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2000+ **TOP CLIENTS** 

\$700+ M IN SAVED ENERGY

\$1,2 BN GLOBAL TURNOVER

5 CONTINENTS



8 years of experience in energy efficiency. We helped more than 2000 clients save more than \$700 million in energy costs.

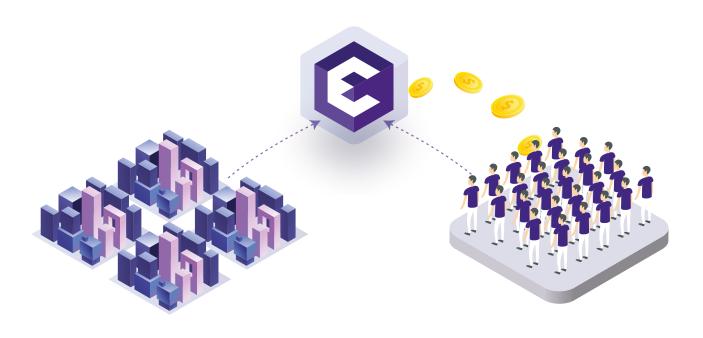
AitherCO<sub>2</sub> is an Energy Service Company with offices in Milan, London, Dakar and San Francisco.



# **ABSTRACT**

# EFFORCE is a blockchain-based energy saving trading platform.

The platform brings together those who want to improve the energy efficiency of their buildings or industrial processes with a pool of investors interested in being repaid in tokens representing the energy savings achieved thanks to efficiency improvement interventions.



This method of implementing the energy efficiency market for the first time makes a particularly complex energy-financial system simple and accessible.



According to a study published by the International Energy Agency (IEA), investments in energy efficiency increased by 9% in 2017.

This growth rate remained constant and in the same year the energy efficiency market reached a record value of USD 231 billion.



The connection between the financing system and those who need investments to improve the energy efficiency of their structures is made possible by Energy Service Companies (E.S.Co).

Through Energy Performance Contracts (EPC), these structured operators are able to generate returns on initial investments: energy efficiency translates into savings in bills for the Beneficiaries.

The EFFORCE platform solves the three main problems of the energy efficiency market: the difficulty of putting investors and Savers in contact, the size of the investments required and the method of financial return.

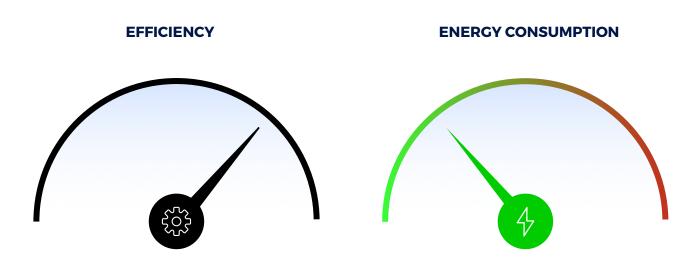
Through EFFORCE, energy saving financed by the investor (Contributor) is tokenised and used or sold to energy-intensive consumers (Consumers), who can thus stop paying their bills, forever!



## 1. INTRODUCTION

## 1.1 Energy efficiency

In energy engineering, the term energy efficiency indicates the ability of a physical system to obtain a given result using less energy than other so-called "lower efficiency" systems, generally increasing the yield and thus allowing energy savings and a reduction in operating costs.



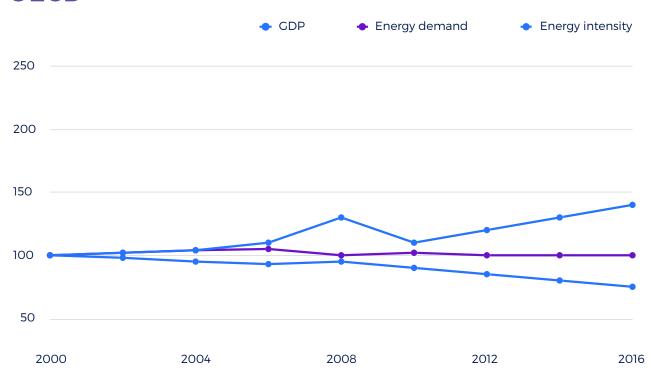
More than 68% of the energy used in the world is NOT covered by an efficient energy standard and the system within which it is used could be made more efficient. Just consider that most of the growth in the demand for energy coming from the cooling of habitable environments takes place in those parts of the world where there is no regulation to support the energy saving process.

Technological innovation is creating new opportunities for progress in terms of efficiency. Digitisation is profoundly changing the energy sector, just as innovation begins to have a significant impact on energy efficiency.

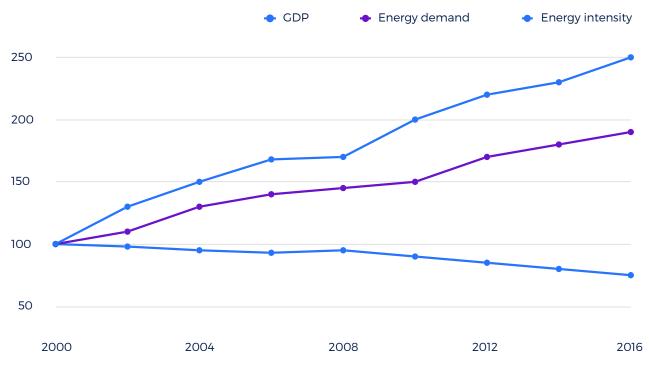
In 2016, the world continued to generate more and more value from its energy consumption. In the same year, the global Energy Intensity, i.e. the amount of primary energy demand needed to produce a unit of gross domestic product (GDP) generated, decreased by 1.8%, resulting in a so-called "energy bonus" of USD 2.2 trillion. This is twice the entire Australian economy.



