Merkle Tree

Whitepaper 2023

DISCLAIMER

For informational purposes only. Nothing in this document constitutes an offer or solicitation to sell digital assets in Merkle Tree or any related company.

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DISCLAIMER

Merkle Tree is a non-fungible digital asset providing bespoke access and utility to holders. Crypto-assets (e.g. crypto coins, tokens, NFTs) are either currently not regulated globally or the regulations may vary, sometimes significantly, between jurisdictions. Cryptocurrencies, NFTs and other blockchain and Web3 technologies are in constant flux. This Merkle Tree NFT is not intended to be the comprehensive or final design of Merkle Tree or its services, products or offerings. It is not intended to create either explicitly or implicitly any contractual relationship or elements. Merkle Tree's primary purpose is to provide potential token holders, partners or associates with sufficient pertinent information to enable an informed analysis and decision while taking into account the individual's or entity's current and future circumstances. It is strongly advised to fully study Merkle Tree and its attendant documents, and seek, where necessary, professional advice in order to come to an informed and appropriate decision. Given rapidly changing technological advancements and global factors, the volatility of which are unlikely to change in the short to middle term, certain statements, estimates and financial disclosures in this Merkle Tree document are forward looking statements, subject to change, and, although they are based on a rigorous consideration of known and unknown facts, risks and contingencies, the eventual actuality may differ factually or substantially from the forward-looking statements expressed herein. The following disclosure is intended to address regulatory requirements in a number of jurisdictions, which may or may not be applicable to you. We may disagree with possible interpretations across some jurisdictions globally due to issues raised herein, however, without prejudice, we provide the following legal warnings and request you read them carefully, in order to be, within reason, as globally compliant as possible. It is important to read and understand the related risks as described and explained in detail herein. As such, the risks may not be suitable for those of restricted means as the value of any monies advanced may be lost in part or entirety.

IMPORTANT NOTICES

High-Risk:

1. The worth of any monies advanced and the return obtained may experience significant upward and downward variations, and the entire amount may be lost.

2. Early-stage projects carry a higher level of risk; therefore, a proper understanding of the business model is required.

3. As described herein, crypto-assets are not generally covered by customer protection mechanisms across most global jurisdictions.

Value Guarantee:

4. Prices of crypto assets are generally constituted in the absence of government mechanisms that ensure their approved formation, such as those present in government regulated currencies or securities across global markets.

5. Crypto-assets may lack the liquidity to be able to unwind (return) funds advanced without significant loss, as their circulation among holders, either consumer, corporate or professional, may be very limited.

Technology Risks:

6. Blockchain or distributed ledger/registry technologies are at an early stage of maturity, any network or blockchain may not be sufficiently validated and may contain significant flaws that affect their operation and/or security.

7. Blockchain or distributed ledger/registry technologies work through multiple protocols that may be susceptible to a variety of attacks or subversions which could compromise the registry. Crypto-assets held in such registries, if compromised, may be lost in part or entirety.

8. The utility that crypto-assets can provide makes them a target for cybercriminals, and in the case of stolen or compromised credentials or private keys crypto assets may be illegally transferred and recovery may be difficult or impossible.

9. Custody of crypto-assets is critical since theft or loss of private keys can result in the loss of the crypto-assets. The custodial entity, its jurisdiction and legal framework must be identified.

LEGAL RISKS

10. Currently crypto-assets are limited as a means of exchange and there is a legal obligation to accept a limited number of them in only a small number of jurisdictions.

11. A provider of crypto-assets and services may not be located within the jurisdiction of your country and the resolution of any conflict could be costly and fall outside the scope of your local authorities.

12. Crypto-assets are held in a digital wallet. The security of the crypto-assets held is provided by possession of private keys which may be held by the crypto-asset owner directly or the custodial holder (usually the provider) of the crypto-asset or service. In either case, loss of the private key(s) generally means loss of the crypto-asset. Where the private key is held custodially the owner of the crypto-asset is required to be informed of what rights they have to the crypto-assets.

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OVERVIEW

Merkle Tree has structured its bridge financing round as an NFT (Non-Fungible Token) offering to expand its privately-owned Bitcoin mining business. Merkle Tree uses NFTs powered by Smart Contracts to provide users the first ever Onchain Annuity – a guaranteed regular dividend distributed to NFT holders on a daily and annual basis.

This automated ‘Smart Contract’ NFT structure eliminates the 'middleman' in the dividend distribution and settlement process. As the Onchain Annuity runs entirely on the blockchain, daily BTC dividend payments are processed instantaneously. By purchasing and holding a Merkle Tree NFT, users will gain access to the larger IBBA ecosystem, including all of its B2B solutions and both the daily and annual dividends.

Merkle Tree will issue 12,000 NFTs (at a price of $1,000 US each) in exchange for $12,000,000 US to launch its second Bitcoin mining facility in Venezuela. The holders of the 12,000 unit collection will collectively receive a 25% dividend of all future BTC generated from Merkle Tree-owned mining facilities in perpetuity. Merkle Tree intends to use this $12M investment to expand its Bitcoin mining operations into Venezuela and open its 10MW facility. Merkle Tree is launching this venture as an official P3 (Private, Public, Partnership) with the Venezuelan Federal Government, receiving key benefits including land subsidies, electricity costs, land protection, and maintenance.

