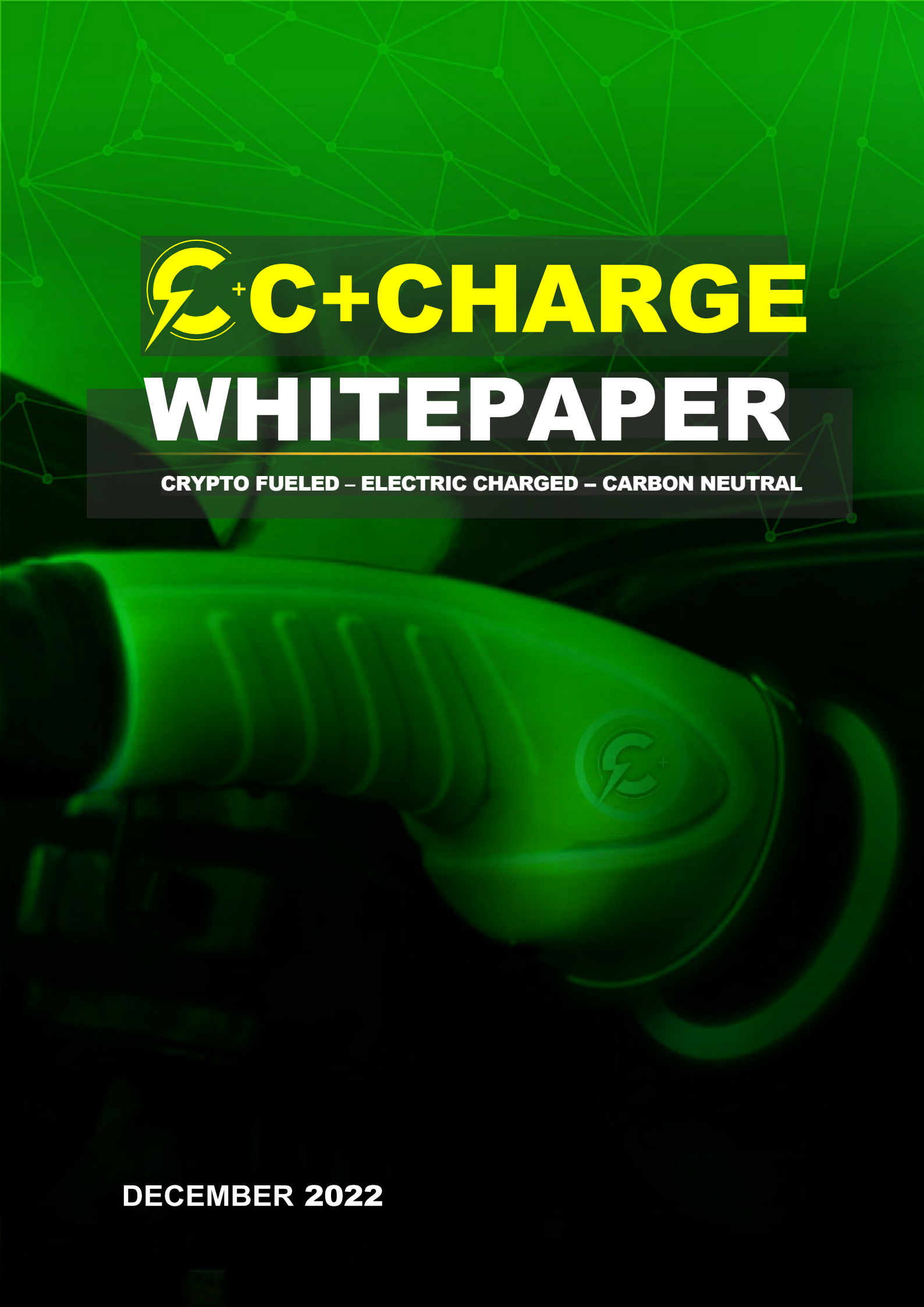
C+CHARGE

WHITEPAPER

CRYPTO FUELED – ELECTRIC CHARGED – CARBON NEUTRAL



DECEMBER 2022

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ABSTRACT

Industrialization and global commercialization led to the exploitation of natural resources due to the increased need for power and fuel. The use of fossil fuels to power this growth led to an exponential increase in carbon emissions that proved harmful to the environment. Realizing the need to course correct, a majority of the world's nations met in the 1990s to develop a protocol to incentivize the reversal of increased carbon emissions. The concept and protocol of the carbon credit was created, designed as a monetary incentive for large corporations to produce products that would reduce or avoid the creation of carbon emissions. The advent of Electric Vehicles (EV's is one such initiative taken by the automotive industry to eliminate carbon emissions.

Carbon credits became a lucrative incentive for auto manufacturers to produce EV's. The carbon credit market itself became a larger industry than the EV market. The costs associated with development of EVs and the charging infrastructure required for seamless operation has become a very capital intensive endeavor, one that has limited the rewards to a select few large corporations. Even with the high incentives to invest in these technologies, the existing charging infrastructure is inadequate to support the current number of EV's on the road or handle the projected increase in the number of EV's produced in the coming years. Aside from a small minority of charging station operations that utilize solar power for their electricity generation, the majority of charging stations are connected to the electrical grid which presents problems in regard to transparent and consistent pricing.

