



FRED
ENERGY

FRED Energy

Developing green energy projects using blockchain and cryptocurrencies

Whitepaper V1.5

Accelerating alternative energy usage and generation by the consumer

Introduction and Project Update 2020

The FRED Project was founded in 2018 and started out as a mineable coin on its own blockchain (FRED Energy). The idea, to use cryptocurrencies and blockchain in accelerating the development of renewable and carbon-neutral energy devices. This we termed Funding Research into Energy Devices (FRED).

In June of 2019, FRED Energy switched to a custom token on the Stellar network to become a greener cryptocurrency and with the aim of holding token sales to raise funding for the implementation of a broader set of green energy related projects.

Due to current markets and declining investor confidence, we have recently reviewed our pricing strategy and the Soft/Hardcaps have been re-aligned to our new goals.

As we have always stated, we can continue with minimal funding via our marketplace and continued collaboration with energy device innovators, this is where we will now focus for the near term future.

Project Accelerate which aims to promote greener transportation utilising Electric and Solar powered novel EV's will be implemented when funds become available due to the benefits of brand/project exposure and the low cost of implementation.

Project Energise will become a future aim and will still feature within this whitepaper.

There is still a long way to go, if we can gain greater support from the community and investors, we can make our goals a reality.

Michael Josefsen - Founder & CEO



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1. The FRED Project

Our Aim

The FRED Project aims to promote and facilitate greater adoption and generation of alternative energy by consumers and Fund Research into Energy Devices (FRED)

Our goals;

- Be recognised as a key player in green energy projects using blockchain technology and cryptocurrencies
- Become a brand associated with green energy products and services that target consumer needs
- Aid in the acceleration of alternative energy usage and generation by the consumer

To make access to energy sources inclusive

- Be the main online market place for alternative energy products accepting cryptocurrency
- Bring new energy saving and generation devices to market via innovator partnerships
- Achieve ROI on all projects within 2-3 years

Our objectives;

To raise funding via FRED Energy (FRED) token sales and private investment to enable achievement of identified business opportunities

- To create an online alternative energy product marketplace
- To bring our JV products to market
- To source viable energy device projects for investment funding via our platform
- To create long term partnerships that will aid in reaching our goals
- To incentivise energy generation and storage by consumers

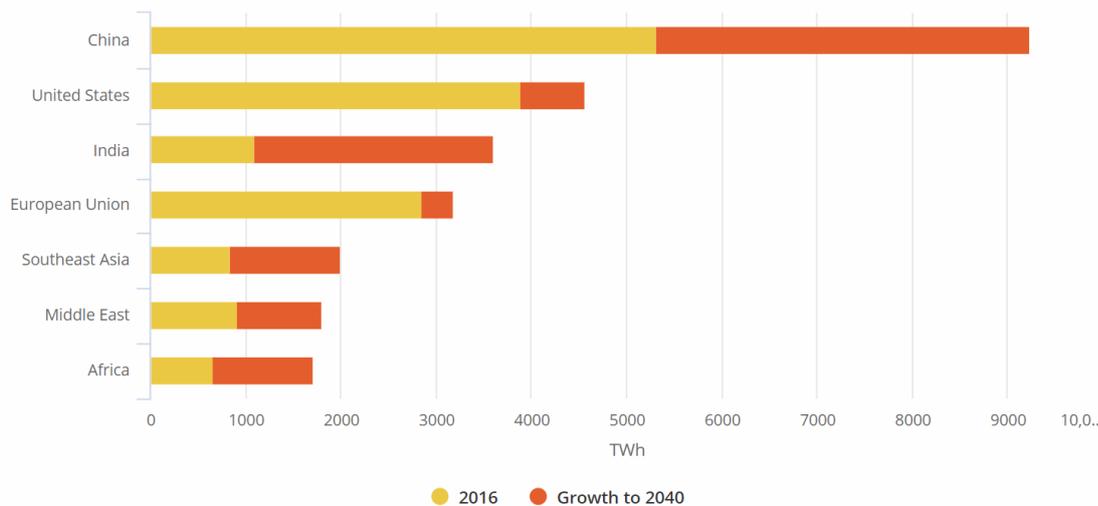
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2. Overview

The future is electric

We are moving towards a new era in energy usage and it will be electric. It is estimated that global energy usage is expected to grow by 30% by 2040 mainly due to industrial and population growth in emerging economies with electricity being the largest consumer growth area (iea.org, 2017).

Electricity demand by selected region



World Energy Outlook 2017, IEA

Due to supply and demand, this will contribute trillions of dollars to the energy corporates but will lead to above inflation price increases for consumers. The overall effects will be felt by all of us but those most vulnerable such as low-income earners and the elderly will be unable to meet the growing energy costs causing them to fall into what is termed “fuel poverty”.

Energy suppliers are forecast to move towards greener alternative energy sources (China being the forerunner) and this is great news for the environment, but it will have little effect on the consumer at cost level.

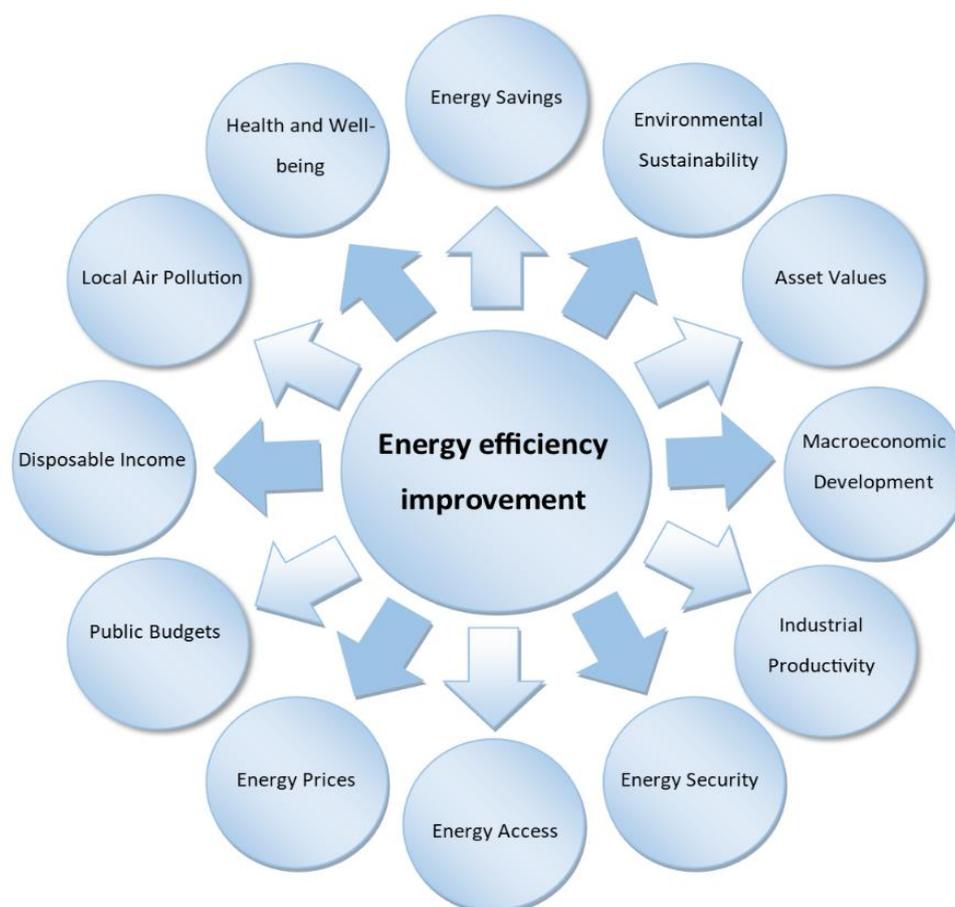
An increasing population and the industrialisation of emerging economies continues to have a huge impact on global energy demands and the environment. Over the next few decades the global population will rise, technology will evolve, and energy consumption will increase massively having a detrimental effect on our planet and society.

