RESEARCH REPORT

EFFORCE

FINANCE AND INVESTMENT CELL
SHRI RAM COLLEGE OF COMMERCE

EFFORCE®

energy efficiency, reinvented

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CRYPTOCURRENCY

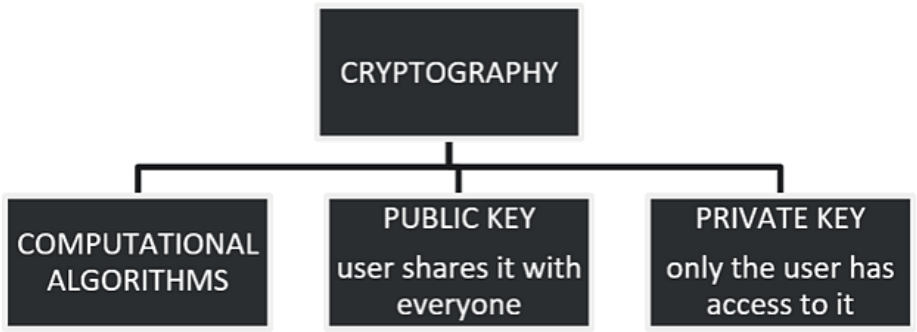
Modern currency, which includes paper currency, credit cards, and e-wallets being managed by the central bank, was devised as an alternative to the barter system. Yet even today, the mainstream financial system faces systematic hurdles like transfer limit, hacking, and security issues. These have led to the emergence of **CRYPTOCURRENCY**.

A cryptocurrency is a form of virtual currency spread across a large number of computers. It is denominated in terms of virtual tokens represented by ledger entries internal to the system. They use decentralized technology to make secure payments that run on a public ledger called a **blockchain**. It uses a P2P (peer to peer) network.

The word crypto refers to the encryption algorithms and cryptographic techniques like hashing functions that protect these entries. Cryptography is a method that uses encryption and decryption for secure communication.

These three make it impossible to counterfeit or double-spend since they transfer funds directly between two parties. Cryptocurrency has a decentralized structure that works without the interference of government. Fund transfers take place with minimal fees unlike those charged by banks. Moreover, there is no limit on purchase and withdrawal, international transactions take place at a greater speed, and the user has 24/7 access to the money.

On the contrary, cryptocurrency faces criticism for illegal activities and vulnerable infrastructure. The semi-anonymous nature of cryptocurrency makes it a hub of activities like money laundering and tax evasion.



Money laundering is the creation of a large amount of illegal money from criminal activity. Tax evasion includes either illegal non-payment or underpayment of the total tax liability. However, cryptocurrency advocates are confident of the protection of cryptocurrency for whistleblowers or activists. The market value of cryptocurrency can vary widely since it depends on demand and supply.

There were around 5392 cryptocurrencies with a market capitalization of $201 billion as of April 2020. Bitcoin, Ethereum, XRP are a few examples of it. The most valuable and popular blockchain-based cryptocurrency is BITCOIN. In the absence of a central authority or bank, how does BITCOIN work? Suppose a person X has 100 top coins. Topcon is the protocol used to support cryptocurrency.

At a glance....

X has to make a payment of 10 coins at the restaurant for the meal he had. The public key of the restaurant owner has to be included. Now X has to digitally sign the transaction using his private key and transmit the record to the peers. Then, everyone will receive the information that someone (X's virtual identity) is sending money to someone(restaurant owner). X's job is done but the owner won't receive money unless the network agrees that X has 100 bitcoins.

BLOCKCHAIN

a "digital database"

Blockchain technology plays a fundamental role in the transparent and accurate functioning of a cryptocurrency. Blockchain is a chain of blocks that helps in the storage of data ranging from financial transactions to logistics and what not. It can be described as a "digital database". Each block is used to store some information and such blocks are linked together to each other. This technology was created in 1991. However, its use has been made popular through its application in Bitcoin since 2009.

Each block consists of four main components- data, nonce, a hash of the block, and a hash of the previous block. The nonce is used for "number used once" and plays an integral role in the assignment of hash to the block according to the algorithm.

Hash is a mathematically generated string of numbers and letters using which the data can be tracked. As mentioned earlier, the blocks are interconnected to each other. But how is this done? This is made possible through the usage of hash. Let us assume a genesis block with the hash 0000000000...(64 digits). The second block will contain hash of this genesis block and will also contain its own hash, for instance, 0000ab5e7f. Now when the third block is created, it will contain this hash and its own hash. This is a fundamental process in the creation of a new block. Even a minute change in the data stored on the block will change the hash of that block and the people working on blockchain will become aware that data has tampered with and that block will not be validated by them. Thus, the interlinking of blockchain makes it practically impossible to tamper with the information stored in a block. It is

theoretically possible to do so, but such actions will require tampering with the hashes of innumerable blocks and getting the consent of at least 51% of peers working on the chain. This will require huge financial and technical resources. Due to the near impossibility of tampering with information, users can rely on these anonymous miners to record and validate their information.

Another important aspect of the blockchain is its wide applicability as a decentralized system. Though centralized blockchains also exist, most of the cryptocurrencies make use of the decentralized system which acts as a peer-to-peer network without the requirement of a third party. Under a decentralized system, the miners can act as nodes through their computers/rigs and contribute to the blockchain by validating blocks and adding transactions to it. Nowadays, there are specialized rigs available in the market, which are able to generate millions of hashes per second and accelerate the mining process.

The mining of cryptocurrencies is a technical and time-consuming process. Difficulty levels are also adjusted by the algorithm according to the number of blocks in circulation. E.g., the Difficulty level of mining a bitcoin block is 20 trillion. As a result, miners are offered incentives for mining a block. For instance, the incentive for mining a bitcoin presently is 6.25BTC per block and it takes around 10 minutes for the world to mine a block. Moreover, Efforts has also set aside 20% of the total tokens as an incentive for mining.