Unlike gas stations which the general public has acute awareness of gasoline pricing, public EV charging stations do not have a set standard (example of charges priced per fiat or per k/wH) which leads to trust and transparency issues for EV owners. There is also a lack of uniformity in the payment gateways that are utilized across different charging stations. There is no universal payment system that supports multiple charging stations globally. C+Charge is aiming to democratize the carbon credit industry by becoming the first platform that will reward drivers with carbon credits, expanding access to this lucrative industry to the ones who are eschewing carbon emissions on a daily basis. The C+Charge platform looks to incorporate carbon credits with a universal solution for the EV charging station industry, harnessing the power of blockchain technology and decentralized finance. to create an EV charging payment system that provides utility, value, trust, and privacy for customers.

CARBON CREDIT

What is a Carbon Credit?

A carbon credit is a permit that allows the owner to emit a certain amount of carbon dioxide or other greenhouse gasses. One carbon credit is equivalent to the emission of one ton of any greenhouse gas. In general, big corporations are incentivized to reduce their emission of carbon dioxide, but they have to spend extra money on exceeding the limit. There is a carbon market that allows the exchange of these carbon credits, where they can sell their extra credits. The ultimate aim of the concept of carbon credits is to reduce the emission of greenhouse gasses into the atmosphere.

Background on Carbon Credit Markets

The carbon credit market traditionally has been designed for large corporations to benefit. Tesla, one of the world's largest EV manufacturers, generated $679 million in revenue in the FY 2022 1st quarter alone. Other electric vehicle manufacturers derive similar benefits from the manufacture of carbon credits. Other large corporations outside the EV sector benefit from the carbon credit industry, which is expected to reach $2.4 trillion by 2027.

Only large corporations like Tesla benefit from the carbon credit market. The foundation for these markets were created in 1992 with the signing of the Kyoto Protocol, an agreement of over 170 countries which stipulated how a tradable permit system for carbon emissions should operate by setting the floor for allowable carbon emission thresholds for developed and under-developed countries.

CARBON CREDIT

Once these standards were formalized, it took another 10-15 years to formally ratify and implement across various industrial sectors. The result was a market that was created that forced companies that were engaged in activities that generated significant carbon emissions to have to pay companies that were engaged in activities that removed carbon emissions from the atmosphere or participated in activities that directly avoided carbon emissions.

Big business has dominated this market from the start. It has become clear that many companies are willing to pay the “tax” to pollute versus spending more money to transform their businesses to emit less carbon emissions. The price that these companies are willing to pay has increased over the years, and as such, many businesses have been created that focus specifically on this industry, deriving their profitability from the subsidy of polluters.

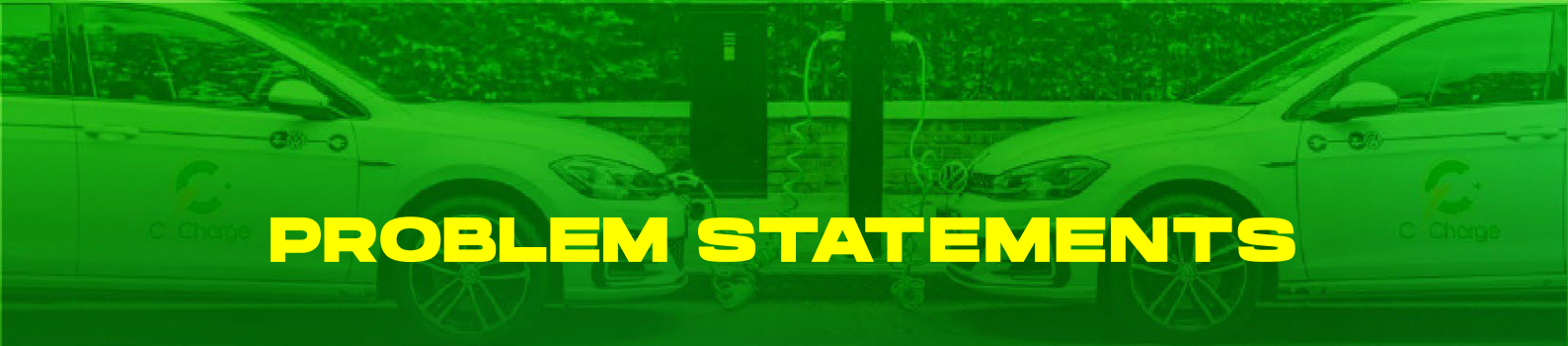
In 2022, the carbon credit industry is estimated to be $851 billion in size. Participation in this market is limited to heavily capitalized corporations who are spending to pollute, or heavily capitalized companies that are removing carbons from the atmosphere or participating in carbon offset activities that make it financially viable to participate in this near trillion-dollar industry.

Many people are very unfamiliar with these markets; many do not have the capital to access the carbon credits markets, including those who participate in carbon avoidance activities, one of which includes driving an EV. C+Charge aims to bring more awareness and accessibility to the carbon credit markets and is opening them up to greater numbers to stimulate demand for sustainable mobility.

OVERVIEW

C+Charge aims to build a robust Peer-to-Peer (P2P) payment system for EV charging stations built on blockchain technology. Users will be allocated individual electronic wallets, which they can use to pay for the charge at charging stations globally. C+Charge's payment system is powered by the C+Charge utility token to pay for each charge. Utilizing the crypto wallet through the app avoids the need to utilize a point-of-sale system significantly reducing costs for the charging station owner. Everytime a EV driver utilizes the C+Charge utility token to pay for a charge, they will earn carbon credits which will be stored in their C+Charge app. Token holders will also earn carbon credits through “reflections”. EV drivers and C+Charge token holders will be able to utilize carbon credits that have previously been reserved for large corporations.