We believe that this cycle can be disrupted by reducing energy demand at the consumer level and raising awareness to the benefits of energy efficiency with consumers generating their own energy/electricity using alternative energy devices. Our project is ethical in nature, yet business focussed, The FRED Project aims to achieve our goals by participating in green energy projects helping to create a cleaner and greener future for our children and their generations to come.

3. Benefits to society of energy efficiency

According to research by the International Energy Agency (IEA 2018) there is a wider perspective of energy efficiency which goes “beyond the traditional measures of reduced energy demand and lower greenhouse gas (GHG) emissions”. This wider perspective reveals the potential of energy efficiency “to support economic growth, enhance social development, advance environmental sustainability, ensure energy-system security and help build prosperity”.

In essence, what the report highlights is that by educating consumers in energy efficiency there are many benefits apart from reducing costs, increasing disposable income and lowering harmful emissions. The impacts and benefits are felt not only by the consumer but across society as a whole.



Adapted from original source (iea.org, 2018)

Cryptocurrencies and blockchain may seem at odds against energy efficiency improvement but they are disruptive technologies. We chose the Stellar blockchain which does not use energy intensive mining POW (Proof Of Work) with the aim of raising awareness and funding towards projects that will create positive long-term change.

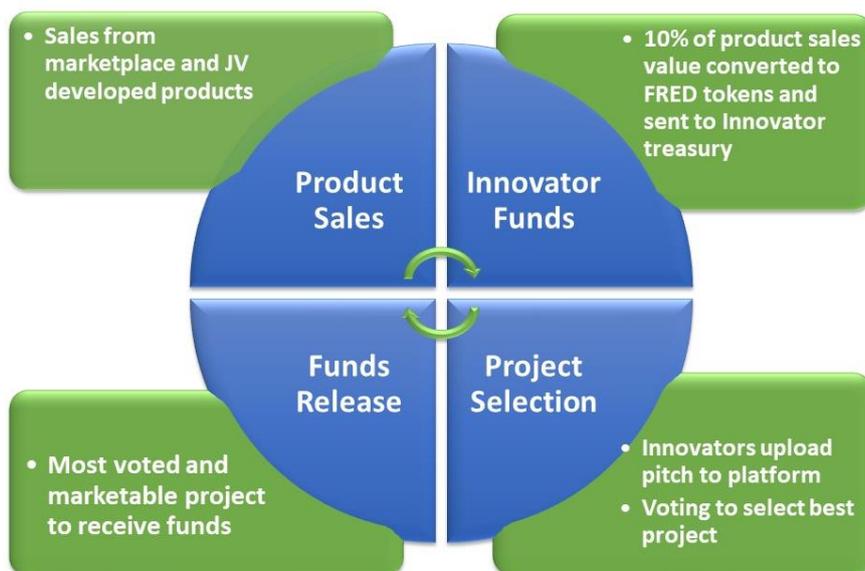
The FRED Project firmly believes that society needs to be better informed on how to change their energy consumption habits and move towards greener energy usage and generation not only for the environment but for the future benefit of the consumer.

4. What is FRED?

The Business model explained

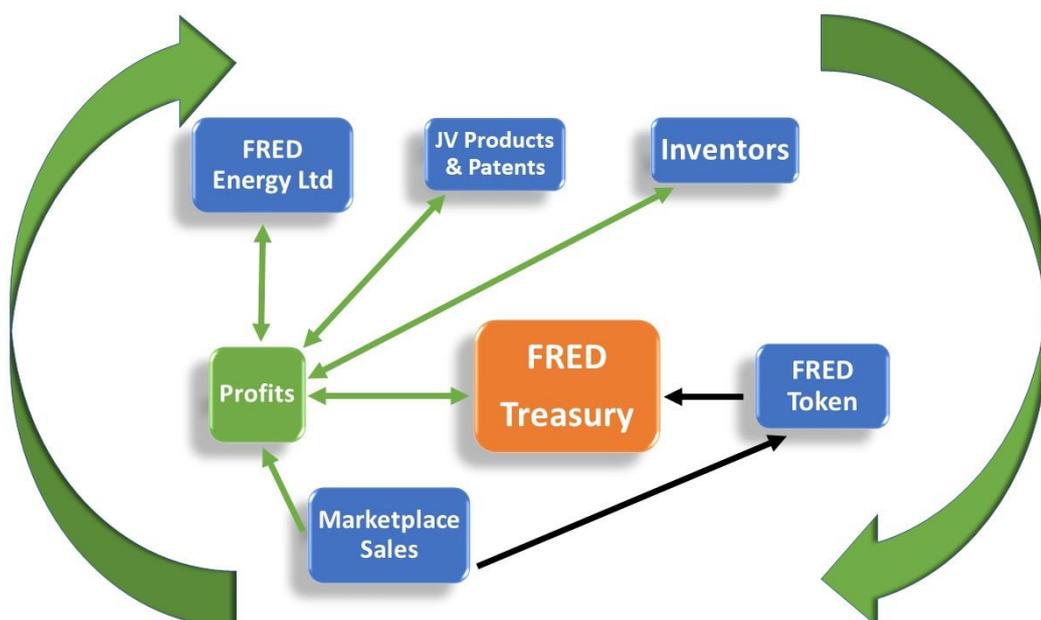
The core idea behind the funding system is for it to be circular, for each JV partnership that leads to a product, patent or profit, a percentage will go towards the next JV funded venture.

We will also fund the Innovator Treasury with FRED tokens, a 10% equivalent value of all product sales from the marketplace will be sent to the innovator treasury.



Circular funding system

Our funding platform will enable innovators to upload a pitch about their project with the most voted or most viable project or innovation receiving funds from the treasury in exchange for a JV partnership. This enables the project/idea to move forward and increases the chances of bringing to market a marketable product.



Circular Funding System For Innovators

5. Energy Device Development

FRED (Funding Research into Energy Devices)

We will continue to look for new energy saving and generation device projects worthy of partnerships and funding.

Many of the world's greatest inventions have been made by people who had little scientific expertise but developed their inventions through trial and error.