### **OECD**



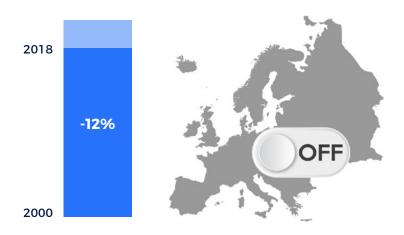
## **Non OECD**



Sources: Adapted from IEA (2016a) World Energy Outlook 2016; and IEA (2017a), World Energy Statistics and Balances 2017 (database), www.iea.org/statistics.



The energy efficiency system is deeply changing the way we consume energy. Consider that since 2000 to date, the world would have consumed 12% more energy without energy efficiency. A figure that equates to turning off Europe for a year.



Not only that: in addition to environmental benefits, improving energy efficiency also leads to increased security. In fact, many countries have avoided additional expenses and risks related to energy imports.

#### Thanks to the energy efficiency achieved:

From 2000 to 2016, Japan imported 20% less oil and 23% less natural gas than it would have done in the same period without energy efficiency interventions.

Germany and the United Kingdom, which correspond to the largest gas market 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, as energy efficiency has reduced the daily gas demand peak. This means that imports have not been reduced on an annual basis, but in the periods of greatest demand.



### 1.2 The E.S.Co model and the EPC

#### EFFORCE is a blockchain-based energy saving trading platform.

The platform brings together those who want to improve the energy efficiency of their buildings or industrial processes with a pool of investors interested in being repaid in tokens representing the energy savings achieved.

This method of implementing the energy efficiency market for the first time makes a particularly complex energy-financial system simple and accessible.

Thanks to EFFORCE any economic entity that wishes to implement solutions on its energy systems, be they industrial processes or buildings, will be able to negotiate part of its energy savings directly with consumers or investors. Through the tokenisation of the energy saved, it will be possible to guarantee liquidity and extend access to capital investment. To optimise the cycle of financing and access to capital, EFFORCE allows the tokenisation of energy savings.

It represents a contractual mechanism between companies that want to improve the efficiency of their processes and energy consumers. The proposed model is the same as that of Energy Service Companies (E.S.Co) which, through Energy Performance Contracts (EPC), manage to obtain positive economic returns against an initial investment in energy efficiency projects.

This contractual form makes 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 (Beneficiary).

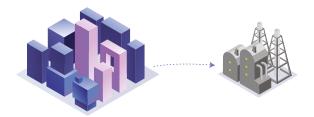
The value of energy savings deriving from the intervention is shared between the E.s.Co, which made the investment and implemented the redevelopment process, and the Beneficiary. The E.s.Co uses its own energy saving quota to make a return on the investment, while the Beneficiary sees its energy expenses decrease.

Energy Performance Contracts allow the savings deriving from lower energy consumption to be divided between the party that improved the performance of the efficiency-improved energy system (the E.s.Co) and the party benefitting from the energy efficiency intervention (the Beneficiary).



The way it works is extremely linear from a financial point of view, but decidedly more complex from a technical-implementation point of view:

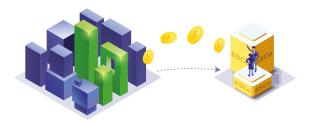
1. Before carrying out an energy efficiency intervention, any entity that owns an energy system pays its bill to a private or state-owned supplier of electricity and gas.



2. The E.S.Co evaluates the energy systems owned by the Beneficiary and implements them, in order to invest its financial resources in redevelopment interventions or energy efficiency improvement of plants or buildings.



3. For the entire duration of the contract, the Beneficiary pays a part of the energy savings generated by the efficiency interventions to the E.s.Co, which in this way makes a return on the initial investment.

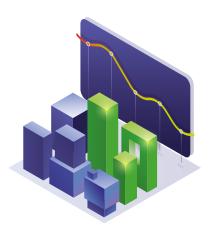




4. At the end of the contract, the Beneficiary can take full advantage of the savings and the technology installed.



5. The financial investment is fully borne by the E.S.Co. The Beneficiary obtains an immediate guaranteed reduction of energy costs and, at the end of the contract, benefits from a new and already installed efficiency improvement intervention.



The greater the energy savings obtained by the Beneficiary, the greater will be the return of the E.S.Co, since the consideration that it is paid depends on the savings obtained from the efficiency improvement intervention.

Therefore, the goal is common: using and managing the plant in the best way possible to maximise its advantages.



## 2. EFFORCE

## 2.1 The problem of energy efficiency

If one thinks of the constant increase in the demand for energy, the construction of power plants and chimneys often comes to mind. Many do not consider that it is much cheaper and more ecological, on the other hand, to reduce energy consumption.

