

# FRED ENERGY

FREDX UPDATE

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FEB 21



Whitepaper v1.6

# ABOUT

## Developing green energy projects using blockchain and cryptocurrencies



### INTRODUCTION

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).

FRED Energy later switched to the more ECO friendly blockchain Stellar in 2019. In February 2020 we launched our [shop.fredenergy.org](https://shop.fredenergy.org) marketplace where consumers can buy green energy related products using cryptocurrencies.

In January 2021 the project launched FREDx an ERC-20 token alongside its Stellar based token (FRED) to increase awareness and liquidity of its green energy related projects.

FRED Energy is now a dual blockchain project, a rising trend in projects struggling to gain investment, liquidity, and exposure.

The company plans to enable swaps between its assets via an app scheduled for Q2-Q3 2021. The app will enable users to swap XLM/FRED to FREDx/ETH and vice versa based on average exchange prices.

This will have a push-pull effect on the trading and liquidity between the two assets and their respective blockchains.

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## ● A GREEN ENERGY FOCUSED COMPANY

**FRED ENERGY  
LTD**



Founded:  
2018

Team:  
5

Community:  
4000+

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

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### 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 enable an all inclusive access to energy sources
- 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

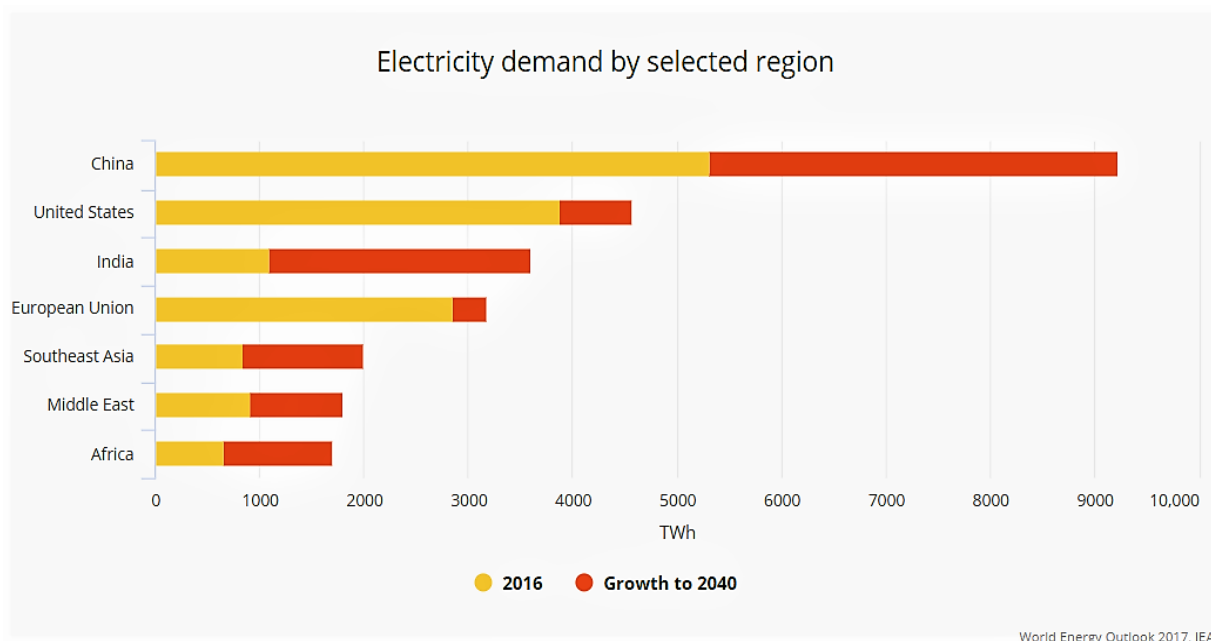
### Objectives

- To raise funding via FRED Energy (FRED & FREDx) token sales and private investment enabling the 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

## ● THE FUTURE IS ELECTRIC

# OVERVIEW

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).



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 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 and storing their own electricity using alternative energy sources.

Our project is ethical in nature, yet business focused, The FRED Project aims to achieve its goals by participating in green energy projects helping to create a cleaner and greener future for our children and the generations to come.

## ● BENEFITS TO SOCIETY OF ENERGY EFFICIENCY

Simple changes by consumers can lead to meaningful impacts, "By 2027, widespread use of LEDs could save about 348 TWh of electricity, This is the equivalent annual electrical output of 44 large electric power plants (1000 megawatts each), and a total saving of more than \$30 billion at today's electricity prices." (Energy.gov).



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.

FRED Energy firmly believes that society can 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.