Merkle Tree’s Venezuelan Bitcoin mining facility will bring economies of scale to Merkle Tree and increase operational efficiency and net income. This bespoke fundraising opportunity is giving exposure into one of the lowest-cost producing Bitcoin mines across South America and generating a daily Bitcoin dividend in perpetuity.

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WHAT IS IBBA HOLDINGS?

IBBA Holdings

IBBA Holdings is a fintech holding company that strives to create a comprehensive, standalone banking system for the unbanked. With a presence in Argentina, Brazil, Chile, Colombia, Mexico, Panama, and Peru, IBBA Holdings holds a series of vertically integrated businesses throughout the payments, banking, and digital asset landscapes. These businesses include:

I. IBITT.CO

Ibitt.co is a professional cryptocurrency exchange based in Chile. It offers access to over 100 cryptocurrencies and tokens and allows users to securely store, manage, and trade their blockchain assets. Ibitt.co also facilitates flexible exchanges between cryptocurrencies and fiat currencies, including USD, EUR, CLP, ARS, and PEN. It is a significant player in the Latin American cryptocurrency exchange market, with reported annual sales exceeding USD $150 million.

II. QUICKEX

Located in Chile, Quickex provides remittance transfer between Latin American countries. It provides users with access to blockchain-based banking, which is more affordable and accessible for those who do not have existing relations with a bank. This makes for convenient money transfers and spending via the Quick Express prepaid credit card. Quickex currently grosses USD $50M in sales per year.

III. QUIKIPAY

Also located in Chile and launched in 2020, QuikiPay offers B2B payments for e-commerce, marketplace platforms, payment processors, and more. Leveraging blockchain technology, QuikiPay is allows merchants to accept a wide range of payment options including credit and debit cards, crypto, bank transfers and deposits, and cash.

IV. HYPEX

HypeX is an all-in-one utility NFT infrastructure protocol platform. It serves as a turnkey solution, providing a variety of SDKs, APIs, smart contracts, no-code hosting services, and more tools to help innovators build, create, and launch NFTs with practical functionalities.

V. Merkle Tree

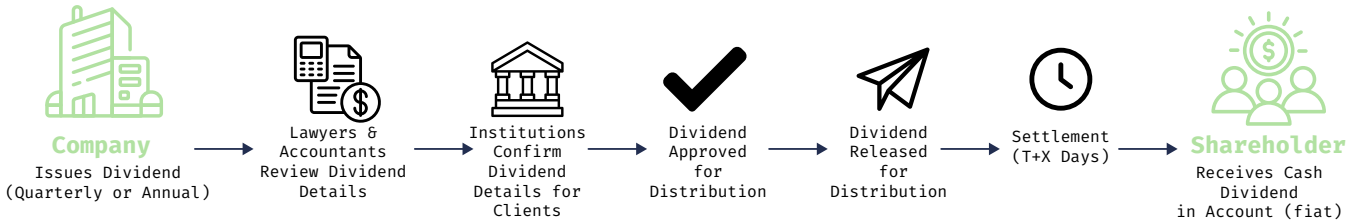
Merkle Tree is the crypto mining subsidiary of IBBA Holdings. This subsidiary focuses on building, operating, and maintaining Bitcoin mining facilities.

Merkle Tree NFT: The First Onchain Annuity

Merkle Tree is the gateway for consumers to tap into the larger IBBA ecosystem. IBBA has built a financial services pipeline that provides the infrastructure, payment rails, and technology to power billions in cross border payments throughout South America. This includes, but is not limited to, B2B solutions like payment processing via QuikiPay, NFT infrastructure through HypeX, and other key business segments including crypto asset exchanges and remittance services. Merkle Tree's first ever dividend-bearing NFT will provide an onramp for individual investors to participate in this growing financial services conglomerate.

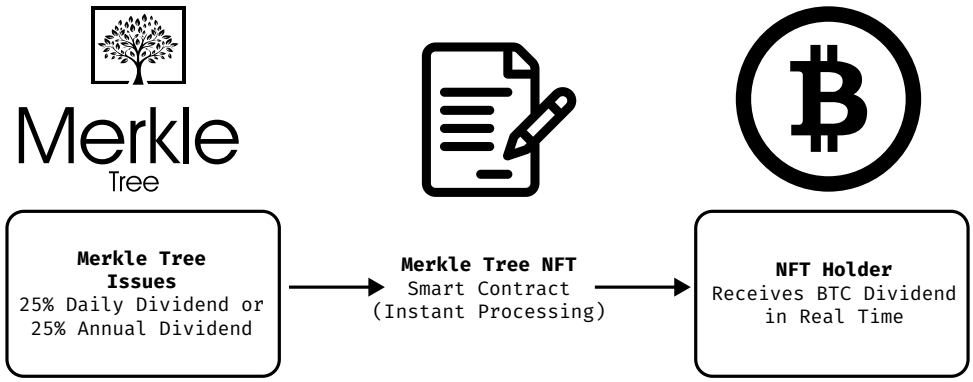
Merkle Tree uses NFTs to deliver the first annuity whereby the custody, settlement, and yield on the underlying product is delivered entirely on the blockchain. Merkle Tree NFTs are the first annuities to ever be brought onto the blockchain – this protects holders and ensures all subsequent yields are delivered, tracked, and authenticated on the blockchain.

