

WHITE PAPER

*A Sustainable Vision
For A Productive Future*



TLS GROUP

WHITE PAPER v3

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CONTENTS

Foreword from the CEO.....	3
Overview.....	4
The Challenge for the Future.....	5
Problem of existing Solutions.....	6
<i>Solution and Operation Principle</i>	7
Products and Our Solution.....	8
<i>Market Analysis Summary</i>	9
<i>Cooperation mechanisms</i>	10
<i>What is Blockchain tokenization?</i>	11
Opportunities and challenges.....	11
SECURITY TOKEN.....	14
Market Approach and Strategy.....	15
Business model.....	16
Tokenomics.....	18
Value Distribution Mechanism.....	19
STO Platform.....	20
How to get dividends.....	21
Growth metrics.....	23
How we will achieve our growth goals.....	24
Financial model.....	25
Green Eurobonds.....	26
SWOT analysis.....	27
TEAM.....	28
Contacts.....	29



Foreword from the CEO

Few industries impact global economic livelihood, societal functioning, and quality of life as significantly as the energy industry. Few industries face as many challenges. A number of daunting factors are again leading many inside and outside the energy industry to embrace renewable energy as a solution—or, perhaps, more accurately—a critical piece of the solution. Renewable energy sources are making inroads in our national energy mix, and that progress is likely to continue. It's not a matter of whether the renewable energy market will grow, it's how fast and by how much.

This is exactly the kind of achievement we should be proud of. The difference that they bring to many families and businesses around the world is incredible.

At the same time, we have to admit that big companies and state structures earn money in the energy business, the rest of the segment is left out. Some communities have struggled to keep up with the changes in the global economy and as a result, have not experienced the same prosperity that growth has brought. It is not enough for me to see growth in the national economy when the local economy is struggling with it. It is simply not enough to have record job growth unless those jobs are safe and provide real wage growth. According to the Renewable Energy Act EEG 2017, the government buys the electricity generated from Green Energy companies in the EU, so one of my first actions will be to deploy energy complexes where electricity is clean, reliable, affordable and accessible to all. While maintaining our focus on excellent product offerings, we remain committed to our vision of a democratized energy system.

Our equipment operates in parallel with the existing energy system infrastructure, providing greater control and ownership for both consumers and manufacturers. Understanding our business model enables ordinary consumers and energy companies to benefit from and contribute to a clean and affordable energy system.

This plan is a vital step in realizing this vision. It is not a set of announcements, but a new approach to how government and business together form a stronger, more equitable economy. It is based on my belief in a strong and strategic state that intervenes decisively wherever it can make a difference. It is based on the belief that a successful free-market economy is strongly supported by three pillars: the qualification of the workforce, the quality of infrastructure, and the quality of the economy a fair and predictable business environment.

— Your CEO

Overview

We will build an ecosystem that will generate productivity and generate energy throughout the nation.

5 Foundations of Productivity



TECHNOLOGIES
the world's most innovative economy



PEOPLE
great jobs and increased earning power for all



INFRASTRUCTURE
a major upgrade to all levels of infrastructure



ENVIRONMENT
become the best place to start and grow a business



PLACES
prosperous communities across the world

We will set ourselves key objectives to create a clean and prosperous future for all nations.

Clean growth

We will maximize the benefits of our technology for the global shift to green growth.

An aging society

We will use the power of innovation to create jobs for the next generation.

Tokenization

The creation of a digital asset will provide an additional source of income with a transparent source of investment repayment

Stable growth

We will become a world leader in the generation of electricity from renewable sources.

The Challenge for the Future

This world is a successful, competitive and open economy

We have some strengths upon which we can build, and some weaknesses we need to address. Our game at home needs improving to shine on the world stage. This can be done if we seize the opportunities of the years ahead – and it is essential if people are to enjoy prosperous lives with fulfilling work and use high-quality services. At the same time, the world is changing in fundamental ways. Technological innovations are transforming how we live and work.

The way we generate and use energy is also changing rapidly. The European Renewable Strategy depicts how we are building an infrastructure for the future, along with how we will help people and businesses create better, higher-paying jobs in every corner of this world.

We will invest in the development of the Green Energy and infrastructure of the future. This will ensure that our world and its citizens can accept and take advantage of the opportunity for technological change.

Technological innovations are transforming how we live, learn and work.