#### Unfortunately, however, access to the energy efficiency market is hampered by a number of factors, including:

- The high initial costs. Accessing a complex energy efficiency system requires a minimum investment of 200,000 euros.
- The need for technical knowledge of the functioning of energy systems and smart meters to monitor the energy savings achieved.
- The lack of trust and a meeting place between those who need to implement the investment to improve the energy efficiency of their structure and those who actually want to invest in order to obtain alternative returns.
- The inability of one of the parties to evaluate in a technical manner the actual savings achievable thanks to the efficiency improvement intervention.
- The limited technical knowledge of the sector on the part of financial institutions, which are not able to calculate the returns on the investments made. Moreover, the E.S.Co's do not have access to the capital channel as a financial institution.
- Uncertainty on the pay-back period of the investment.

Addressing these problems is necessary, also in view of the objective of economic development defined by the World Bank, which aims to guarantee access to sustainable, reliable, and modern energy for all. One of the salient points of this development will be to double the overall rate of energy efficiency improvement by 2030.



## 2.2 Vision: EFFORCE

EFFORCE is the first blockchain-based platform that connects the demand and supply of energy efficiency investments.

Through EFFORCE, anyone wishing to attract investments to make energy improvements to their buildings or industrial processes can easily do so by registering their request on the platform.

The EFFORCE team will validate the request and develop, together with the company, the energy efficiency improvement project, evaluating the necessary investment, the annual internal rate of return (IRR) and thus concluding an Energy Performance Contract (EPC).

#### For example, for the energy redevelopment of an industrial shed, it may be necessary to:

- Replace the lighting system.
- Insulate the walls and roof.
- Improve the heating and cooling system to make it suitable for the needs of the building, exploiting and recovering as much as possible the heat cycle generated by the production process itself through heat recovery.

An intervention of this magnitude could lead to an IRR of 38% on the investment for the 7-year duration of the EPC contract.

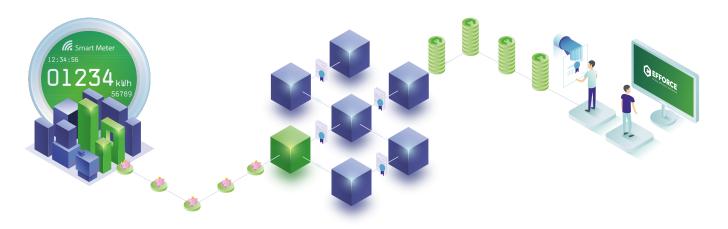
It may be that the company does not have the technical knowledge to implement these solutions, or that it does not want to access the banking channel in order not to increase its debt exposure towards banks. Or the company may even want to share its renovation intentions with its customers, involving 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 works, in exchange for sharing the savings generated.



All those wishing to invest in energy efficiency projects through a secure and decentralised blockchain-based system will also have access to EFFORCE.

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 quantity of KWh saved which will be loaded on the user profile of the investor (the so-called "Contributor").



The energy savings of each investor will be tokenised and can be used both to offset energy consumption and to be sold.

EFFORCE will allow each Contributor to be an active part of an E.S.Co that works with qualified counterparties, in order to obtain energy savings to be sold or used to reduce the costs of their energy bill.



## 3. BUSINESS MODEL

## 3.1 Energy Saving Tokenization

The main objective of any economic entity interested in improving the energy efficiency of its systems, be they industrial processes or buildings, is to optimise its cash flows.

EFFORCE allows such entities to rapidly interface with those who are interested in purchasing the energy savings resulting from the implementation of such projects, without the use of equity. Through the tokenisation of the energy saved, a liquid and transparent market is created, guaranteed by the blockchain and accessible to all.

To optimise the cycle of financing and access to capital, EFFORCE tokenises energy savings. Tokenising energy savings represents a contractual mechanism between companies that want to improve the efficiency of their processes and the community.

The innovative tokenisation model has been clarified by the European regulator. It is structured as a 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 was created to change the way energy savings are developed and redistributed globally. After years of experience in the energy efficiency market, the EFFORCE team was able to identify its limits.

First, the enormous waste of energy due to the lack of an efficient system. Just consider that the energy demand for cooling habitable environments is greater in those parts of the world that lack regulation to support energy efficiency processes.

The second problem is the difficulty in bringing together capital and the energy saving sector. The high number of intermediaries and parties involved even only partially in the efficiency process is the cause of the increase in implementation costs, pay-back periods and even delays in the physical execution of projects.

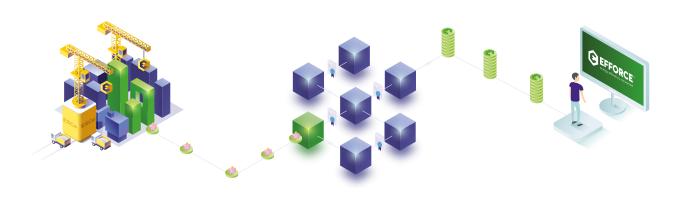


# 3.2 The role of the blockchain and the Energy Performance Smart Contract

Through EFFORCE, energy end consumers can participate in tokenised energy savings. Thanks to the control system and data certification guaranteed by the blockchain, EFFORCE has created the first Energy Performance Smart Contract.

Each EFFORCE token can be spent to access the auction system in which the tokens, each representing 1 kwh of energy savings, are distributed.

These savings derive from the efficiency improvement works with high financial return carried out by reliable industrial and commercial partners.