Standard Dividend Distribution



While standard dividend distribution is plagued by middlemen and lengthy settlement times, Merkle Tree's NFT dividend utilizes Smart Contracts on the blockchain for instantaneous settlement. And, while standard dividends are most often distributed quarterly or annually, Merkle Tree's onchain annuity product distributes dividends daily in the form $BTC – NFT holders can enjoy instant settlement and access their tokens immediately or enroll in auto-reinvestment, essentially making the Merkle Tree NFT a Bitcoin dollar-cost-averaging investment plan.

Merkle Tree NFT Dividend Distribution



Merkle Tree's onchain annuity product generates consistent, guaranteed returns paid out daily in $BTC in perpetuity. Merkle Tree has reserved 25% of all future mining yield to be split evenly amongst the NFT collection, so each NFT will generate 1/12,000 of the overall dividend return.

Holding a Merkle Tree NFT means you are 1 of only 12,000 individuals with exclusive access to all of IBBA's subsidiary ventures. Holders each receive a preferred access to the broader IBBA ecosystem including token-equity swaps on upcoming IBBA capital raises, as well as real-time news from IBBA about new products and investment opportunities with front-of-the-line access to these new opportunities.

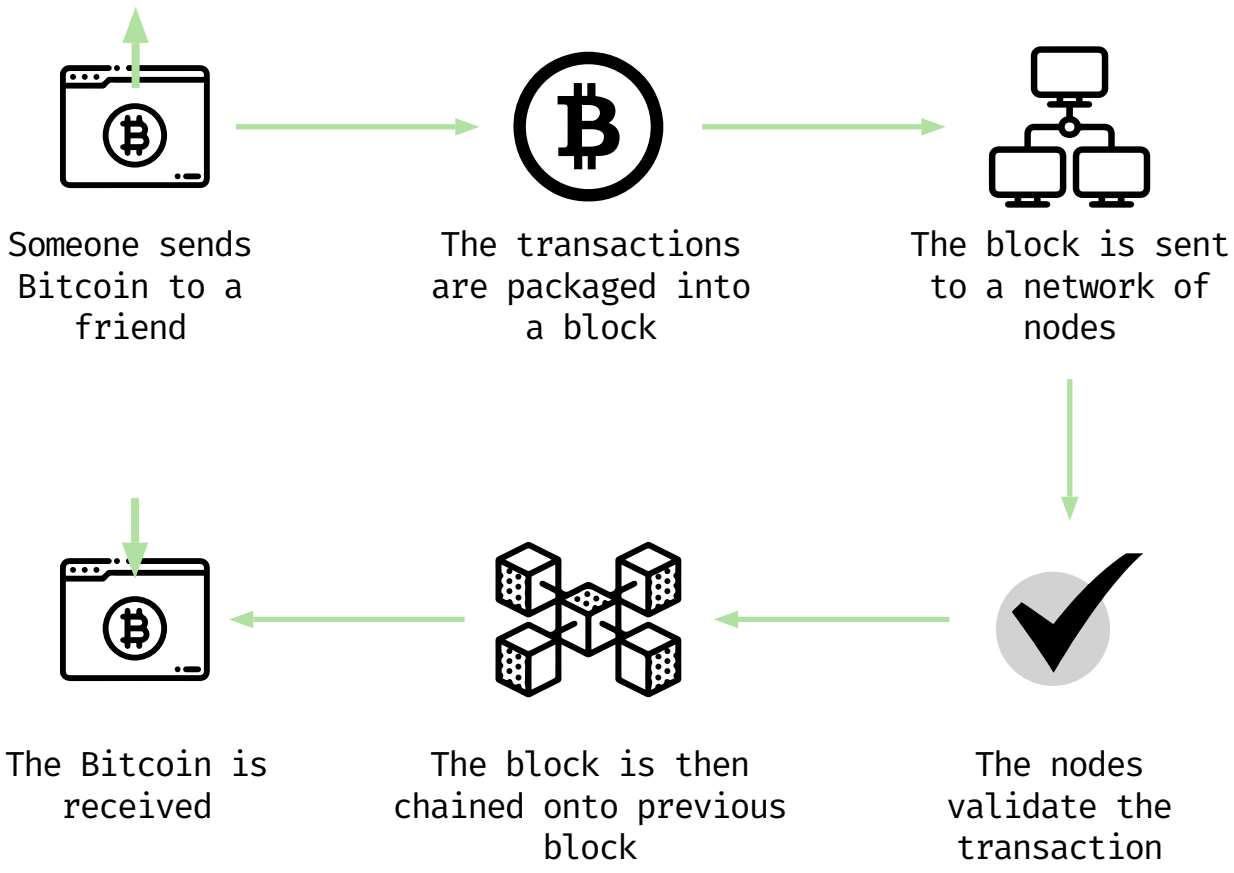
Currently, Merkle Tree NFT utilizes ETH-based NFTs for Onchain Annuities to keep track of dividend and yield-bearing structures. We are aware of Ordinals and the wave of BRC20 – Merkle Tree is evaluating and closely monitoring the BRC20 with plans to migrate there when the barriers to entry decrease and there is enough development tooling to support a project of this scale.

What is Crypto Mining?

Crypto mining is the process by which transactions on a peer-to-peer network are confirmed, and new digital assets are minted and circulated into supply. The physical process of mining is done by using highly technical computing machines to solve cryptographic hash puzzles and mathematical equations. The mining unit that successfully solves the problem earns a mining reward (fee) for their efforts; these fees are based on how much the miner's hardware contributed to solving the cryptographic problem.