## THE BUSINESS MODEL

# FRED

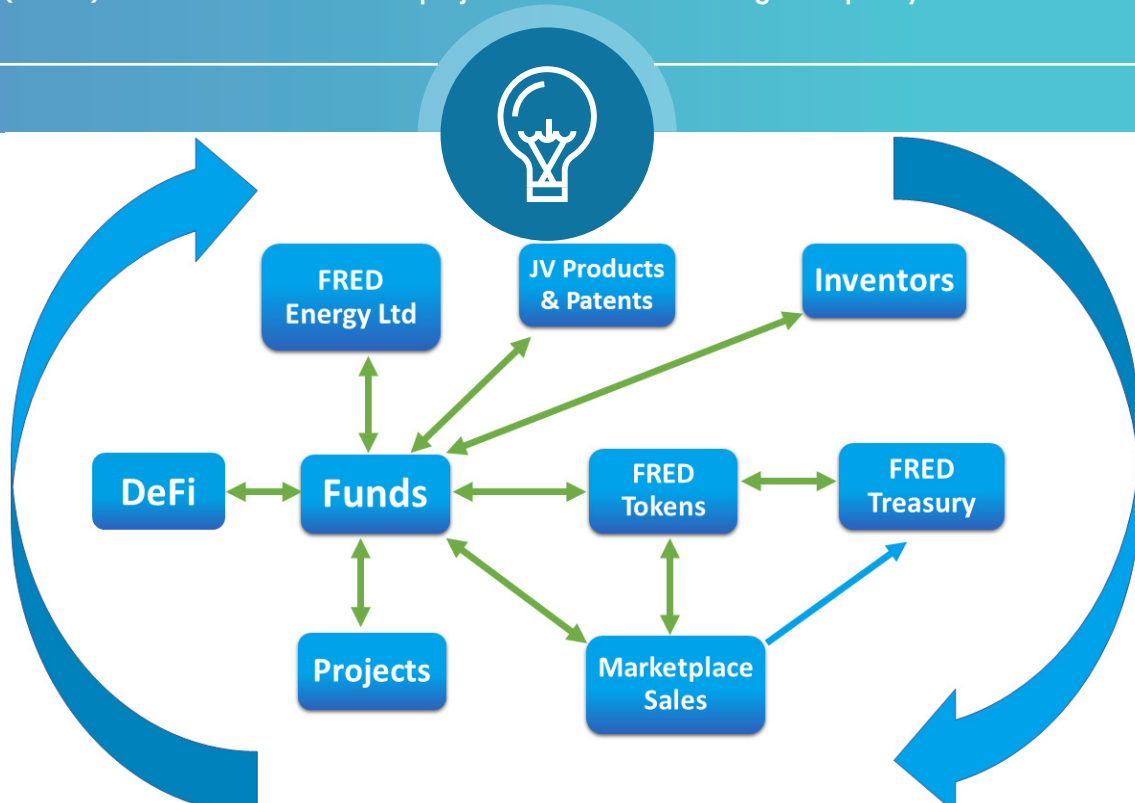
Our business model utilises blockchain and cryptocurrency to enable the development of green energy focused projects. Blockchain and cryptocurrencies are gaining mainstream popularity and may seem at odds against energy efficiency, but they are disruptive technologies. For our project they offer an alternative entry point into raising awareness and funding towards projects that will create positive long-term change.

We believe diversification will be the key to our success and where we find an eco-focused market opportunity, we will aim to be part of that market, growing the brand into an all round player in the green energy sector.

Projects mentioned in this document are our starting point and the Marketplace is our Minimum Viable Product (MVP) which went live in Q1 2020. The Marketplace alone has great potential in this new green era of becoming the future goto place for clean energy products.

FRED Energy is focused on innovation that aids in the acceleration of alternate energy generation and usage. The FRED treasury is a funding mechanism that seeks interesting and viable innovations for funding in exchange for Joint Venture (JV) partnerships. This enables the project, idea to move forward and increases the chances of bringing the product to market.

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. In addition, the FRED Treasury receives a 10% equivalent value of tokens from all product sales made on the marketplace. A percentage of funds (Profits) will be used towards DeFi projects aimed at increasing the liquidity of FRED and FREDx tokens.



## ● ERC-20 TOKEN FREDX

### 808 M Supply

404M moved to Swap pool

Token supply is  
808,000,000 FRED Energy  
ERC-20 Tokens with the  
Ticker FREDx.



404 Million have been moved to the swap pool. The swap pool of 404M FRED and 404M FREDx will be used to manage total in circulation ratios where swaps from one side may be halted until deposits from the other side have taken place. This enables a push pull effect to and from each blockchain.