C+Charge is positioned to be revolutionary in the crypto and EV sectors, becoming the first platform on or off chain that will reward drivers with carbon credits. It also aims to bring standardization to EV charging payments, bringing much needed transparency to an industry devoid of it. The C+Charge platform has the potential to be the standard platform across all swaths of the EV charging sector, aiming to reduce the average transaction latency and enhance transactional throughput, creating more efficient charging stations that will enable an increase in capacity to support expected EV growth, promoting a user experience for all stakeholders that will allow for greater adaptation and growth of the EV industry, resulting in the further reduction of carbon pollution and a cleaner environment that will benefit generations to come. The platform has the potential to be utilized by municipalities to better manage their fleets and public charging stations, while incorporating carbon credits into the incentive program for drivers to adopt EV's, promoting a sustainable future.



PROBLEM STATEMENTS

Disportionate access to carbon credits

Carbon credits have traditionally been reserved for large corporations that invest in projects that either physically remove carbon from the atmosphere or are carbon avoidance activities, like the manufacture of an EV or installation of a EV charging station. To earn carbon credits from these activities, generally large investments are required to reap the benefits, limiting access to the nearly trillion-dollar industry to wealthy industrialists and their companies

EV Drivers do not earn carbon credits

Drivers who own their own EV's typically get some form of tax credit for their purchase, but they do not receive any carbon credits. EV owners generally are paying a premium for an EV compared to a petrol-powered vehicle. EV owners are participating in activities on a daily basis that avoids generating carbon emissions. However, they are left out of the massive nearly trillion-dollar industry until C+Charge.

No Single EV charging payment solution

EV charging follows a deregulated system. The drivers or fleets can subscribe to any charging station, independent of location. But this mobility in the EV charging system is not satisfactorily covered. An EV owner charging their vehicle at a local EV charging outlet cannot directly pay the EV charger service provider and/or EV charger owner without an intermediary payment system. The subscription to provide these services varies between different localities and service providers. Additionally, there is not a universal subscription solution as these services tend to be very provincial and applicable in other locations, making EV charging systems non-interoperable. Many of the EV chargers provide custom solutions for proprietary systems that rely on closed digital memberships and operator-specific cards for operators and automakers receiving payments. These methods are somewhat restrictive and do not provide broader market requirements. No one payment system supports all. This mobility gap in the EV charging system is one of the leading factors preventing the mass adoption of Evs.

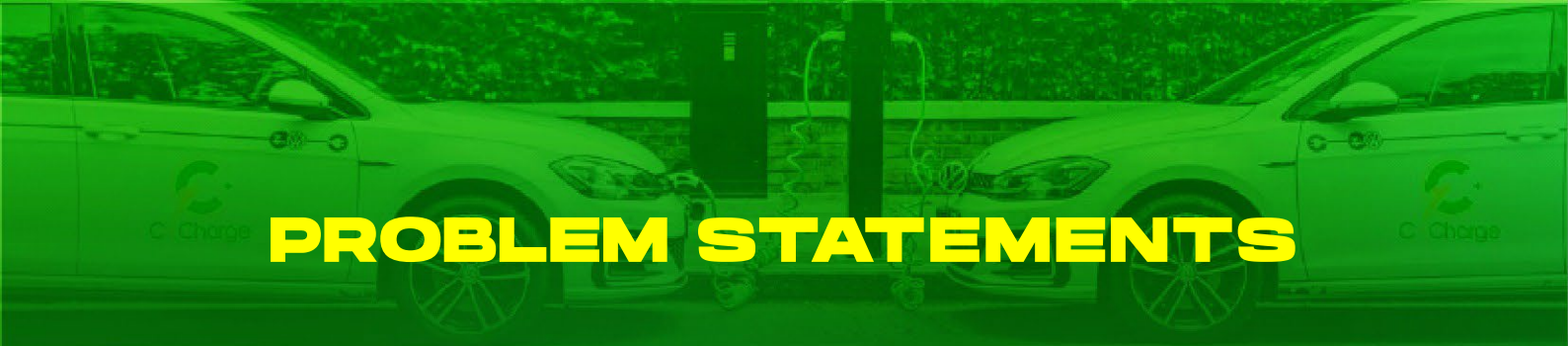
PROBLEM STATEMENTS

Non-transparent pricing

There is no pricing standard for EV charging stations, nor are prices readily available or widely publicized. Unlike a gas station, which displays prices for fuel on billboards and at the charging station in denominations (gallons/litres) that most are familiar with, charging stations do not have this level of transparency. Many times, pricing isn't revealed until the charge is completed, leaving EV owners in the dark about how much their charge costs. There is also no standard unit in which a charge delivered; some station owners use dollars to k/wH while other stations charge directly by the k/Wh. To compound this problem, most user are unfamiliar with the current price of electricity or how to calculate dollars per k/wH further adding to confusion. C+Charge aims to utilize its platform to give proper visibility to user to always provide accurate and transparent charging pricing.

Lack of real-time information

The worst driver experience begins with pulling up to a non-functioning charger. Physically damaged chargers and software malfunctions are the two biggest causes of chargers' malfunctions that require a site visit to fix. No software in the current EV charging sector transmits real-me diagnostics data to EV service providers (EVSPs) that assist in diagnosing and fixing issues in real-me. This leads to instances where charging stations in larger networks can be off-line for weeks. This improper maintenance protocol leads to customer discontentment, and further spreads "charger anxiety", the fear that vehicles will run out of battery on the road and not be charged, which is the number one cause of EV hesitancy among consumers.