Problem of existing Solutions



As for today two industrial technologies of converting sun's rays into energy are generally applied:

- Photovoltaics allows receiving only energy under irradiation of semiconductor panels (photovoltaic – PV)



- Converting thermal energy of concentrated sun's rays into electrical and thermal energy (concentrated solar power – CSP)



The problem of existing solutions

On the one hand, electric power stations constructed based on the PV technology tend to reduce in cost calculated using the cost of one established kW of electric power taking into account simplicity of installation, however, on the other hand, they have low-efficiency factor (up to 20%) which besides worsens every operation year (because of burning out cells), big losses due to heating of panels, the operation service life (budgetary models serve up to 10 years), they are unsuitable for repair. The panel composition contains harmful substances (heavy metals, etc.) that lead to the need for additional financial costs for the disposal of "electronic waste" and an increase in the cost of power generation during the whole service life. It is necessary to increase the number of new installations to maintain productivity.

Existing CSP solutions do not contain servo motor systems that are capable of following the sun and obtaining the maximum possible efficiency factor in solar heat concentration.

Solution and Operation Principle



The basis of the CSP installation is a solar concentrator (the parabolic mirror) with a tandem of the Stirling engine and asynchronous generator.

How to achieve high and constant efficiency factor, inexpensive maintenance at such a long service life:



- The tracking system controls the concentrator motion following the sun using a servo motor, whereby the maximum possible amount of solar energy is captured for further conversion
- The original modification of the easy-to-use Stirling engine developed using a specially designed mathematical model to optimize processes is used
- The reliable asynchronous electric machine in generator mode operates directly for load or electric distribution system without any inverter that causes absence of losses and additional “harmful” harmonics of current that overheats electrical equipment in the adjacent network
- All elements are easily replaceable and have a long service life. Maintenance costs are not more than 0.05% of the installation cost per year.

Solution and Operation Principle



Differences between the PV technology used today and our technology solution

Indicators	Solar Panel
Electric power generation	+
Heat generation	-
Cold generation	-
Desalter	-
Service life before renovation (years)	15
Disposal costs	Additional payment for recycling, harmful substances, pollution, financial costs in the
The deterioration of the efficiency	Yes, 10% or more in 10 years
Maintainability	-
Area 1 MW of ELECTRICAL energy, with technological passages (sq. m.)	10.000 sq. m.

Products and Our Solution

CSP system at the Stirling parity level

The actual area occupied by CSP stations with a total nominal capacity of 8 Mw/H is 1.8 Ha.

Typical unit installation for 25 kW with the mirror area of about 92 sq.m. will require 4 sq.m. for a foundation.

In the enterprise business model, the costs of land expropriation or it's renting for a solar station are significantly reduced.

The aforesaid significantly increases the value offer and efficiency of investment reduces payback time for tens of percent.

Comparison of the CSP station with the established capacity of 20 MW and PV:

1. Quantity of generated electric power within 25 years:

- CSP: 933,450,000 Kw/h electrical +933,450,000 Kw/h thermal
- PV: 652,880,000 Kw/h
- The actual electric power generation is 43% more than PV.

2. Possible service life:

- CSP: up to 40 years • PV: up 15 years

Video: [Technology Description](#)

[Final model in Seville](#)

Market Analysis Summary

In November 2018, the European Commission presented a long-term strategic vision to reduce greenhouse gas (GHG) emissions, showing how Europe can lead the way to climate neutrality – an economy with net-zero GHG emissions. The strategy explores how this can be achieved by looking at all the key economic sectors, including energy, transport, industry, and agriculture. A portfolio of options was explored to underline that it is possible to move to net-zero GHG emissions by 2050, based on existing – though in some cases emerging – technological solutions, empowering citizens and aligning action in key areas such as industrial policy, finance or research, while ensuring social fairness for a just transition.

The strategy shows how Europe can lead the way to climate neutrality by investing in realistic technological solutions, empowering citizens, and aligning action in key areas such as industrial policy, finance, or research – while ensuring social fairness for a just transition.

Following the invitations by the European Parliament and the European Council, the Commission's vision for a climate-neutral future covers nearly all EU policies and is in line with the Paris Agreement objective to keep the global temperature increase to well below 2°C and pursue efforts to keep it to 1.5°C.

Renewables – increasing to at least 32% share

A binding renewable energy target for the EU for 2030 of at least 32% of final energy consumption, including a review clause by 2023 for an upward revision of the EU level target.

The original target of at least 27% was revised upwards in 2018.

The original renewable energy directive (2009/28/EC) establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfill at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets. All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020.

