

****White Paper - HEGO, Henergy & GO****
February 6, 2024

***Note:** This whitepaper is in beta and subject to changes based on future developments, governance requests, and community feedback. The white paper also covers 2 tokens: HEGO and HEGO-local.*

****Introduction:****

The HEGO, Henergy & GO project aims to utilize existing electrical energy infrastructure, distributing it through a network of charging stations for electric vehicles and electronic devices developed by the community. Currently, the global situation regarding charging stations is concerning, with inadequate numbers compared to the increasing adoption of electric vehicles.

****Global Evolution of Electric Vehicle Charging Infrastructure:****

1. ****Global Overview in 2022:**** The number of electric vehicle charging points worldwide reached 2.7 million, with over 900,000 new installations in the year, marking a significant increase compared to the previous year. China is at the forefront of this development, hosting approximately 760,000 fast chargers, representing almost 90% of global growth in this sector.
2. ****Growth in Europe:**** Europe has seen a significant increase in the number of slow chargers, surpassing 460,000 charging points in 2022. The Netherlands, France, and Germany are leading the region in terms of charging infrastructure. The EU is actively working to further expand the public charging network.
3. ****Developments in the United States:**** In the United States, fast chargers reached 28,000 points by the end of 2022. Significant expansion of charging infrastructure is expected, driven by the National Electric Vehicle Infrastructure Formula Program.
4. ****Future Outlook:**** The fast charger segment is expected to grow at the highest rate in the near future, thanks to government initiatives aimed at promoting the installation of rapid charging infrastructure. Level 2 charging stations, capable of adding 12 to 80 miles of range per hour, dominated the market in 2023.
5. ****Impact on HEGO:**** This global trend toward increased charging infrastructure reinforces HEGO's position and mission. With the expansion of the charging network, HEGO is committed to contributing to this growth by offering innovative and accessible solutions that align with the evolving needs of consumers and the electric vehicle market.

****Compatibility of Electric Vehicle Chargers and Ports:****

With the global expansion of electric vehicles, a variety of standards for chargers and ports have emerged, varying by region and vehicle type.

1. ****Mode 2 Chargers:**** These charging cables connect to standard household outlets, offering a convenient, albeit slower, solution for home charging. However, charging via household outlets may require longer times and precautions to avoid overloading the household circuit.
2. ****Mode 3 Chargers:**** These cables are the most common method for EV charging worldwide. They connect to dedicated charging stations and are compatible with Type 1 or Type 2 plugs.
3. ****Mode 4 Chargers:**** Designed for fast DC charging and can significantly reduce charging times. However, these cables must be permanently connected to charging stations.
4. ****Regional Standards:****
 - ****North America and Japan:**** The J1772 plug is the standard for Level 1 and 2 charging. Most EVs sold in America use this type of port.
 - ****Europe:**** The Mennekes (Type 2) plug is the standard, as per EU legislation, capable of handling up to 22 kW of power.
5. ****DC Fast Charging:****

- **CCS (Combined Charging System):** The standard in North America (CCS1) and Europe (CCS2) for fast DC charging, combining Type 1/2 plugs with high-speed charging pins.

- **CHAdeMO:** Developed in Japan, it allows fast charging up to 200 kW and is mainly used in Asia.

6. **Tesla Plug:** Uses a proprietary connection for all charging levels, compatible with all voltages.

Abstract/Executive Summary:

In short, HEGO allows anyone, especially private individuals, to share their electrical energy to recharge electric vehicles and other devices. Users seek and locate charging stations using the tools provided by HEGO, recharge their vehicles and/or devices, and pay for the service with HEGO-local tokens*. Charging stations are provided by HEGO Merchants, either using their own charging equipment or using open-source designs shared by the HEGO community, with payment facilitated through the HEGO software and wallet.

Problem and Need:

The widespread adoption of electric vehicles requires adequate charging infrastructure. Currently, the lack of sufficient charging stations is a global issue.

Proposed Solution:

With HEGO, we aim to bridge this gap by offering a shared solution based on the sharing of electrical energy among users. HEGO, through blockchain technology, aims to improve the electricity distribution system, allowing users to freely share their electrical energy. The open-source approach will help promote energy sharing, reducing dependence on unsustainable sources and enabling users to generate energy using renewable and free sources such as solar, wind, or hydropower.

Energy Distribution:

- Merchants, whether individuals or businesses, will provide charging stations for electric vehicles and various devices.
- Charging stations can be designed, built, and installed by local individuals or businesses associated with HEGO, following the instructions published on hego.info.
- Charging stations will be approved by the community and published on hego.info with assembly and usage manuals.
- Charging equipment must be built and maintained in compliance with local laws by Merchants.
- Compatible charging equipment with the HEGO system can be used and, when available, will be listed in a section published on hego.info.

Benefits and Advantages:

- Energy sharing and the open-source approach will offer benefits to the entire community.
- The initiative represents a step towards a sustainable and decentralized economy.

Wallet and Token-Local for Charging Purchase:

- These tokens will be used by users to pay for charging services.
- The term "locals" refers to the local currency and is replaced by EUR in the Eurozone, USD in the United States, RUB in Russia, etc., to avoid currency management and exchange issues for Merchants and users.
- Payments will be made through smart contracts, automatically transferring funds to the Merchant.
- Cryptocurrency payments can be converted into the local currency upon the token owner's request through a dedicated exchange.
- The token will be designed as follows:

- Type: BEP-20
- 1:1 value with the local currency
- Infinite supply, dependent on token demand.
- The smart contract will handle token issuance or burning.
- 100% collateral in stablecoin when available or other stablecoins, or when available and evaluated for security, State Cryptocurrencies.
- HEGO-local will have fee-free transactions between wallets.