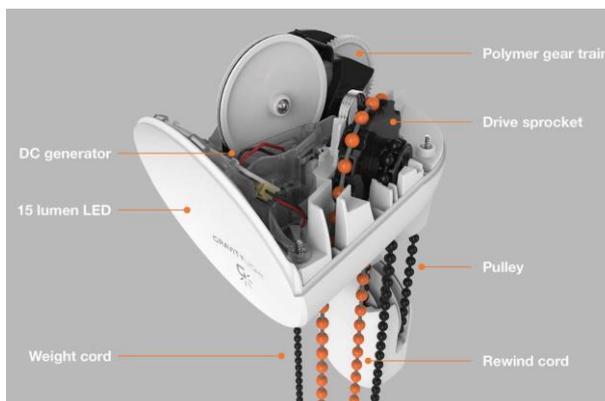


Today, there are engineers, scientists and hobbyist inventors developing technologies that will one day change the way we generate, consume and store energy. The greatest problem many of them face is the lack of resources or funds to fully realise their inventions and get them to market. We are already in discussions regarding several innovations and patents that aim to maximise energy generation and storage.

Our pledge to help those off the grid

A recent article by [Bill Gates](#) highlighted the problems faced by those living off-grid or with unreliable access to electricity. A simple solar or mechanical powered charging device can massively improve the quality of life for many. Examples of simple life improving devices are small solar powered light and phone chargers with [Deciwatt's Gravity / Nowlight](#) being capable of providing light without relying on the sun.

Our project pledges to purchase or provide one of our own devices per \$1000 of funding raised (see our [promotional video](#) by David Pakman) and give it free to someone in need. Purchasing our tokens not only helps us to implement our green energy projects but will also give benefit to some of those living



Source: <https://deciwatt.global/gravitylight>



Example solar charged device

6. Our First JV Funded Device

Investors of our project will also be investing in the development of new energy generation and storage methods including our first prototype device which is fully assembled and working. We now need to complete the circuit designs, testing, regulatory compliance and bring it to market.

The device is aimed towards the off-grid and camping/outdoor markets and is solar powered. It is estimated that the global camping equipment market is expected to reach \$ 5.22 Billion by 2020 [16]. There are many such devices on the market, however, there are several unique features not found in similar devices such as 220V output, USB-C outputs, fast charging/discharging and a very long product life-cycle which will have less impact on the environment. **Products developed and manufactured by us will be unique in that their lifecycle will be tracked using the Stellar Blockchain, this enables reuse and lessens the environmental impact.**

This device is perfect for unreliable grid, off-grid, outdoor camping use and as an emergency power supply.

Initial Specifications

Output: 20-22 Ah a larger 200Ah version is now prototyped

220v DC can power a small fan, additional 220v lights, laptop and other lower wattage devices (<600W), Inbuilt LED light

Output: 220v, USB-C, USB x2 1A and 2A

Input: optional 220V AC, 5V via 7-10 W inbuilt solar panel or via 10-100W external solar panel

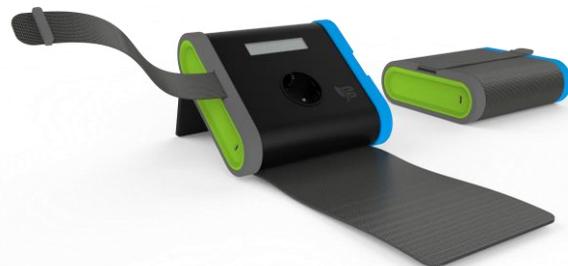
Charge time: 1-2 Hours AC, 4-8 Hours solar panel.

Weight: 1.5kg

Dimensions: approx. 24cm x 32cm x 12cm



Prototype product



First design

Progress facts:

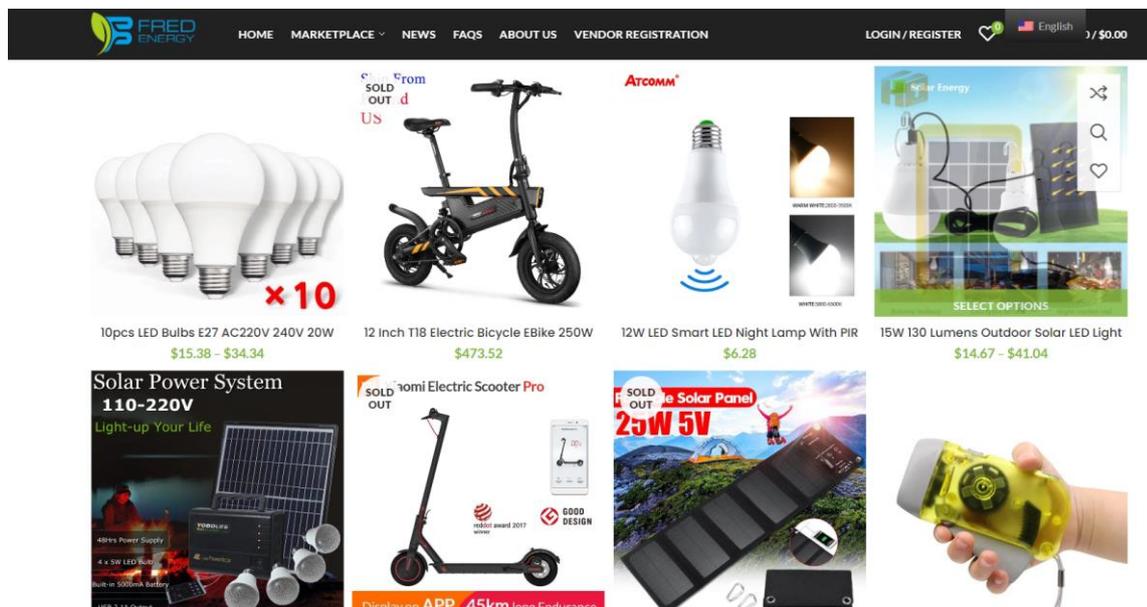
- Two prototype products, a 20-22Ah and larger 200Ah device are exceeding performance expectations
- Further Testing and compliance to be conducted
- Possible patent application for novel charge method
- Expected to be ready for market Q4 2021

7. Our Marketplace

Manufacturing and wholesale costs for renewable energy generation and storage systems continue to fall and this is helping to bring down costs for the consumer. In addition, the move towards Electric Vehicle (EV) adoption is accelerating as prices are also becoming more attractive to the consumer. The transition towards renewable energy generation, storage and EV adoption by consumers will go hand in hand. Consumers purchasing an EV will be more likely to consider generating their own electricity to offset rising costs and provide future energy security.

What this means is that retail sales of green energy related products will see a continuous upward trend as the technology becomes more affordable and more widely accepted. For example, each new EV purchased will require a home EV charger capable of meeting the consumer's needs. EV chargers will need to be able to charge based on off-peak times and with dual speed options. The importance of consumer needs is also shared by the recently formed organisation User-Centred Energy Systems by the EIA, "people use technologies to convert energy into the services they want. To do this, technologies must be useable, and their services must satisfy user needs". Although some car manufacturers have been providing EV chargers as part of a purchase package, they may not meet the consumers requirements, or it won't be long before they are cut from the package via cost reductions.

Additionally, consumers will look to source additions or replacements to their existing system and become more energy efficient, for example replacing traditional incandescent bulbs with modern low cost efficient LED bulbs.



