# Digital Energy House (DEH)

For sustainable energy production



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# OVERVIEW - 1/2

Green energy is that energy which is collected by renewable resourcres like solar light, wind, rain, tides, waves and geothermal energy. According to REN21 in 2016, renewable resources have contributed for 19.2% to the global consume of energy and to 23.7% for electicity production in 2014 and 2015. This energy consumption is divided in:

- 8.9% biofuel;
- 4.2% thermal energy;
- 3.9% hydropower;
- 2.2% wind, solar, geothermal.

The solar photovoltaics is the largest renewable use. Some of these energies are considered "inexhaustible" which recover at least at the same speed with which they are consumed or they are not exhaustible during geological eras.

The rapid deployment of renewable energies translates into significant energy security, climate change mitigation and economic benefits.

National renewable energy markets are expected to continue to grow strongly over the next decade and beyond.

# OVERVIEW - 2/2

Renewable energies, together with nuclear energy, are therefore alternative forms of energy to traditional fossil sources (which are, instead, considered non-renewable energies) and many of them have the peculiarity of being "clean energies", that is, of not entering the atmosphere polluting and / or climate-altering substances (such as CO<sub>2</sub>, for example).

Renewable energy systems are rapidly becoming more efficient and cheaper. Their share of total energy consumption is increasing. The growth of coal and oil consumption could end by 2020 due to an increase in the use of renewable sources and natural gas.

Solar energy has many advantages because it is inexhaustible; it is a resource of immediate availability; it is clean, because it reaches us through the rays of the sun. The amount of solar energy that reaches the earth's surface is enormous, about ten thousand times greater than all the energy used by humanity as a whole. Solar energy can be used to generate electricity (photovoltaic) or to generate heat (solar thermal).

Solar panels - which use nanotechnology and build circuits from single silicon molecules, could cost half as much as traditional photovoltaic cells, according to executives and investors involved in product development.

#### **COMPETITORS AND COOPERATORS - 1/2**

The DEH collects several of the topics dealt with individually or in groups from different projects in a single solution that aims to meet the following needs:

- Implementation of a blockchain solution that can be integrated into a token ecosystem with a specific token for energy production;
- Facilitation of transactions between energy producers even at low or in the absence of liquidity thanks to the use of the token;
- Improving the competitiveness of companies thanks to the cost's amortization;
- Creation of an international showcase for DEH members thanks to an existing ecosystem currently operating in more than 20 countries, both European and non-European (see section on dissemination of results for the complete list);
- Creation of a network of companies in a cooperative and competitive perspective in order to be more effective on the market not only locally, but above all national and international;
- Amortization of costs for every structure wich needs for energy production (Residential Buildings, Educational, Institutional, Business Buildings, house, etc)
- Reduction / optimization of heating costs;
- Supply of electricity from renewable sources.

#### COMPETITORS AND COOPERATORS - 2/2

Below we list the different projects which now seem closer to our project, to grasp the characteristics, so that clearly emerge the value of the project that we present through the final summary of this section in which we list the CSF.

BlockchainDome project

Carboncoin (\$CARBON)

ForestCoin

Tree Coins

Greencoin

EverGreenCoin

Blockchain + Hydropower

WePower

Restart Energy

DAO Lescoin

EcoToken (ET)

#### SMART HOMES, RENEWABLE ENERGY PRICES AND FORECAST

A Smart Home, is a convenient home setup where appliances and devices can be automatically controlled remotely from anywhere with an internet connection using a mobile or other networked device.

Devices in a smart home are interconnected through the internet, allowing the user to control functions such as security access to the home, temperature, lighting, and a home theatre remotely. A smart home's devices are connected with each other and can be accessed through one central point. Door locks, televisions, thermostats, home monitors, cameras, lights, and even appliances such as the refrigerator can be controlled through one home automation system. The system is installed on a mobile or other networked device, and the user can create time schedules for certain changes to take effect.

Digital Energy House (DEH) is also a great investment opportunity combining the new Blockchain Technology with the Smart Home field and lot of technologies.