These mining projects require powerful computing hardware to operate efficiently and profitably. Miners face very intensive competition as electricity costs, hardware efficacy, and machine replacement frequency all play a key factor in these facilities profitability.

Currently, Merkle Tree's existing mining facility is based in Argentina. The facility features 1,000 mining rigs, generating 10MW per hour. The Venezuelan facility will scale to over 2,800 mining rigs, resulting in a 280% increase to Merkle Tree's existing output.

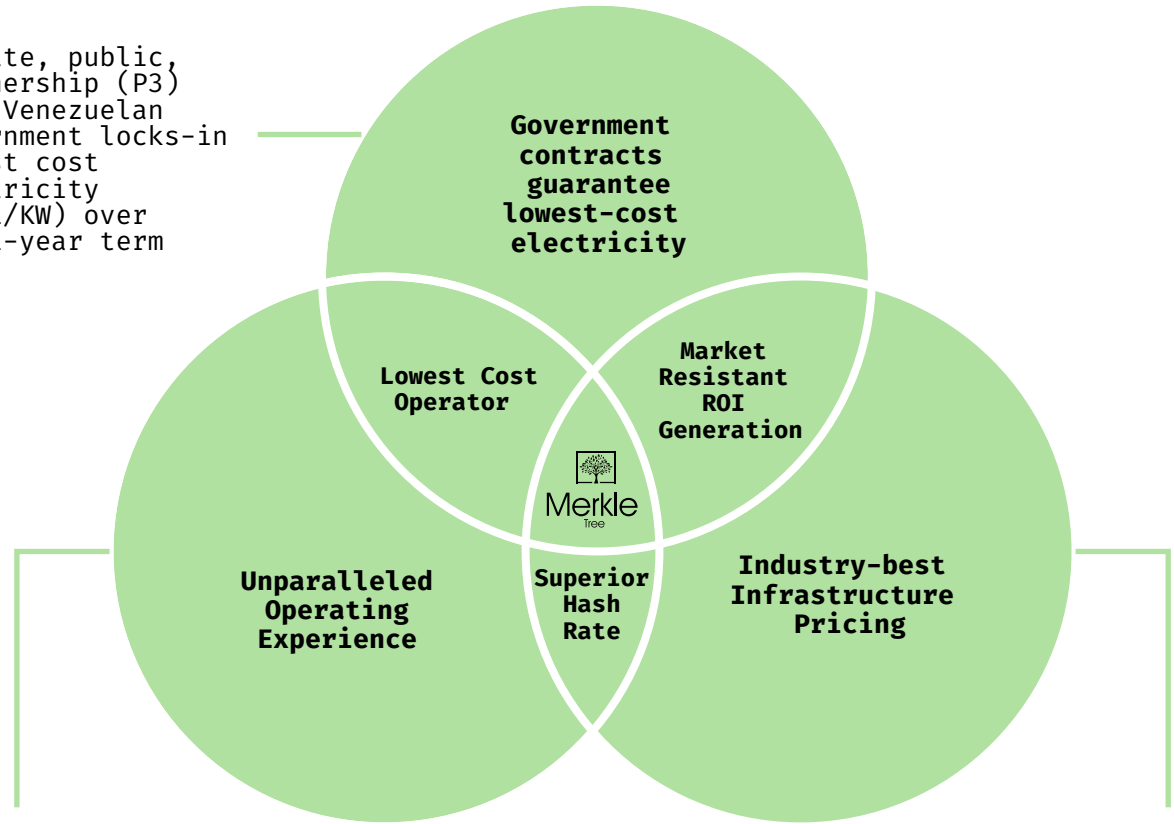


MERKLE TREE: VENEZUELA OPERATION

As an official P3 Venture with the Venezuelan federal government, Merkle Tree is scaling its mining efforts to become the lowest cost, highest margin Bitcoin producer in South America.

Key Differentiation

Private, public, partnership (P3) with Venezuelan government locks-in lowest cost electricity (0.01/KW) over multi-year term



Merkle Tree Argentinian team to increase efficiencies, reduce bottlenecks and minimize machine rundown

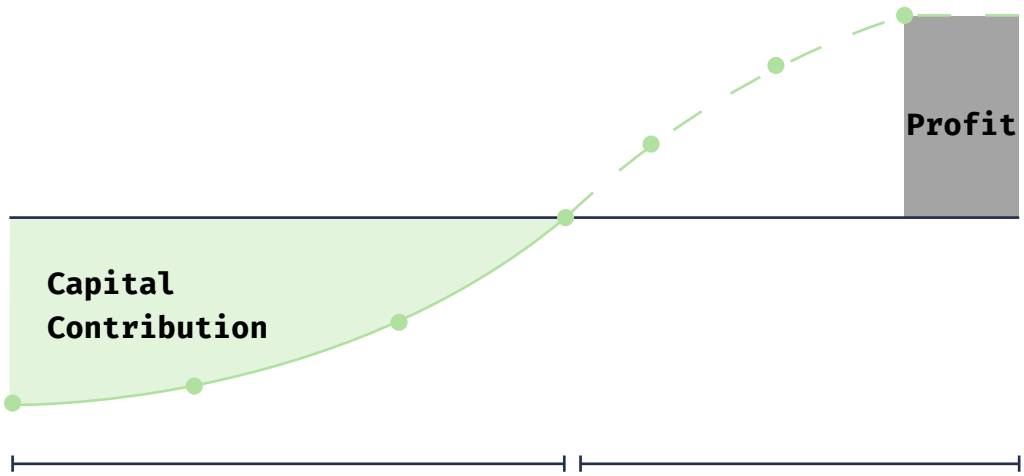
Carefully negotiated deal with WhatsMiner gives Merkle Tree the lowest-cost fleet of M30 mining rigs.