The Marketplace will provide a greater use of FRED Energy as a utility token and promote the use of cryptocurrencies. It also enables the unbanked to access products normally out of reach.

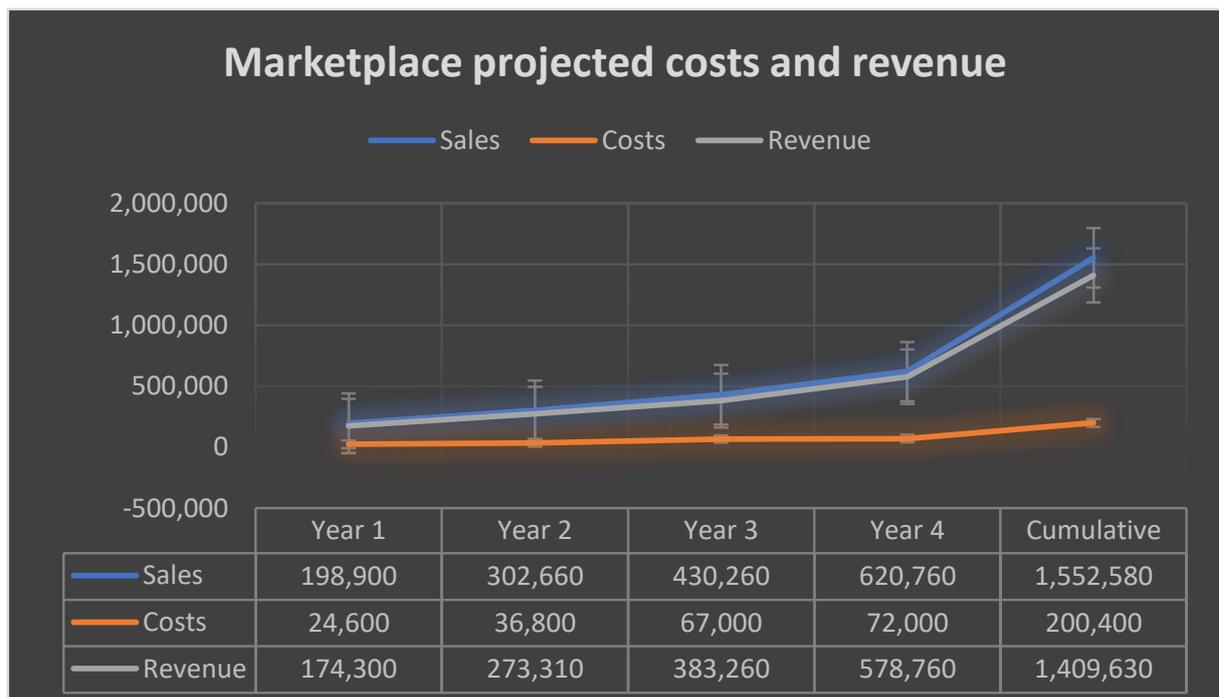
The marketplace is our Minimum Viable Product (MVP) and a demo is available at <https://shop.fredenergy.org/shop/>

7.1 Marketplace Detail

The marketplace will initially feature our partners products and eventually our own branded products. It will aim to include green energy related products such as home EV chargers, solar and wind energy generation systems, battery storage systems, alternative electric vehicles, LED bulbs and other related gadgets. Alongside traditional payment options we will implement the payment of products using FRED Energy tokens and other cryptocurrencies. Vendors on the marketplace will be able to manage all aspects of their products once they have gained approval to use the platform.

USP of our marketplace

- Unique green energy product focussed marketplace
- Accepts cryptocurrency payments leading to greater mass adoption
- Provides the unbanked access to products via their cryptocurrency wallets
- Aids in the acceleration of consumer energy efficiency, saving and generation
- Energy efficiency and energy generation systems information via content creation
- Offers unique green energy related products
- Our own branded products
- Real consumer product ratings
- Consumers can earn rewards in FRED tokens



8. Project Accelerate

Project Accelerate builds on current available technology.

Across Asia, Tuk-Tuk's are a popular method of transport but suffer from fuel efficiency and contribute to air pollution. Over the last few years there has been steady progress in the adoption of electric Tuk-Tuks but there are still barriers to adoption; the cost of a new electric Tuk-Tuk, lack of awareness to the benefits and a shortage of charging stations.

Our objective is to purchase a number of vehicles to promote green energy transportation and increase brand exposure. Each vehicle sponsored will bear the FRED Energy logo to be maintained on the vehicle for an agreed period of time and will further promote the project and raise awareness.

We have chosen six cities for our initial project, targeting taxi drivers located in city and tourist areas in Asia and the EU and this will set the stage for future project Energise.

China, Thailand, Vietnam and India are making great moves towards low carbon societies and smart cities offering excellent opportunities for EV charging start-ups.

20,000

Registered Tuk-Tuk taxis in Thailand

1.5M

Electric Tuk-Tuks in India which has created a multi-billion-dollar market

Benefits of our project;

- Provides the driver with higher earnings by reducing operating costs
- Reduced operating costs gives the driver an incentive to use a green energy vehicle
- Increases overall awareness of alternative energy usage
- Reduces carbon emissions leading to a cleaner healthier environment for all
- Promotes and markets FRED Energy as an innovative green energy brand that works with communities for the benefit of the community
- Sets the stage for Project Energise in Asia and the EU



9. Electric & Solar Powered Tuk-Tuks & Novel Taxis

Asia

The traditional rickshaw or Tuk-Tuk's are an essential part of everyday life in many countries across Asia providing low cost and accessible transport. It is estimated that a single Tuk-Tuk produces around four tons of CO2 per year which is roughly equivalent to the average car driving 10,000Km per year.

India has approximately 1.5 million of these vehicles and over the last few years has begun to adopt all electric versions in efforts to reduce pollution, creating a new billion dollar market.



Solar Tuk-Tuk Source: c-fee.com

The same is occurring in many other parts of Asia to combat rising CO2 levels and where air pollution is so high that pollution masks are a part of everyday life. Countries like China, Thailand and Vietnam are moving rapidly towards electric driven transport overtaking many western countries efforts. This rapidly evolving sector offers many business opportunities in both the electric vehicles and the supporting infrastructure.



Source: bzzt



Source: tuktur.com

Europe

In several cities and tourist destinations in the EU, electric Tuk-Tuks and recently new designs such as Bzzt's Pod Taxi are making an appearance as an eco-friendly, efficient and low cost alternative to the traditional taxi.

Being innovative and business focussed, our project will explore and take advantage of opportunities that will enable us to reach one of our goals of becoming a recognised brand and a key player in green energy projects using blockchain and cryptocurrency.

10. Future growth aims - Project Energise

The journey towards mass adoption of Electric Vehicles (EVs) has begun and we are entering a new era of energy usage where electricity will become the main energy source for consumers.

Project Energise will focus on Electric Vehicle (EV) charging stations. We aim to increase the number of charging stations where there is a demand now and for the future.

Implementation will initially look towards Asia with further plans to target the emerging EV markets in the EU and UK. EV charging stations that are strategically sited can become community hubs benefiting other service providers and the public offering great long-term prospects. The community hub model would provide a central base and include a larger number of charge points enabling top-ups between jobs.

