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The Impact DePIN Report

Examining the Intersection Between Decentralised Physical Infrastructure Networks (DePINs) and Web3 Regenerative Finance (ReFi)

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Switch

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Q3 2024

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Preface

At the intersection of ReFi and DePIN, Impact DePIN is a relatively new concept within the wider DePIN sector. To provide the necessary context for the report, let's first look at the definitions of both DePIN and ReFi.

What is DePIN?

A moniker for a decentralised physical infrastructure network, DePIN is a response to the perceived risks of centralised infrastructure, such as internet, electricity, compute, and water.. It leverages Web3 solutions, namely blockchain and cryptocurrency, to incentivise and coordinate **decentralised networks** of infrastructure that are **responsive**, **robust**, and **affordable**. An example is a DePIN that allows people to "rent" their underutilised compute resources to AI developers in exchange for a fee.

According to Messari's State of DePIN 2023 report, DePIN can be divided into six sub-sectors: compute, artificial intelligence (AI), wireless, sensors, energy, and services. This taxonomy is set to expand as DePIN grows in popularity and becomes easier to implement.

What is ReFi?

A moniker for Web3 regenerative finance, ReFi represents a belief that our current economic and financial system needs to be replaced if we are going to address climate change and social inequality. A new system, it suggests, needs to be decentralised, equitable, and regenerative, not centralised, unjust, and extractive. A good example is a solution that enables on-chain verification and issuance of ecological credits.

At a more practical level, ReFi can be described as **Web3-powered ecological and social impact**. In other words, taking the available Web3 solutions—blockchain, cryptocurrency, smart contracts, and decentralised autonomous organisations (DAOs)—and combining them with other modern technologies to build solutions that address our systemic issues and lay the foundation for a new economic system.

A ReFi primer can be found here. For a more detailed look, check out The State of ReFi Report 2024.

Executive Summary

Impact DePIN is a sub-sector of the wider DePIN sector. It's based on the premise that infrastructure suppliers and end users can be incentivised to make ecological and/or social impact. The ecosystem can currently be divided into five categories: utility network alternatives, climate action, weather, agriculture, and distributed ledgers.

Impact DePIN Economic Model

- What makes the Impact DePIN economic model different from than the typical DePIN model is the possibility of generating ecological assets from the provision and consumption of network resources.
- Carbon credits, renewable energy certificates, and a host of other green assets can be issued and sold as an additional revenue stream, while acting as a powerful incentive for climate action.

Use Cases

- **Alternative utility infrastructure** - Solar infrastructure owners can become their own utility companies by supplying electricity to consumers in their vicinity.
- **Climate action incentives** - Crypto incentives can be used to make climate-positive behaviours profitable at scale.
- **Green investments** - Tokenised real-world assets, such as debt instruments, can be leveraged to spur investment into the development of green infrastructure networks.

Market Potential

- Impact DePIN can take advantage of the expected growth of the wider DePIN sector, the large gap in electricity supply (especially in Sub-Saharan Africa), and the increasing desire for individuals to take climate action.

Impact DePIN at Work

- **Arkreen** - A decentralised global carbon asset network to incentivise climate-positive behaviour.
- **M3tering Protocol** - A solar-powered alternative to the national electricity grid in Nigeria.
- **Shamba Network** - An MRV data network for smallholder farmers in Kenya to issue carbon credits.