Blockchain technology is used in cryptocurrencies, food chains, transport, automobiles, notary, taxation, voting, and smart contracts. Companies like IBM, Walmart, and Intel are investing in blockchain technology to tap its potential. Efforce is using blockchain for the creation of smart contracts.

Hash	00000000000000000000a61d82f44a793767b31e7bba16aa24741aa63005aacf8
Confirmations	1
Timestamp	2021-02-04 23:09
Height	669081
Miner	Unknown
Number of Transactions	2,677
Difficulty	20,823,531,150,111.52
Merkle root	1cdf24be110dce7b2377582e5a66b40386e96fbbf66995fa723763b4d930ed8c
Version	0x20400000
Bits	386,761,815
Weight	3,993,351 WU
Size	1,301,640 bytes
Nonce	3,087,019,454
Transaction Volume	11857.67832357 BTC
Block Reward	6.25000000 BTC
Fee Reward	1.48598671 BTC

DATA OF AN ACTUAL BITCOIN BLOCK SOURCE: WWW.BLOCKCHAIN.COM

EFFORCE

Efforce is the first-ever blockchain-based energy-saving platform that allows everyone to participate and benefit from energy efficiency platforms worldwide. The promoters of Efforce, among whom Steve Wozniak is the most prominent name - have helped more than 2000 clients to save around $700 million in energy costs through another energy efficiency venture called AitherCO2. It is interesting to know that Efforce's valuation increased to $950M i.e. 10 folds within the first 13 minutes of its listing. Efforce had received a valuation of $80M in the initial private sales. Currently, the circulating supply is around 3.5 crore tokens (WOZX). The total supply will be restricted to 1 billion tokens (WOZX). The token allocation has been done as Private Placement (45%), Efforce Ltd(20%), Mining Incentive(20%) and Ecosystem & Consultants(15%). These tokens will be released according to the lock-up policy. As of 7th February 2021, one WOZX equals $1.17 approximately though it had achieved an all-time high value of $3.62. It can be traded on Github, Gate.io, and HBTC.

Efforce's objective is to serve as an intermediary platform between those who want to undertake energy efficiency projects and those who want to invest in them. This platform tackles three main problems of the energy efficiency market:

Difficulty in putting contributor and savers together

Amount of investment required

Type of financial return

Energy efficiency is the ability of the given system to achieve a given result by using less energy. As a matter of fact, 68% of the energy used in the world is not covered by an efficient energy system. The energy efficiency market is valued at around $241 billion.

In the system, Efforce will validate the request of an individual to invest in energy improvement and develop the energy efficiency improvement project. The team then evaluates necessary investment, the annual rate of return and thus concludes an Energy Performance Contract (EPC).

Problems

The traditional energy efficiency system has the following problems-

- Requirement of minimum 200,000 euros investment in any complex energy efficiency system.
- Uncertainty about the return of investment
- Requirement of technical knowledge to understand the functioning of energy systems.
- Less scope of a meeting place between those who want to invest in energy efficiency and those who need to implement the investment.

At a glance...

For instance, a manufacturing company X is planning for energy redevelopment of an industrial shed, which would require replacing the lighting, insulate the walls and improve the heating and cooling systems. Now, it might be possible that the company would have to share its renovation decisions with its customers which could force them to carry out corporate image improvement projects. Moreover, the company might not have the technical knowledge to implement it or they might not have access to banking channels to carry out the renovations. Here comes the vision of EFFORCE in the picture. Efforce provides the platform to overcome these problems. The first aim of Efforce is to build a platform that brings together supply and demand. Efforce makes investment in energy efficiency accessible.

Many countries have been able to avoid expenses and risks related to energy imports. Improving energy efficiency not only leads to environmental benefits but also increased security.

Efforce has divided the growth strategy into three phases -First Steps(Initial), Teen Age, and Growth Age.

Initially, the focus of Efforce was on engineering and extensively build the foundation of the first blockchain-based energy-saving platform. Now it is planning to launch live projects in Q1 of 2021.

In the Teen Age, there will be an increase in the number of companies interested in efficiency projects.

In the Growth Age, it aims to become a global and leading platform for energy efficiency projects. By 2026, Efforce is looking forward to gaining a global presence as the leading platform to bring together supply and demand in the energy efficiency market.

CORE TEAM

JACOPO VISETTI
(Co-Founder/Project Lead)

JACOPO VISETTI graduated in Finance from the Cattolica University of Milan and in Macroeconomics from Harvard University. He has years of experience as a quantitative analyst. He is the founder of one of the leading companies in the energy efficiency market- AitherCO2.

JACOPO VANETTI
(Co-Founder/CTO & Tech Expert)

JACOPO VANETTI founded a software house I.e., an online payment development company in 2008 and 2011. He was awarded the National Innovation Award by the President of Italy, Sergio Mattarella in 2016.

STEVE WOZNIAK
(Co-Founder/Engineer)

STEVE WOZNIAK is an American inventor, programmer, and computer scientist. He co-founded apple computers in the year 1976 and is a long-time Silicon Valley icon.

KEN HARDESTY (Co-Founder)

KEN HARDESTY has had a dynamic professional career in both private and public companies. He provides guidance for strategic partnering opportunities, as well as contract manufacturing and licensing partners in Asia, India, and worldwide. As the CEO, he has directly established sales and a global audience, establishing global manufacturing operations from start-up, to over seven thousand employees.