Charging stations will be part ownership or fully owned by the FRED Project and use an app based PAYG scheme with the aim to facilitate payments in local currency, and usage of FRED Energy Tokens.

After reaching ROI, income from charging stations will then be used to expand the charging network into other niche areas and used to fund further projects.

EV charging stations bring further possibilities of partnering with other blockchain platforms that offer peer-to-peer (P2P) renewable energy trading. The global electric vehicle infrastructure market is forecast to be worth \$63 billion by 2025 (GVR, 2019) and FRED Energy is looking to be part of this new ecosystem.



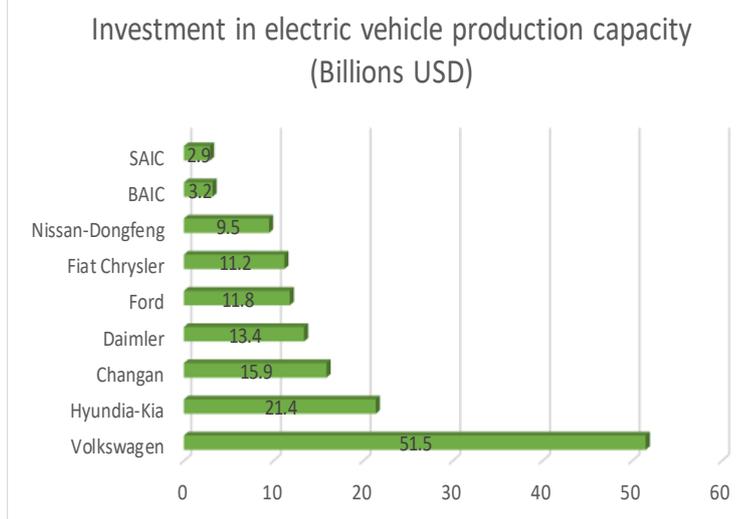
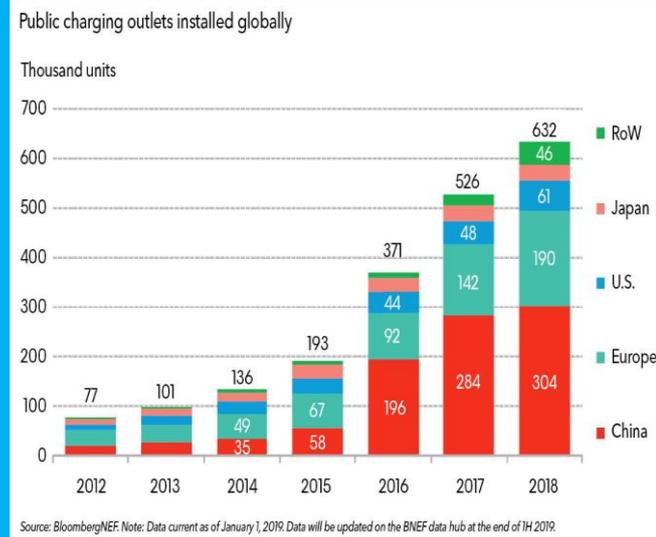
11. The EV charging station market

Major car manufacturers are now competing in EV and hybrid technology with massive investments aimed at increasing efficiency and affordability.

With this massive investment into Electric Vehicles, manufacturers are aiming to accelerate the adoption of greener transport. The rise in EV's will require investment in the supporting infrastructure of accessible and available charging stations.

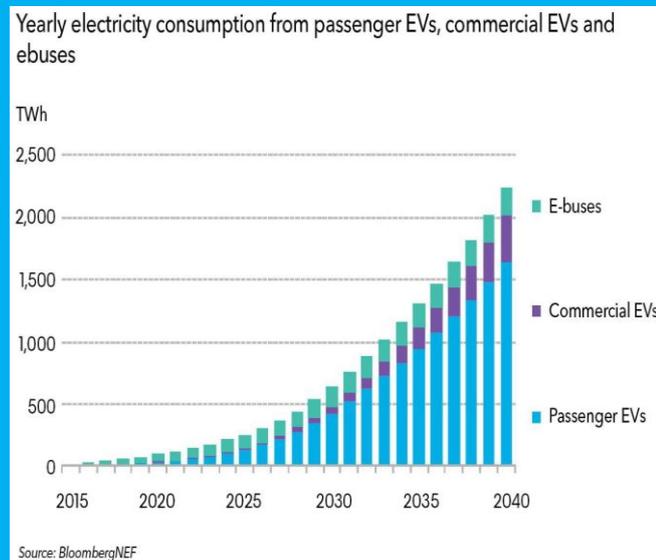
The big oil companies are already diversifying and acquiring many of the established CPO's (Charging Point Operators) and expanding infrastructures in preparation for the rising demand.

The large corporate investments have mainly been in the fast charging sector and as part of the existing retail fuel network however, monopolisation of any national charging network is a consideration for concern. There exists a need for smaller independents to enter the EV charging market to provide competition and to seek innovative business models to meet the evolving needs of consumers.



Source: BloombergNEF electric vehicle outlook 2019

One of FRED Energy future aims is to establish itself as an independent CPO that will research and identify evolving niche markets that are consumer need driven.



Example EV charging segments (UK based models)

Research by PwC identified four charging segments based on UK models, these are Home, Destination, Rapid and Work Place charging.

Exhibit 7: Anatomy of success for EV charging segments

Charging segment	Key customer criteria			Key charge point operator criteria				Overall segment outlook
	Ease of location	Price-sensitivity	Customer experience	Revenue stacking	Investment requirement	Regulatory complexity	Opportunity to scale	
Home charging 	-  +	-  +	-  +	-  +	-  +	-  +	-  +	Positive outlook Low cost model with potential to scale up customer base and bundle products
Destination charging 	-  +	-  +	-  +	-  +	-  +	-  +	-  +	Positive outlook Potential for alternative revenue streams. Contingent on future retail trends
Rapid charging 	-  +	-  +	-  +	-  +	-  +	-  +	-  +	Mixed prospects Remains high cost model, dependent on high utilisation
Work place charging 	-  +	-  +	-  +	-  +	-  +	-  +	-  +	Mixed prospects Strong 'green' policy incentives to adopt charging but unclear if work force will exploit

Source: PwC Strategy& research

These segments differ when considering country and cultural differences, however, our business models would look towards the lower investment and revenue stacking segments. Our plan is to begin in Asia and then look towards the EU and UK markets for further opportunities.

The UK destination segment would consider locations such as shopping malls, leisure centres, hotels, theme parks and tourist locations where the length of stay is longer and lower cost, slower charge Electric Vehicle Service Equipment (EVSE) can be used.