Impact

2 GWh
solar energy generated for voluntary climate action

10,000
estimated carbon credits issued for smallholder farmers

7
smart solar meters connected to national grid alternative

14 MWh
national-grid alternative solar energy generated monthly

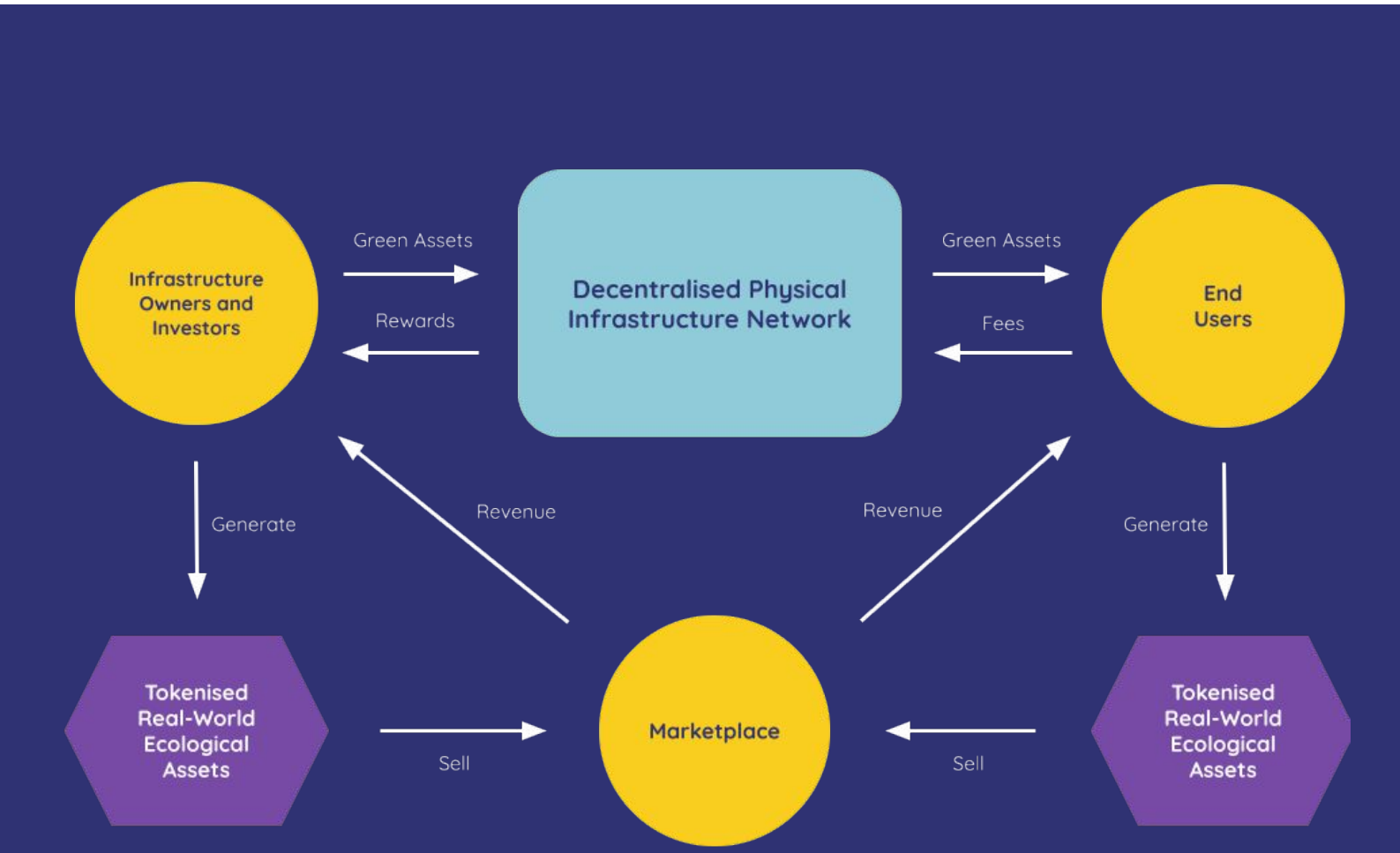
Introducing Impact DePin

When we say “Impact DePIN,” we are referring specifically to decentralised physical infrastructure networks that aim to make a positive ecological and/or social impact. This includes things like renewable energy, water, agriculture, weather, and climate action. Imagine a global network of solar infrastructure generating renewable energy certificates for voluntary climate action or a climate data platform that allows smallholder farmers to issue their own carbon credits.

An important characteristic of DePINs is low overhead. Resource access and green assets are much cheaper for the end user than corporate or state alternatives because a DePIN can run largely without human intervention. In the context of impact, this means cheaper green resources for end users and better returns for infrastructure owners.

Economic model

In the typical DePIN economic model, DePINs incentivise infrastructure owners to make their resources available and then facilitate payments from end users. What makes the Impact DePIN model different is the possibility of generating ecological assets from the provision and consumption of network resources. This creates an additional revenue source for infrastructure owners and helps offset the cost of consumption for end users. It also means additional on-chain revenue opportunities for the DePIN itself.



How it works

The model works like this:

1) Infrastructure owners are incentivised to provide their resources to the DePIN and/or investors to invest in infrastructure for the specific purpose of building out the DePIN.

2) End users pay a fee to access those resources as needed, which flows to the owners/investors.

3) Blockchain and cryptocurrencies are used to track consumption and facilitate value transfer.

4) Both infrastructure owners/investors and end users are in a position to mint real-world ecological assets as tokens. For example:

    - Owners of and investors in solar power infrastructure can mint renewable energy certificates (RECs) based on usage.
    - End users of soil sensor data can issue carbon credits based on carbon capture.

5) The tokens can be sold on the open market as an additional revenue source.

6) This cycle of incentives aims to bring more infrastructure owners/investors and end users onto the network and, thus, create more impact.

Incentives

Token incentives are fundamental to DePINs. When building out a solar energy network as an alternative to a national grid, for example, it requires more than just the revenue from consumption. There needs to be other rewards baked in for things like service uptime and quality.

The DePIN's native token is often the source of these incentives. Designed correctly, the token's value is tied to that of the DePIN's economic value. As the DePIN economy grows, so too does the value of the token. This helps reduce the impact of infrastructure owners/investors treating the rewards as exit liquidity.

Tokenised real-world assets (RWAs)

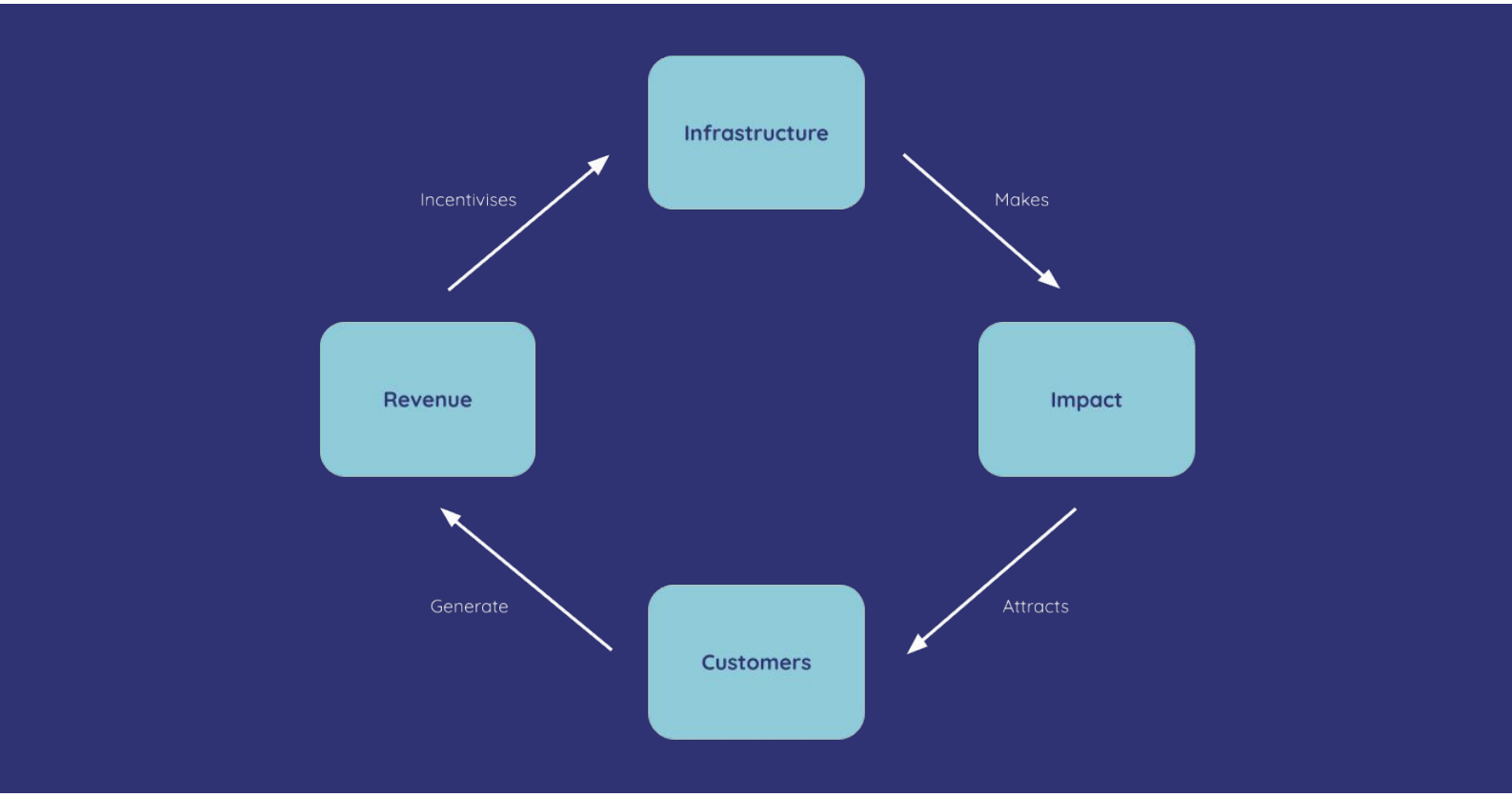
Another core component of DePINs is the tokenised RWAs. An on-chain representation of a physical "real-world" asset, tokenised RWAs play three key roles in Impact DePIN:

- Enable the creation of on-chain ecological assets that can be sold for revenue.
- Denote ownership of network resources—solar panels, data sensors, and electricity meters—to ensure value accrual to infrastructure owners and investors.
- Facilitate financing through instruments such as bonds and equity.