PROBLEM STATEMENTS

Shortage of charging solutions

A recent study by the International Council on Clean Transportation indicated that 10,000 more charging stations will be required to support EVs traveling on inner-city corridors by 2025. This is based on current trends of increasing EV ownership. However, parking garages are rarely equipped with charging infrastructure for EV owners who live in apartments, and building managers are hesitant to install such infrastructure because of the added maintenance and training costs. pr. Communal space also has the additional issue of electric costs and the question of who incurs these costs at common outlets. Because regular EV charging consumes more energy than most other residential uses, building managers need a mechanism to monitor EV charging to ensure the driver of each vehicle pays for their own electricity usage.

C+CHARGE SOLUTION

C+Charge is the proposed blockchain-based solution that intends to create a complete EV charging ecosystem that democratizes the carbon credit industry allowing EV owners the opportunity to earn carbon credits, providing a revolutionary customer experience with a streamlined and transparent pricing and payment system. The C+Charge app and utility token is one of the few real life use cases for web3 technology that can be utilized for variety of real life use cases including but not limited to, powering payment solutions for charging stations networks a transparent payment system, real-time data transmission to EVSPs for easy diagnosis of chargers, and a comprehensive solution for indexing carbon credits earned by drivers and token holders utilizing the C+Charge network.

C+Charge's strategic partnership with Flowcarbon will provide tokenized carbon credits through Flowcarbon's Goodness Nature Token ($GNT). After using the C+Charge app to pay for EV charging at C+Charge partner stations, the EV owner/driver would receive $GNT tokens from the transaction fees generated by the charge. Tokenholders will also earn carbon credits from a percentage of transaction fees on a pro-ratia basis.

C+Charge's proposed network application and utility token address the economic and infrastructure issues that are inhibiting the growth of the EV market. With rising energy prices, regulatory restrictions on carbon emissions, car manufacturers introducing new EV models every month, and the topic of energy independence at the top of policymakers agendas, the C+Charge network and utility token comes at a critical juncture where the market is looking for a solution to help propel fast growing EV charging networks that will power the EV revolution.

KEY ASPECTS

Using blockchain technology to provide EV owners access to the lucrative carbon credit market by rewarding EV owners by driving their vehicle and utilizing the C+Charge network. Create trust between EV owners and EV charging station owners/operators by promoting transparent pricing and deployment of real-time data transmission allowing for users to be able to avoid lengthy queue times for their charges and avoidance of any inoperable charging stations. The network gives the potential for charging station owners real-time information that would allow for rapid troubleshooting diagnostics and on-site repair to maximize potential efficiencies of charging networks. And the creation of a robust P2P charging payment system that will simplify and streamline the payment process for charging networks globally, increasing trust ans transparency while providing rewards for drivers and utility token holders alike. The key aspects are the use of:

Bring accessibility of carbon credit market to EV owners/drivers -P2P charging payment system for Evs

Leverage blockchain technology to provide transparency between EV owners and charging stations

Real-time data transmission for diagnosis of charging system problems

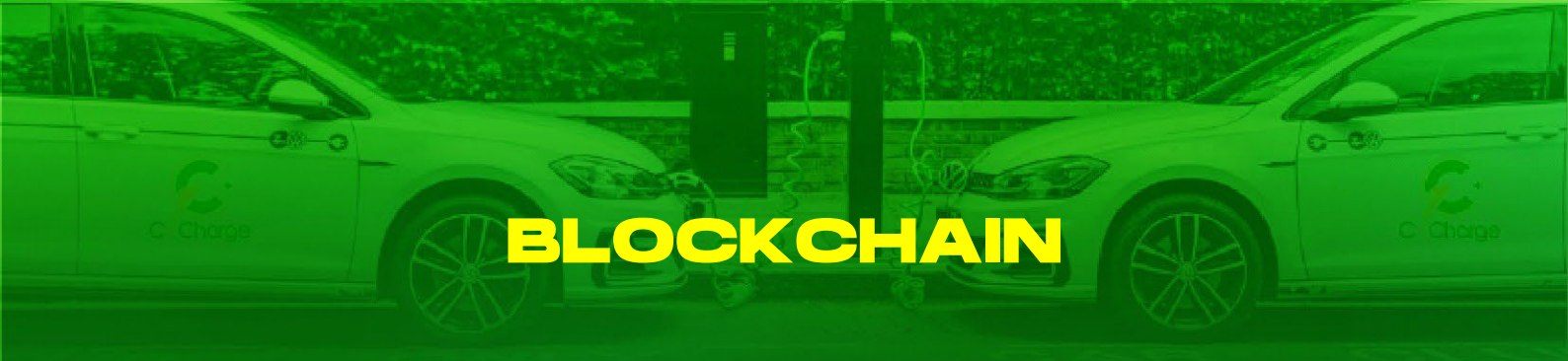
MISSION AND VISION

MISSION

While many crypto projects promise their journey to the moon, C+Charge is aiming at providing real-world utility with a real-life use case that looks to improve the environment by powering a network that will help contribute to the reduction of carbon emissions and its adverse environmental effects. C+Charge envisions delivering a stable and sustainable charging ecosystem for the future that rewards its participants. C+Charge wants to create technology that will ease & promote the movement of all people and goods on clean electric power, while opening opportunities for drivers and token holders to share in rewards that have been previously reserved for large corporations.

VISION

Electric powered mobility is an environmentally smart choice. C+Charge is primarily focused on offering a superior EV charging experience to promote and assist the migration towards sustainable electric mobility, by making the process easy & rewarding, while reducing existing friction to spur continued sustainable growth for the EV community and token holders.