Contract address;

<https://etherscan.io/token/0xd8e2b153E94daeC5fE657A49FF59bb68fA67f126>

A list of our project wallet addresses;

Distribution - 0x6dD0559E9FB958568e466Bd68565616c3F54988a

Swap Pool (404M) - 0x3dfe6c5eA62be861D3fd8cb2a5A039F1f40312f7

Project Reserve - 0x0ae652F4Ad787ba8911e38a2496066AE9F205C63

FRED Treasury - 0x64905e84bed8317d78f3de8BA9Be6484bD2FbFCF

Team - 0xBBD7E6De6aB68e1022bAD00920F8701bBCeDE17F

Founder - 0xD9F234aB4f9fC4379d32C8FdD42182168C703cc9

Advisors - 0x7Af4F6929D3E0a5ff41fd9155267235C38729aBE



# ● STELLAR TOKEN FRED

## 808 M Supply

404M moved to Swap pool

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



Token supply is 808,000,000 FRED Energy Tokens with the Ticker FRED.  
404 Million have been moved to the swap pool. The swap pool of 404M FRED and 404M FREDx will be used to manage total in circulation ratios where swaps from one side may be halted until deposits from the other side have taken place. This enables a push pull effect to and from each blockchain.

A list of our project wallet addresses;

Distribution - GBDQSZLNCSBHK2RLQGUXY6TK5SM2B3B7YVEUBJ5T3ODH4IYHMOFOHUQQ  
Swap Pool (404M) - GDBTQ7V63WLGFKUQMWNKJLOFGXVT7XXWBNC2UULAWJ54Y4X6GVDSWAP  
Project Reserve - GDKUL2IYC53GAKN2B4ZXGZ6CJNZ4I75FUETP2FDFVXH3NE6YQULO2BSK  
FRED Treasury - GC3Z6FKDSSL4XKFZRK25XSJAOTVPI5DRY2YXJXXJFYIW37KH2UFNXOJ  
Team - GDBGVWLC54EM7EXJU4Z4QSOIGUYTI2FABRJURFBHKRDFEZJ5I5H5CPH2  
Founder - GCM5AZLIVNAZZYZWGMPPV6KJ6S6QYCFNUNUYKF2YNKK3FFT7OADSTPMC  
Advisors - GCKCLEFI3I6K4FYQ5ZGIZIQDT453XSHJMG4ZPXAMDMPBSCYXD2GWZ4DJ

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

## ● DUAL BLOCKCHAIN PROJECT

# LIQUIDITY PLAN

In January 2021 the project launched an ERC-20 token (FREDx) alongside its Stellar based token (FRED) to increase awareness and liquidity of its green energy related project. FRED Energy is now a dual blockchain project, a rising trend in projects struggling to gain investment, liquidity, and exposure.

The company plans to enable swaps between its assets via an app scheduled for Q2-Q3 2021. The app will enable users to swap XLM/FRED to FREDx/ETH and vice versa based on average exchange prices. This will have a push/pull effect on trading between the two assets and their respective blockchains. The plan is unique in that although there are 808M tokens of both assets, there can only be 808M in circulation from both blockchains at any one time. A swap pool of 404M FRED and 404M FREDx will be used to manage total in circulation ratios where swaps from one side may be halted until deposits from the other side have taken place.



### Benefits

#### Access to new investors

There are now over 130M ETH addresses with over 700K daily active wallets on the Ethereum blockchain

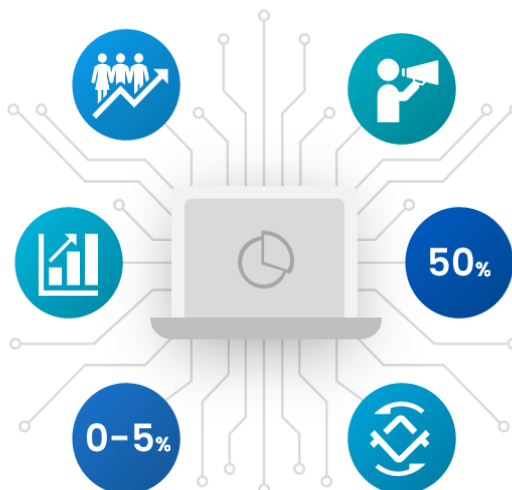
#### Increase liquidity

Our liquidity and daily trading on the Stellar DEX suffer's from a small number of available investors, investor interest and awareness. We will gain access to the ETH DEX and UNI pools

#### Community Airdrop

We will Airdrop FREDx tokens to those who have supported the project based on an incremental percentage based on current holdings

[fredenergy.org](https://fredenergy.org)



#### Increase project awareness

Having a token on both blockchains will increase our exposure to investors and bring greater awareness of our project

#### Supply reduction

The swapper pool will initially reduce supply on the XLM side as 50% of total supply will be moved there