STEFANO SCOZZESE (Head of Communication/ Co-Founder)

STEFANO SCOZZESE was Creative Director for Andrea Bocelli since 2004. In 2020 has successfully completed the Harvard Business School Certificate Program "Sustainable Business Strategy", designed to enable business leaders to play a major role in building a just and sustainable world. He received best creative director of the year in 2012.

SERGIO CARLONI (CEO)

SERGIO CARLONI has years of experience as a senior executive manager for various companies. He teaches Corporate Management at the Master's course of the Il Sole 24 Ore Business School, with a focus on credit management. He was Chief Executive Officer of AitherCO2.

ANDREA CASTIGLIONE
(Investor Relations/ Co-Founder)

ANDREA CASTIGLIONE has spent his past decade researching network diffusion models and decision theory. From a young age, he started to support investors worldwide in hedging their portfolios.

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CARRADO CATANIA
(Director)

CORRADO CATANIA has a Master's degree in Financial Mathematics from the Bocconi University. He has years of experience in structuring and trading financial products at BANCA IMI. He handles deal origination operations on energy commodities, especially in the air transport sector for AitherCO2.

WORKING OF EFFORCE

The working model of EFFORCE is similar to that of Energy Service Companies (ESCOs), which work through Energy Performance Contracts. The ESCO model was established by a company named Time Energy in Texas in the late 1970s during the energy crisis. Time Energy had developed a device for the automation of equipment. However, the potential users were skeptical regarding the efficiency of the device. As a solution to this problem, Time Energy started installing devices free of cost and demanded a proportion of the savings generated.

Thus, the basic model of an Energy Performance Contract is that the ESCO installs the equipment without charging any initial cost but when the project is completed, it starts charging a predetermined proportion of the energy savings generated due to the project. The contract can range from 5 to 25 years. The customer is benefited as they are able to reduce the energy costs without any expenditure and can use the same amount of capital for other purposes. The ESCO starts benefiting after completion and is able to earn returns during the payback period.

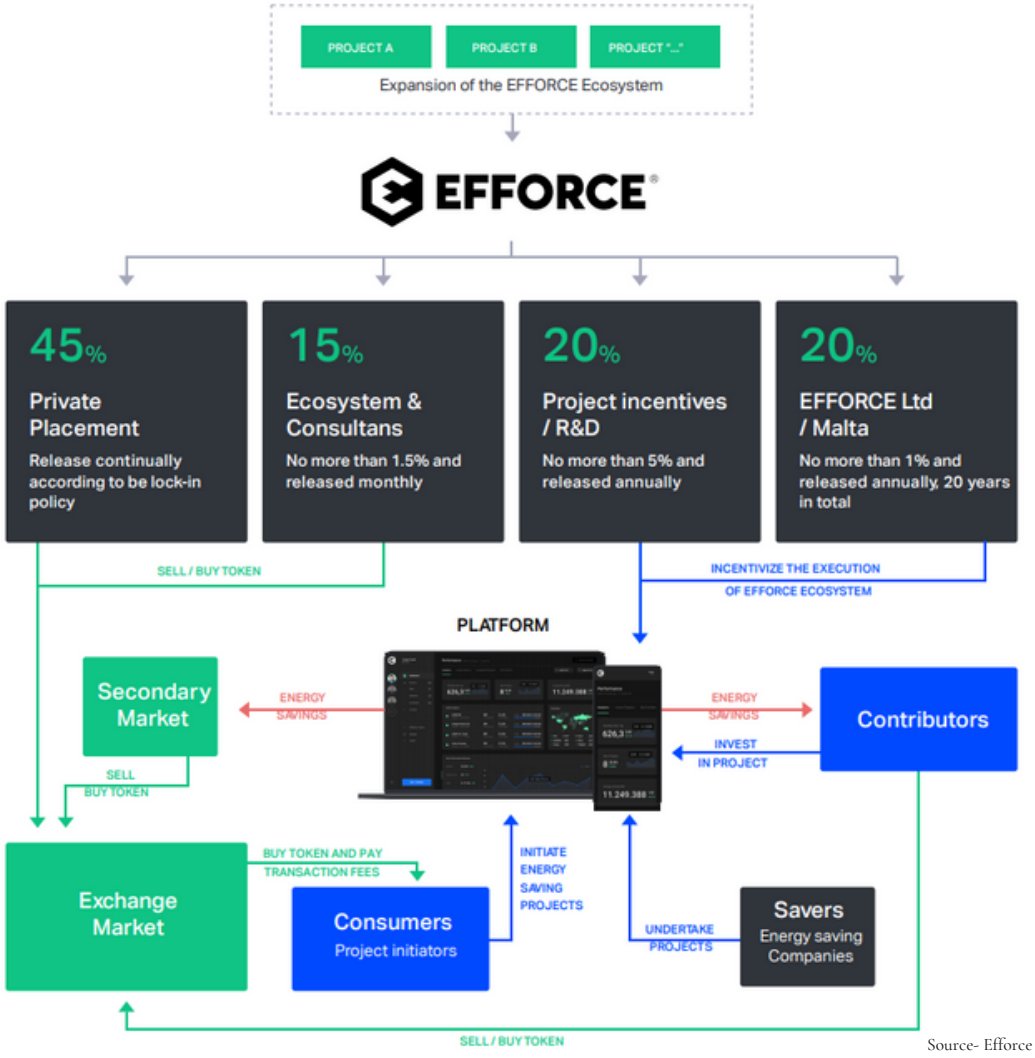
EFFORCE ‘s working model is trying to integrate such contracts with blockchains and cryptocurrency.

Due to the use of blockchains, the energy savings generated will be automatically written in blocks and cannot be manipulated. Due to the use of cryptocurrency, millennials can also fund such high-investment energy efficiency projects collectively and reap returns in the form of energy savings or tokens.