The introduction of renewable resources in the project, could be a win to win condition in this kind of investment.

#### THE CONCEPTUAL SOLUTION

Introducing Digital Energy Home, we realize a platform with the aim to build an energy reserve and valorization dedicated to blockchain Community and not only since anyone will have the opportunity to participate, like as single person, industry, company. Everybody, regardless of their financial possibilities, should have a place in the world and enjoy its benefits.

DEH uses the blockchain technology to ensure improvements in energy production, with a particulat attention on the use of renewable energies. We imagine a world where people can participate on energy purchases with no need for lawyers or authorities to be registered but at the same keeping a universally recognized right on the purchase. We put at your attention a new scenario where huge energy projects can be owned by everybody and not just restricted groups.

We propose a scenario where ordinary people, indeed, everyone can have in its own portfolio a digital token directly connected to renewable energy assets with a small initial investment and in proportion with the capabilities of each person. In this way, DEH allows everyone to take a profit from the token appreciation together with asset income.

The use of renewable energy combined with token generation, properly managed by a mining modulation system, obtains the maximum use of the renewable energy available.

# SUMMARY – 1/2

#### Distinctive elements:

- the first fully transparent energy production in blockchain with a particular attention on the use of renewable energies.
- in our team in the context of energy industry, there are specific skills and abilities of working and at the same time the legal, economic, managerial, finance, and IT skills which are required for a good development of the project.

#### Here we list some details in brief:

- 1. Token: Digital Energy House (DEH)
- 2. Company name: Digital Energy House
- 3. Initial reserve: 50 billion DEHs, with specific allocation as described below
- 4. Minimal size from 100 Eur (if purchase is made by bank transfer) or 50 Eur (if purchase is made by other cryptos)
- 5. Ethereum based smart contract which stores all transactions
- 6. Buy and sell on most exchanges
- 7. Pay for renting or buying properties in Atmosphere Arc ecosystem solutions associated with DEHs
- 8. Get a share of profits automatically as new DEHs comes
- 9. Plus, profit on token appreciation!
- 10. Token issuance backed by real and certified credits.

# SUMMARY - 2/2

The tokens will be generated thanks to the activities carried out by the project and the energy activities in relation to the production. Initially a small portion of tokens will be distributed to the companies of the trial group in exchange for direct production to be distributed to potential investors who will purchase discounted tokens.

You will be able to trace the life cycle of the energy thanks to the Blockchain transactions.

This will allow the Digital Energy House project to take further advantage in visibility and enhancement of produced energy in a generalized offering that concerns different fields and not just sustainable energy such as: personal care, food, care of environment, etc.

The token can be exchanged between producers, local production realities and in exchange for products and services in a perspective similar to a letter of credit or an innovative barter reviving the local economy;

Subsequently, Digital Energy House will be able to promote for the international network by acquiring resources for local associates by promoting the local production network in exchange for their energy.

Products purchased from Digital Energy House will be advertised increasing competitiveness in an international context.



#### **ECONOMICAL FOCAL POINT**

- The activities based on blockchain, the issuance of coin or digital token, guaranteed by a collateral, the model to finance the start up are growing exponentially and to date they have not yet realized the real potential and reached full maturity. In fact, in a short time, the blockchain will have all the commodities and utilities for their development.
- This project aims at a specific utility: providing energy in buildings and its effectiveness. The focal point is the bound between token production, green energy and the building heating method. The token and its production could be used to amortise heating and energy costs.

#### MINING OF DEH – 1/2

- In the case of DEH we are talking about an hybrid mining: both physical and classical computational mining with ASICs, the consumption profile is in fact built to chase the photovoltaic source without compromising the utility of consumption itself. Innovation is precisely in the nature of the work, which more time works and produces more useful: mining.
- The produced profit is further amplified by the withdrawal of the heat they generate. The latter is "virtuously" used for the production of energy. The mining machines will be miner at state of art (for example at the moment Antminer S17 Pro) which can resolve the SHA256 algorithm.
- So, DEH will implement the same algorithm in order to be mined by those machines. Therefore, the DEH is linked to a real productive activity as well which is associated with a benefit (the token) in relation to specific and planned actions aimed at achieving a specific task, which from the relative point of view is within the process of the energy production, and from a general point of view has a specific impact in relation to actions to improve the resource to storage energy as for example in computing or transportation contexts like as in all the sectors where the lithium play a fundamental role.