****Operation:****

- The Merchant will set their own distribution price, calculating their electricity expenses, taxes, profit fees, just like a regular business. This price will be passed to the HEGO system.
- HEGO will generate the final price for the end user by calculating the Merchant's price + fees + taxes.
- The percentages for obtaining the final price will be listed on <http://hego.info> in the distributor information.

****HEGO Token – Non-Stablecoin:****

- This token will be used for all purposes except charging payments.
- HEGO Token:
 - Type: BEP-20
- Total supply: 230,000,000

tokens, of which:

- 50,000,000 for the Multidisciplinary Team: engineers, universities, programmers, influencers, etc., contributing to the development, improvement, and promotion of HEGO technology
- 30,000,000 for Insiders. Owners and investors
- 100,000,000 for Presale/Users/Exchangers/Tecnical Organization

****Why a Presale:****

A presale is a fundraising method primarily used by startups or projects in the cryptocurrency and blockchain sectors. During presale, an entity issues tokens or digital coins to the public for cryptocurrencies ETH, BTC, BNB, ETC. The sale of these tokens will create funds to improve both the technical and security aspects of the infrastructure and tokens, but above all, it will create liquidity to bring the token to exchanges.

1. Democratic Access to Funding: Presales are accessible to a wide range of investors, including those outside traditional venture capital circles.
2. Liquidity, providing liquidity for exchanges.
3. High Profit Potential: Tokens purchased in an early stage can significantly increase in value, offering the potential for substantial gains.
4. Speed and Efficiency: Presales allow projects to raise funds quickly without the need for banking or legal intermediaries.

****Investment Disclaimer:****

Before participating in the HEGO presale, we want to emphasize some important considerations. Investing in tokens or digital coins carries significant risks, and investors should be aware of these risks. Purchasing HEGO tokens is a speculative investment and does not guarantee a financial return. Investors should conduct a thorough assessment of their financial situation and consult a financial advisor before making an investment decision.

Risks associated with investing in HEGO tokens may include, but are not limited to:

1. Market Volatility: The value of HEGO tokens can fluctuate significantly over time, and investors may incur significant losses due to such fluctuations.
2. Risk of Total Loss: There is no guarantee that the value of HEGO tokens will increase. Investors may lose their entire investment.
3. Regulation: Cryptocurrency and presale regulations can vary widely from country to country and over time. Investors should be aware of and comply with applicable laws and regulations in their own country.
4. Security Risk: Investors should take adequate measures to protect their HEGO tokens from unauthorized access or security breaches.
5. Fraud Risk: The cryptocurrency industry has been affected by scams and fraudulent schemes. Investors should exercise caution when considering presale offers and high-profit promises.

****Checking Local Regulations:****

Investors are responsible for verifying whether participating in a presale is legal and permitted in their country of residence. Cryptocurrency and presale regulations can vary significantly depending on the jurisdiction. Investors should be aware of local laws and consult with a qualified legal advisor if necessary. HEGO disclaims any responsibility for legal consequences that investors may face for participating in the presale in violation of local laws.

In conclusion, participation in the HEGO presale should be carefully considered, taking into account associated risks and compliance with local regulations. Investors should act responsibly and make an informed choice before proceeding with the purchase of HEGO tokens.

****Website <https://hego.info>:****

- The website will host services, help, and support related to the HEGO project.
- Users and Merchants will be able to interact for sharing and using charging stations.
- For recruiting and governance activities.
- News, various resources, forums, discussions, etc.
- Exchange.

****Objectives:****

- Entering HEGO in a country must follow local laws and rules.
 - Establishing a local directory.
 - Studying and understanding local regulations regarding safety, energy distribution, cryptocurrency use, etc.
 - Website development, language, and HEGO-local token.
 - Local hardware certification.
 - Commencement of activities.
 - Studying the management of a possible Foundation.
 - Creation of Foundations for managing local and regional finances and regulations.

****Financial Reserves:****

To ensure that the HEGO account does not run out of funds, there will be a variable fee, ranging from 0% (zero) to a maximum of 1% (one percent) for HEGO-local payments, depending on needs.

****Financial Transparency:****

Addresses of contracts and wallets used for receiving and making HEGO payments, Merchant, collaborators, engineers, programmers, etc., will be published on <https://hego.info/en/transparency>.

****Professional External Audits:****

It will be essential to subject the smart contract to professional audits to ensure functionality and freedom from bugs for user safety.

****Conclusions:****

HEGO is a community-managed energy-sharing solution, introducing an open and decentralized system. Energy sharing, the open-source approach, and governance will offer significant advantages to global energy distribution.

****Why BEP-20**

Tokens:**

BEP-20 tokens, operating on the Binance Smart Chain (BSC), offer several advantages that make them attractive to users and developers:

- Interoperability with other applications and assets based on BSC.
- Fast transaction speeds and lower costs compared to the Ethereum network.
- Compatibility with the existing Ethereum infrastructure.
- Support from the growing BSC ecosystem with various DApps and DeFi protocols.
- Unique features like staking and governance voting.

****In conclusion,**** BEP-20 tokens emerge as a prominent token standard on the Binance Smart Chain, providing a robust framework for creating and managing digital assets. Their compatibility with existing Ethereum infrastructure and the growing BSC ecosystem make them an attractive choice for developers and users.

****References:****

- Sources: International Energy Agency (IEA), Expert Market Research, Grand View Research, EVBox Blog, Electrly.com, Unocoin Blog, Coinsdo Blog.

****Contacts and Further Information:****

- Website: <https://hego.info>
- Email: [whitepaper@hego.info](<mailto:whitepaper@hego.info>)
- Telegram: [https://t.me/hego_energy](https://t.me/hego_energy)

****Review and Feedback:****

Every contribution and feedback is welcome to improve the idea, software, and use of HEGO.