DETAILED MODEL

The detailed model is as follows: (Source: EFFORCE WHITE PAPER)

- Consumers initiate the fundraising for a particular energy efficiency project
- Contributors would participate with a stable coin into a specific energy efficiency project; their holding of EFFORCE tokens will be used as the criterion to decide the allocation of the contribution proportion of the project (e.g., on a pro-rata basis)
- Savers implement the energy efficiency projects with the raised capital
- The energy-saving achieved from the projects will be mainly distributed to the Contributors and the Savers
- The interest stakes in the energy savings of the projects could be traded on the EFFORCE platform
- At least 1% of the total energy savings achieved from all the projects will be distributed to all EFFORCE Token holders
- Dual Token model (stable coin and EFFORCE token): The stable coin is used as a project operating capital and the EFFORCEToken would function as a Utility token to represent the platform rights and incentives



Source- Efforce

STAKEHOLDERS/PLAYERS INVOLVED

Efforce (WOZX)

Efforce

EFFORCE Ltd. will act as a facilitator between savers and contributors. The EFFORCE team will scrutinize the energy efficiency project proposed by the saver and decide whether to enlist it or not on its platform. If it finds the project suitable, it will undertake the project. The blockchain mechanism will be used by EFFORCE to transfer the energy savings to savers as well as contributors.

Apart from EFFORCE, the three players involved are: Contributor, Saver and Consumer.

Contributor

Contributors are the people who are interested in financing energy efficiency projects by entering into a smart contract through the EFFORCE platform. They represent the supply side of the funds. Through the EFFORCE platform, the contributors will have access to view the enlisted energy efficiency projects and fund them. The incentive for such funding would be the returns in the form of tokenized future energy savings. The contributors can use these energy savings to offset their own electricity charges or sell the tokens to the consumers in the market.

Saver

Savers are the people who own buildings or industrial houses and are interested to undertake energy efficiency projects with the intent of reducing their energy costs. They represent the demand side for the funds. In order to get their energy efficiency projects crowdfunded, the savers will have to list the proposed project on EFFORCE. The costs, percentage of savings shared with Contributors through the Energy Performance Smart

Contract, duration of the Energy Performance Smart Contract, amount of savings generated, duration of the auction period, intrinsic return of the operation are the details that need to be provided by Savers in order to get their project listed on EFFORCE. The EFFORCE team will scrutinize the project and will list it only if it finds the project suitable.

The savers will be benefitted through reduced energy charges at zero costs and will have to share a percentage of the savings with contributors thus creating incentives for savers as well as contributors.

Consumer

According to EFFORCE, Consumers are those who want to buy the energy savings generated by third parties(Savers) to offset and ultimately eliminate their electricity bills. They represent the demand side for the tokens or energy savings from the savers or contributors. Consumers will be benefited when they purchase the savings or tokens at a rate lower than the market. They will facilitate utility of energy savings as well as the market price of EFFORCE tokens (WOZX).

In addition to the above three main players, all the EFFORCE token holders will be incentivized through the distribution of at least 1% of all energy savings generated

POSITIVES

Capital Formation

To overcome the problems of seed funding and looking for alternative investors, the company can use EFFORCE for the necessary crowdfunding to proceed with the energy redevelopment projects, in exchange for sharing the savings generated. All those wishing to invest in energy efficiency projects through a secure and decentralized blockchain-based system will also have access to EFFORCE. This is an easier way of raising funds since people investing in this sector have a common motive - protecting the environment.

Data Privacy

The role of the blockchain is fundamental since it guarantees the integrity and uniqueness of the energy-saving data obtained. The data that each smart meter will transmit will be validated and certified by the blockchain, so as to be able to unequivocally guarantee the savings obtained at a certain point in time and, therefore, the number of KWh saved which will be loaded on the user profile of the contributor. The data will be protected.

Facilitate Trading

The energy savings of each contributor will be tokenized and can be used both to offset energy consumption and to be traded. The companies which require less tokens may sell them to those requiring more tokens, so it's a win-win situation for both parties.

Growing Market

The market for energy efficiency projects has reached a staggering $250 billion. Not only is private industry contributing to the booming market, but governments including the EU and China are investing heavily in energy efficiency funding. However, in order to achieve the International Energy Agency's Efficient World Scenario, the sector still must double the size of investments to $580 billion by 2025.

Democratize the Markets

Today, investor groups called energy services companies (ESCOs) must have access to large amounts of capital (typically $200,000 minimum) to undertake energy efficiency improvements. They often are unable to turn to traditional banking channels as banks lack the technical expertise to properly assess the return on investment. In contrast, the Efforce platform democratizes the market.

"We have created a business model that allows anyone to participate in the greater good of making the world cleaner and healthier, all by leveraging efficiency for economic growth," said Visetti. "Energy efficiency is a way to create a sustainable future, and this is a way to help counter climate change, reduce carbon -- and make money while you do it."

Environmental

Increased efficiency can lower greenhouse gas (GHG) emissions and other pollutants, as well as decrease water use. Energy efficiency improvements reduce the amount of energy use required to provide a service. Energy savings are at the heart of the multiple benefits of energy efficiency.

Economic

Improving energy efficiency can lower individual utility bills, create jobs, and help stabilize electricity prices and volatility. Also, since cryptocurrencies don't need an actual brick-and-mortar building to exist, the costs associated with their transactions are minimal. There is no need for employee wages, utility bills or rent to be paid, so these savings naturally morph into low transaction fees. This in turn encourages more and more people to trust these new financial tools and start transactions, allowing for the global economy to be more closely intertwined.