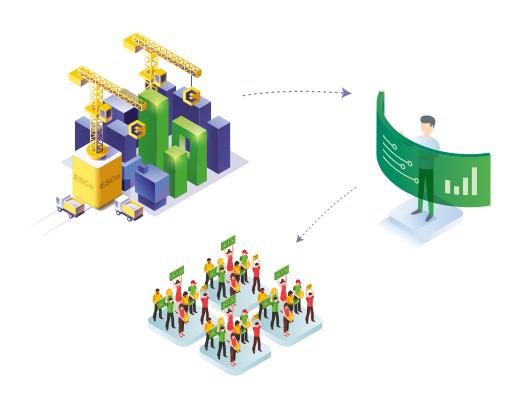
Through a global network of connections, the data indicating the energy savings is recorded and guaranteed by control units, such as smart meters, already widely used for calculation of the energy efficiency achieved.

This is a way of tracking both the work carried out and the result obtained in an unequivocal and timely manner.



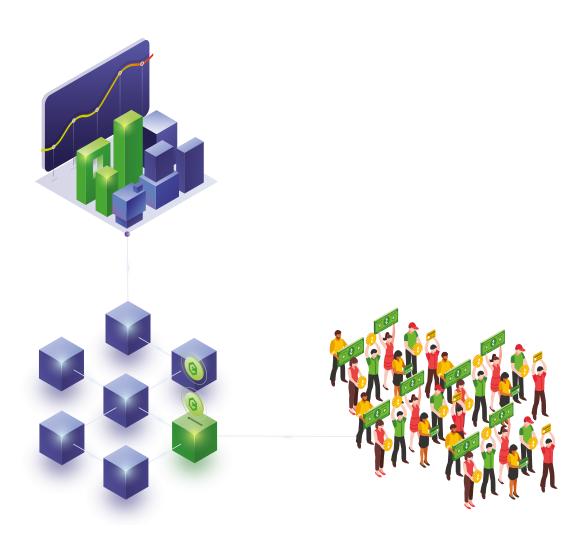
The transparency and reliability of the blockchain, in addition to clarifying a system currently characterised by information asymmetry, involves the community, involving it in the efforts and results related to the various efficiency improvement projects financed. Each token represents an Energy Performance Smart Contract, which guarantees the savings obtained over a certain period of time, thanks to a specific energy efficiency project.

The energy savings generated become a tangible asset in the hands of token holders, who may decide to sell them or use them to reduce their electricity bills. Furthermore, 1% of the energy savings obtained in this way and certified by the Energy Performance Smart Contract are donated and distributed among all EFFORCE contributors, thus increasing the value of their tokens also at a nominal level.





In other words, through EFFORCE, the energy savings of a third party are tokenised and can be used by everyone.





### 3.3 Contributor, Saver and Consumer

There are 3 players involved in the EFFORCE platform: Contributor, Saver and Consumer.

**The Contributors** are those who access the auction mechanism through the EFFORCE platform to purchase the future savings generated by efficiency improvement projects and guaranteed by smart contracts. The quantity of tokens held will give priority to the investment.

The Savers are the owners of industries, transport systems, buildings and other energy systems that benefit from efficiency improvement projects and use part of the energy savings obtained to their advantage, thus reducing the need to purchase energy.

The Consumers are those who want to buy the energy savings generated by third parties to offset and ultimately eliminate their electricity bills.



Furthermore, 1% of all energy savings obtained are donated and redistributed among all EFFORCE subscribers forever!

This allows energy savings (and not energy) to circulate between the saver and the consumer.



## 3.4 Using The Energy Performance Smart Contract

All holders of EFFORCE tokens will be able to take part in the efficiency improvement works in which they invest through the subscription of Energy Performance Smart Contracts, which represent the saving of 1 kwh of energy saved at a given future time.

Through smart contracts, certified savings allow contributors to hold tokens representing the savings generated. In this way, the company is able to sell the energy savings that can be obtained in advance, thus financing the implementation of the efficiency improvement works on its production plant or on its residential building.

#### Each energy efficiency project proposed by Savers must contain the following information:

- 1. The costs
- 2. The percentage of savings shared with Contributors through the Energy Performance **Smart Contract**
- 3. The duration of the Energy Performance Smart Contract
- 4. The amount of savings generated
- 5. The duration of the auction period
- 6. The intrinsic return of the operation



In this way, each Saver in possession of EFFORCE tokens can participate in these auctions to invest in Energy Performance Smart Contracts and thus accumulate the savings obtained.

Furthermore, 1% of all energy savings obtained are donated and redistributed among all EFFORCE subscribers forever!

The Contributors will have the right to access the auctions to support innovative energy efficiency projects, obtaining in return the energy savings generated. They can also decide whether to use them to reduce their consumption, or to sell them to consumers, who will have every interest in buying the savings of others, rather than paying their energy costs. The order of access to new efficiency improvement projects and the consequent collection of the related energy savings depend on the number of tokens held by the investor.

Moreover, through the buyback on the market program, 19% of the energy savings obtained by the company will be distributed among all the holders of EFFORCE tokens.



## 3.5 Using Token For Energy Efficiency

Each token represents an Energy Performance Smart Contract, which guarantees the savings obtained over a certain period of time, thanks to a specific energy efficiency project.

The energy savings generated become a tangible asset in the hands of token holders, who may decide to sell them or use them to reduce their electricity bills.

Tokens representing energy savings can therefore be used to reduce their energy costs. Through the wallet, the energy savings obtained over time can be kept and spent to reduce their bill whenever the price of electricity is such as to be convenient for offsetting.