## MINING OF DEH – 2/2

The different operational macro-tasks and therefore the different ways to generate DEH-type tokens are presented here in the following:

- MT1. Reporting of the production packages;
- MT2. Package analysis;
- MT3. Evaluation by Due Diligence of the value of the packages;
- MT3.1 Evaluation of efficiency of mine in terms of energy production;
- MT<sub>3.2</sub> Evaluation of risks;
- MT3.3 Evaluation of production activities;
- MT4. Inclusion of the area in the Digital Energy House Platform;
- MT5. Promotion and implementation of actions and interventions aimed at the production;
- MT6. Promotion and implementation of economic and legal initiatives and interventions aimed at the exploitation;
- MT7. Promotion and implementation of interventions aimed at processing and utilization of derived from production;
- MT8. Organization of promotional, cultural, social and marketing initiatives related to DEH;
- MT9. Quarterly reports (monthly notes).

# DEH TOKENS DISTRIBUTION RULES AND TRANSPARENCY – 1/5

Here we describe the fundamental rules of DEH Tokens distribution.

- 1. DEHs can be emitted only if there is a proof of stack, with the exception of pre-sale since they serve to cover the startup and they will be covered by the first round of activities linked to the project technological and conceptual infrastructure;
- 2. DEHs can be transferred by their owners to whoever they want.
- 3. DEH is not implementing any fee for blockchain transfers, but senders/buyers will have to pay the standard ETH transaction fee as they would do for any other token transfer based on the ETH blockchain. This fee is not related to and controlled by DEHs;
- 4. DEHs stored on the board of directors' accounts are locked: i. Each account contains a different number of tokens, as detailed at the moment of subscription; ii. Each account is unlocked after one year from the publication of the smart contract on the blockchain; this rule is enforced by the smart contract; iii. Each account can release alpha tokens according to the following mathematical rule:
  - alpha = Token\_Sold\_To\_Public/ (0,75) B \* Director\_Assigned\_Tokens, with B=50.000.000 iv. Board of directors' accounts are communicated immediately at the moment of subscription

# DEH TOKENS DISTRIBUTION RULES AND TRANSPARENCY - 2/5

- 5. DEH price is fixed at the pre-sale time 1 Eur = 1 DEH
- 6. DEH price will change on future emissions;
- 7. Minimum purchase by FIAT currencies is set at 100 Eur;
- 8. Conversion rate, applied to calculate the amount of DEHs issued, is the one existing at the time DEH receives the paid amount.
- 9. Minimum purchase by ETH, BTC is set 50 Eur: i. Sending ETH or BTC to the company account will cause the system to check the cross ETH/EUR or BTC/EUR price and release an equivalent amount of DEH; ii. ETH/EUR price is checked every 1 minute, before the exchange phase while later you can follow the market tick; iii. If the amount of ETH sent to the company account is less than the amount needed to buy 1 DEHs, the transaction is declined and the amount, deducted of the ETH fees, returned to the user; iv. As usual the only fee users will incur to buy and transfer DEH is that implemented by ETH itself, which is not related to and collected by Digital Energy House.
- 10. Pre-sale terminates when DEHs on the company account are sold out or after six months from the starting date the pre-sale or as indicated on the web portal of the project;