Utility System Benefits

Energy efficiency can provide long-term benefits by lowering overall electricity demand, thus reducing the need to invest in new electricity generation and transmission infrastructure.

Risk Management

Energy efficiency also helps diversify utility resource portfolios and can be a hedge against uncertainty associated with fluctuating fuel prices. Moreover, investors will have a wider variety of options to choose while investing. Since it is an attractive sector, it will only make taking decisions difficult for investors.

NEGATIVES

Small Market for Energy Efficiency

A drawback of energy efficiency investments is the small market for energy efficiency products and services. Typically in a free market, customers choose vendors that offer desired services at reasonable prices. In such a scenario, there is little or no government involvement. This ensures that customers will get the best price and can buy only the goods and services they want. It is based on the assumption that entrepreneurs will invent and market products if it is financially beneficial. However, the free market approach only works if the market for efficiency is structured in such a way that customers can actually express their desire for energy efficiency through purchases. This type of market structure does not exist in many parts of the world.

Little or No Govt. Regulations

A drawback of energy efficiency investments is the small market for energy efficiency products and services. Typically in a free market, customers choose vendors that offer desired services at reasonable prices. In such a scenario, there is little or no government involvement. This ensures that customers will get the best price and can buy only the goods and services they want. It is based on the assumption that entrepreneurs will invent and market products if it is financially beneficial. However, the free market approach only works if the market for efficiency is structured in such a way that customers can actually express their desire for energy efficiency through purchases. This type of market structure does not exist in many parts of the world.

Chances of Speculation/Volatility

Many of the cryptocurrencies that use decentralized blockchains are extremely volatile. For example, it is not uncommon for Bitcoin prices to fluctuate 20% or more in a single day. Part of the reason why there is such extreme volatility for cryptocurrencies is that they are extremely new. This means that governments, investors, businesses, and other groups of people are trying to decide whether or not they want to adopt them which can cause a lot of volatility. One day, the market cap for cryptocurrencies may find equilibrium, and that could decrease volatility significantly. However, that may not be until the market cap reaches trillions of dollars. Right now it is only a few hundred billion dollars for all cryptocurrencies. At any rate, volatility right now is something that is still considered a disadvantage of decentralized blockchain-based cryptocurrencies.

Limited No. of Tokens

There is an insubstantial number of tokens of Efforce. The number of tokens is estimated to be 1 trillion. Though this may sound like a huge number but taking into consideration the number of participants in energy efficiency markets, this is meager. This may lead to some companies cornering the market and taking undue advantage of it. The supply aspect is limited and the market participants know well that they can influence the market as per their wish. This may violate the properties of a free market. New tokens can never be created.

Risk

Risks are another drawback of EE. EE investment involves borrowing capital; therefore the lenders and other investors must evaluate all risks which could affect their expected returns: project risks, credit risks, and sovereign credit risks, as well as commercial and political risks. Consumers are risk-averse and most of them are not likely to pay an upfront cost for an efficiency measure, even if they are aware that there are life cycle savings and that the initial outlay is affordable.

Loss of Jobs

Additionally, electricity distribution companies and energy providers whose earnings decrease when electricity sales decrease may be reluctant to participate in energy-efficient programs and services that significantly lower their sales. This may force electricity companies to lay off workers leading to a rise in unemployment levels.

Few Companies Interested

There are still only a few small- and medium-sized companies in transition economies interested in energy-efficient technologies due to their high initial costs. For large firms, many efficiency investments are too small to be attractive because of high transaction costs.

Not Suitable for Short-Term Gains

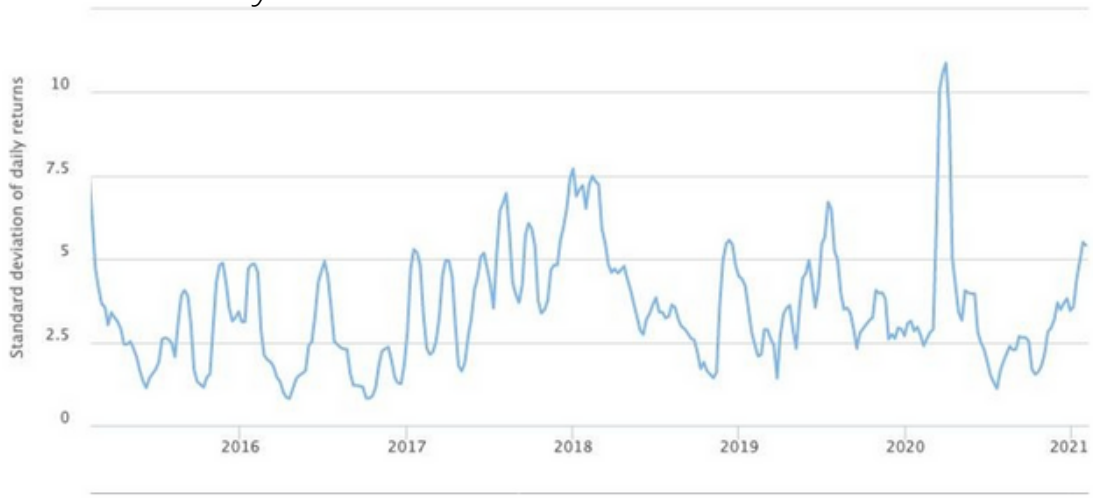
In countries, where the economic situation is not yet stabilized, investors seek short-term paybacks. When a company invests in energy efficiency, it reduces present earnings. This company will benefit in the future, but financial markets prefer and favor companies with high present earnings. Companies and governments tend to prefer short-term options even though energy-efficient policies would save them money in the long run.