In December 2018, the revised renewable energy directive 2018/2001/EU entered into force, as part of the Clean Energy for all Europeans package, aimed at keeping the EU a global leader in renewables and, more broadly, helping the EU to meet its emissions reduction commitments under the Paris Agreement.

Market Analysis Summary

The new directive establishes a new binding renewable energy target for the EU for 2030 of at least 32%, with a clause for a possible upward revision by 2023.

Under the new Governance regulation, which is also part of the Clean Energy for all Europeans package, EU countries are required to draft 10-year National Energy & Climate Plans (NECPs) for 2021-2030, outlining how they will meet the new 2030 targets for renewable energy and energy efficiency. Member States needed to submit a draft NECP by 31 December 2018 and should be ready to submit the final plans to the European Commission by 31 December 2019.

Most of the other new elements in the new directive need to be transposed into national law by the Member States by 30 June 2021.

Cooperation mechanisms

The Directive 2009/28/EC promotes cooperation amongst EU countries (and with countries outside the EU) to help them meet their renewable energy targets. The cooperation mechanisms can take the form of:

- **statistical transfers of renewable energy**
- **joint renewable energy projects**
- **joint renewable energy support schemes**

National action plans and progress reports

The Directive 2009/28/EC specifies national renewable energy targets for 2020 for each country, taking into account its starting point and overall potential for renewables. These targets range from a low of 10% in Malta to a high of 49% in Sweden.

EU countries set out how they plan to meet these 2020 targets and the general course of their renewable energy policy in national renewable energy action plans.

Progress towards national targets is measured every two years when EU countries publish national renewable energy progress reports.

What is Blockchain tokenization?



how we develop our business

What is Blockchain tokenization and how it changes the world?

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Today's digital economy is based on tokenization, which is used by billions of people every day. Tokenization is the process of replacing values (such as money, stocks, credit card numbers, medical records) with tokens that reflect these values, making it easier and safer to trade them. This may seem distant, but tokenization has a profound effect on our lives and can transform entire industries.

Paying for goods over the internet would be much riskier if not for tokenization. Credit card privacy is transformed into a digital token, which is useless for hackers but used by banks to complete the payment. Companies issue digital substitutes for stocks and other securities instead of paper carriers because it is safer and more efficient.

Although people already use tokens daily (most are unaware of this), the true tokenization potential is only now being unlocked through the influence of a blockbuster. Blockchain allows safe and effective tokenization of a wide range of real assets and businesses, providing new benefits and applications for a variety of industries such as the arts or healthcare. **Blockchain tokenization has created a completely new tool for trading and fundraising - security token.**

Opportunities and challenges

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Raising funds through a securitized token offering (STO) is often cheaper than traditional methods such as venture capital or initial public offering (IPO). It complies with regulatory requirements, increases the speed of issuance and provides an opportunity to target a wider range of potential investors. Investors can increase the liquidity of assets more quickly than with venture capital, trade 24 hours a day in the secondary markets and conduct transactions faster, while small investors can participate in large institutional transactions.

However, tokenization continues to face challenges. There are still a few examples of its application, which means that the market remains untested. As a result, institutional players are reluctant to participate in large tokenization projects, and as a result, there is a lack of liquidity in the market. This institutional estrangement is also partly due to the continuing regulatory uncertainty with unanswered questions. It is not always clear when exactly fixed assets are settled. The lack of standardization of protocols and technologies leads to compatibility and implementation problems. The storage of digital assets is also not fully verified and is therefore partly risky.

What is Blockchain tokenization?



how we develop our business

Despite the difficulties, assets with a capital of about \$500 million have already been tokenized in 2018 and this figure will grow rapidly in the coming years. Below are some of the industries that are in a positive mood for tokenization.

Payments

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Almost \$110 trillion in payment transactions are processed worldwide each year, including payment systems such as Visa, which report about \$2 trillion in payments each year. Two major challenges are dramatically increasing the cost of payments for consumers around the world: the incredibly high micropayments fees (\$5 to \$10) and the high conversion costs for international payments. The scope of remittances is estimated at \$585 billion, while estimates of global micropayments vary greatly due to differences in definitions.

Tariffs in different payment processing sectors range from 2.9% + \$0.30-0.10 per transaction plus \$99 per month. At such rates, most micropayments below \$1 are more expensive than the transaction itself. Currency conversion, KYC / AML, and international bank intermediaries increase the cost of money transfers to 6-10%. International payments cost from 1 to 3% for travelers and an additional 1-3% for merchants, which is on top of other card processing fees. Some international payments or money transfers also risk simply getting lost or stuck somewhere in the counteragent bank during the transfer process. Block tokenization significantly reduces all these costs and prevents any loss, so many companies working with block tokenization have begun to provide services in these areas.