Merkle Tree has three distinct value propositions:

1. Faster ROI

Merkle Tree NFT holders gain access to the onchain annuity, including daily $BTC dividend payments. Through this onchain annuity, NFT holders earn an immediate return on their investment.

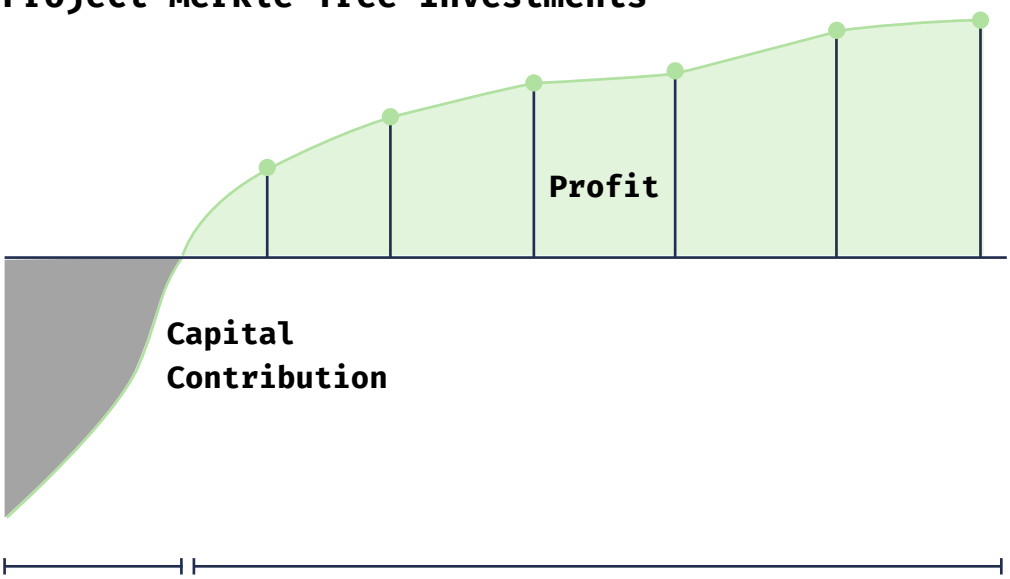
Once the additional Merkle Tree facility is operational, both facilities will generate BTC dividends for NFT holders and follow a daily recoupment schedule in perpetuity.



ROI can be slow and capital may be locked-up until there is a liquidity event

Traditional investments can take months or years to return capital

Project Merkle Tree Investments



Self-sustaining facility generates YoY returns without additional capital calls or reinvestment

Return of capital is immediate

2. Greater Financial Returns

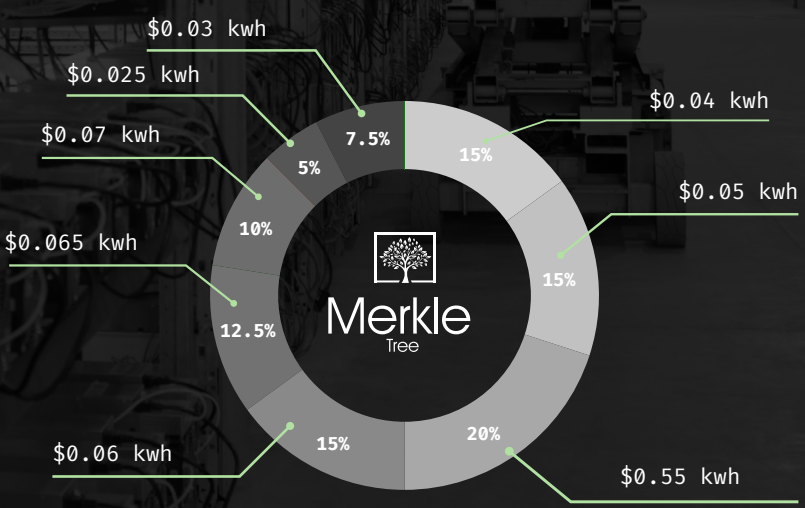
Returns on this offering are positively correlated to Bitcoin's price increase while input costs remain unchanged. As the price of BTC rises, margins will increase significantly, generating a faster ROI and a faster delivery of investors' capital.

3. Efficient Infrastructure

a. Low-Rate Power

Merkle Tree has an exclusive agreement with the Venezuelan government which includes locked-in, pre-negotiated electricity rates that provide the most affordable electricity across all of South America at just 0.01/KW.

Project Merkle Tree electricity rates are lower than an estimated 98% of miners.



b. Low Cost Hardware

Merkle Tree has negotiated with their mining vendors, resulting in an exclusive agreement to provide WhatsMiner M30 rigs at the lowest price available today. These efficient mining devices feature a hash capacity of 100TH+ per rig.

c. Greatest Operational Efficiency

The market, the remaining mining farms can earn larger BTC rewards.