The tokenised ecological assets generated through Impact DePINs are also an important incentive for both infrastructure owners/investors and end users to continue growing the network.

Impact DePIN flywheel

Impact DePIN's use of incentives and tokenised RWAs creates a natural flywheel effect:



1) The promise of incentives stimulates the initial build out of the network at a small scale. (e.g., solar infrastructure generating enough electricity to power a small office building.)

2) That infrastructure makes ecological and/or social impact, whether it be renewable energy production, stable electricity at affordable prices, or water saving.

3) The impact attracts customers looking to make sustainable choices.

4) Revenue and incentives accrue to the infrastructure owners/investors, which can then be used to build more infrastructure, attract new customers, and increase impact.

Use Cases

The most interesting Impact DePIN use cases provide individuals with the economic opportunities to make ecological and social impact at scale:

Alternative utility infrastructure

The economic benefits of high-quality electricity access are well documented. With governments in countries like Nigeria failing to provide their citizens with adequate access to electricity through their national grids, we are staring at a huge missed opportunity for development.

Impact DePINs have a role to play in creating alternative infrastructure to address the problem of electricity access. What they ultimately do is enable people, particularly at the community level, to become their own electricity providers. Anyone can set up solar panels and start contributing energy to end users in the vicinity. The same process can be replicated across a country or region because the underlying DePIN is geography agnostic.

This approach can also be applied to water, gas, and other utilities.

Climate action incentives

The debate around ecological credits aside, they are a proven incentive for climate action at the local level. Often, however, only large reforestation and conservation projects are considered financially viable. Small-scale projects are stuck due to the high upfront costs and long return window. One of those costs is the data needed for monitoring, reporting, and verification (MRV).

Impact DePINs can incentivise the creation of global satellite networks that can provide the required data on demand for a fraction of the cost. When combined with services such as Regen Network and Open Forest Protocol, projects and even individuals can use the data to issue and then sell their own credits. For farmers, in particular, the sale of credits from agroforestry practices is a critical revenue stream that helps increase climate change resilience.

Green investments

The current generation of ESG investments does not make a strong enough connection between dollars invested and impact made. Retail investors, in particular, want much more than just a green ETF. At the same time, we need to find ways to incentivise investment in climate action. We can't continue to rely on donations and high-risk institutional venture bets in the fight against climate change.

By leveraging tokenised RWAs, Impact DePINs can do a couple of things to create green investment options. The first is that they can incentivise the creation of networks of revenue-generating green assets, such as solar panels and climate data sensors, and sell the revenue rights to investors. Since consumption and payments are handled on-chain, the investor can generate revenue in near real time. The second is a tokenised debt financing instrument that green infrastructure projects can use to raise capital. Such instruments are typically available to institutional investors only. Tokenisation allows them to be fractionalised and accessed by retail investors as well.

Challenges

Impact DePINs are presented with four key challenges:

Web3 onboarding

Today's most popular Impact DePINs incorporate decentralised finance (DeFi) elements like staking and mining to target Web3 natives. Onboarding is not difficult because the target users are already comfortable with wallets, bridging, NFTs, and the other concepts needed to interact with a Web3 system.

For the Impact DePINs targeting non-Web3 natives, however, the onboarding process is a formidable barrier to end-user adoption. Consider the utility network example. Assuming the electricity meters are installed, end users need to pay for electricity in crypto, which means they need a wallet, an exchange account, and a level of comfort with blockchain transactions and asset security. It's also likely that they would need a bank account to facilitate on- and off-ramping. And while this may be possible individually, it requires a lot of resources and inhibits the scaling of impact.

One way to make the onboarding process easier is to integrate as many Web2 fintech payment rails as possible. Much of Africa, for example, is well ahead of the world in terms of mobile money solutions. If utility payments can be made with fiat via a mobile phone, with the exchange to crypto happening behind the scenes, it would remove the need for a Web3 wallet and the hassle of on-ramping fiat. It would also reduce individual asset security risks to an acceptable level.

Legal requirements

When dealing with tokenised RWAs, especially tokenised investment instruments, certain requirements must be met in order to create a legal connection between the RWA and the token. In other words, investors need to be sure that they have legal recourse in case things go wrong. But even before that, they need to know that there is an RWA backing the token; that a reputable jurisdiction will enforce the connection between the two.

For early-stage Impact DePINs, this can be prohibitively expensive. As an example, consider a model that leverages debt financing instruments to expand the installation of solar infrastructure:

1. Suppliers debt finance the solar panels
2. Tokenised bonds are issued
3. Investors buy the bonds
4. Suppliers pay off the debt using revenue from the solar panels and resulting renewable energy certificates.

To make this work, the bonds need to be tokenised in a jurisdiction such as Switzerland and require the paperwork normally associated with debt financing. Neither of these things come cheap, so outside investment is usually needed.

There is no easy way around this, nor should there be. The most we can hope for is the trailblazers establishing precedence to make it easier for projects that come after.

Consumption infrastructure costs

Supply infrastructure tends to be the focus of DePINs. What isn't talked about as often is the requirement of consumption infrastructure for national utility alternatives. In other words, the meters that deliver the utility and track consumption. This isn't something that is as easily incentivised as supply infrastructure.

The development of these meters can be expensive, but the real cost is rolling them out at any sort of scale. They have to be installed manually, for one, but they also need to be promoted. Unless the creator of the underlying DePIN protocol or the owner of the supply infrastructure does this, it's unlikely to happen.

One solution is for the DePIN creator to build and distribute the meters to the supply infrastructure owners, who would then be responsible for promotion, installation, and maintenance. This would make suppliers, in effect, their own utility companies. Such a solution will require significant investment, but it would also spawn a global network of decentralised utility companies operating within the same DePIN economy.