BitPay, one of the world's oldest payment systems, helped businesses earn more than \$1 billion in 2018. More than 4,500 online merchants accept payments in cryptocurrency through the CoinGate payment processor, which has already processed more than 300,000 payments in more than 50 cryptocurrencies. Ho Wah Genting Group, one of Malaysia's largest travel and entertainment conglomerates, issued a \$500 million stable coin based on the everiToken platform in the fourth quarter of 2018, providing a cheaper way to pay for travel and entertainment services in a large network of businesses.

What is Blockchain tokenization?



how we develop our business

Hedge funds, venture capital, and asset managers

The top 400 asset management companies jointly manage around \$74 trillion. Hedge funds manage over \$3 trillion, while venture capital funds manage around \$500 billion, but this money is often frozen for long periods up to seven years. Investors have to pay high commissions if they want to withdraw their funds before the lockout period ends. Tokenization of shares in a hedge fund or venture capital fund provides investors with a faster and cheaper way to repurchase their money from a hedge fund if possible to benefit from the value of the token when they see fit. Also, tokenization allows investors to increase the liquidity of their assets and they have the opportunity to sell them or buy more small shares in the mass of hedge funds or venture funds.

More than half a dozen funds have already carried out tokenization of their shares, including \$15 million in the shares of the Singapore Fund SPiCE VC, \$10 million in Blockchain Capital, \$12 million in Science Blockchain, \$22 million in 22x Fund, \$3.4 million in Atomic Capital and \$1.7 million in the shares of Mt. Pellerin. Apis Capital Funds has launched a Tokenized hedge fund on the Nasdaq Market Funds exchange, based on the stars of Apis Token (under the sign ZAPISX), for an unknown amount. Although the trading volume is prohibitively low, some of these tokens, such as SPiCE and BCAP (Blockchain Capital token), are already traded on secondary exchanges, such as OFN and SharesPost.

Debt obligations

The international debt market, which includes household, government, and corporate debt, was about \$169 trillion in 2017. Investors seeking to balance their portfolios often buy fixed-income bonds sold by governments and corporations to finance operations. Many small investors do not have access to a lucrative institutional debt market and often have to settle for less profitable mutual funds. Banks, underwriters and other intermediaries increase the cost of buying highly secured debt.

Issuers, such as corporations and governments, must ensure that a sufficient number of investors offer an adequate price for their debt at attractive interest rates. If too few investors are interested in buying the debt, issuers should either raise the interest rates on their bonds or agree to a lower amount than originally planned. This potentially forces issuers to seek additional funding and worsens their credit rating. Debt shadowing allows small investors to participate in the purchase of issued debt, which increases the total pool of investors and helps issuers meet their financing targets. A large enough investor pool will create pressure to lower interest rates and allow issuers to provide financing at cheaper rates.

What is Blockchain tokenization?



how we develop our business

The world's major players are already involved in debt tokenization on a block basis. In August 2018, the World Bank raised \$110 million after issuing the world's first global block bond. Also, an annual floating rate deposit bill of CAD 250 million issued by the Bank of Montreal and redeemed by the Ontario Teachers' Pension Plan was reflected in the network's block-issue.

Several companies also tokenized their debt assets. Genesis Capital made over \$1 billion by selling loans to BTC, ETH, and XRP to institutional clients. New York-based Cadence raised \$500,000 in structured notes to provide these funds to Amazon's qualified partners. Bibox, the world's seventh-largest exchange with a daily turnover of over \$325 million, launched a new crypto bond offering. Bibox bonds were sold by its investment incubator Vocean, which offers tokenized bonds with integrated dynamic collateral management for crypto companies around the world. Republic Crypto has issued a new debt instrument called Token Debt Payable by Assets (DPA), the interest on which is paid in tokens. Consumer Loan Company Nexo offers crypt-covered loans denominated in more than 40 different fiat currencies across over 200 jurisdictions, ranging from \$100 to \$2 million.

TLS TOKEN - SECURITY TOKEN

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The Securities Exchange Act of 1934 lists several examples of securities in action, but the clearest definition comes from the case SEC vs. Howey. An asset counts as a security if it involves: clearest definition comes from the case SEC vs. Howey. An asset counts as a security if it involves:

- Consumer investment
- In a common enterprise
- With the expectation of profit derived primarily from the work of others.