Unavailable in the US

For now, one can only buy the WOZX token on Singapore-based crypto exchange HBTC (formerly called BHEX, launched in 2018 by the former CTO of Huobi). To buy WOZX on HBTC, one must buy the stable coin Tether (USDT-USD), then use Tether to buy WOZX. (Or one could send Tether from a U.S. exchange to your HBTC wallet.)WOZX will also get listed soon on Bithumb, a Korea-based crypto exchange. (Unlike stocks, cryptocurrencies list on multiple exchanges, which is why different exchanges list a different all-time-high price for bitcoin, for example.) But you can't buy and trade WOZX through a U.S. exchange site.

Price Volatility

Bitcoin Volatility Time-Series Chart



Time period: February 6, 2015 to February 6, 2021

Bitcoin has experienced an extreme price plunge in these six years. In December 2017, Bitcoin's price soared incredibly higher at roughly 17,900 USD then to nearly 20,000 USD. Unfortunately, the price rapidly declined below 14,000 USD soon after.

Volatile assets like Bitcoin and other sovereign currencies are often described as being riskier assets, especially as compared to those that are less volatile because the price or value of highly volatile assets can be difficult to foresee and at times, prices

may be moving in pretty significant variations. Bitcoin traders or investors who are a fan of short-term trading, the volatility of Bitcoin is not their best friend. Since short-term trading involves speedy intervals—quick minute-to-minute or even second-to-second shifts—making accurate predictions of price movements can be challenging.

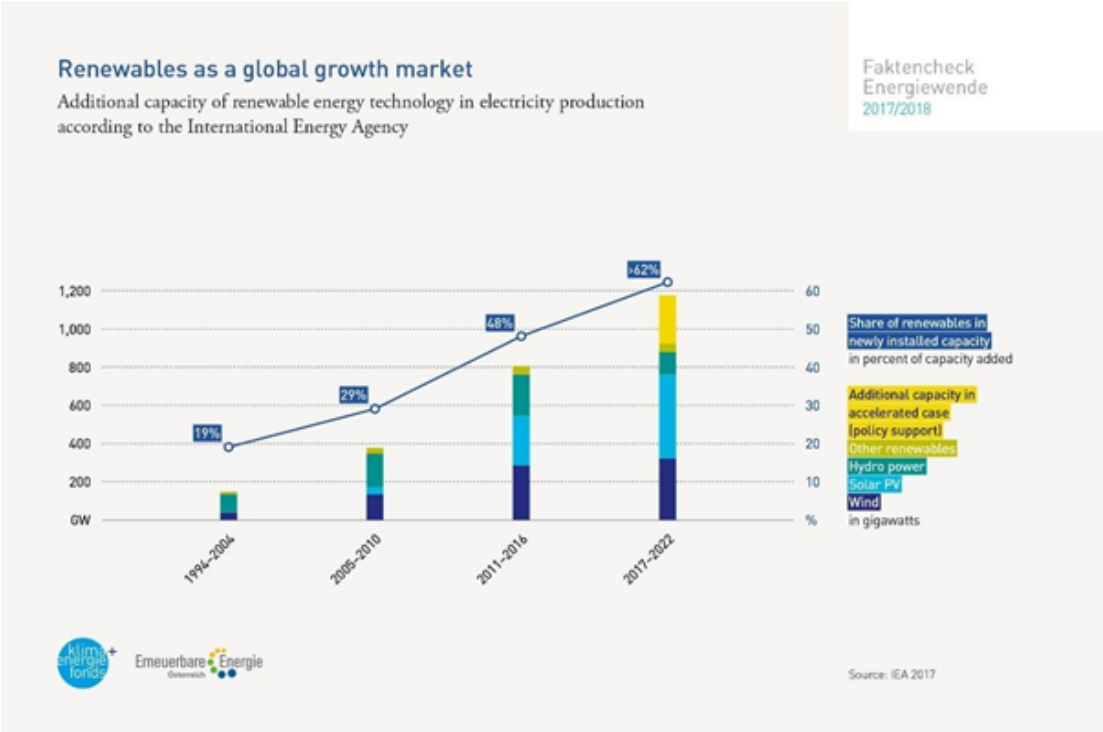
Another thing is that if this volatility causes Bitcoin's price to decline dramatically, chances are, crypto traders, holders, and investors will feel FOMO or the Fear of Missing Out. Crypto enthusiasts might have a hard time deciding whether or not to let go of their hard-earned coins or buy and hold more.

If the price upsurges, Bitcoin holders and traders can get intensely excited and rilled about it—most notably those who are holding vast amounts of BTC at that very moment. Meanwhile, those who don't have a fair amount of coins in their hands might find the situation to be a regretful one.

On the flip side, if the price drops significantly, holders with large amounts of BTC may also have regrets of not selling their coins right away.

From the above analysis it can be concluded that speculative activities associated with cryptocurrencies lead to price volatility and this unpredictable nature of the cryptocurrencies make them a risky venture and thus investors lose faith in them.

Growth of Energy-Efficient Market



The graph very evidently shows an increase in the extensive use of renewable energy technology which is suggestive of the fact that the energy efficiency dream is not just a dream anymore but it is somewhat turning into a reality. The use of renewable energy has reached gargantuan heights in the course of a few years. It has increased from a meager 19% in the 1990s to a majestic proportion of more than 62% in the late 2010s. Moreover, the rise has been consistent over the years and does not show any dent. Climate changes pose a real threat and in order to curb this problem, all economies are widely considering shifting to renewable sources of energy.