Moreover, all Consumers can purchase energy savings to offset their energy costs. In fact, it will be increasingly viable to improve the energy process of an inefficient system and to enjoy part of the savings obtained, rather than paying the high energy costs.

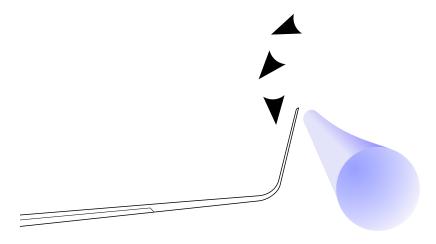


#### 3.6 Business Case

AitherCO2 funded the intervention concerning the installation of blended winglets on twenty aircrafts of the fleet of an Italian charter operator with an EPC.

Blended winglets are wingtip extensions that improve the performance of the aircraft by reducing induced drag and consequently reducing fuel consumption. The induced drag decreases as the speed of the aircraft increases, since it is the result of the shape of the advancing vehicle.

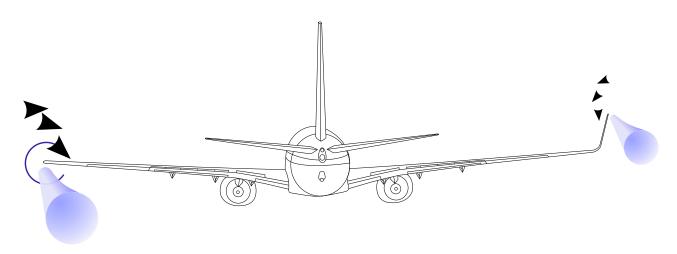
Part of this induced drag stems from the lift generated by the wings. The static pressure above the wing is lower than that under the wing. The pressure is equal only at the ends of the wings, provided that the profile allows the total air pressures above and below the wing to be equalled.



The profile of the classic wing is specifically designed to allow this event in the direction of motion, but at the tip it does not allow the reunification of the two flows in a homogeneous manner, creating turbulence and, consequently, an increase in induced drag. This requires additional work on the engines to bring the aircraft to the correct flight speed and height, thereby increasing fuel consumption.

Blended winglets reduce induced drag, making it easier to move the aircraft and decreasing the effort of the engines, which will be able to reach the same speed and flight altitude as a similar aircraft without winglets, saving fuel consumption.





An aircraft with blended winglets is able to save 8% of Jet A1 Fuel compared to an aircraft without them.

The measure of the energy savings derives from the difference in specific fuel consumption before and after installation of the blended winglets. This data is obtained by default from the on-board instrumentation, since it is essential to prepare the flight plan and decide the amount of fuel to be loaded.

The company has a fleet of 20 Airbus A380s. The tank capacity is 350 tons of Jet A1 Fuel each for a total of 7000 tons of Jet A1 consumed each time the fleet is filled up. With 2 fills per week and an estimated JET A1 cost of USD 1000/ton, the customer's annual savings during the first two years of execution of the EPC contract amounted to USD 220 million.



The EPC contract has a duration of 5 years and the cost of the operation was USD 100 million, with an annual IRR of 50%.

	YEAR 0	YEAR 1	YEAR 2	
Cost	45,000,000	-	-	
Tons	350	350	350	
A380	20	20	20	
total tons of full tanks	7,000	7,000	7,000	
cost of JET A1r	1,000	1,000	1,000	
cost of full tank	7,000,000	7,000,000	7,000,000	
Energy Efficiency	8%	8%	8%	
SAVING	525,000	525,000	525,000	
number of full tank	104	104	104	
cost of full tanks per year	728,000,000	728,000,000	728,000,000	
SAVING on full tanks per year	58,240,000	58,240,000	58,240,000	
SAVER 40% of saved energy in eur	23,296,000	23,296,000	23,296,000	
Contributor 40% of saved energy in Kwh	67,208,960	67,208,960	67,208,960	
Buyback program in eur	11,065,600	11,065,600	11,065,600	
Sharing 1% of saved energy in eur	582,400	582,400	582,400	



# 4. TOKEN SALE

EFFORCE Tokens are ERC20 Utility Tokens based on the Ethereum blockchain.

The EFFORCE ICO will start with a PRIVATE SALE phase and will continue with a PRE-SALE phase during the last 30 days before listing or until the Hard Cap is reached. The number of tokens available during the ICO will be 50% of the total generated.

#### **OVERVIEW**

Token Name	EFFORCE
Token Symbol	EFE
Total EFE Token Amount	2,800,000,000
Available in ICO (Hard Cap)	1,400,000,000
Emission Rate	New tokens will never be created. All unsold tokens will be destroyed (burned)
Exchange Rate	1 EFE = 0.067 USD