Security tokens offer investors more than trivial speculative utility, but an actual asset with a focus on greater due diligence, equity options and the legal protection that can only be afforded by regulation.

As the market matures further with the manifestation of regulated exchanges, custodians and digital security protocols, they provide the meta-model already enjoyed by equity and bond markets.

We expect that asset-backed securities will significantly diminish volatility, filter malicious behavior, provide investors good returns and automate compliance procedures.

The expectation is that asset-backed investments will significantly reduce volatility, filter impropriety, provide investor comfort and automate compliance.

Market Approach and Strategy:



how we develop our business

Share of energy from renewable sources in gross final consumption of energy, 2004-2017

(%)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2011-2012 average	2013-2014 average	2015-2016 average	S2005 (*)	2011-2012	indicative trajectory 2013-2014	trajectory 2015-2016	2017-2018	2020 target
EU-28	8.5	9.1	9.7	10.6	11.3	12.6	13.1	13.4	14.7	15.4	16.2	16.7	17.0	17.5	14.0	15.8	16.9						20.0
Belgium	1.9	2.3	2.6	3.1	3.6	4.7	5.6	6.3	7.2	7.5	8.0	7.9	8.6	9.1	6.7	7.8	8.3	2.2	4.4	5.4	7.1	9.2	13.0
Bulgaria	9.4	9.4	9.6	9.2	10.5	12.1	14.1	14.3	16.0	18.0	18.2	18.8	18.7	15.2	15.2	18.5	18.5	9.4	10.7	11.4	12.4	13.7	16.0
Czechia	6.9	7.1	7.4	8.0	8.6	9.9	10.5	11.0	12.8	13.9	15.0	15.0	14.9	14.8	11.9	14.5	14.9	6.1	7.5	8.2	9.2	10.6	13.0
Denmark	14.9	16.0	16.3	17.8	18.6	20.0	22.1	23.5	25.7	27.4	29.7	31.4	32.6	35.8	24.6	28.6	32.0	17.0	19.6	20.9	22.9	25.5	30.0
Germany	6.2	7.1	8.4	10.0	10.0	10.8	11.7	12.5	13.6	13.8	14.4	14.9	14.9	15.5	13.0	14.1	14.9	5.8	8.2	9.5	11.3	13.7	18.0
Estonia	18.4	17.4	15.9	17.0	18.6	22.9	24.6	25.4	25.5	25.4	26.2	28.4	28.6	29.2	25.5	25.8	28.5	18.0	19.4	20.1	21.2	22.6	25.0
Ireland	2.4	2.8	3.1	3.5	4.0	5.2	5.8	6.6	7.1	7.6	8.7	9.1	9.3	10.7	6.8	8.2	9.2	3.1	5.7	7.0	8.9	11.5	16.0
Greece	6.9	7.0	7.2	8.1	8.0	8.5	9.8	10.9	13.5	15.0	15.4	15.4	15.1	16.3	12.2	15.2	15.2	6.9	9.1	10.2	11.9	14.1	18.0
Spain	8.3	8.4	9.1	9.7	10.7	13.0	13.8	13.2	14.3	15.3	16.1	16.2	17.4	17.5	13.8	15.7	16.8	8.7	11.0	12.1	13.8	16.0	20.0
France	9.5	9.6	9.3	10.2	11.2	12.2	12.7	11.1	13.6	14.2	14.8	15.2	15.9	16.3	12.4	14.5	15.6	10.3	12.8	14.1	16.0	18.6	23.0
Croatia	23.4	23.7	22.7	22.2	22.0	23.6	25.1	25.4	26.8	28.0	27.8	29.0	28.3	27.3	26.1	27.9	28.6	12.6	14.1	14.8	15.9	17.4	20.0