Palpably, the share of Solar PV forms the chunk of the share in renewables and its demand has constantly been on the rise. The next most used form is wind energy closely followed by hydropower and other renewables. One promising thing depicted by the graph is policy support extended by the government, which in itself exhibits a proactive involvement in renewable energy. It can well be said that EFFORCE is binding together companies involved in energy-saving projects. It aims to maximize the benefits of all these companies and stats are pretty much in favor of EFFORCE. So, let's see what the future has in store for this innovative company

ROADMAP

Initial Phase:

The first aim of EFFORCE is to build a platform that brings together supply and demand, streamlining the investment method and making it more secure. Due to the proceeds stemming from the Presale phase, EFFORCE can be the first platform for bringing together energy efficiency supply and demand. In the initial phase, the emphasis will be on engineering and building the foundations of the first decentralized energy efficiency platform. The initial phase will end as soon as it will be possible to invest and disinvest in energy efficiency projects.

Teen Age:

The subsequent aim of EFFORCE is to Increase the number of companies interested in receiving energy efficiency investments through EPC. In this second phase of geographical and sector expansion, marketing will be increasingly important, to execute energy efficiency projects on transport, residential, and tourism buildings and complex industrial processes. This would make sure that any production company, or simply any residential complex that wants to improve its energy consumption, draws the capital needed from all over the world in cryptocurrencies or in fiat currencies, selling part of the savings obtained from the efficiency process.

Growth Age:

In this phase, the EFFORCE goal will be to distinguish itself as the leading platform worldwide, in terms of both savings volumes obtained and the number of registered users who are able to support energy efficiency projects through the direct financing of a part of the project itself. Starting from 2026, the company wants to strengthen its global presence as the main platform bringing together supply and demand in the energy efficiency market.

IMPACT ON MACRO AND MICRO LEVEL

Efforce can change the way energy savings are generated and redistributed globally. Any economic organization seeking to incorporate alternatives to its energy systems, whether in manufacturing processes or in trade, would be able to directly negotiate part of its energy savings with customers or contributors. The tokenization of the energy saved would allow liquidity to be guaranteed and access to capital investment to be expanded. Efforce will make it possible to channel financial investments into projects for the redevelopment and performance improvement of an energy system, be it an industrial plant or a building, owned by a third party.

Energy Efficiency is the way to go in the long term and Efforce preaches the same. It may be that a company does not have the technical knowledge to implement green efficiency solutions, or that it does not want to access the banking channel in order not to increase its debt exposure towards banks. Or the company may even want to share its renovation intentions with its customers, involving them in the corporate image improvement project. To overcome these problems, the company can use Efforce to look for the necessary crowdfunding to proceed with the energy redevelopment projects, in exchange for sharing the savings generated.

This is the first-ever blockchain-based energy-saving platform that is accessible to large and small investors, regardless of borders to monetize their transferable energy savings. Energy consumption and CO2 emissions are growing exponentially across the globe, leading to climatic changes. A massive factor that acts as a roadblock towards energy efficiency is changing the habits of the people, however, Efforce can improve energy footprint and reduce energy consumption without changing the habits drastically. Built on the premise that energy can be saved by only making more energy improvements, it allows anyone to participate and benefit financially from worldwide energy efficiency projects

Investors can participate in energy efficiency while companies benefit from such improvements at no cost. Using blockchain redistributes the resulting savings to token holders and the companies without intermediaries based on exact consumption/savings data. Many small and medium-sized companies are struggling as they can't use energy-efficient resources which can save money in the long term, however, Efforce would empower them to grow and prosper. It enables business owners to securely register on the web their energy upgrade project and secure financing from all forms of investors worldwide through crowdfunding. This highly reduces the hassle of traditional listing and the costs attached to it. Hence, for other important ventures, the businesses would then have more cash available to use.

Improving energy efficiency also leads to increased security. In fact, many countries have avoided additional expenses and risks related to energy imports. Germany and the United Kingdom, which correspond to the largest gas markets in Europe, have achieved a reduction in imports of natural gas from Russia equal to 30% of the European total. Short-term energy security has improved. This means that imports have not been reduced on an annual basis, but in the periods of greatest demand.

Efforce acting as crypto has the power to completely transform financial services. The main functions of the financial services industry are: it moves money, it stores money, it lends money, it trades money, it attests to money, it accounts for money, and so on. Every one of these can be challenged by Efforce.

Digital payments are quick but there are third parties like banks and settlement institutions involved which cost individuals both money and time. Furthermore, many times global transfers take days to complete with high remittance costs. Cryptos like Efforce exploit this massive problem, they are faster with zero third parties, they are direct and secure. Moreover, as it relies on end-to-end encryption, there is rarely any chance for fraud. Hence, digital currency such as Efforce can change the entire fate and standing of the banking industry.

HINDRANCES

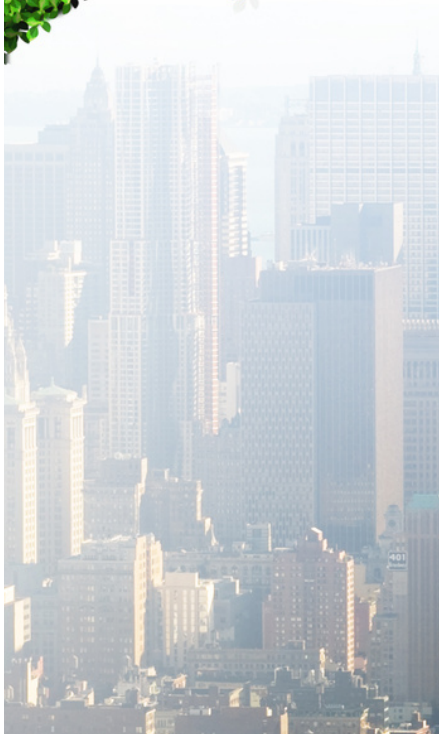
First and foremost, it is somewhat unfortunate that Efforce seems to be a platform that will be off-limits to the average person. The only potential gain for regular folks comes from the price action, the WOZX token whose supply is heavily focussed in the hands of the sorts of investors that are allowed to use Efforce in the first place.