Carbon project financing

Carbon projects are notorious for their long revenue cycle. It can take up to 2-3 years for a project to see any revenue from the sale of carbon credits. Impact DePINs and dMRV providers are shortening this time, but the fact remains that there needs to be a consistent source of financing available to bridge the period from project initiation to carbon credit sale. This is particularly true for rural farmers wanting to implement agroforestry methods. Forward crediting has been introduced to alleviate this problem, but remains inaccessible for small-scale projects.

The long revenue cycle has one other important side effect: it lowers early revenue projections for Impact DePINs working in the carbon credit space. This can decrease the chances of raising investor capital because of the priority placed on revenue.

Impact DePINs, combined with dMRV solutions, can make forward crediting and accurate revenue estimations a reality for small-scale projects. They can provide the necessary data to assure buyers that the carbon capture, and resulting credits, will be as estimated.

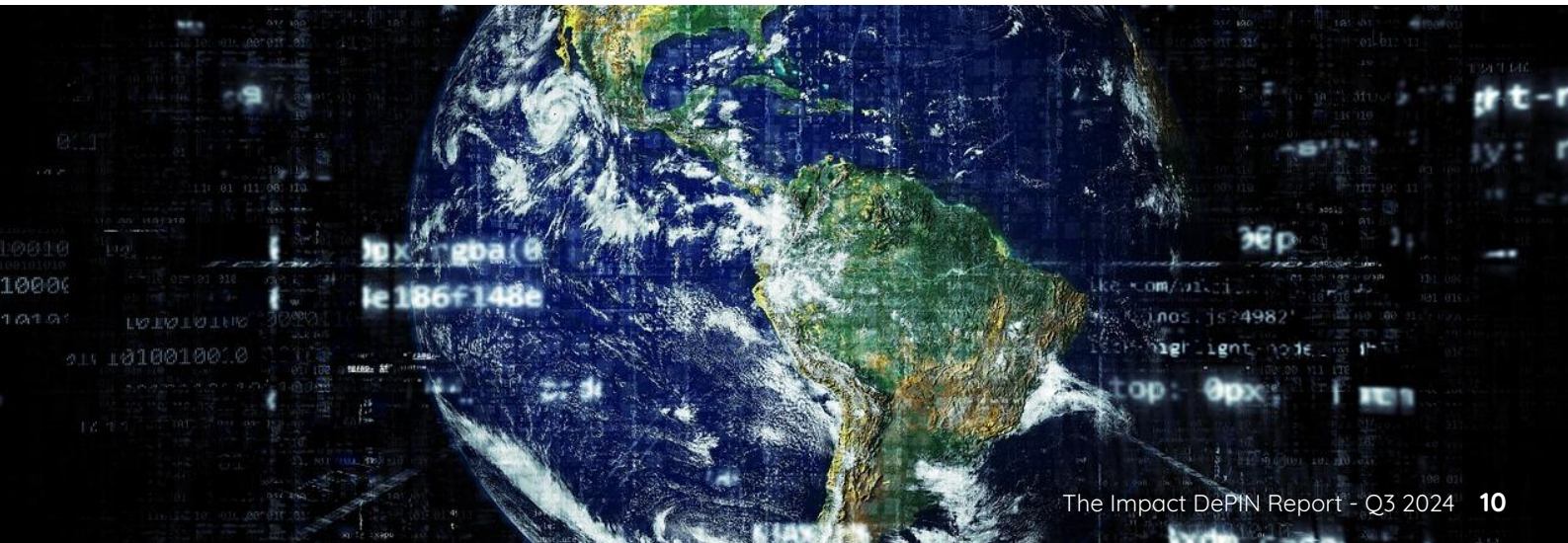
Landscape

Impact DePIN is a nascent space with only about a ten actors. The criteria we used for classifying projects as Impact DePIN are as follows:

1) Developing a decentralised network of physical infrastructure powered by Web3
2) Leveraging ReFi components, such as ecological credits tokenised green assets, in some way
3) Working towards the goal of ecological and/or social impact

The one exception is Distributed Ledgers. For this category, we chose those which are providing the foundation for Impact DePIN projects.

Utility	Weather	Agriculture
	WiHi, WEATHERXM	
Climate Action	**Distributed Ledger**	
Shamba, arkreen		



State of Impact DePIN

It's early days for Impact DePIN, but the signs are positive.

Utilities

Our research suggests that only one Web3 company is currently building alternative infrastructure for electricity distribution: Switch Electric's M3tering Protocol. The company's initial focus has been on the Nigerian market, where demand for solar electricity is rising thanks to soaring inflation driving up the cost of diesel generation. Recently, however, the company sold its first meters outside the country.

There are currently **seven metered** solar projects connected to the M3tering Protocol, although they are still in testing. In total, the projects are estimated to generate **14 MWh** in electricity monthly.

Climate Action

Impact DePINs focused on climate action have been, relatively speaking, the easiest to set up and grow. There are currently three key focus areas: renewable energy, carbon, and water.

Renewable energy

Solar energy, in particular, has seen the biggest growth. Arkreen and penomo, using two different models, are both working to incentivise the expansion of solar infrastructure.

At time of writing, Arkreen's solar energy model has generated nearly **4,000 MWh** over the past year, equating to approximately **2,700 tCO_2** in saved emissions. Penomo data was not available at time of writing.

Carbon

A number of Web3 projects are working in the ecological credit and dMRV space. Few are building a decentralised data infrastructure network to support the estimation and verification efforts of small-scale carbon projects.

Shamba Network is one of them. It's currently in the process of helping land stewards in Kenya verify and issue carbon credits. The company expects at least **10,000 carbon credits** to be issued. At an average price of **US$20** per credit, the total revenue should be north of **US$200,000**. While the credits have yet to be issued, the company estimates that the process will be completed this year, at which point demand for additional carbon projects is expected to surge.

Water

One Web3 company, AquaSave, is building out an Impact DePIN to track and incentivise water saving. The company states that it has directly supported the saving of **1.3 billion litres** of water.

Weather

WiHi and WeatherXM are implementing Impact DePINs for weather intelligence. WeatherXM has over 5,000 weather stations. According to the WiHi's Discord, it has connected **six weather stations** and more than twelve weather/traffic/wildlife/sky cams in an effort to make weather data more accessible.