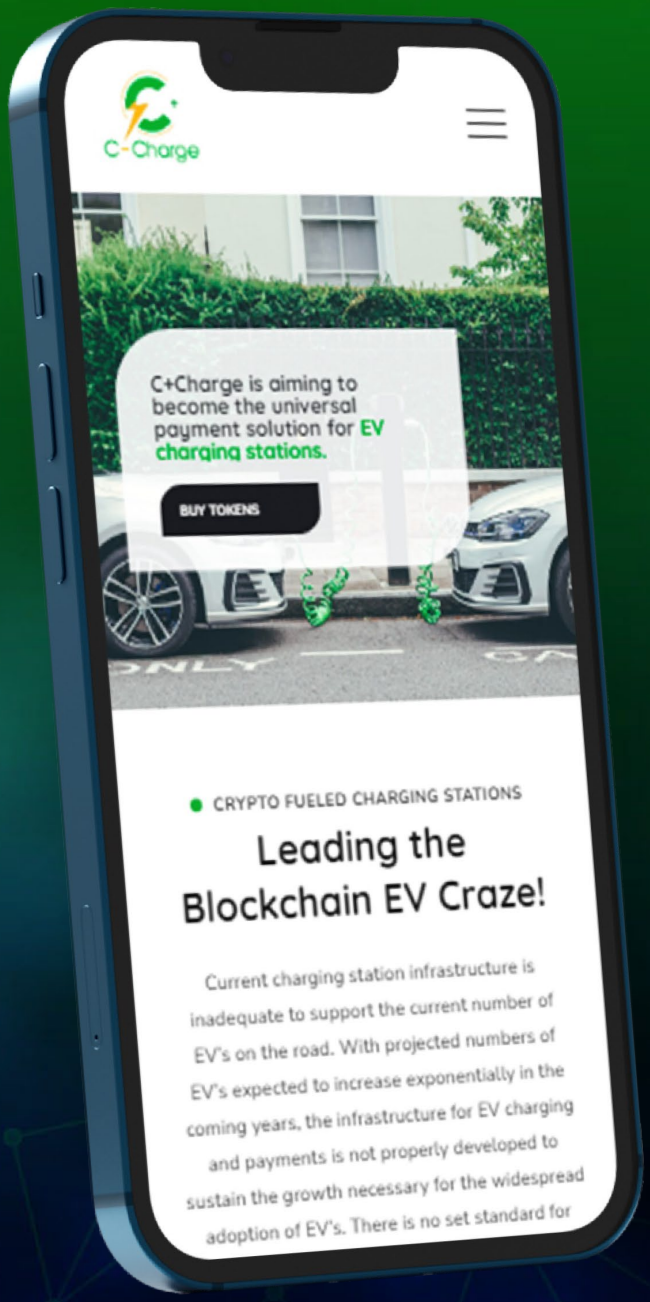
BLOCKCHAIN

The C+Charge platform is a real-life use case for “web3” technology; it has real life utility that is enabled by blockchain that would not be possible with a traditional ledger backed network architecture. C+Charge's proposed electronic wallet-based payment for EV charging saves a lot of time, resources, and efforts to go into the tasks of charging simply and more safely than they are now. The payments done with C+Charge tokens are hash encrypted, and these hash values play a significant role in the transactions. C+Charge uses a distributed ledger for carrying out its operation, which uses Secured Hashing Algorithm (SHA-256) for transactions. Once the user pays for charging, the transaction details are added as a block in the blockchain after the miners validate it. After validation, the data gets appended to the chain of blocks based on the me-stamps, and Merkle structure.

The utmost advantage of using blockchain for a transaction is its decentralized nature. The data is widely distributed across every node in the network. Acopy of transaction details is available for everyone, making it tamper-free. Also, there is no need for any intermediary financial body or payment processor to carry out the transaction. New blockchain can be added to the blockchain, but altering the pre-existing ones is practically impossible; safety is paramount. Blockchain wins users' trust and is reliable and highly recommended to solve modern problems. A smart contract is one of the key features of blockchain that makes trustless payment seamless. C+Charge deploys smart contracts for its charging payment systems, where the funds are released when certain conditions are met (Charging in this case). Having a transparent ledger is crucial to capture data to be used for token holders when tabulang carbon credits earned from the ecosystem. The same ledger will also be utilized by charging station owners to give irrefutable proof of earned carbon credits. It will also be utilized in the next phase of the platform to be able to efficiently cultivate carbon credits for EV charging station owners directly.

The power of blockchain provides many other benefits for users of the system that produce real world value, including the ability to produce real-time data of the network, charger availability and functionality. This information is crucial to the scalability of charging networks and is one of the features that will be utilized for municipal users with public charging networks.

CENTRALIZED APPLICATION



C+Charge's mobile application will become the central platform for all EV owners' charging needs. Aside from managing payments, the app will manage all the end-to-end activities associated with the charging process. The following are the features that the C+Charge application will incorporate;

Features

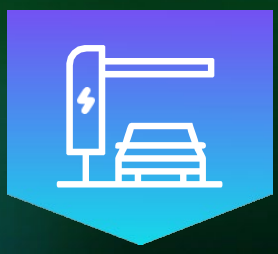
- Carbon-Credit Tracker
- Seamless Payment for Multiple Platform Integration Options
- Geolocated Easy Access Charging Stations Finder
- Real-Time Charger Wait Times
- Charging Station Technical Diagnosis

C-CHARGE SYSTEM MODEL

C+Charge's proposed EV charging ecosystem comprises four basic elements:

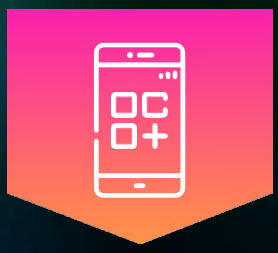
THE USER

Users are EV owners or EV charging station owners/managers. Users enroll themselves in the C+Charge system as the end-user for their particular use case who require charging services.