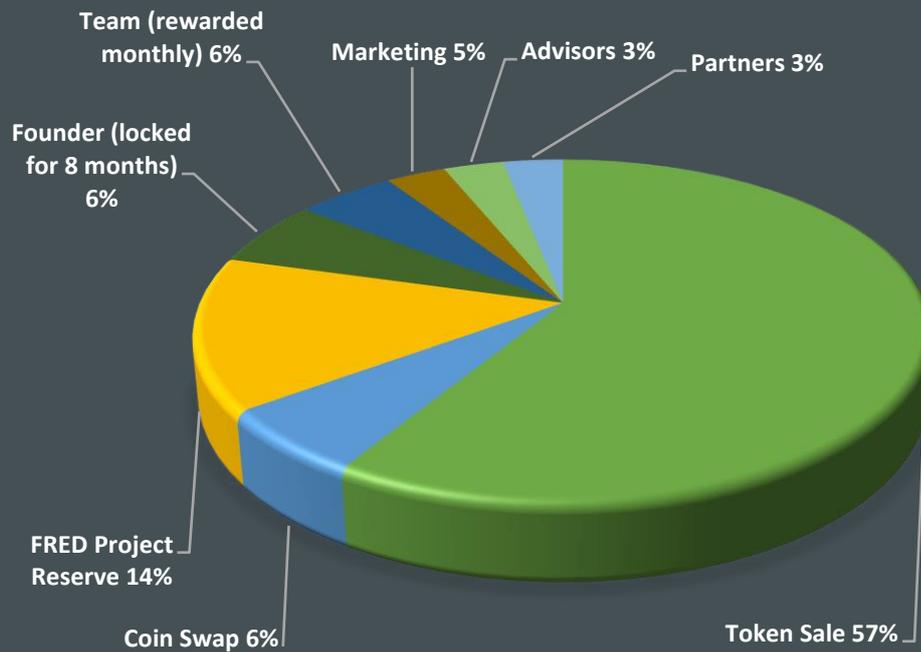
An example with great potential is a Car Park and Charge (CPaC) model. The CPaC model would use mid-priced EV chargers in the 3.7 - 22 kW range enabling charge times between 1 – 6 hours and requires much lower investment than rapid charge setups. There also exists further revenue stacking opportunities in advertising depending on the location and the type of EVSE used.

It is estimated that around 60% of EV charging will be at the home and this segment has been identified as having great potential. Not all home EVSE's are made equal and providing the consumer with the right type of EV charger at home is another market entry point for FRED Energy via our marketplace.

The EV charging market is rapidly evolving and offers great potential of success if the right business model is chosen. Unlike other ICO/ IEO projects, we aim to deliver on our projects within 12 months after all token sales have ended.

An important note is that there will of course be a point where electricity providers are no longer able to offer off-peak rates due to overnight charging demands, and this is where our project aims to raise awareness and encourage consumers to consider generating and storing their own electricity to offset rising energy prices that are already impacting the quality of life for many.

12. Token Allocation



Funding raised will be allocated as follows;

- Project Accelerate & Project Energise 35%
- Product development 20%
- Funding Research into Energy Devices 20%
- Online Marketplace 10%
- Marketing 10%
- Legal, Company incorporation fees 5%

Where to buy FRED tokens?

Tokens can be purchased from the Stellar DEX and our exchange partners listed on our websites

13. Tokenomics

Our Token is a custom asset on the Stellar network (XLM).

Token supply is 808,000,000 FRED Energy Tokens with the Ticker FRED

	FRED
Total Supply	808,000,000 Tokens
Allocation	
57% Distribution Sales	460,560,000
6% Coin token swap	48,480,000
14% FRED projects reserve (used to fund treasury)	113,120,000
6% Founder (locked for 8 months)	48,480,000
6% Team (rewarded monthly)	48,480,000
5% Marketing (Airdrops & Bounties)	40,400,000
3% Advisors (locked for 8 months)	24,240,000
3% Partners	24,240,000
SoftCap	
	\$120,000
HardCap	
	\$2,300,000

Note: The Marketplace will be implemented regardless of funding raised. In addition, due to tokens being distributed to previous coin holders via the token swap (6%) the project will proceed within the levels of funding raised.

A list of our project wallet addresses;

Distribution sales - GBDQSZLNCSBHK2RLQGUXY6TK5SM2B3B7YVEUBJ5T3ODH4IYHMOFOHUQQ

Project Reserve - GDKUL2IYC53GAKN2B4ZXGZ6CJNZ4I75FUETP2FDFVXH3NE6YQULO2BSK

FRED Treasury - GC3Z6FKDSGL4XKFZRK25XSJAOTVPI5DRY2YXJXXJFXIYW37KH2UFNXOJ

Marketing - GAW7L3WHFBGT2ZLRP5BVVMUKLUD4W6BBOEGSYORDODPG327WROBM6KBU

Team - GDBGVWLC54EM7EXJU4Z4QSOIGUYTI2FABRJURFBHKRDFEZJ5I5H5CPH2

Founder - GCM5AZLIVNAZZYZWGMPPV6KJ6S6QYCFSNUNUYKF2YNKK3FFT7OADSTPMC

Advisors - GCKCLEFI3I6K4FYQ5ZGIZIQDT453XSHJMG4ZPXAMDMPBSCYXD2GWZ4DJ

Partners - GA2UY5NDAXFT5GJQQR5GHE3SVFY2O5EIDD5BMGJPGMQQHFRWAVUT562K

Tokens can be purchased from our exchange partners listed on our websites.

Rewards

A HODL's reward scheme will run from January 2020 until January 2021.

Token holders will receive 4.5% interest on their holdings per month with rewards being paid bi-monthly.

Please read carefully the Terms and Conditions found in this document and on our websites before taking any further action towards purchasing our Tokens.

14. FREDEnergy coin to FRED Energy token swap

Our project is not new to blockchain, we developed our own blockchain in September 2018 and now have an established community.

As we moved towards a change to a Stellar based token, our old coins needed to be swapped and the old blockchain discontinued so we could focus on the road ahead.

Our swap was successful and 6% of the total Token supply were allocated to previous coin holders. These Tokens are and will not be tradeable until all Token sales are complete, or the team decide to release the swapped tokens early depending on what is deemed beneficial to the project.

The old coin maximum supply was 8,080,000,000 FRED coins and has been reduced to 808,000,000 FRED Tokens, a reduction of 10%.

There were approximately 1.4 Billion existing coins to swap with a Token allocation of 6% or 48,480,000 Tokens. This excludes the remaining coin pre-mine of approx. 400,000,000 coins which were burnt.

The total confirmed coins sent for the swap is 771,162,690 and the outstanding coins that were not sent for the swap are now deemed burnt.

The token swap ratio was based on the following formula;

Confirmed coins for swap / Token allocation

$$771,162,690 / 48,480,000 = 15.9$$

Therefore, 1000,000 FRED coins (1 Million) are to be swapped for approx. 62,893 FRED Tokens.

Having an already established community and continually developing our project since 2018, we hope this will bring confidence to investors of our project and our plans for the future.

We are 100% committed to developing and bringing our projects to reality.

15. Stellar Blockchain

Stellar is a decentralised payment protocol that can be used to send and receive money in any pair of currencies. This means users can for example, send a transaction from their Euro balance and have it arrive in USD, Yen, or any other currency (including cryptocurrencies). The usual categories of transactions are supported: payments to a merchant, payments back home, or rent splits with roommates.

Stellar comes with its built-in digital currency, referred to as "Stellar Lumens (XLM)". The currency's value is determined by the market; however, its prime function is providing a conversion path between other currencies.