#### Cross chain swaps

Once development of the swapper pool is complete, users will be able to swap XLM/FRED for ETH/FREDx and vice versa

**700k**

The number of daily active wallets on the Ethereum blockchain

**3.5k**

The number of daily active wallets on the Stellar blockchain

**19,900%**

The number of daily active wallets on the Ethereum blockchain

## PLAN OVERVIEW

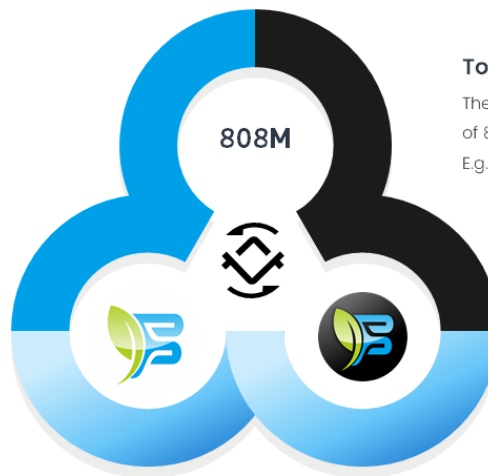


### FREDx liquidity plan

The liquidity plan is aimed at increasing awareness of the project and in turn the liquidity of FRED and FREDx tokens

#### FRED Stellar Blockchain

404M FRED XLM tokens moved to swapper pool, these are taken from project wallets



#### Total in play supply 808M

There can only be a maximum total supply of 808M tokens at anytime from both sides.  
E.g. 500M FRED/308M FREDx

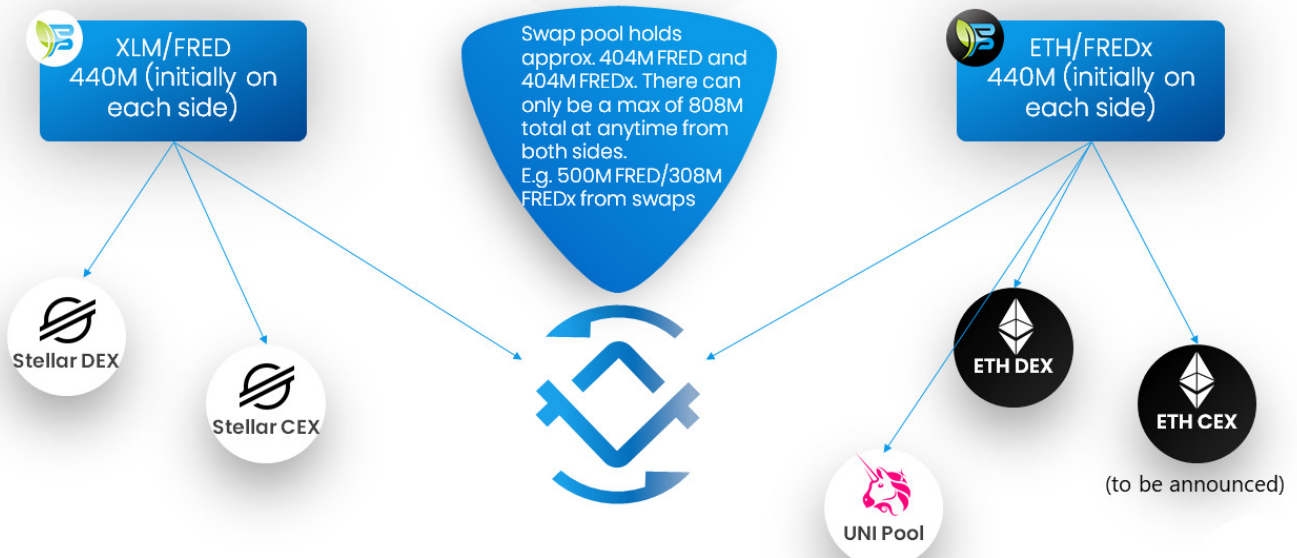
#### FREDx Ethereum Blockchain

808M FREDx ETH tokens created. 404M moved to swapper pool. Tokens allocated to respective project wallets as per XLM side

[fredenergy.org](http://fredenergy.org)



### Plan Overview



[fredenergy.org](http://fredenergy.org)

## THE SWAP POOL APP

The number of tokens created on each blockchain is 808 Million, 404 Million tokens from each asset have been moved to a swap pool. This means that the total supply on each blockchain currently stands at 404 Million and there can only be 808M in circulation from both blockchains at any one time.

The swap pool of 404M FRED and 404M FREDx will be used to manage total in circulation ratios where swaps from one side may be halted until deposits from the other side have taken place. This enables a push pull effect to and from each blockchain.

The swap app is due to be available Q2-Q3 2021 and will enable holders of FRED (Stellar) to swap their tokens for FREDx (Ethereum) quick and easily providing access to both blockchains.