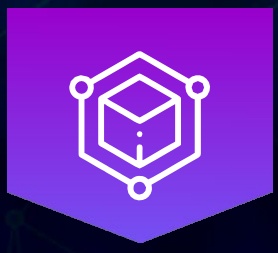
EV CHARGING STATION

This is a network of EV charging stations that are either operated by C+Charge or utilize +Charge's blockchain payment network that is supported by C+Charge Utility Token



C-CHARGE APP

The centralized application that shows the nearest C+Charge supported charging stations to the users, holds users' payment wallets that enables them to pay for charging, a real live-time tracker of the history of charges and carbon credits earned. For EV owners a real-time update on the status of all charging stations, carbon credit management, and the ability to make price adjustments as necessary.



BLOCKCHAIN

A public ledger that is designed and developed to provide transparency and tamper-proof security for transactions utilizing smart contracts at greater efficiency and lower cost than traditional ledgers.

REAL-TIME DIAGNOSIS

The C+Charge app transmits real-time data regarding the operation status of chargers across locations so that charging station owners could easily diagnose and fix any problems without spending too much time or resources. The C+Charge can provide a better experience to EV owners with a back-end system that can communicate with chargers that detect and diagnose problems in real-time, and enable remote actions to return the charger to a functioning state. These features will help EV owners avoid non-functioning chargers, eradicating long wait times at charging stations by directing EV owners to the nearest available charger. The centralized app delivers real-me information supported by the blockchain, maximizing the efficiency of the network and the EV owner's time.

PAYMENT

The C+Charge ecosystem is powered by its utility token that can be used to pay at C+Charge-managed charging stations as well as partner stations that are on the platform. C+Charge operated charging stations are equipped with load switch, meter, controller, and unique node information, while the users are provided with digital wallets for payment. The mobile app will allow users to keep track of their C+Charge token balance, other payment information, and carbon credit balance. Users will have visibility to up to minute pricing at individual charging stations, charging station owners could utilize the blockchain technology to be able to monitor fluctuating electric prices to adjust charging prices to maximize profitability. Any peer or node in the chain can make a transaction, and then the transaction details are combined to form a block. The blocks are verified by the consensus algorithm before it gets added to the blockchain, after which it becomes time-stamped, and at that point, cannot be altered. C+Charge is a pioneer in promoting a consistent, reliable consumer charging and payment experience in the EV sector.

C+Charge will be focusing on all areas of the charging industry, but intends to focus on specific areas that present the most opportunity to expand the C+Charge app and platform within the EV Market.

Seamless payment for EV charging

Security and Transparency

Decentralized and quick payment transaction

COMMERCIAL PARKING GARAGES

EVs have traditionally had the highest concentration in large cities, as the limited range demands combined with their lower operating cost in higher cost locations have made them desirable in these locations. With the majority of parking garages in these locations being underground in commercial office buildings and multi-family apartment buildings, the communal aspect of these buildings do not make them conducive to hosting charging stations. Unlike traditional at-home charging options for single family homes where the owner is paying the electricity bill directly, in communal garages the building has to pass on the added expense to EV owners. If a parking garage does have an EV, they may have one or two chargers which makes organizing charging for EV owners a challenge.

Many building owners and garage managers have decided that these factors in addition to other perceived headaches are not worth making the investment into charging machines. However, with the predicted increase in demand for EVs to accelerate in cities over the next 5 years, C+Charge has identified these locations as great opportunities. Using the C+Charge payment app will reduce payment issues and the need to install POS systems in garages. Using blockchain technology, building managers could use their app to help facilitate charging in an orderly manner, generating more revenue for their buildings.

The real-time information transmission will also allow building owners to tweak pricing to better match energy fluctuations, allowing them to maintain profitability while being transparent with their residents. Commercial garages will be one of C+Charge's initial focus areas.