# DEH TOKENS DISTRIBUTION RULES AND TRANSPARENCY – 3/5

- 11. Project share quota are divided and shares proportionally with DEHs owners in the form of DEHs. DEHs are shared automatically to DEHs owners on the exact date and time of DEHs distribution which will be announced from time to time on the website; i. Project share quota are calculated taking into account the income generated by DEH Project; ii. Project share quota might be distributed or not distributed, according to DEH appreciation.
- 12. DEHs which are not acquired into pre-sale phase will be destroyed.
- 13. DEHs held by users can be controlled only by their respective owners. Nobody at DEH project can lock, destroy, transfer, recover password, secret keys, or interfere in any way with users' DEHs;
- 14. During the normal activity after pre-sale phase, DEHs which are not sold will not be destroyed, while they can be used in any time by the DEH project; DEH will produce a proportional reduction of next emission or the reacquisition of DEHs;
- 15. DEH are not company shares: consequently, do not guarantee to users vote for decisions

# DEH TOKENS DISTRIBUTION RULES AND TRANSPARENCY - 4/5

In the different emissions the DEHs are divided according to the following algorithm:

Q1. Founders: 9%

Q2. Investors/Donators: 75%

Q3. External Advisors: 9%

Q4. Company Assets: 2%

Q5. Company Officers: 5%

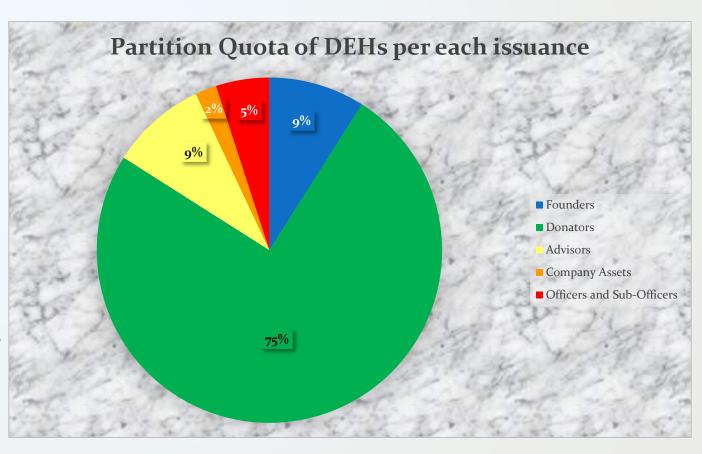
Q4 is a portion that has the role of performing a compensation function in the event of anomalous market fluctuations or to provide liquidity to the project at particular times of utility.

Q5 is divided into three parts with the following percentages between Governance, Management and Operations:

- Governance: 40% of Officers Share;
- Management: 30% of Officers Share;
- Operations: 20% of Officers Share;

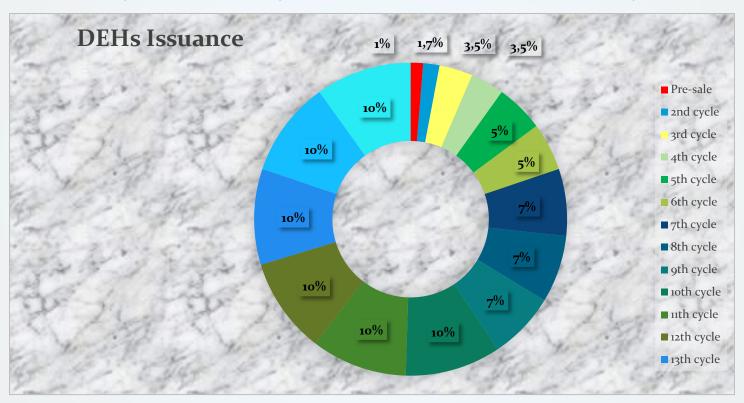
-Support Staff: 10% of Quota Officers,

where for Support we mean all the non-managerial staff who performs support, accompaniment and collaboration to the planned and cataloged activities. If this quota is not allocated, it will be divided among the Officers according to the above quota.



# DEH TOKENS DISTRIBUTION RULES AND TRANSPARENCY - 5/5

The total available tokens will be 50.000.000.000 (50 B) for a value of activities of at least 50 B Eur at date.



A fraction of at least 1% (i.e. 500 M DEH) will be released at the pre-sale phases. The remaining will be stored in the company and released in subsequent periodic issuances. The present plan considers to allocate the remaining 99% in the following 12 years, with a pseudo-linear saturation growth as reported above.

# THE TEAM

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