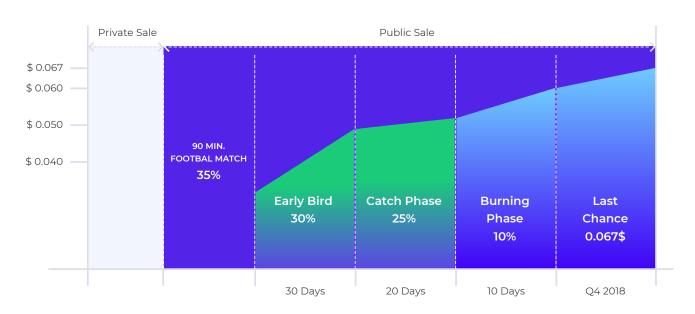


## **ICO EVENT**

#### **LOCK UP**

90 minutes football match	\$ 0.04355	YES
selling price 30 days before ICO event ends	\$ 0.0469	NO
selling price 20 days before ICO event ends	\$ 0.0536	NO
selling price 10 days before ICO event ends	\$ 0.0603	NO
Nominal Value of 1 token	\$ 0.067	NO
Total number of tokens	2,800,000,000	
Hard cap in tokens	1,400,000,000	
Hard Cap	\$ 53,000,000	
Soft Cap	\$ 15,000,000	
Minimum transaction	0,1 eth	
New tokens will never be created		

### Token main sales date: Q4 2018





## 4.1 Token Distribution

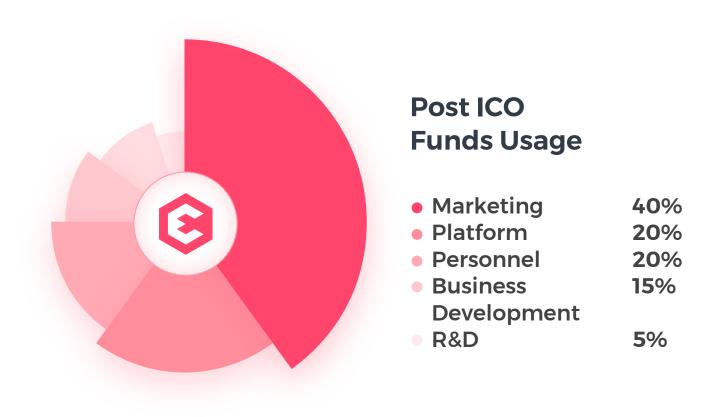


#### **Locking Scheme**

We intend to lock the tokens sold during the "90 Minutes Football Match" for a fixed period, in order to reduce the probability of a collapse of the EFFORCE prices, as often happens with new tokens. Tokens assigned to the Reserve Fund, to the Advisors, to the Team and to the "90 Minutes Football Match Phase" will be locked for 12 months.



## **POST ICO**



The funds received during the contribution period will be used exclusively for the development of EFFORCE. The budget outlined represents a scenario in which the Soft Cap has been reached. We expect to use 20% of all proceeds to develop the platform from a technical point of view.

The expenses for the consultants related to the project itself represent 20% of the proceeds, another 15% will be spent on Business Development and 5% on research and development. 40% will be spent on marketing.



## 4.2 Buyback Program

EFFORCE continuously applies a scheduled token buyback system on the listed market. This means that, as savings are realised in the form of Energy Performance Smart Contracts, 19% of the value saved is used to buy back EFFORCE tokens on the market.

In this way, the continuous demand decreases the available number of EFFORCE tokens, i.e. the only instruments that allow participation in profitable investments in efficiency improvement, eliminating the frictions in the energy efficiency market.

Therefore, keeping EFFORCE tokens in your wallet will always be more viable than selling them to monetise them. In doing so, in fact, you can increase the value of your position as the proceeds of part of the energy efficiency are gradually used for the EFFORCE buyback program.



## 5. THE TEAM



## Jacopo Visetti

Jacopo is a pioneer in energy efficiency markets. After years of experience as a quantitative analyst, he founded AitherCO2, a leading company in the energy efficiency market. He is a visiting professor in several universities worldwide, regularly participates as a speaker at energy saving events and has consulted on environmental market mechanisms to Fortune 500 Companies and to the California State Senate. Jacopo graduated in Finance from the Cattolica University of Milan and in Macroeconomics from Harvard University.



## Maurizio Castelli

Co-founder of AitherCO2, he is in charge of the London office. He deals with the development of energy efficiency projects in California and in Africa. For AitherCO2, Maurizio manages the compliance and risk management department.





## **Anyu Chen**

A specialist in Economics and Innovation and Technology Management in the Energy Efficiency field, Anyu has years of experience in developing leading-edge projects and products in China, Dubai, Hong Kong and Europe. Currently she manages energy efficiency projects in Asia for AitherCO2. She holds an MSc from the Bocconi University.



## Paola Mignuolo

An expert in global energy efficiency markets, Paola is the reference person in Europe for the various energy efficiency protocols. She is Key Account Manager for AitherCO2.



## Federico Lattuada

After years of experience as a researcher in environmental and energy sciences, Federico became a partner of AitherCO2, where he is responsible for the issue of White Certificates (TEE) and the environmental market mechanisms. He graduated in Energy Markets from the Catholic University of Milan.





## Mattia Degiovanni

Mattia is a researcher in Economics and Finance at the Bocconi University, and deals with the biodiesel and efficient fuels market from the energy point of view. He is an expert in the market for efficiency interventions for road transport.



## Corrado Catania

After years of experience in structuring and trading financial products at BANCA IMI, in 2012 Corrado entered the environmental market sector. For AitherCO2 he handles deal origination operations on energy commodities, especially in the air transport sector. He holds a Master's degree in Financial Mathematics from the Bocconi University.



Giulio Modorati

After working in the Equity Capital Market team for RBS, Giulio completed numerous IPOs, both in Italy and abroad. He is a partner of AitherCO2, where he manages the financial aspects of Energy Performance Contracts and the White Certificates (TEE) market.