GLOBAL CHARGING STATIONS

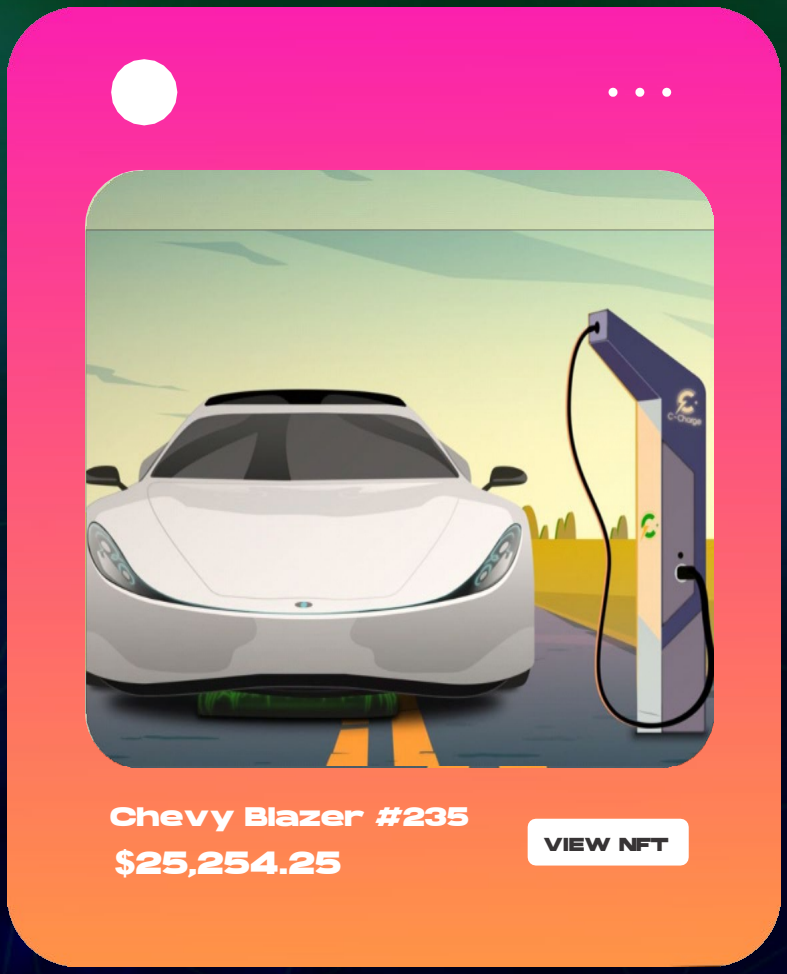
The International Energy Association (IEA) estimates that there are 1.8million charging stations in the world. Chargepoint is recognized as the largest owner and operator of charging stations in the world with an estimated 20,000 charging stations located globally. This represents just over 1% of the total marketplace. With many players in the sector, and with the issues of lack of transparent pricing and disparate user experience between the different owners, there is plenty of opportunity for C+Charge to become a bridge for the different players globally. The C+Charge app and network is designed to be OCPP compatible which allows it to be utilized at almost any charging station globally. C+Charge sees great potential to partner with existing station owners, allowing for the possibility of exponential growth with some of the larger station owners.

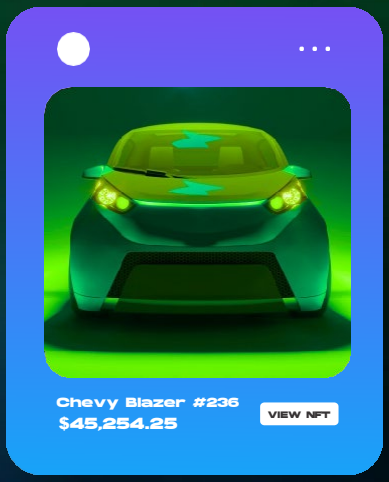
SOLAR POWERED CHARGING STATIONS

To be fully sustainable, it is ideal for a charging station to be powered by clean renewable energy. C+Charge has partnered with manufacturers of charging “pods” that are powered by solar power, allowing them to be off the grid and sustainable. This is most desirable form of chargers for the C+Charge network, as it aligns with the goal of promoting sustainable electricity. While this is the ideal charging station setup, its not viable or practical for a number of settings, as its better suited for more suburban areas where there is more space, as the size of these stations take up the size of a 40' shipping container as well as the space needed to park cars, as the pods have a capacity for up to 5 cars charging at one time. This type of charger setup is better suited for locations where the existing power grid is not as stable; especially in locations outside North America and Europe.

NFTs

C+Charge intends to utilize NFTs that provide utility for its users. The C+Charge app will allow users to create NFT's of all carbo credits that have been earned through charging and token holdings through its reflection program. Finding real life utility and real life use case is part of C+Charge's identity and focus, and it will strive to utilize NFTs that provide value and utility. But there are also many other benefits for NFTs that focus on branding and promotions, and the C+Charge network will look to offer an NFT program that will work with car manufacturers in the EV space and other stakeholders to create special, limited edition concepts incorporating EVs. These will be purposed to further C+Charge's identity in the EV space and further promote sustainable mobility for all.





C-CHARGE TOKENOMICS

TOTAL SUPPLY

Token Allocation	TGE	Vesting Periods
Angel Sale	2%	3 months cliff, linearly over 36 months
Private Sale	5%	Linearly over 12 months
Public Sale (IDO)	40%	No vesting period
Community (Staking, Airdrop, and Giveaways)	10%	Linearly over 36 months
Founders & Team	5%	linearly over 36 months
Ecosystem Fund	15%	Linearly over 36 months
Partners	7.5%	Linearly over 12-24 months
Listings & Exchange Funds	8%	No vesting period
Environmental & Charity	5%	Linearly over 36 Months
Advisor	2.5%	Linearly over 24 months

TOKEN ALLOCATION

Angel Sale	2.0%
Private Sale	5.0%
Public Sale (IDO)	40.0%
Community *(Staking, Airdrop, and Giveaways)*	10.%
Founders & Team	5.0%
Ecosystem Fund	15.0%
Partners	7.5%
Listings & Exchange Funds	8.0%
Environmental & Charity	5.0%
Advisor	2.5%
TOTAL SUPPLY	1,000,000,000

