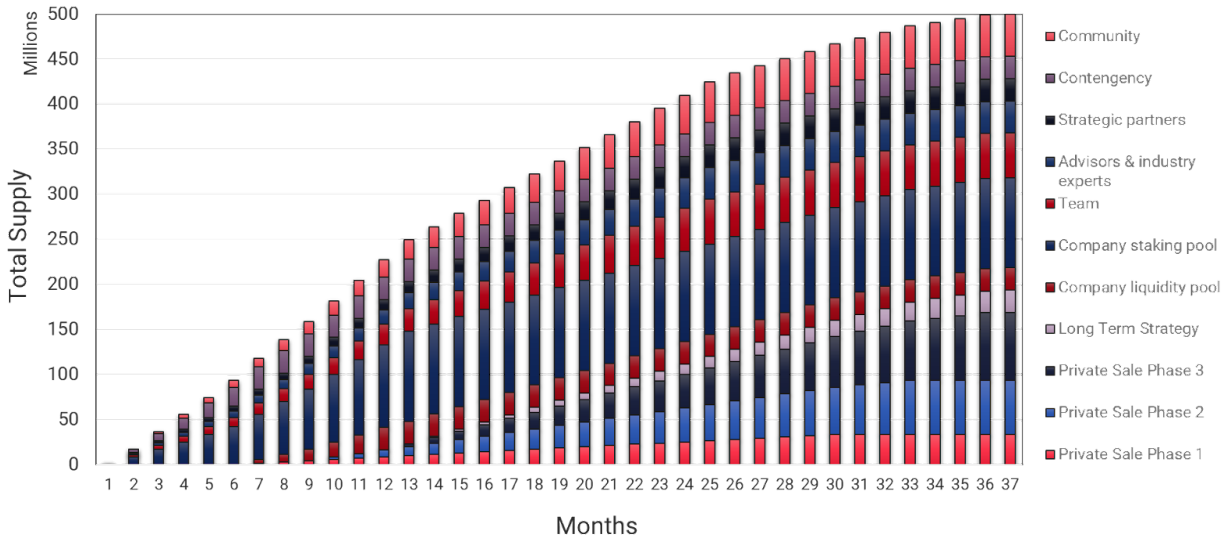
Initial circulating supply	% Total Supply	Vesting
Private Sale Phase 1	6.67 %	Vests monthly over 24 months, beginning 6 months after public listing.
Private Sale Phase 2	12.00 %	Vests monthly over 24 months, beginning 9 months after public listing.
Private Sale Phase 3	15.00 %	Vests monthly over 24 months, beginning 12 months after public listing.
Long Term Strategy	5.00 %	Vests monthly over 24 months, beginning at Q1 2023
Company liquidity pool	5.00 %	Vests montly over 6 months, beginning at Q3 2022
Company staking pool	20.00 %	Vests monthly over 12 months, beginning at listing
Team	10.00 %	Vests monthly over 24 months, beginning at listing
Advisors & industry experts	7.00 %	Vests monthly over 24 months, beginning at listing
Strategic partners	5.00 %	Vests monthly over 24 months, beginning at listing
Contengency	5.00 %	Vests monthly over 6 months, beginning at listing
Community	9.33 %	Vests monthly over 24 months, beginning at Q2 2022



Token Ownership



Detailed Token Ownership



Technical Specifications

Security & Risk

Our wallet is based on Fireblocks wallet service, which is one of the most reputable actors in the market today, well known for their high level of security and expertise.

The tokens will be distributed among several wallets and top exchanges. Our goal is to partner with Celsius, one of the leading platforms for DeFi lending, which have a high degree of security and trust.

We will have our code audited by AI security. We will also have Alexander Reay helping to structure and test the security in our code. Alexander has incredible experience after many years in the cybersecurity industry.

Community Support

We are here for the cryptocurrency community. Our goal is to support the community by providing them with bonuses, discounts, exclusive community events, and bounty programs.

Lending Protection

Insurance for lost funds/hacks for users staking tokens is under development with the Guardian project.

Compliant & Legal

We adhere to all applicable rules and legal guidelines. We will require members of the MPG community to go through full KYC (Know Your Customer) in order to comply with anti-terrorism and anti-money laundering (AML) laws.

Our Fees

MPG will charge a small transaction fee when withdrawing funds from the wallet. One needs to notice 24 hours prior to withdrawal from the wallet. We will just take the mining fee. The wallet service itself is completely free to use and no other transaction fees will be charged.