Merkle Tree has brokered industry-best hardware and electricity pricing to help generate some of the most profitable BTC output in South America. As long as the price of Bitcoin stays above Merkle Tree's breakeven point, the facility will remain profitable.

Description	Argentina Facility	Venezuela Facility	Total Capacity
Mining Rigs	3,000	3,500	6,500
TH/s per machine	100/Machine	100/Machine	100/Machine
Total TH/s	300,000	350,000	650,000
Daily BTC Mined	0.34	0.952	1.292
Yearly BTC Mined	124.10	347.48	471.58
KW per hour cost	0.07	0.01	0.0258
Monthly Operating Cost	20,000	20,000	40,000
BTC daily dividend payout		25%	
Breakeven BTC Price		$14,452	

THE NFT OFFERING

- Merkle Tree is the first onchain annuity to be delivered via NFT.
- Merkle Tree is selling 12,000 dividend-generating NFTs in exchange for $12,000,000 US. Each NFT represents a 1:1 contract between Merkle Tree and the NFT holder.
- These onchain annuities delivered via NFTs with daily BTC dividends provide exposure into the lowest cost Bitcoin producing mine in South America.
- Onchain Annuity NFTs can be traded or sold on the open market.
- Provides early-stage access to upcoming Merkle Tree venture investment opportunities.
- Daily Bitcoin dividend rewards in perpetuity; the most cost effective daily-cost-average investment plan for building a Bitcoin portfolio.

Bridge Financing Terms

Issuer	Merkle Tree
Issuance	12,000 NFT Certificates
Issuance Price	$1,000 US
Issuance Size	$12,000,000
Dividend Rate	25% (All Future BTC yields)
Dividend Terms	Perpetuity

a. Daily BTC Dividend

I. Holders will receive a 25% profit-share of all newly mined BTC in perpetuity. Each NFT represents 1/12,000 of the entire 25% dividend. Distributions are made on a daily basis, significantly reducing the opportunity cost of their capital.

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
BTC Mined	548.76	754.75	774.71	759.21	746.07
Less: Daily BTC Dividend	137.19	188.69	193.68	189.80	186.52
Less: Annual BTC Diviend for loan & Visa revenue	0.36	0.51	0.52	0.51	0.50
Net BTC	**411.20**	**565.56**	**580.51**	**568.90**	**559.05**

b. Annual BTC Dividends

Merkle Tree NFT owners will also receive 25% of Merkle Tree's annual revenue in the form of a BTC dividend, delivered annually at the end of Merkle Tree's fiscal year. This revenue is generated through private lending and VISA transaction fees.

	FY2024	FY2025	FY2026	FY2027	FY2028
Less: Annual BTC Diviend for loan & Visa revenue	0.36	0.51	0.52	0.51	0.50

c. Discretionary BTC Dividends

NFT owners may receive additional dividends at the discretion of Merkle Tree.

d. Liquidity, Lending & Credit

I. Leverage BTC for Fiat Currency

Merkle Tree NFT holders can work directly with Merkle Tree's digital asset brokerage partner Secure Digital Markets to provide fiat lending against their BTC. This allows NFT Holders to use their dividend earnings while still maintaining ownership of their BTC.

IBBA-SDM Lending	Terms
Loan-to-Value Ratio	65% LTV
Term	12 Months
Interest Rate	7.5% Origination:1.5% 6% Paid in Quarterly Arrears
Margin Call	70%l

II. VISA Loan

Merkle Tree's prepaid VISA program is giving NFT holders the first
BTC-backed credit card, helping individuals access credit from their
mined BTC, without ever having to sell their mined assets.

Merkle Tree	Credit Card Fees & Costs
Credit Fees	3.5%
Transaction Fees	0.7% Per Transaction

d. Exclusive Access to Future Merkle Tree Ventures

I. Preferred BTC Trading Rates
II. Priority Access to Future Merkle Tree Offerings & Expansions

Each NFT owner gains access to Merkle Tree's network and will receive priority access to future ventures launched by IBBA Holdings.

f. BTC Price Appreciation

I. Compounding BTC Dividends

Daily and annual BTC dividends will compound on a daily basis. On a 5+ year time horizon, this daily dividend becomes a Dollar-Cost Averaging investment plan for Bitcoin.

REVENUE PROJECTIONS & FINANCIAL ASSUMPTIONS

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BTC Price Assumptions

As Merkle Tree's revenue is generated through mining BTC, its net income varies based on the price of BTC and several price assumptions must be made in order to accurately forecast revenue. The projections below are calculated with the assumption of 3,800 total mining rigs, which are expected to deliver approx. 118 BTC in annual dividends to NFT holders.

	FY2024	FY2025	FY2026	FY2027	FY2028
BTC Mining					
BTC Mined	548.76	754.75	774.71	759.21	746.07
Less: Daily BTC Dividend	137.19	188.69	193.68	189.80	186.52
Lees: Annual BTC Dividend for loan & Visa revenue	0.36	0.51	0.52	0.51	0.50
Net BTC	**411.20**	**565.56**	**580.51**	**568.90**	**559.05**

I. Linear / Pessimistic Projection

The linear/pessimistic projection assumes an average BTC price for each fiscal year with linear growth year-over-year compared to the previous year.