Applications can be built on top of Stellar to help bridge the gap between digital and traditional currencies.



Development

Stellar is being developed as part of a non-profit organization, the Stellar Development Foundation, and its code is open-source.

How it works

Gateways

Stellar is built on the concept of gateways - entities that let people get into and out of the network.

You need to trust the gateways you use, but you don't need to trust the other participants in the network. This is similar to trusting your local bank to hold a deposit on your behalf. In Stellar, you explicitly decide how much you'd like to trust a gateway by setting policies.

Currency balances are represented as credits from the gateway. Credits can be traded between users without involving the gateway. Since it's a distributed and open network, anyone can start their own gateway, and take their pick of gateways to trust.

Today

The Stellar network is still relatively new and unknown to many but it's developing at a rapid pace and continues to draw the attention of large IT and banking corporates. Stellar recently entered a partnership with IBM to facilitate cross-border payments system [World Wire](#) .

15.1 Stellar Blockchain

Why choose Stellar for FRED Energy over the ETH (ERC-20) network?

- Stellar uses no Proof Of Work (POW), which is usually a very energy-consuming way of verifying transactions. As a result, it resonates more with what we're trying to achieve with FRED Energy and our project
- The transactions on the Stellar network are lightning-fast: up to 4000 transactions per second have been achieved on the network with basic hardware, compared to BTC's current 3.3-7 tps, ETH's 15 tps or VISA's 1,736 average tps with current volumes
- The cost of stellar transactions is extremely low (<\$0.00001 per transaction)
- The Stellar network allows easy exchanges between many different currencies and tokens
- Stellar contains a "smart contracts" layer, like ETH, but Stellar's is much simpler and easier to develop on. It doesn't allow for very complex contracts, but in return, it is much better protected against vulnerabilities. Researchers from the National University of Singapore and UCL decided to download all live smart contracts that actively existed on Ethereum's platform at the moment of testing. There were nearly a million active live smart contracts and initial testing discovered that more than 34000 smart contracts showed vulnerability with over 2000 smart contracts showing high-risk vulnerability. This meant that these contracts could be manipulated "easily" by a third party that would in a majority of cases represent hackers who want to take advantage of unintended issues in ETH smart contracts
- Full AML/KYC Compliance (allows to prevent money-laundering and funding of terrorism use of the network)
- Access to Decentralized Exchanges (DEX), which means that no third party ever "hosts" one user's coins, which prevents "exit-scams" or exchange hacks that have been harming the cryptocurrency markets in 2018 and 2019
- The Stellar Foundation is famous for supporting many charities, which also resonated with our vision of a better / fairer world

Why use blockchain at all for this project?

We are entering a new era of technology innovation, one where blockchain facilitates green energy transition and the consumer takes more control. FRED Energy wants to be part of this new disruptive future and be prepared for the opportunities that will arise. In addition to seeking financing of our projects via token sales, our token will have utility within our future funding platforms and partnerships. The marketplace will allow consumers to purchase products using cryptocurrencies alongside traditional methods. Some of our products are aimed at the outdoor/ camping market and those who are off-grid or with unreliable access to electricity. It is also more likely that those living off-grid will also be part of the 1.7B who are classed as unbanked. Cryptocurrencies and in particular the Stellar blockchain can enable the unbanked to become banked allowing them to save, borrow and exchange money via their smartphone.

We are not only aiming to provide life changing products via our marketplace, but also make it easier for people to acquire products that would normally be out of reach.

16. Business Overview

Summary

The world's energy demands are increasing rapidly and the move towards greener alternative energy generation and usage is accelerating. Major corporations and now the big oil giants are investing heavily into green energy initiatives in preparation for the growing change of energy requirements and demands.

Whilst the large corporations are monopolising many future prospects, there is still great potential and need for smaller independents to enter the green energy space in order to fill certain niche segments, this is where our project aims to utilise blockchain and fill the gap.

Project overview

The marketplace is our minimum viable product (MVP) and is scheduled to go live Q1 2020 regardless of funds raised from token sales. The marketplace will be a platform for alternative energy product retailers and innovators to showcase and sell their products. Commission from sales will be between 10-25% depending on the product value.

We are currently developing a product with our innovative partner (DSA) which is aimed at the outdoors/camping market and those living off-grid. Our first product is based on the small solar powered light and phone charging device with design modifications to enable greater functionality and usability. This product will also be featured in our marketplace as a FRED Energy / DSA branded product. Our JV developed and manufactured products will be unique in that their lifecycle will be tracked using the Stellar blockchain to enable reuse and lessen their impact on the environment.

Funding Research into Energy Devices (FRED) already has its first partner and innovator (DSA). This partner develops energy generation devices and maximises energy storage using new efficient methods. Our partner has several prototypes of energy generation and storage devices and we are looking towards a patent application for one in particular.

Project Accelerate is effectively a marketing strategy and has the potential to bring enormous added value to the project via brand awareness, product sales and market capitalisation of our token.

Project Energise focuses on the rapidly growing EV charging market (funds dependent). There are many niche segments that have been identified in Asia and Europe where there exists great potential for early investment into Electric Vehicle Charging Stations (EVCS) in preparation for the gradual change of consumer requirements. For us to be a successful Charge Point Operator (CPO), we require a high level of funding and therefore this project will be a future aim.

Getting the job done. We understand that each project requires expertise in certain fields, acquiring the right people for the task is something that can be achieved with capital. When a start-up project or company receives investment, it is then able to hire the right people for the job.

Target Markets

The global EV charging infrastructure market is expected to be worth \$63 billion by 2025 this being dwarfed by the EV charge station equipment market estimated to be worth \$1,786 billion by 2023. The EV home charger market alone is forecast to be worth \$35 billion by 2027.

Sales of consumer grade renewable energy generation and storage systems are forecast to see similar growth figures as they become more affordable enabling consumers to offset rising energy costs.

Additionally, the global camping equipment market is expected to reach \$5 Billion By 2020.

The global power bank market size is anticipated to reach USD 27.8 billion by 2027 with a CAGR of 18.4% from 2020 to 2027

17. Financial forecasts

	Unit Cost	Total Estimated Costs (Year 1)	Revenue Year 1	Year 2	Year 3	Year 4
Token Sales						
460,560,000 @ \$0.001			460560			
Marketplace Website						
First design and development to go live Q4 2019		-3800				
General product sales			6000	15000	32000	59000
Own products (Net profit)			192900	287660	398260	561760
Ongoing website costs			-20800	-36800	-67000	-72000
Marketing						
All marketing activities (inc exchanges)		-65000		-45000	-40000	-40000
Partnership Funding (FRED)						
Initial funding for development resources, patent application (JV Partner 1)		-8500				
Product design costs (outsourced)		-7500				
Bringing first product to market		-132000				
Project Accelerate						
6x Solar/Electric Novel EV Taxi (Marketing & promotional project)	7000	-42000				
Vehicles will be leased at cost price 0% interest over 3 years			12000	12000	12000	
Value added from activity			14000	45000	55000	
Project Energise (Future Aim)						
7kWh EV Charger (based on 4 units per location)	3000	-12000	6400	12000	16240	19200
7-22kWh EV Charger (based on 4 units per location)	5000	-20000	10000	18750	29000	33000
7-22kWh EV Charger (Advertising model) (based on 4 units per location)	7500	-30000	12000	21250	33350	37500
Land rental, Licencing etc		-15000		-8000	-8500	-9000
White label payment App		-25000		-6500	-6800	-7000
Total with Project Energise		-\$360,800	\$332,260	\$315,360	\$453,550	\$582,460
Total without Project Energise		-\$258,800	\$405,860	\$277,860	\$390,260	\$508,760