Environmental, Social, and Governance Aspects

Fossil Fuel Efficiency

The rate of transition from fossil fuel dependency to an economy in which renewable energy is the primary source of energy is rapidly increasing. At the same time, reallocating trillions of dollars of capital spend into today's relatively small renewable energy sector and shutting down all fossil fuel production is not a viable alternative. MicroPower's innovation in thermoelectric power generation provides a compelling opportunity to accelerate change in the balance of energy by improving the efficiency of existing facilities.

When MicroPower's technology uses waste heat generated by fossil fuel combustion processes, customers benefit from lower costs, stretched fuel supplies, and reduced emissions. Subsequently, the substantial untapped resource of waste heat can be economically recovered and lead to dramatic savings in energy use and costs. Essentially, MicroPower capitalises on both sides of the green transition to help bridge the gap to a renewable energy-based economy.

As the transition from fossil fuels to renewables gathers pace, MicroPower technology will be just as important, since industries such as steel and cement will still burn non-renewable fuel as part of their production process, and have consequent heat losses which MicroPower can continue to harvest.

Net-Zero Carbon Initiatives

The global movement to net zero carbon emissions is accelerating and includes governments, industry associations, companies and investors. As of June 2020, twenty countries and regions had adopted net-zero carbon targets. These and other governments are using numerous policy tools to limit overall carbon emissions including: renewable energy mandates, renewable energy targets, feed-in-tariffs, net metering and flexible grid access, transfers and subsidies, fiscal incentives and grants.

The emergence of carbon credit trading markets has added another economic value proposition for MicroPower's technology. A carbon credit is a generic term for tradeable certificates representing the right to emit one tonne of CO_2, in exchange for investing in projects that are reducing emissions. The main goal for the creation of carbon credits is the reduction of emissions of carbon dioxide and other greenhouse gases from industrial activities to reduce the effects of global warming. Many of the industries that MicroPower will target as initial customers are some of the largest emitters of CO_2.

In the U.S., waste heat to power technology has been included in the definition of energy sources eligible for either investment tax credits ("ITCs") or production tax credits ("PTCs"). ITCs enable owners of WHR energy projects (defined as "any source with a capacity of 50MW or less in which the primary purpose of the equipment is not to generate electricity") to receive a tax credit to cover up to 30% of the capital costs of a project. Alternatively, PTCs enable owners of WHR energy sources to receive a per kWh tax credit for energy production for the first 10 years of a project's life. The rate of these PTCs is dependent on the amount of energy produced, but

have traditionally been in the range of ~1.1¢/kWh for similar energy sources.Many companies are now announcing net-zero strategies as well. HeidelbergCement, the world's fourth largest cement manufacturer, announced a goal to produce carbon neutral concrete by 2050. The cement industry uses a significant amount of high temperature heat and is estimated to contribute 7% of global CO_2 emissions.[4] Another example is EN+, an aluminium producer, which is targeting net greenhouse emissions by 2050 with a reduction of at least 35% by 2035.

Individual and institutional investors are also very focused on greenhouse gas reductions and are tailoring their investment policies to support the transition to low carbon energy. On December 11, 2020, 30 founding investor signatories to the Net Zero Managers initiative representing over $9 trillion of assets under management announced they will work with clients to achieve target-based net zero goals by 2050 or sooner.

The Team

Core Micropower Global Team

Max Lewinsohn - *CEO & Chairman*
Max is the parent company's largest individual shareholder and main financial backer, having supported development of the technology since its inception. He has more than 40 years experience at board level in the financial services and energy sectors, having invested in and guided six public and many private companies in Europe and the U.S. He has held previous directorships across a number of sectors including energy, investment and logistics among others.

Dr. Tom Zirkle - *Chief Technology Officer*
Tom has been with MicroPower since 2009. He is a senior technology manager with over 18 years of semiconductor industrial experience with Motorola / Freescale Semiconductor. His technical work and collaboration have resulted in 8 patents and 31 publications. Tom completed both his Master of Science degree (concentrator solar cell research) and PhD (III-V semiconductor materials characterization) at Arizona State University.

Tristan Lewinsohn - *Executive Director, Business Development*

Tristan has been involved with MicroPower since the outset and is an executive member of the Board. Having initially trained as an accountant, he then moved into the world of marketing, working for several years as the press officer of pan-European TV sports channel Eurosport. Tristan plays a lead role in developing strategic relationships with industry partners.