	FY2024	FY2025	FY2026	FY2027	Fy2028
BTC Price Output:	$18,000	$22,000	$25,000	$30,000	$40,000
Revenue					
BTC Mined ($)	$8,511,696	$10,374,760	$11,789,500	$14,147,400	$18,914,880
Less: BTC Dividend ($)	-$2,127,924	-$2,947,375	-$2,947,375	-$3,536,850	-$4,728,720
Less: Annual BTC Dividend for loan & Visa Revenue	-$5,654	-$6,958	-$7,907	-$9,488	-$ 12,686
Net BTC	**$6,378,118**	**$7,420,427**	**$8,834,218**	**$10,601,062**	**$14,173,474**

II. Optimistic Projection

The optimistic projection assumes significant BTC price volatility year-over-year, but optimistic growth over a 5-year term.

	FY2024	FV2025	FY2026	FY2027	FY2028
BTC Price Output:	$30,000	$55,000	$37,000	$75.000	$100,000
Revenue					
BTC Mined ($)	$14,186,160	$25,936,900	$17,448,460	$35,368,500	$47.287.200
Less: Daily BTC Dividend ($)	-$3,546,540	-$6,484,225	-$4,362,115	-$8,842,125	-$11.821.800
Less: Annual BTC Dividend for loan & Visa Revenue	-$9,423	-$17,395	-$ 11,702	-$23,721	-$ 31,714
Net BTC	**$10,630,197**	**$19,435,280**	**$13,074,643**	**$26,502,654**	**$35,433,686**

III. Historic 5-Year Growth Projection

The historic 5-year growth projection assumes significant BTC price volatility year-over-year but historic growth over a 5-year term with BTC reaching a new all-time high

	FV2024	FY2025	FY2026	EV2027	FY2028	FY2029
BTC Price Output:	$16,860	$32,406	$130,647	$130,647	$208,601	$75,951
Revenue						
BTC Mined ($)	$7,972,653	$15,281,850	$61,610,310	$61,610,310	$98,371,916	$35,915,105
Less: Daily BTC Dividend ($)	-$1,993,163	-$3,820,462	-$15,402,578	-$15,402,578	-$24,592,979	-$8,978,776
Less: Annual BTC Dividend for loan & Visa Revenue	-$5,296	-$10.249	-$41,320	-$41,320	-$65,975	-$24.087
Net BTC	**$5,974,194**	**$11.451138**	**$46,166,413**	**$46,166,413**	**$73,712,962**	**$26,912,242**

USE OF PROCEEDS

a. Land Acquisition & Facility Adaptation

3.75% of funds raised — approximately $450,000 — will be used to adapt the facility to the requirements of the new mining rigs and upgrade existing properties to accommodate the necessary equipment.

b. Electrical Installation

The new facility requires comprehensive electrical installation before it is fully operational. To ensure adequate coverage for electricity and energy, Merkle Tree will reserve 5.8% of funds raised — approximately $700,000 — to cover upfront electrical installation.

c. Mining Rigs

The bulk of the funds raised — approximately 59.5% — will be used to purchase new mining rigs. Although the price of these rigs fluctuate, Merkle Tree aims to purchase approximately 2,800 Whatsminer M30 rigs at an estimated $2550 per rig for a total of $7,140,000.

d. Additional Equipment

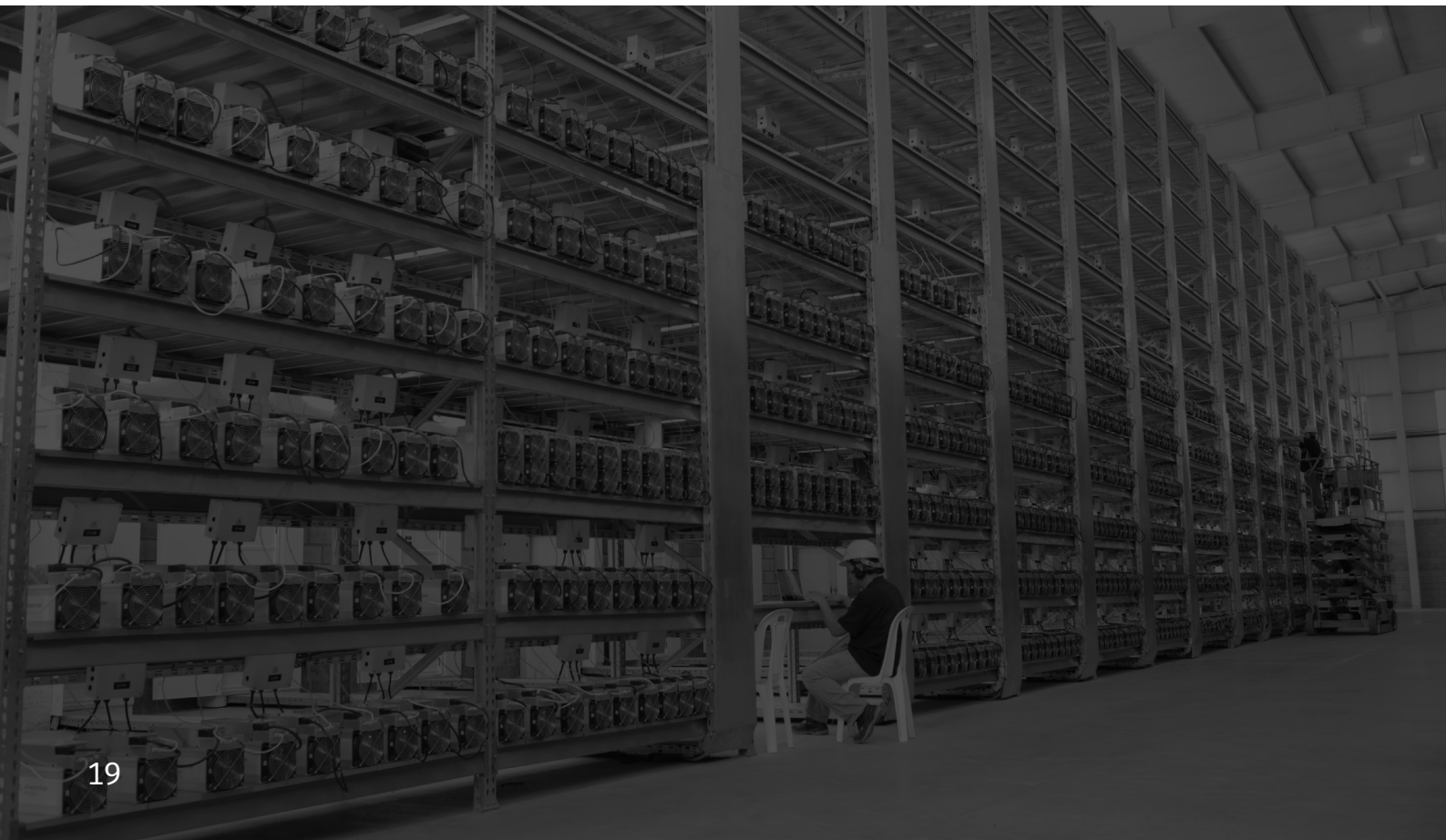
An additional $1,600,000 — approximately 13.333% — will be reserved to cover additional hardware, technology, and equipment necessary to optimize mining rig operations.