## Jacopo Vanetti

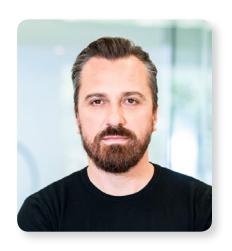
He started to program at 10 years of age, and at 17, he was the first Italian in the CTF (Capture The Flag), an international university computer competition. Combining his passion for programming with the desire to create, he became an entrepreneur and founded a software house in 2008 and in 2011 an online payment development company. In 2016 he was awarded the National Innovation Award by the President of the Republic, Sergio Mattarella. Today he is a member of the EFFORCE team.



## Sergio Carloni

Chief Executive Officer of AitherCO2 SpA, holding of the AitherCO2 group, he 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. With extensive knowledge of business and corporate management, Sergio is a consultant in many fields, including organisation, governance, compliance, administration and financial control. Thanks to the international experience gained in Europe, Switzerland and the United States, he is a consultant for banks and start-ups worldwide





### Stefano Scozzese

Recognised as one of the most talented creative directors in Italy, Scozzese has made a profession out of his passion for design and his strategic vision. Creative director for Andrea Bocelli, with the agency of the same name specialising in web design and brand building, he has implemented all-round Marketing & Communication projects for companies and artists of international renown such as Giorgio Armani, Samsung and Lionel Richie, which have won him numerous prestigious awards. In 2012 he received the award for best creative director of the decade at the Italian Web Awards.



## **Cristina Beggiato**

Thanks to a solid experience in Marketing & Communication and a strong organisational ability, Cristina has managed numerous international projects of various types and complexity for the key clients of Scozzese.





### Francesco Nazari Fusetti

After graduating from Bocconi University, in 2007 he began his career as an entrepreneur by founding the start-up ScuolaZoo, today the largest community of Italian students, with more than 3 million fans on social media. After other successful experiences, such as Travel4Target and ZooCom, in 2013 he founded CharityStarts, the innovative fund-raising platform that allows VIPs and brands to donate exclusive experiences and products to raise funds to support solidarity projects. To date, the platform has raised more than 12 million dollars donated to 500 charities. In November 2017, Francesco founded AidCoin, a new cryptocurrency based on blockchain technology, which guarantees transparency and traceability in the non-profit sector.



## 6. ROAD MAP

## 6.1 First steps

According to a study published by the International Energy Agency (IEA), investments in energy efficiency increased by 9% in 2017. This growth rate remained constant and in the same year the energy efficiency market reached a record value of USD 231 billion.

More than 68% of the energy used in the world is NOT covered by an efficient energy standard and the system within which it is used could be made more efficient. Suffice it to consider that most of the growth in the demand for energy coming from the cooling of habitable environments takes place in those parts of the world where there is no regulation to support the energy saving process.

#### For this reason, we want to make investment in energy efficiency fluid and accessible. In fact, the current system is hampered by a number of factors:

- Need for a minimum investment of 200,000 euros to access a complex energy efficiency system.
- Technical knowledge of the functioning of energy systems and smart meters to monitor the energy savings achieved.
- The lack of trust and a meeting place between those who need to implement the investment to improve the energy efficiency of their structure and those who actually want to invest in order to obtain alternative returns.
- Uncertainty on the pay-back period of the investment.
- The limited technical knowledge of the sector on the part of financial institutions. which are not able to calculate the returns on the investments made. Moreover, the E.S.Co's do not have access to the capital channel as a financial institution.



# **EFFORCE** eliminates these information asymmetries, making the investment process more fluid and accessible.

The first objective of EFFORCE is to build a platform that brings together supply and demand, simplifying the investment method and making it more secure. Thanks to EFFORCE, investors will always have access to clear information on the IRR and the payback period of their investments.

Thanks to the proceeds deriving from the Presale phase, EFFORCE can be the first platform for bringing together energy efficiency supply and demand.

In this initial phase, the focus will be on engineering and building the foundations of the first decentralised energy efficiency platform. The initial phase will end as soon as it will be possible to invest and disinvest in energy efficiency projects.

## **ICO Event and Presale**

After the first phase of Private Sales the ICO will begin, in order to conclude the raising of capital to promote the implementation of the platform and allow investors to invest in EFFORCE tokens and in energy efficiency projects, also leaving an easy way out.

The ICO will last for three weeks. To improve the liquidity of tokens and the possibility of buying and selling them, we will proceed with a double listing on several Exchanges.



## Q1 2019: Finalizing Platform Development For Factories and Real Estate Projects

The platform for bringing together supply and demand and the accounting of energy savings obtained from the energy efficiency interventions carried out will be operational starting from the first quarter of 2019.

Until such time, all EFFORCE tokens will be able to be used to purchase environmental services and consultancy on energy efficiency at AitherCO2.

AitherCO2 will put the first projects that can be implemented on the platform, in order to make the exchange platform operational also on the supply side. The priority for participation as a Contributor in an energy efficiency project will be given to those who hold most tokens.

#### Among these projects, we would like to highlight two in particular:

1. Energy efficiency project on a dual 8.55MW industrial tri-generation plant located in Italy, with a total cost of 6,500,000 euros, with an annual IRR of 20% for 7 years.