### Swap App Overview

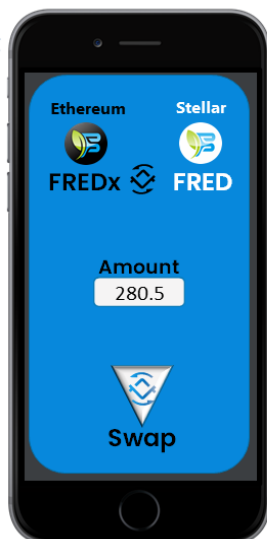
User swaps FRED/FREDx  
**3 FRED = 1 FREDx**

This is purely hypothetical;  
the price of each token could  
be equal or very different  
depending on current values

#### Swap pool

When a user swaps, the asset  
being swapped goes into the  
swapper pool with the receiving  
asset being distributed from the  
swapper pool

[fredenergy.org](https://fredenergy.org)



User swaps FREDx/FRED  
**1 FREDx = 3 FRED**

Max supply both chains

# 808M

The swapper pool manages  
swap ratios with price  
differences taken into  
consideration. Swaps from one  
side may be halted until  
deposits from the other side  
have taken place

#### Push

Tokens and users are pushed towards  
the opposite blockchain

#### Pull

Tokens and users are pulled towards  
the opposite blockchain

## TOKEN

## ALLOCATION



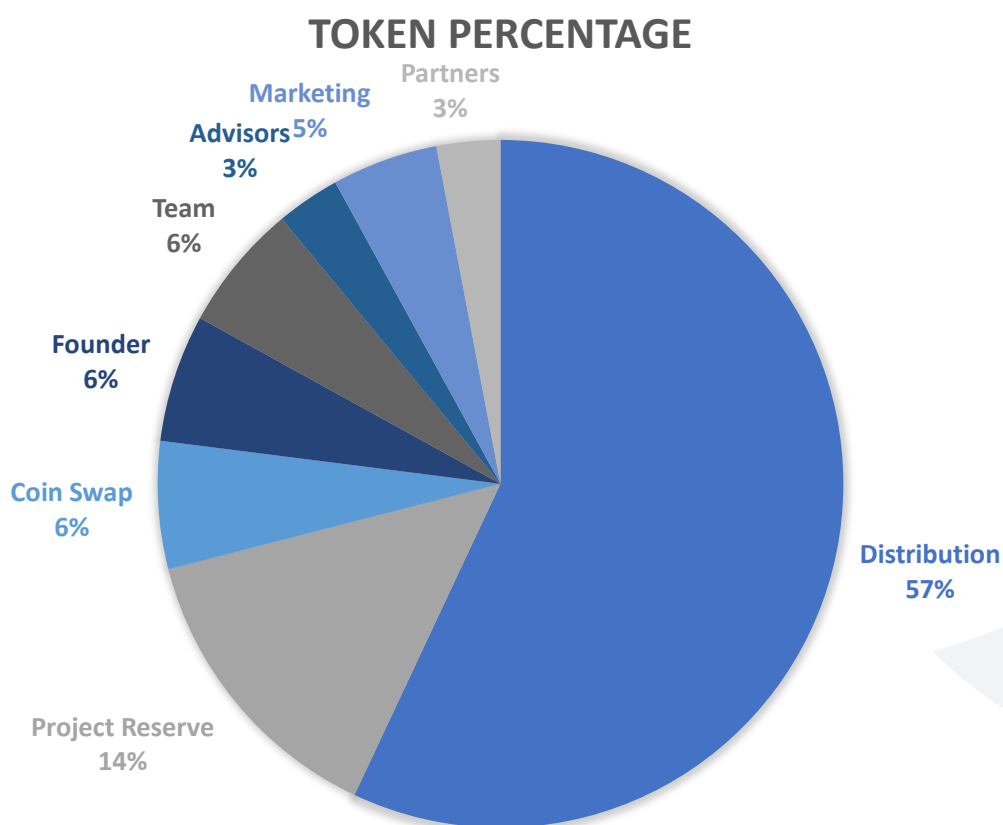
Tokens from both blockchains have been reallocated to their respective wallets as per the table below.

Approximately 170M FRED tokens (Stellar) are in circulation and distributed to more than 1100 wallet holders.

Distribution of FREDx tokens will begin in February 2021 with an initial exchange launch followed by Uniswap and other ETH based liquidity pools.