e. Reserves for Operating Costs

To facilitate the expansion of its mining rig operation, Merkle Tree will reserve approximately 17.5% of funds — $2,110,000 — to cover monthly operating costs for the initial 6 months of operation. This includes all of the farm costs, security, and electricity involved in launching and running the second facility.

f. Insurance

Merkle Tree will reserve funds to allocate towards insurance over the initial months of operation. This insurance applies to mining rigs, hardware, properties, and staff in the event of a covered incident.



THE MERKLE TREE TEAM

The Merkle Tree team is made up of industry experts and thought leaders with an innate understanding of crypto mining. Together, the team has a proven track record of launching and operating a successful Bitcoin mining farm in Argentina.

Chris V. Schwarzenbach

CEO / Founder | 15 years of experience
Santiago Chile based, Chris has a background in law, engineering & project management at Quito Airport. His last venture offered prepaid credit cards to LATAM residents & exited to Banco de Chile.

Carlos Zazo

COO | 37 years of experience
Ex-CEO of Movistar Brazil, Peru and Chile, Carlos has a strong corporate background and impressive network of CEOs across LATAM with whom he has previously worked.

Fernanda González

CFO | 19 years of experience
Ex CFO of Santa FE mining company, Fernanda looks after the financial reporting, bookkeeping & controls of the company.

Juan S. Vallejo Vivero

Chief Growth Officer | 25 years of experience
Executive with 25 years of experience in Marketing, Business Development and Business Administration. Extensive experience in brand positioning and innovation in industries mass consumption and retail. Expert in business planning and strategic management.

Camilo Vallejo

Chief Minning Office | 10 years of experience
Camilo is a seasoned crypto specialist with over 10 years of hands-on experience in Bitcoin mining. His background in both political affairs and technology provides a unique perspective on the intersection of cryptocurrencies, regulatory environments, and geopolitical dynamics. With a deep understanding of blockchain technology and its implications, Camilo is a valuable asset in navigating the complexities of the digital currency landscape.

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PARTNERSHIPS

HITES Chile: large retail store and credit card program operator. Which has partnered with Quickex for the provision of global remittance services to their customers, who are currently remitting $1.2m per month to VZ.

BITTREX USA – Large US based: cryptocurrency exchange, with a daily trade volume of $100m+, They conducted in depth Due Diligence on iBitt, due to strict controls of SEC & other US agencies.

Credencial Argentina S.A: Specializes in the development of technological solutions and payment gateways processing. We partnered for the Pre Pay Quickex card program. We are planning to have 50K prepaid cards by the end of 2020.

Jet Peru: Similar & larger than More Chile.
Quickex has partnered with JET, which has a network of over 100 agency offices in
Peru.

OKEX – Large US Crypto exchange: Similar to Bittrex but larger in terms of daily BTC trading volumes (>$250mn) partnered with us for the LATAM region which they serve through their office in Buenos Aires, AR.

Mastercard Argentina: has partnered with us Que our partnership with "Credencial Argentina SA°. The objective is to sponsored our prepaid card plan along the time.

Co-issuers of VISA through Versatec Panamá. We serve our VIP clients with a secure credit card option they can use safely and worldwide accepted

Quikipay was selected for the startup program of Oracle for Startup. Now Oracle is the corporate partner of Quikipay

Startup grind is the biggest startup community in the world. Present in 15 countries and 600 cities. Google for startup and AWS are its main sponsors.

BEXS is our payment processing partner in Brazil, thanks to this alliance we can fully operate in that country

Merkle
Tree