TOKEN PRICE

PUBLIC SALE STAGES

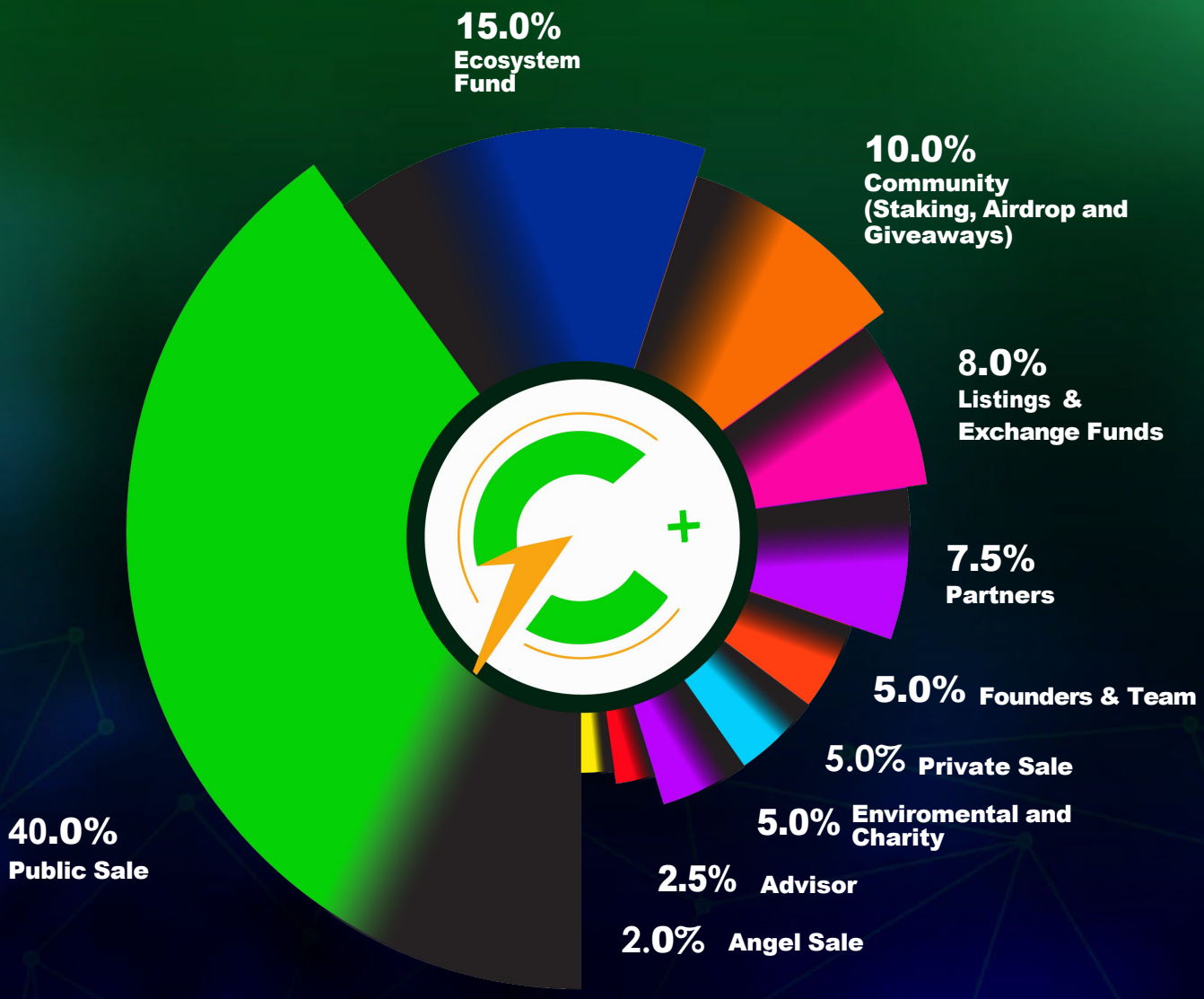
Stage 1 - $0.013	Stage 5 - $0.018
Stage 2 - $0.0145	Stage 6 - $0.019
Stage 3 - $0.016	Stage 7 - $0.020
Stage 4 - $0.017	Stage 8 - $0.0235

1Billion
(Total Supply)

$CCHG
TOKEN

C-CHARGE TOKENOMICS

A novel feature of the C+Charge token eco-system will be that every time tokens are used to pay for a charge, they will be taken out of circulation, enabling a constant supply of demand in the network. As the number of charging stations grow, the number of tokens taken out of the system will increase, providing organic support.



CONCLUSION

C+Charge's goal is to promote sustainable mobility by utilizing blockchain technology to power enhanced EV charging globally. C+Charge aims to democratize the carbon credit industry and give the opportunity for EV drivers to earn these rewards previously reserved for large corporations and wealthy individuals. With every charge at C+Charge affiliated charging station using the C+Charge utility token, EV drivers will earn carbon credits. Token holders will also earn carbon credits through a carbon credit reflection program. C+Charge intends to build out a network of its own operated and affiliated charging stations globally. Wherever possible, C+Charge will seek to utilize charging solutions that utilize sustainable power solutions.

C+Charge is partnering with the leading organizations in the sector to develop a platform that will allow token holders to participate in this growing industry and be able to monetize their earned carbon credits through driving and charging their EVs on a daily basis.

This is just the beginning, C+Charge wants to be at the cutting edge of the sector. The near future for the C+Charge app and network is to have the ability to culvate carbon credits from its network of charging stations, making the entire C+Charge network carbon credit cultivation process holistic, earning carbon credits from its stations and redistributing them to its EV driver and token holders. There are even possibillities to expand the C+Charge payment system beyond the EV industry

Spreading the rewards of sustainability to more individuals, improving the environment and reducing emissions on a larger scale is the C+Charge ethos; promoting sustainable mobility, globally.

C+CHARGE

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