Ron Panchuk - *CEO of MicroPower Canada*
Ron started his legal career with Burstall and Co., as an Associate and later Partner working primarily in the domestic and international energy industry. Since 2002, Ron has consulted domestic and international companies (such as Enron, Canadian Oil Sands and more) as a negotiator, lawyer and business development professional. In 2013, Ron co-founded Maha Energy AB, a Stockholm listed E&P company with assets in Brazil and the U.S.

Ed Sadjadi - *VP of Manufacturing and Customer Applications*
Ed joined MicroPower in 2014. He has extensive experience in semiconductor manufacturing technology, product development and managing all phases of the product life cycle. He started his career in Silicon Valley and has held key leadership positions at Monolithic Memories, Advanced Micro Devices and Spansion. Ed received his MBA from Saint Edwards University, Austin, Texas after completing undergraduate studies at The University of Texas in Austin.

CORE ADVISORS

Morten Rongaard NFT-Lead	Pioneer in the fields of Blockchain, AI, NFT's, and crypto. CEO of Reality Gaming Group, aiding global brands, such as Floyd Mayweather and Smighties, as part of the NFT Movement, in addition to developing innovative games and marketplaces that combine traditional gaming with new blockchain technology.
Peter G. Mikkelsen DEFI-lead	Over 9 years of in-depth experience of the Blockchain industry. While in university, studying for his BSc in International Business & Politics at Copenhagen Business School, Peter volunteered at the Bitcoin Center in New York. He was quickly taken into the organization and worked as a business developer for Bitcoin Center's overseas operations. After this, Peter was promoted to the position of Director of Business development and worked with Zap.org and Votewatchers. He is currently the Managing partner at

	Blockchain Center Fasttrack- worldwide education for young blockchain coders and Advisor to So Couch Studio as well as guest lecturer at his old alma mater.
Alexander H Reay Security advisor	Alexander has spent over 20 years at the intersection of advanced digital technologies, cyber security and strategic management and consultancy. With a strong and focused background both from business and technology perspective he has become a master in the intersection of technology and the business and translating the two effectively to stakeholders and other key management personnel. He's a certified blockchain Security Expert, Web Application Security Specialist and SOC Management Expert. He's currently undergoing his CISM. He is currently president at the Nordic IT Association.
Jimmy Steinbeck Community Advisor	Account Manager of Risk & Application Services at TEKsystems- the leading technology staffing and service company in the USA.
Adam Manga Marketing Advisor	Director at Blockchain Center- an educational hub for people interested in learning about blockchain, where he has developed websites, systems, and partnerships for Bitcoin Center International. Co-Founder at ForkedBlock - teaches the top Distributed System Engineers and Cypher Punks in the world on cryptocurrencies, smart contracts, and real time data feeds in blockchain.

Tech Team

Hakob Arshakyan Junior Developer	Hakob is a Smart Contracts and Oracles developer and experienced user of Solidity. He co-founded the Fasttrack.network coding school with Peter G. Mikkelsen where he supervises the DevOps section.

Summary of Legal Considerations, Risks & Disclaimer

Risk Factors

The following is a summary of the risk factors in relation to the Token Sales and company in general. This summary should not be relied on in place of reading the full risk factors section of “Legal Considerations, Risk Disclaimer” available at this link in full.

Token Sale Risk

-There is no prior market for Tokens and the Token sale may not result in an active or liquid market for the tokens.
-Market price may fluctuate following the Token Sale.
-Market trends may shift and MPG and tokens may be affected by this.
-Regulations may change that could come to affect MPG and tokens as well as MPG's overall business.
-Malicious attacks may occur in connection to the token sale, and funds may be lost.
-The users wallet service may not be technically compatible with the Tokens erc-20 protocol and may result in a complete loss of the contribution.

Company Related Risks

-System failures could result in damages to the MPG business.
-The company may in the future be dependent on part of the location and data center facilities of third parties.
-Regulations may change that could affect the MPG business.
-The company may not be able to pay any anticipated rewards in the future.

Disclaimer

You acknowledge, understand and agree that holding MPG tokens is not a guarantee, representation or warranty that the holder will be able to use the Company, or receive any tokens utilized by the Company

You acknowledge and agree that you are not purchasing MPG tokens for purposes of investment, speculation, as some type of arbitrage strategy, for immediate resale or other financial purposes. You acknowledge that all purchases of MPG tokens are final and nonrefundable, and the Company is not required to provide a refund for any reason and that you will not receive money or other compensation or any form of a refund, and you consent to no right of withdrawal from the ICO.