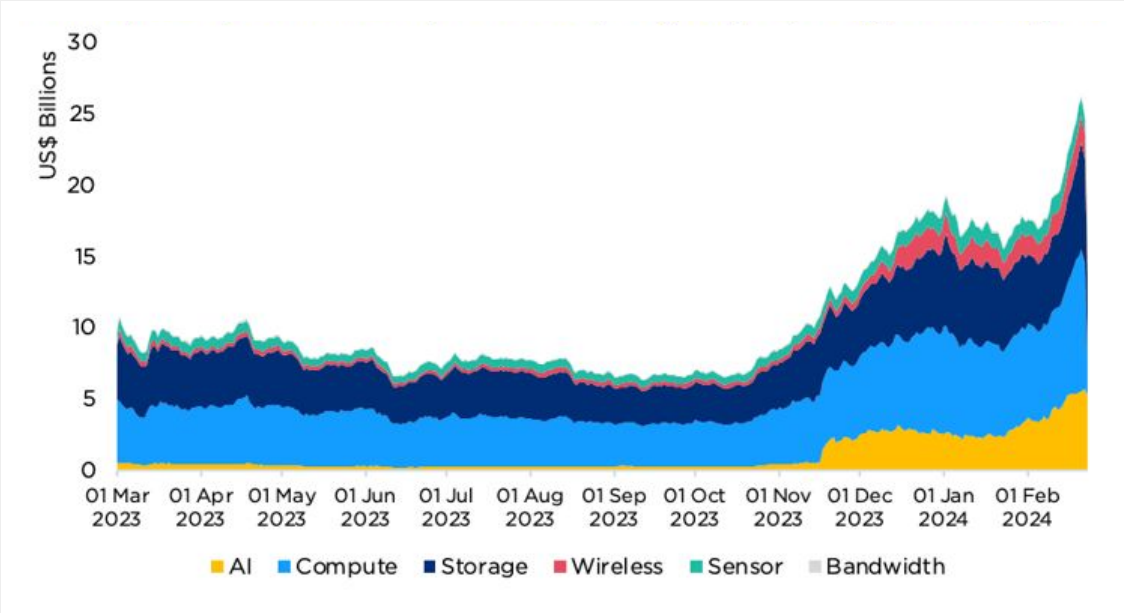
Market Potential

There are three key areas that Impact DePINs can capitalise on: DePIN sector growth, electricity supply gap, and climate action incentives.

DePIN sector growth

The market cap for DePINs globally continues to grow. DePIN's utility-driven model and potential for on-chain revenue have made it a popular bet as the next big thing in the Web3 industry.

DePIN Total Market Capitalisation



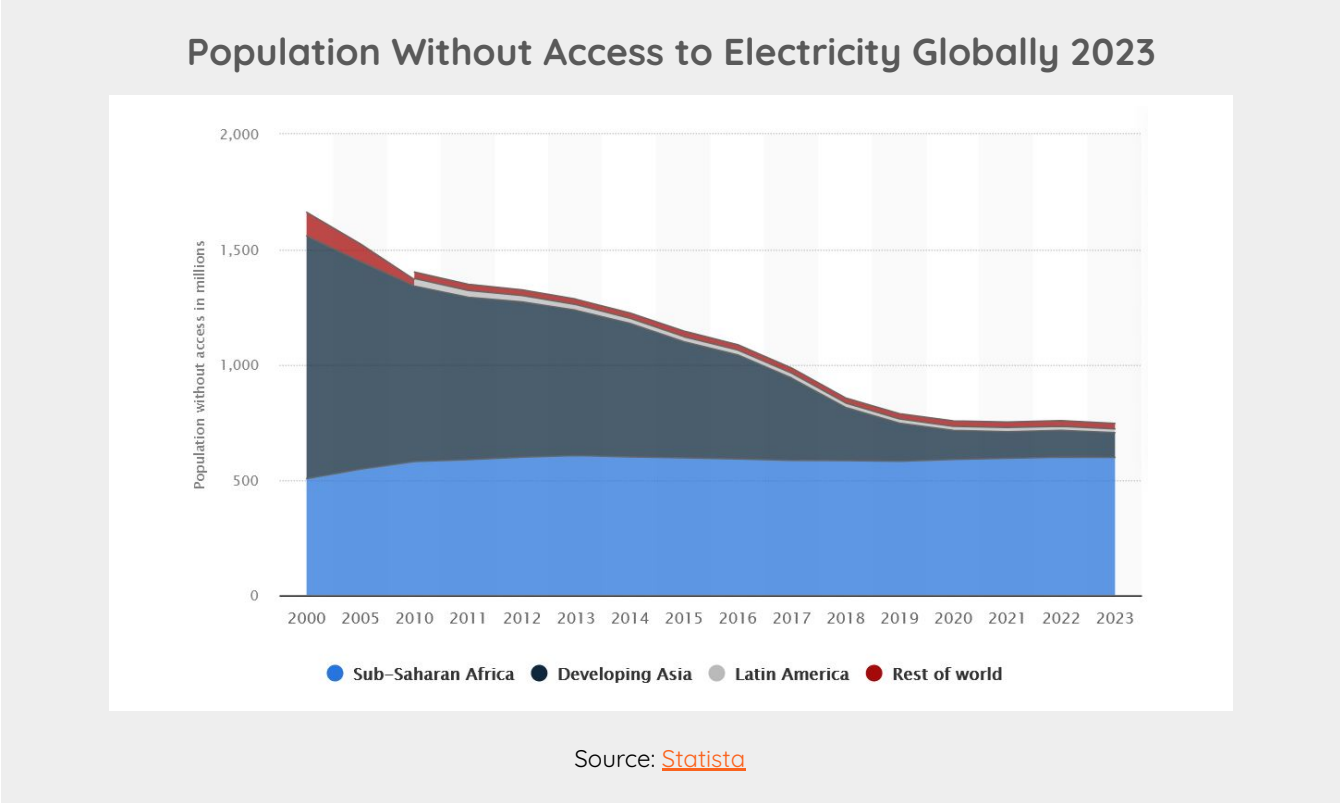
Source: Crypto.com Research

A recently released report by UWEB and JDI Global estimated that the overall DePIN market will be worth a staggering $3.5 trillion by 2028. This will be driven largely by AI, compute, and storage use cases.

Impact DePIN can leverage this growth in popularity. On one hand, Web3 onboarding will become an industry-wide effort with positive knock-on effects for every new Impact DePIN entrant and use case. On the other, there will be robust growth in the number of DePIN-specific support companies, such as blockchains, identity providers, and trust layers, making it easier for Impact DePINs to get started.

Electricity supply gap

Globally, the number of people without electricity has decreased rapidly over the last twenty years, except in one region: Sub-Saharan Africa.



Source: Statista

It's a problem that has created a host of other problems. Economic development has been hampered, people—primarily women—are still forced to use inefficient and dangerous traditional cookstoves, and rural water infrastructure has remained sparse, to name but three. Another point worth noting is that even those with access to electricity are not always guaranteed a consistent supply. There is, therefore, a huge need for electricity infrastructure that can produce stable, affordable electricity across broad geographic regions.