Second, Efforce is not very transparent. Never mind the opaqueness of their whitepaper, (A white paper is a report or guide that informs readers concisely about a complex issue and presents the issuing body's philosophy on the matter. It is meant to help readers understand an issue, solve a problem, or make a decision, white papers are also used as a method of presenting government policies and legislation and gauging public reaction.) Efforce also has no Github and does not appear to have the open-source ethos found in most crypto ventures. Lastly, given the apparent size and significance

of the project, there is a notable absence of useful documentation which one could use to understand it. The paucity of information could simply be because Efforce is very much in its infancy. However, it is more likely a result of the fact that they are marketing to an exclusive type of consumer. On an affirmative note, the project might unlock a new marketplace for the cryptocurrency space, one that is currently out of reach for the average person: energy credits via the WOZX token.

INVESTING IN ENERGY-EFFICIENT MARKET

Efforce is a blockchain-based energy-saving trading platform. The energy efficiency market is a complex financial system. It involves linking the financing partners with those in need of investments to improve the efficiency of the structure. Through energy performance contracts these structured companies can generate a return on investments. The WOZX token issued by efforce is used as savings financed by contributors and sold to energy-intensive consumers who can reduce paying of electric bills.



SCOPE IN ENERGY-EFFICIENT MARKET

OIn the last 10 years, the energy efficiency market has reached a gross value of $241 billion with a growth of 10% per annum, more than 68% of the energy used in the world is not covered by an efficient energy standard, and the system which implies that there are even more scope and huge potential for further growth in this industry despite a good growth rate in last 10 years. Technological innovation is further creating new opportunities for progress in terms of efficiency. Moreover, in the last 20 years, there has been a 12% fall in energy consumption without efficiency. From 2000 to 2016 Japan imported 20% less oil and 23% less gas same period, The United Kingdom and Germany largest gas markets of Europe have achieved a reduction in imports of natural gas and petroleum products which indicates that there is a very large scope in the energy efficiency market in the upcoming time period.

FUTURE IN TOKENIZATION

The innovative tokenization model has been clarified by the European regulators. It is structured as reward-based crowdfunding, where contributors are rewarded with free energy savings that they can keep, sell or use to offset their energy consumption. The efforce platform has been built to change the way of generation of energy savings and they were redistributed globally but still, there were many flaws in limitations in this framework and after years of experience Efforce was duly able to recognize them:

- First was the enormous waste of energy due to the lack of an efficient system. The efficient energy demand in much environmentally sound areas was much more than those parts which are struggling with the framework of efficient energy systems. In the future, Efforce has to ensure a proper balance between these two kinds of the area to ensure uniformity in energy-saving tokenization.
- There are a high number of intermediaries and parties involved in this efficiency process which is the cause of the increase in implementation costs, payback periods, and delay in real-time projects, if such problems will continue to happen in the future as well the digital token WOZX will gradually lose its value and relevance in the market but efforce itself is aware of this huge problem and it is expected that after conducting further research and exploring opportunities for investments from other areas efforce will come up with a more efficient way of increasing this relevance and value of their digital token because its a very unique idea and if given a proper direction it can also be the next big thing in the financial market

A FINAL NOTE

Efforce results in a potentially revolutionary scope: for the first time, a platform connects the supply and demand of energy efficiency investments, opening up this market to everyone and certifying the results with the blockchain.

Millions of people currently barred from this market will finally be able to take part in it and benefit from it on a large scale, like never before. Anyone desiring to attract investment to make energy improvements to their buildings or industrial processes can easily do so by placing a request on this platform. It will also be possible to use EFFORCE to look for the capital needed to finance the efficiency intervention, in exchange for sharing the savings generated. The energy savings will be tokenized and will be used to offset the energy consumed, or exchanged.

There has never been such a development before, whereas thanks to EFFORCE the two main problems that hinder the spread of energy efficiency measures are resolved in one fell swoop: the lack of capital and trust. The platform creates a market that has never existed, in which investors and companies help each other and benefit both.

Ultimately also the environment will benefit, since increasing energy efficiency measures in the world mean reducing consumption without having to change people's habits, inevitably also reducing the environmental impact.

BIBLIOGRAPHY

- https://efforce.io/
- https://efforce.io/wpdirect
- https://www.prnewswire.com/news-releases/steve-wozniak-launches-his-next-billion-dollar-venture-to-democratize-and-finance-energy-efficiency-investments-worldwide-301186307.html
- https://www.google.com/amp/s/www.cnbc.com/amp/2020/12/04/apple-co-founder-steve-wozniak-is-starting-a-second-company-efforce.html
- https://www.investopedia.com/terms/b/blockchain.asp
- https://www.investopedia.com/terms/c/cryptocurrency.asp
- https://www.kaspersky.com/resource-center/definitions/what-is-cryptocurrency
- https://www.geeksforgeeks.org/advantages-and-disadvantages-of-cryptocurrency-in-2020/
- http://limate-policy-watcher.org/energy-efficiency-2/drawbacks-of-energy-efficiency.html#:~:text=Another%20drawback%20of%20energy%20efficiency,little%20or%20no%20government%20involvement
- https://www.geeksforgeeks.org/advantages-and-disadvantages-of-cryptocurrency-in-2020/
- https://www.cbiz.com/insights/articles/article-details/the-positives-negatives-and-risks-of-cryptocurrencies
- https://auth.geeksforgeeks.org/roadBlock.php
- https://www.coindesk.com/price/bitcoin

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