The term "tri-generation" refers to a particular form of cogeneration that involves the simultaneous production of three forms of energy starting from a single fuel:

- 1. power
- 2. heat
- 3. cooling

(CHCP = Cogeneration of Heat, Cooling and Power)



#### **Process definition:**

- · Hourly consumption profiles of the plant for power, heating and cooling.
- · Definition of the process scheme and of the system solutions to optimise efficiency and flexibility.
- · Choice of the types of the main machines to be installed.
- · Definition and optimisation of the plant operating modes.
- · Definition of the plant layout and of dimensioning of the building.
- · Civil and architectural design of the building

#### Primary energy requirements of the plant:

• Electrical requirement: 100,000 MWh

MAX power: 22 MW HV delivery (132 kV)

Operation with 2 x 16 MVA TRAFO

· Heating requirement: 50,000 MWh

Boiler room for the production of super-heated water at 135°C for the plant and the production cycle

· Cooling requirement: 10,860 MWh

MAX power: 9 MW

Water cooled chiller groups for production



#### Prospective return of the project:

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Cost of the project	6,500,000				
Mainteinance cost	130,000	130,000	130,000	130,000	130,000
Saved Energy in eur	2,701,871	2,701,871	2,701,871	2,701,871	2,701,871
Saved Energy in KWh	78,084,072	78,084,072	78,084,072	78,084,072	78,084,072
SAVER 40% of Saved Energy in eur	1,080,748	1,080,748	1,080,748	1,080,748	1,080,748
Contributor 40% of Saved Energy in Kwh	31,233,629	31,233,629	31,233,629	31,233,629	31,233,629
Buyback program in eur	513,355	513,355	513,355	513,355	513,355
Sharing 1% of Saved Energy in eur	27,019	27,019	27,019	27,019	27,019

Energy redevelopment project for a hotel complex costing 1,350,000 euros located on the French Riviera (France), with an annual IRR of 15% for 5 years.

The redevelopment project includes the renovation of a hotel complex consisting of 5 buildings, for a total of 600 rooms, belonging to a market leading chain of holiday villages.

#### Definition of the efficiency improvement process:

- · Heating and cooling system, thanks to the installation of heat pumps in energy efficient class with the aid of solar thermal panels
- 0.55MW cogenerator for the SPA and wellness centre section for water heating
- · Smart system for accumulation and redistribution of energy consumed by the buildings
- · Complete renovation of the building envelope (thermal cladding and triple glazing)
- · Complete revamping of 12000 LED light points



#### 2. Primary energy requirements of the plant:

· Electrical cooling requirement: 2,100 MWh

· Heating requirement: 2,000 MWh

• Energy requirement for hot water: 2,640 MWh

· Electrical requirement: 6,600 MWh

#### Prospective return of the project:

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Cost of the project	1,350,000				
Mainteinance cost	250,000	250,000	250,000	250,000	250,000
Saved Energy in eur	700,000	700,000	700,000	700,000	700,000
Saved Energy in KWh	8,990,000	8,990,000	8,990,000	8,990,000	8,990,000
SAVER 40% of Saved Energy in eur	380,000	380,000	380,000	380,000	380,000
Contributor 40% of Saved Energy in Kwh	3,596,000	3,596,000	3,596,000	3,596,000	3,596,000
Buyback program in eur	133,000	133,000	133,000	133,000	133,000
Sharing 1% of Saved Energy in eur	7,000	7,000	7,000	7,000	7,000



To these projects will be added those of all the Savers interested in redeveloping their building or industrial complex in terms of energy efficiency, using crowdfunding to channel the investment through Energy Performance Smart Contracts.

In this way, EFFORCE will also deal with regulating the supply side, evaluating and proposing efficiency projects to those interested in investing in an energy efficiency quota.

#### Consumer side

For Consumers interested in reducing their energy costs, EFFORCE will implement a marketing campaign in order to reduce its disbursements and channel the interest of small and large buyers to the market for the purchase of energy savings of others.

# **Q2 2019: First Efficiency Project Completed And Beginning Of Energy Efficiency Sharing**



## 6.2 Teen age

## Q1 2020: The buyback program starts on the first projects and is independent of the new ones

Starting from the end of 2019, EFFORCE will be able to continue to implement its buyback program using the dedicated quota of energy savings obtained. Through this tool, EFFORCE will be able to use part of the proceeds obtained from energy efficiency to induce scarcity in the token system, acquiring on the market a part of the EFE traded on the main platforms.

In other words, 19% of the energy savings obtained from energy efficiency works will be held in a dedicated reserve in order to buy tokens on the market and to counter any negative fluctuations.

This financial reserve introduces an element of stability towards possible price falls, thus avoiding sudden collapses and dangerous downward fluctuations.

#### 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, in order to implement energy efficiency projects on: transport, residential or tourism buildings and complex industrial processes.

Imagine a production company, or simply any residential complex that wants to improve its energy consumption, attracting the capital needed from all over the world in cryptocurrencies or in fiat currencies, selling part of the savings obtained from the efficiency process.

#### Q3 2020: Road and Marine Transport industry is added to the project platform Starting from the third quarter of 2020, we will be able to proceed with the improvement of energy efficiency of company fleets and shipyards.



## 6.3 Growth Age

In this phase, EFFORCE's goal is to be recognised as the leading platform worldwide, in terms of both savings volumes obtained and number of registered users, able to support energy efficiency projects through the direct financing of a part of the project itself.

Starting from 2026, we want to consolidate our global presence as the main platform bringing together supply and demand in the energy efficiency market.