EVCS Calculation (Estimated)

7kWh EV Charger (based on 4 units per location) Year 1 200 days @ \$32, Year 2 250 days @ \$48, Year 3 290 days @ \$56, Year 4 300 @ \$64

7-22kWh EV Charger (based on 4 units per location) Year 1 200 days @ \$50, Year 2 250 days @ \$75, Year 3 290 days @ \$100, Year 4 300 days @ \$110

7-22kWh EV Charger (Advertising model) (based on 4 units per location) Year1 200 days @ \$60, Year 2 250 days @ \$85, Year 3 290 days @ \$115, Year 4 300 days @ \$125

18. Roadmap



19. Team



Michael Josefsen

Founder, CEO

**Over 20 years in IT
Systems Consulting.
Blockchain & Green
Energy Enthusiast**



Philippe Delvigne

**Creative Director &
Community Manager**



Daryl Naidoo

Advisor

**ICOBench expert
Blockchain Solutions
Architect
Blockchain Advisory
Council**



Denis

Inventor & Engineer

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expert and advisor**



Wisdom Nwabundo

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21. Disclaimer

Please read this disclaimer very carefully. If you have any doubts you should consult financial, Legal, Taxation or other related professional advice.

The FRED Project and FRED Energy are projects controlled by the “Company” FRED ENERGY LTD registered in England and Wales with Number 12054644.

The buyer of FRED Energy tokens undertakes that she/he understands this whitepaper, has an understanding and experience of cryptocurrency, blockchain systems, and services, and that she/he fully understands the risks associated with IEO/ICO campaigns including those related to the use of cryptocurrencies and including secure storage.

This information contained in this whitepaper is a summary of The FRED Project and FRED Energy’s future projects and business models, it provides an introduction to our FRED Energy Token sale, the associated features and fundraising targets. The FRED Project will conduct its Token sale to raise funds for the development, commercialisation of projects and eventual services as described in this whitepaper.

Information contained in this whitepaper is of descriptive nature and is subject to change and not binding. This whitepaper includes information sourced from relative industry and market forecasts that have been obtained from internal or publicly available publications. Whilst the sources are believed to be reliable, The FRED Project provides no assurance or guarantee as to the accuracy or completeness of such information and forecasts.

Compliance and regulatory measures or actions may impact our projects and future services which could limit or prevent them from being developed or implemented. Our business models may change due to these new regulatory and compliance requirements from the associated applicable laws in certain jurisdictions.

FRED Energy is a custom asset on the Stellar (XLM) network and is not classed as a share or intended as a security or investment asset. FRED Energy Tokens are the utility token of The FRED Project and its associated projects. FRED Energy Tokens do not represent tangible or physical assets that exist outside of The FRED Project platform and ecosystem.

FRED Energy Tokens do not represent equity, shares, royalties or rights to capital, dividends, interest, profit or income in the entity that issues Tokens or any other entity in any jurisdiction. FRED Energy Tokens are not designed or intended to have a particular value outside The FRED Project platform and ecosystem. FRED Energy Tokens shall not be used or purchased for speculative or investment purposes. By holding FRED Energy tokens, you are not in provision of rights with respect to the company, revenues or assets. This includes but is not limited to voting, intellectual property (proprietary) or any other legal or financial rights.

This whitepaper is not an offer or solicitation

The FRED Project does not offer any securities or assets for investment purposes. This whitepaper is not to be intended as a financial service offering document or a prospectus of any kind. This whitepaper is not a solicitation for investment and does not pertain in any way to an offering of securities, shares, options or futures in any jurisdiction. This whitepaper provides an overview of The FRED Project’s aims, future products and services and where the utilisation of FRED Energy Tokens can be used within The FRED Project’s platforms and ecosystem.

21.1 Disclaimer

This whitepaper is not a recommendation or advice

The FRED Project does not and cannot guarantee that participants in FRED Energy tokens will make profits or will not incur losses. The token sale discussed in this whitepaper has not been reviewed by any regulatory authority and there are currently no plans for regulatory review under any laws or regulations of any jurisdiction.

Restrictions

There may be restrictions on territories where FRED Energy Tokens are not offered to citizens and residents which may include US, Canada, Algeria, Bolivia, Vietnam, Indonesia, Kyrgyzstan, Lebanon, Morocco, Namibia, Nepal, Pakistan, Ecuador. Where restrictions are stated, participants should not participate in the token sale and purchase of FRED Energy Tokens. Participation in the FRED Energy token sale may also be restricted to residents of other countries and territories. All participants shall make sure they act in conformity with their applicable laws, and they have learned the position of the regulatory authority in their jurisdiction.

Limitations of liability

It is your responsibility to the decisions you make based on the information contained in this whitepaper. The FRED Project, It's Founders, Team Members, Advisors and any other Third Parties involved in the FRED Project and it's resulting projects shall not under any circumstances be liable for any loss or damage you or anyone else incurred as a result of activities that you or anyone else engages in, based on any information contained within this whitepaper and includes but is not limited to the incapacity to use FRED Energy Tokens.

Disclaimer of warranties

All information contained in this whitepaper is provided "AS IS" without warranty of any kind. The FRED Project makes no representations and disclaims all express, implied and statutory warranties of any kind to you and /or any third party. This includes warranties as to accuracy, opinions, completeness or fitness for any particular purpose.

Transaction Laws

You understand and agree that The FRED Project is not responsible for the choice of applicable transaction laws, and that applicable laws may include but are not limited to anti-money laundering laws, the Securities and Exchange Act, and local tax laws. You understand and agree that you will be responsible for all applicable transaction laws. Without violating the above, you understand and agree to bear sole responsibility for all tax liability incurred during the purchases of FRED Energy Tokens, and that The FRED Project does not directly or indirectly bear any of said tax liability.

You will agree not to use our IEO campaigns for any illegal operation, including but not limited to financing of terrorism or money laundering.

Full terms and conditions of our Token Sale can be found at <https://token-sale.fredenergy.org/signup/terms-and-conditions>

Contacts

Website Blog: <http://fredenergy.org>

Token Sale Website: <https://token-sale.fredenergy.org>

Discord: <https://discord.gg/uhAig9w>

Telegram: <https://t.me/FREDEnergycommunity>

Facebook: <https://www.facebook.com/TheFredProjectOfficial/>

Twitter: https://twitter.com/energy_fred

Medium: <https://medium.com/@fredenergy.org>

Pitch Deck available: <https://www.swipe.to/2191nm>

Email for token enquiries ieo@token-sale.fredenergy.org