XLM Wallets	Current XLM/FRED	XLM/FRED Moved to Swap pool	ETH Wallets	FREDx	ETH/FREDx Moved to Swap pool
Distribution (sales)	124,941,113	260,853,746	Distribution (sales)	240,000,000	200,651,853
Reserve (swap reserves, treasury)	56,560,000	56,560,000	Reserve (swap reserves, treasury)	56,560,000	113,120,000
Founder (locked Q1 2022)	24,240,000	24,240,000	Founder (locked Q1 2022)	24,240,000	24,240,000
Team	20,558,500	21,317,500	Team	20,558,500	21,317,500
Partners		24,240,000	Partners		24,240,000
Advisors	8,870,000	10,370,000	Advisors	8,870,000	10,370,000
Marketing		6,418,754	Marketing		10,060,647
Totals	235,169,613	404,000,000	Totals	350,228,500	404,000,000
Total supply	808,000,000		Total supply	808,000,000	
Currently in Circulation	168,830,387		Used for Airdrop, Marketing	53,771,500	
Available after reduction	235,169,613		Available after reduction	350,228,500	
In Circulation + Available	404,000,000		Airdrop/Swap Res + Available	404,000,000	

# THE TOKENOMICS



The above token allocations are taken from the FRED (Stellar) tokenomics and are similarly reflected in FREDx.

Partners and Marketing allocations have both been reallocated to the swap pool as per the table on page 13

Funding raised will be allocated as follows;

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

## THE

## ROADMAP

## 2018

- Q3 2018 Project initiated
- Q3 2018 Blockchain launched

## 2019 -2020

- Switch to custom asset on Stellar blockchain Q3 2019
- Swapped FRED coins to Tokens Q3 2019
- Marketplace goes live Q1 2020
- Exchange listing Q3 2020
- First JV product development complete Q3/4 2020
- FRED listed on exchanges & CMC and Coingecko

## 2021

- Q1 2021 Launch of FREDx (ERC-20)
- Q1 2021 List FREDx on exchanges, CMC, Coingecko
- Q2 2021 Begin testing of JV products
- Q2 2021 Exchange listings & Marketing
- Q3 2021 Swap app release  
JV product ready for crowd-fund campaign
- Q4 2021 JV products manufactured, tracked using blockchain  
Innovator platform to go live

2021

Expected progress  
and milestones

- Increase investor base
- Gain liquidity on both blockchains

- Marketplace sales increase
- FRED Energy branded products

FRED &amp; FREDx distributed ●

Funding generated for projects ●

Project accelerate ●

Scope new JV partnerships ●



## PROJECTS

# MARKETPLACE

LIVE Q1 2020

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 screenshot displays the FRED ENERGY Marketplace interface. The top navigation bar includes links for HOME, MARKETPLACE, NEWS, FAQs, ABOUT US, VENDOR REGISTRATION, and FACT. It also features a LOGIN / REGISTER button, a heart icon, a language selector set to English, and a currency indicator showing \$0.00.

The main content area is a grid of product listings, each with an image, title, and price range:

- FREDx Embroidered Polo Shirt:** \$18.00 - \$20.00
- Haylou Solar LS05 Smart Watch Sport:** \$43.87 - \$45.17
- HIMO C20 20 80KM Range Power:** \$898.32
- HIMO Z20 20 Inch Folding Power Assist:** \$1,159.12
- Kingsons Casual Solar USB Backpack:** \$105.04
- KUGOO KIRIN S1 Folding Electric Adult:** \$327.13
- LE LED Camping Lantern, Battery:** \$30.99 - \$56.99
- Milky Cover 3W AC 220V:** \$3.79 - \$6.88

The Marketplace will provide a greater use of FRED, FREDx as a utility token and promote the use of cryptocurrencies. An all inclusive platform, it enables the unbanked to access products normally out of reach. The marketplace is our Minimum Viable Product (MVP) and is available at <https://shop.fredenergy.org/shop/>



## MARKETPLACE DETAIL

The marketplace currently features our partner products and eventually our own branded products. It includes 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.