The question is who is going to provide this access. National grids have suffered under the weight of corruption and neglect, while diesel generators—the most common alternative—are expensive, loud, and dirty.

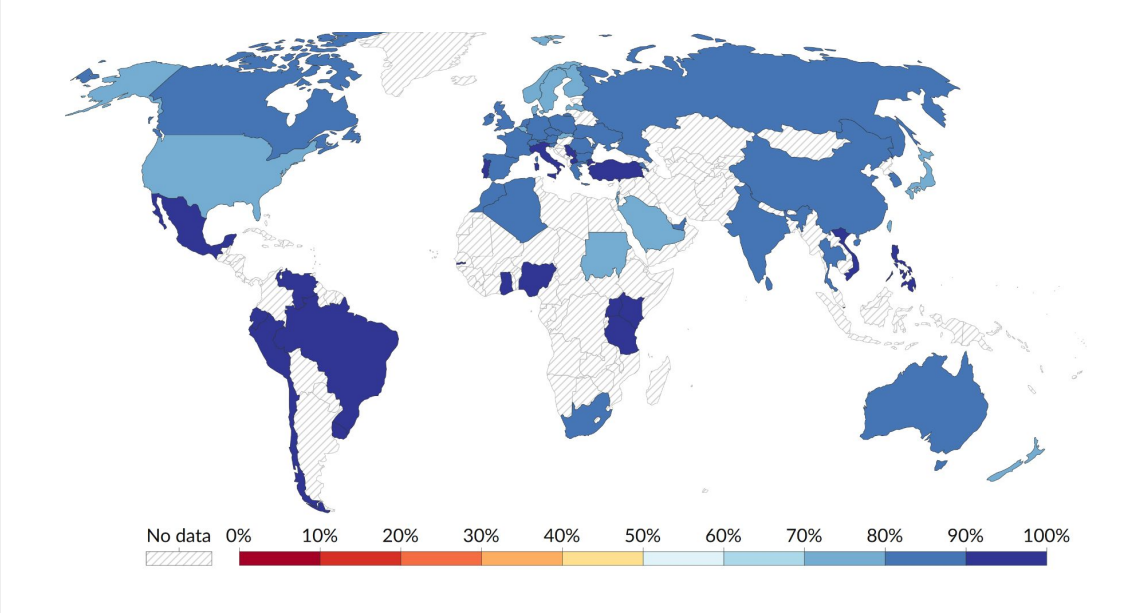
Solar is emerging as a top contender. Aside from Africa's massive solar reserves, the energy source won't materially affect emissions and, most critically, it can be set up at the local level without the need for centralised power plants and big infrastructure investment. It's by far the most viable source of energy for rural areas.

Impact DePINs are positioning themselves to begin filling Africa's electricity supply gap with solar energy. They are creating the foundation for small-scale electricity providers to profit from bringing solar infrastructure to areas without electricity.

Climate action incentives

Large swathes of the planet believe climate change is real and that it's a serious threat to humanity. With the world well on its way to missing its +1.5C global temperature increase by 2030 by a wide margin, there has never been a more important time to leverage these beliefs for climate action.

Share of People Who Believe in Climate Change and Think It's Serious



Source: Our World in Data

Whether it's speeding up solar adoption, increasing carbon capture from agriculture, or improving predictability of extreme weather events, individuals and organisations alike have to be presented with solutions where impact = profit.

Ecological credits have demonstrated the most potential for impact. While not perfect, they are familiar, tangible, and capable of accounting for a wide range of positive climate activities. The renewable energy certificate (REC) market, for one, is projected to grow to more than US$135 billion by 2033. RECs can help offset the cost of setting up solar panels and eventually provide an additional revenue stream.

Another area of interest is carbon credits generated by the move from monoculture farming to agroforestry. The agricultural sector, especially in Sub-Saharan Africa where some 80% of all farms are operated by smallholders, has demonstrated early demand for carbon projects. The issue is that these farmers lack the expertise and funding to generate the MRV data necessary to mint credits.

Impact DePINs can capitalise on the potential growth in the ecological credit market by being the infrastructure through which these credits are issued and sold.

Impact DePIN at Work

To get a better sense of how Impact DePIN works on the ground, here are three examples making an impact:

Shamba Network

Shamba Network is a data oracle that helps land stewards verify and issue their own carbon credits. It also helps projects access the ecological data needed to build solutions such as drought prediction.

Components

The company has two primary components:

- **Data oracle -** A collection of ecological data that can be accessed via the app or direct data streams.
- **App -** The interface through which projects interact with Shamba Network data and issue carbon credits.

Milestones

The company has achieved the following milestones:

- Data provider for anticipatory cash transfer pilot run by Mercy Corps Ventures and DIVA Donate.
- Announced as enDAOment recipient by Regen Foundation.
- Launched BlockBima to provide agricultural asset insurance to farmers.

M3tering Protocol

Built by Nigeria's Switch Electric, M3tering Protocol is building a global network of solar projects as an alternative to national electricity infrastructure. Suppliers are incentivised to contribute solar energy to the network, while consumers participate via an on-chain power purchase agreement (PPA) with a nearby supplier that gives them access to off-grid electricity.

Components

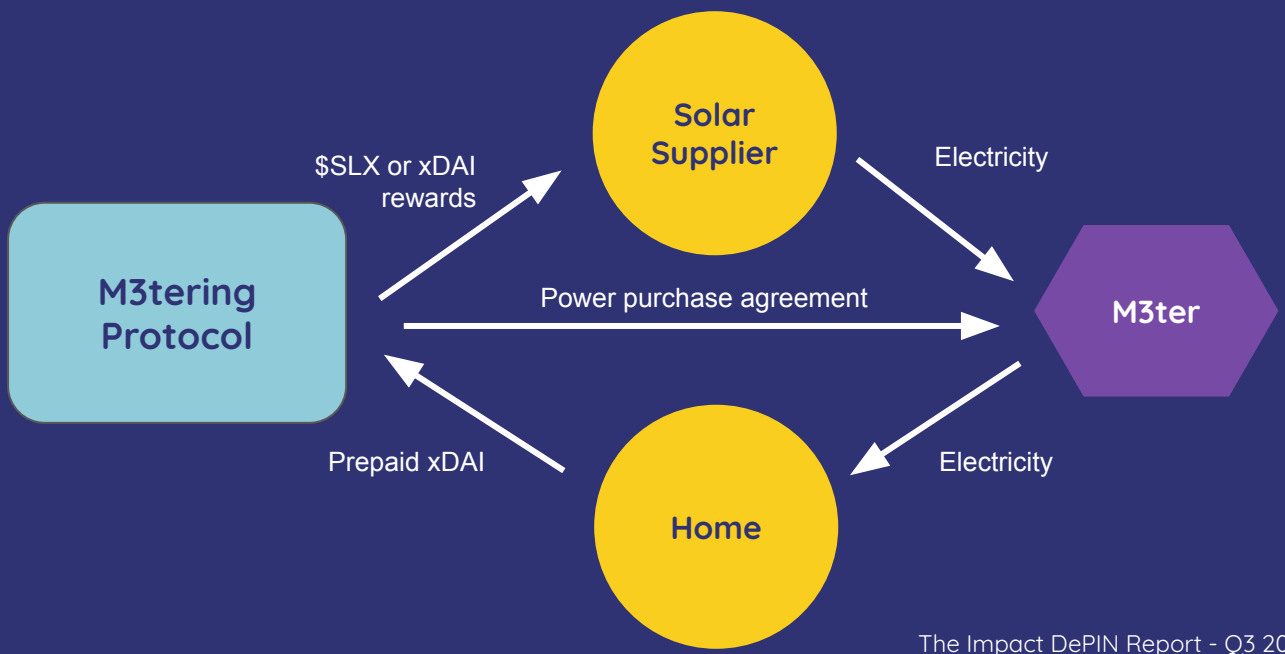
The company has three primary components:

- **Solaxy token ($SLX)** - $SLX is M3tering's native ecosystem token. Its price is tied to the value of the overall M3tering economy. $SLX is effectively a performance-index-asset for M3tering which derives its value from the network effects of the protocol.
- **M3ters** - Special electricity meters have been designed to integrate with M3tering. They enable the delivery of solar electricity and verifiably track consumption via an onboard secure cryptographic element while also enabling tokenisation of distributed energy resources (DERs).
- **DAI stablecoin** - Consumers pay for electricity using the xDAI cryptocurrency on Gnosis Chain, which has the benefit of abstracting gas costs away from consumers.

Milestones

The company has achieved the following milestones:

- Connected seven solar projects to the network.
- Onboarded the The Solar Foundation and Drop Wireless to bring the first solar projects onto the protocol.
- Launched $SLX token on Gnosis Chain.
- Shipped its first first batch of meters outside Nigeria.



Arkreen

Arkreen is building a decentralised carbon asset network to incentivise climate-positive activities such as solar energy and electric vehicles. These activities can be self-certified and minted on-chain as green assets, then sold to buyers looking to voluntarily offset their own carbon footprint and earn rewards in the process.

Components

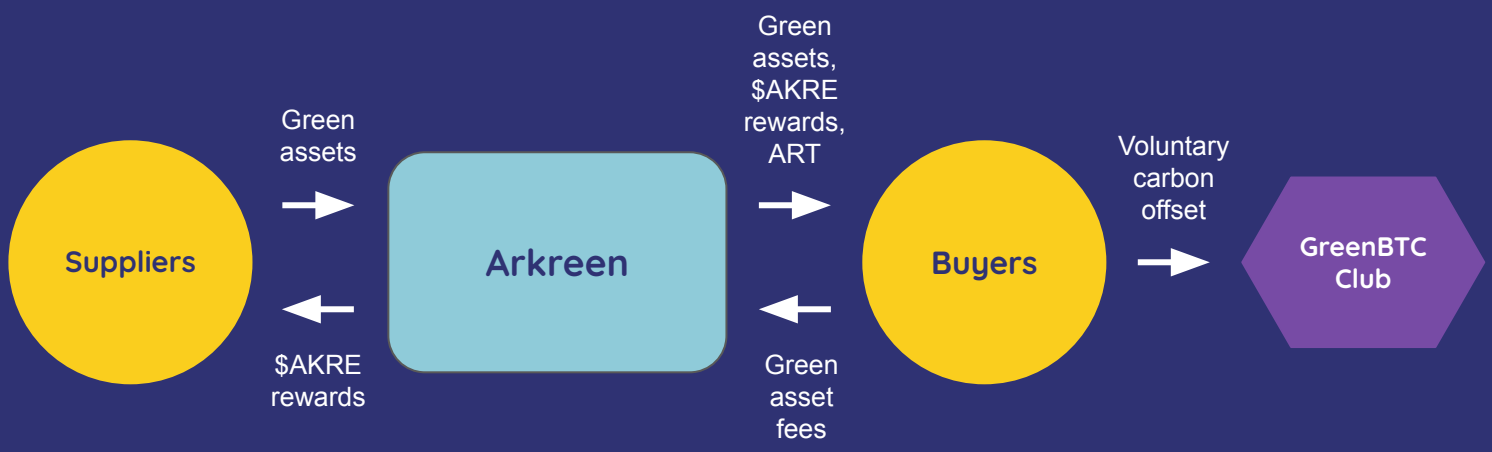
Arkreen has five primary components:

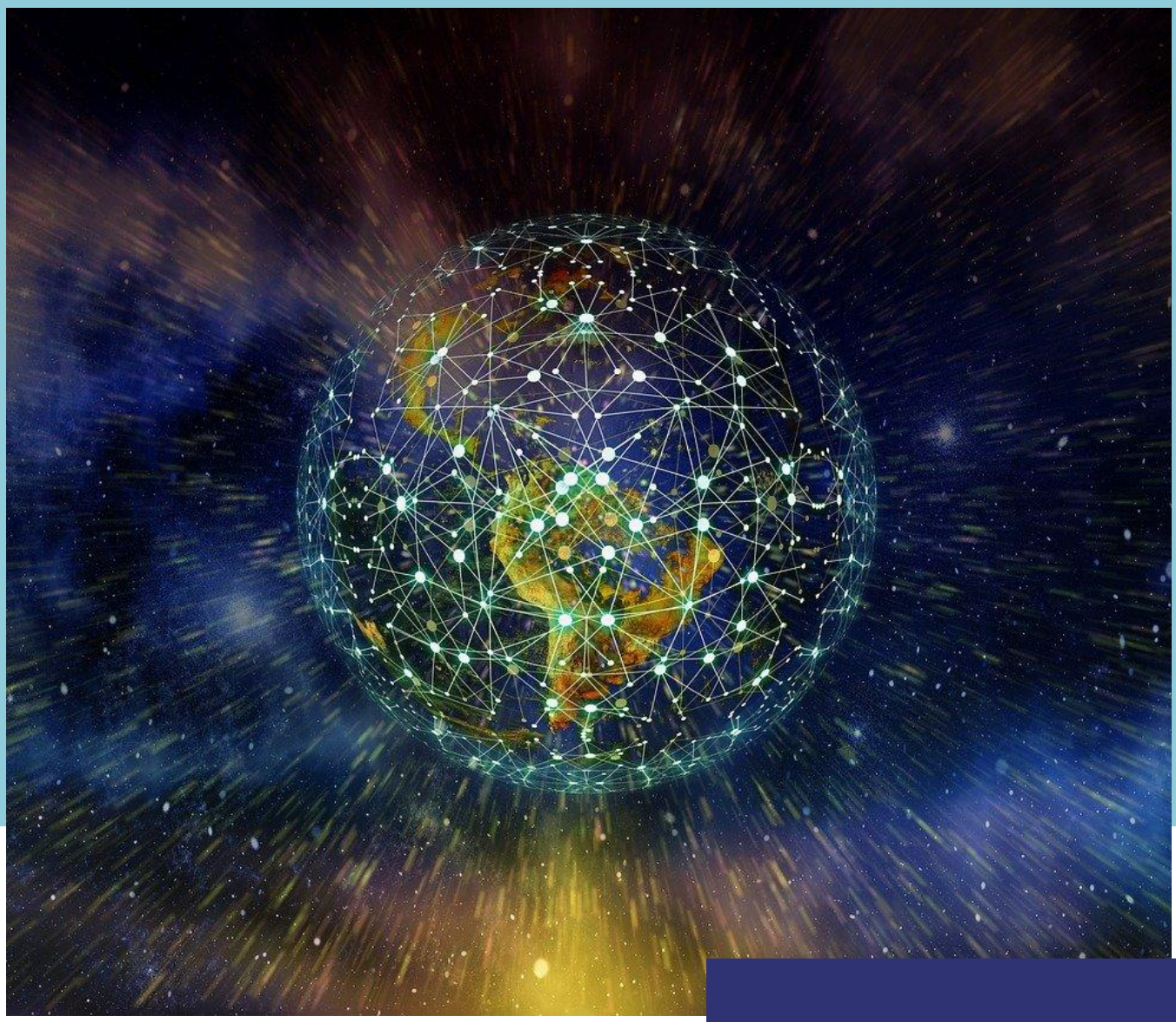
- **Remote miners** - On-chain green assets that represent solar power generation and generate $AKRE tokens for their owners.
- **$AKRE token** - The primary medium of exchange for the Arkreen economy. Rewards and fees are paid in $AKRE.
- **ART green certificate tokens** - Owners can convert the electricity generated by their remote miners to renewable energy certificates denominated in ART tokens.
- **GreenBTC.Club** - With ART in hand, holders can use them to offset the energy cost of mining BTC and other blockchain blocks.
- **Community Solar Program (CSP)** - Anyone with solar panels can contribute electricity generation data to the Arkreen network and sell the resulting green assets (miners) to those looking to voluntarily offset their carbon footprint.

Milestones

The company has achieved the following milestones:

- Network has generated more than **4 GWh** since inception just over a year ago.
- Selected by InvestHK as a Web3 innovation case and technical partner at the Hong Kong Fintech Week and by the Monetary Authority of Singapore (MAS) for the Singapore Fintech Festival.
- Celo's Carbon Offsetting Fund has begun purchasing Arkreen's on-chain green certificates (ART) to support its ecosystem's carbon offset efforts.





Looking Forward

As we project forward to 2025, Impact DePIN is positioned well to capitalise on its momentum from the first half of this year.

What to Watch For

- Continued end-user growth if crypto prices maintain or surpass current levels.
- Maturation of existing Impact DePIN economic models.
- Services and tools that make launching Impact DePINs much easier.
- More retail investment instruments that incentivise and fund green behaviour.
- Better data and reporting of ecological and social impact.
- First million dollars in on-chain revenue.

To the outside observer, it might look as if the DePIN train is slowing to a halt. The news cycle is based on hype and vibes because of how new the sector is and we have no fundamentals to look at. But that's not the case. Over the coming year, I believe we'll begin to see the recent investments in DePIN bearing fruit. I also expect the fundamentals to have materialised and begin to matter a lot for DePIN projects. This might also mean that some 60% of projects we know today could be gone in a year, but I'm bullish that Impact DePIN projects like M3tering Protocol will continue to mature along with the wider sector.

Ifeanyi Christwin, Switch Electric

The DePIN model effectively balances the public welfare attributes of public goods with the commercial sustainability of infrastructure networks. Arkreen, as a prime example of an Impact DePIN, seamlessly integrates voluntary climate actions with commercial carbon asset management. This integration results in a sustainable and inclusive climate action platform and a robust public carbon asset network.

Leo Lin, Arkreen

With extreme weather events increasing across the world, the need for climate resilience and mitigation efforts is as strong as its ever been. Impact DePINs will drive the growth of climate change mitigation actions, especially in the Global South. It will also provide the framework around which solutions can be built to help communities adapt and build climate resilience.

Kennedy Ng'ang'a, Shamba Network

Acknowledgements

We appreciate you taking the time to read the report!

We would like to extend our sincerest gratitude to everyone that helped get this report together. Special mention goes to **Leo Lin** and **Abba Garba** and Arkreen, **Ifeanyi Christwin** at M3tering Protocol, and **Kennedy Ng'ang'a** at Shamba Network for their insights and guidance.

References

https://messari.io/report/state-of-depin-2023

https://carboncopy.news/learn/regenerative-finance-refi-explained/

https://carboncopy.news/reports/state-of-refi-2024/

https://www.unescap.org/events/electricity-access-social-change

https://www.bbc.com/news/world-africa-61050345

https://gnosis.blockscout.com/token/0x39fb420Bd583cCC8Afd1A1eAce2907fe300ABD02

https://explorer.arkreen.com/

https://crypto.com/research/depin-crypto-rising-narrative

https://sg.finance.yahoo.com/news/2024-depin-report-forecasts-3-072000753.html

https://www.statista.com/statistics/829803/number-of-people-without-access-to-electricity-by-region/

https://aowenergy.com/articles/scaling-up-solar-power-in-africa-what-role-fo

https://www.precedenceresearch.com/renewable-energy-certificate-market

https://www.fao.org/family-farming/detail/en/c/289255/

https://warpcast.com/ichristwin.eth/0x8722c5a6

The preeminent source of ReFi news, information, and analysis.

About CARBON Copy

We fill the information void in Web3 regenerative finance (ReFi) by providing a combination of news, education, expert analysis, industry reports, and project evaluation to help industry stakeholders better understand the space and to get projects more exposure.

We also maintain a comprehensive, curated ReFi company database complete with individual profile pages and are developing a suite of educational tools to help projects expand and promote their regenerative impact.

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Arkreen

https://arkreen.com

Switch Electric

https://whynotswitch.com

Shamba Network

https://shamba.network