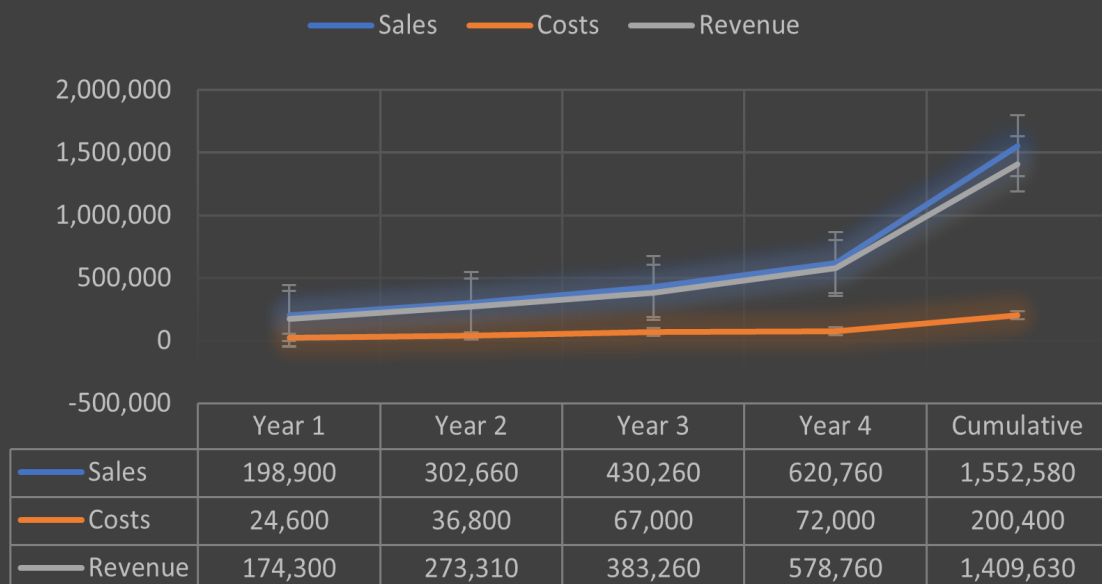
Alongside traditional payment options we have implemented the option of payment for products using cryptocurrencies. FRED Energy tokens FRED, FREDx will be added to the list of payment methods in the near future.

A loyalty rewards system provides purchasers with \$1 worth of FRED tokens per \$10 spent on products. Further revenue streams include a multi-vendor setup on the marketplace where FRED Energy takes a commission on vendor sales. Vendors first need to gain approval which is product based, once approved they are then able to manage all aspects of their products. The marketplace will also be a launchpad for innovator products from around the world.

### 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
- Our own branded products
- Real consumer product ratings
- Consumers can earn loyalty rewards in FRED tokens

### Marketplace projected costs and revenue



## PROJECTS

# PRODUCT DEVELOPMENT

### FRED (Funding Research into Energy Devices)

We will continue to look for new energy saving and generation innovations 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.

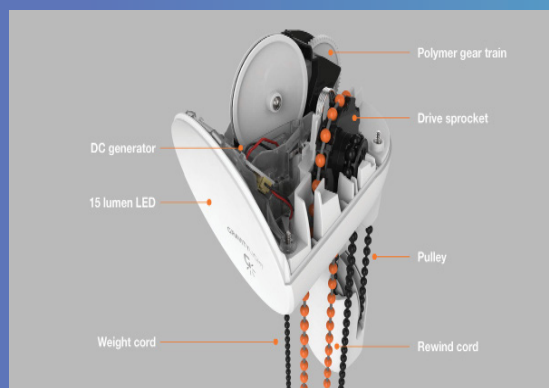


### Our pledge to help those off the grid

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 and 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. Supporting our project helps us to implement our green energy projects and will provide life changing benefits to some of those living off-grid.



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

## PROJECTS

# DSA-1 OUR FIRST 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, camping, outdoor markets and can be solar charged. 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 battery life-cycle ( 5-10 years) which will have less impact on the environment.

Products developed and manufactured by FRED Energy will be unique in that their lifecycle will be tracked using Blockchain, this enables reuse and lessens the environmental impact of our products.

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



### 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

## PROJECTS

# ACCELERATE

Project Accelerate builds on current available technology.

Across Asia, Tuk-Tuks and motorcycles 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 transportation, but there are still barriers to adoption; the cost of a new vehicle, lack of awareness to the benefits and a shortage of charging stations.

India has approximately 1.5 million Tuk-Tuks (rickshaws) and over the last few years has begun to adopt all electric versions in efforts to reduce pollution, creating a new billion dollar market.

Our objective is to purchase a number of novel EV's 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. Fare and ride payments in our tokens will be promoted to further increase token utility and liquidity.

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

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.

### 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
- 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
- Provides a greater utility with fare and ride payments in our tokens
- Sets the stage for Project Energise in Asia and the EU



Solar Tuk-Tuk Source: c-fee.com



Source: bzzt



## PROJECTS

# ENERGISE

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 FRED Energy and use an app based PAYG scheme with the aim to facilitate payments in local currency, and FRED Energy Tokens (FRED, FREDx).

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 \$144.97 billion by 2028 (GVR, 2021) and FRED Energy is looking to be part of this new ecosystem.



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.

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.

## BUSINESS SUMMARY

The world's energy demands are increasing rapidly and the move towards greener alternative energy generation and usage is accelerating. Major corporations including 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.

### Projects overview

The marketplace is our minimum viable product (MVP) and went live as scheduled in Q1 2020 with the first product purchase taking place with cryptocurrency. The marketplace is a platform for alternative energy product retailers and innovators to showcase and sell their products. Commission from sales are between 10–35% 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 tokens.

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 \$144.97 billion by 2028 with the EV home charger market 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 \$27.8 billion by 2027 with a CAGR of 18.4% from 2020 to 2027.

## REFERENCES

- [1] BloombergNEF. (2019). Retrieved from <https://about.bnef.com/electric-vehicle-outlook/>
- [2] GVR. (2021). Electric Vehicle Charging Infrastructure Market Worth \$144.97 Billion By 2028. Retrieved from <https://www.grandviewresearch.com/press-release/global-electric-vehicle-ev-charging-infrastructure-market>
- [3] [iea.org](https://www.iea.org/weo2017/). (2017). World Energy Outlook 2017. Retrieved from International Energy Agency: <https://www.iea.org/weo2017/>
- [4] [iea.org](https://www.iea.org/topics/energyefficiency/benefits/). (2018). Benefits of Energy Efficiency. Retrieved from [iea.org](https://www.iea.org/topics/energyefficiency/benefits/): <https://www.iea.org/topics/energyefficiency/benefits/>
- [5] IRENA. (2019). A New World - The Geopolitics of the Energy Transformation. Retrieved from <http://geopoliticsofrenewables.org/report>
- [6] PwC. (2018). Powering ahead! Making sense of business models in electric vehicle charging. Retrieved from <https://www.pwc.co.uk/power-utilities/assets/powering-ahead-ev-charging-infrastructure.pdf>
- [7] Thaiembdc. (n.d.). Thailand 4.0. Retrieved from [thaiembdc.org](https://thaiembdc.org/thailand-4-0-2/): <https://thaiembdc.org/thailand-4-0-2/>
- [8] Electric Vehicle (EV) Chargers Market Overview: <https://www.alliedmarketresearch.com/electric-vehicle-charger-EVC-market>
- [9] These tiny electric tuk-tuks are taking on Uber in Stockholm: <https://www.weforum.org/agenda/2017/06/these-tiny-electric-tuk-tuks-are-taking-on-uber-in-stockholm>
- [10] Fully-electric tuk-tuks are changing the way people get around: <https://www.cnbc.com/2018/08/10/fully-electric-tuk-tuks-are-changing-the-way-people-get-around.html>
- [11] THE FUTURE OF ELECTRIC VEHICLES IN VIETNAM: <http://www.dandreapartners.com/the-future-of-electric-vehicles-in-vietnam/>
- [12] Electric Vehicle Market by Vehicle (Passenger Cars & Commercial Vehicles), Vehicle Class (Mid-priced & Luxury), Propulsion (BEV, PHEV & FCEV), EV Sales (OEMs/Models) Charging Station (Normal & Super) & Region - Global Forecast to 2030: <https://www.marketsandmarkets.com/Market-Reports/electric-vehicle-market-209371461.html>
- [13] Electric Vehicle Sales Up 70% In Europe: <https://cleantechnica.com/2019/06/03/electric-vehicle-sales-up-70-in-europe-april-ev-sales-report/>
- [14] <http://globalcoinreport.com/stellar-xlm-casting-a-shadow-over-ethereums-smart-contract-operations/>
- [15] <https://www.stellar.net/our-company/stellar-foundation.aspx>
- [16] <http://www.gosreports.com/global-camping-equipment-market/>

# 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 holder 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/IDO campaigns including those related to the use of cryptocurrencies and utility tokens, 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 FRED Energy Tokens, the associated features and future targets. The FRED Project will use its tokens 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 and FRED Energy Ltd 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 is a custom asset on the Stellar (XLM) network and is not classed as a share or intended as a security or investment asset. FREDx is an ERC-20 token on the Ethereum (ETH) network and is not classed as a share or intended as a security or investment asset. FRED Energy Tokens are utility tokens of The FRED Project and its associated projects. FRED Energy Tokens (FRED and FREDx) 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



## DISCLAIMER CONTINUED

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 tokens and their use as discussed in this whitepaper have 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 FRED Energy token sales 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 any purchases of FRED Energy Tokens, and that The FRED Project or FRED Energy Ltd does not directly or indirectly bear any of said tax liability. You will agree not to use our tokens for any illegal operation, including but not limited to financing of terrorism or money laundering.

Full terms and conditions regarding our Tokens can be found at

<https://token.fredenergy.org/terms-and-conditions/>

# PROJECT LINKS

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

Marketplace: <https://shop.fredenergy.org>

Token information Website: <https://token.fredenergy.org>

Discord: <https://discord.gg/uHAjg9w>

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

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

Twitter: [https://twitter.com/energy\\_fred](https://twitter.com/energy_fred)

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

Pitch Deck available: <https://www.swipe.to/219Inm>

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