Italy	6.3	7.5	8.3	9.8	11.5	12.8	13.0	12.9	15.4	16.7	17.1	17.5	17.4	18.3	14.2	16.9	17.5	5.2	7.6	8.7	10.5	12.9	17.0
Cyprus	3.1	3.1	3.3	4.0	5.1	5.6	6.0	6.0	6.8	8.1	8.9	9.4	9.3	9.9	6.4	8.5	9.4	2.9	4.9	5.9	7.4	9.5	13.0
Latvia	32.8	32.3	31.1	29.6	29.8	34.3	30.4	33.5	35.7	37.0	38.6	37.5	37.1	39.0	34.6	37.8	37.3	32.6	34.1	34.8	35.9	37.4	40.0
Lithuania	17.2	16.8	16.9	16.5	17.8	19.8	19.6	19.9	21.4	22.7	23.6	25.8	25.6	25.8	20.7	23.1	25.7	15.0	16.6	17.4	18.6	20.2	23.0
Luxembourg	0.9	1.4	1.5	2.7	2.8	2.9	2.9	2.9	3.1	3.5	4.5	5.0	5.4	6.4	3.0	4.0	5.2	0.9	2.9	3.9	5.4	7.5	11.0
Hungary	4.4	6.9	7.4	8.6	8.6	11.7	12.7	14.0	15.5	16.2	14.6	14.4	14.3	13.3	14.8	15.4	14.3	4.3	6.0	6.9	8.2	10.0	13.0
Malta	0.1	0.1	0.1	0.2	0.2	0.2	0.8	1.8	2.8	3.7	4.7	5.1	6.2	7.2	2.3	4.2	5.7	0.0	2.0	3.0	4.5	6.5	10.0
Netherlands	2.0	2.5	2.8	3.3	3.6	4.3	3.9	4.5	4.7	4.7	5.5	5.7	5.9	6.6	4.6	5.1	5.8	2.4	4.7	5.9	7.6	9.9	14.0
Austria	22.7	23.7	25.3	27.0	27.6	29.8	29.9	30.1	31.0	32.0	33.2	32.8	33.0	32.6	30.6	32.6	32.9	23.3	25.4	26.5	28.1	30.3	34.0
Poland	6.9	6.9	6.9	6.9	7.6	8.7	9.3	10.3	10.9	11.4	11.5	11.7	11.3	10.9	10.6	11.4	11.5	7.2	8.8	9.5	10.7	12.3	15.0
Portugal	19.2	19.5	20.8	21.9	22.9	24.4	24.2	24.6	25.7	27.0	28.0	28.4	28.1	24.6	26.3	28.2	20.5	22.6	23.7	25.2	27.3	31.0	34.0
Romania	16.2	17.2	17.1	18.3	20.5	22.7	23.1	21.2	22.8	23.9	24.8	24.8	25.0	24.5	22.0	24.4	24.9	17.8	19.0	19.7	20.6	21.8	24.0
Slovenia	16.1	16.0	15.6	15.6	15.0	20.1	20.4	20.3	20.8	22.4	21.5	21.9	21.3	21.5	20.5	22.0	21.6	16.0	17.8	18.7	20.1	21.9	25.0
Slovakia	6.4	6.4	6.6	7.8	7.7	9.4	9.1	10.3	10.4	10.1	11.7	12.9	12.0	11.5	10.4	10.9	12.5	6.7	8.2	8.9	10.0	11.4	14.0
Finland	29.2	28.8	30.0	29.6	31.3	31.3	32.4	32.8	34.4	36.7	38.8	39.3	39.0	41.0	33.6	37.8	39.2	28.5	30.4	31.4	32.8	34.7	38.0
Sweden	38.7	40.5	42.6	44.1	45.2	48.1	47.2	48.7	51.1	51.9	52.4	53.6	53.8	54.5	49.9	52.2	53.7	39.8	41.6	42.6	43.9	45.8	49.0
United Kingdom	1.1	1.3	1.5	1.8	2.7	3.3	3.7	4.2	4.2	5.3	6.5	8.4	9.2	10.2	4.2	5.9	8.8	1.3	4.0	5.4	7.5	10.2	15.0
Montenegro		35.7	34.8	32.9	32.3	39.4	40.6	40.6	41.5	43.7	44.1	43.1	41.5	40.0	41.1	43.9	42.3		27.6	28.3	29.3	30.7	33.0
North Macedonia	15.7	16.5	16.5	15.0	15.6	17.2	16.5	16.4	18.1	18.5	19.6	19.5	18.0	19.7	17.3	19.0	18.8		23.1	23.7	24.6	25.9	28.0
Albania	29.6	31.4	32.1	32.7	32.4	31.4	31.9	31.2	35.2	33.2	31.5	34.4	37.1	34.6	33.2	32.3	35.7		32.6	33.2	34.3	35.6	38.0
Serbia	12.7	14.3	14.5	14.3	15.9	21.0	19.8	19.1	20.8	21.1	22.9	21.9	21.0	20.6	20.0	22.0	21.4		22.4	22.9	23.8	25.0	27.0
Turkey	16.2	15.5	14.1	13.2	13.5	14.1	14.0	12.8	13.2	13.9	13.6	13.7	13.2	13.0	13.8	13.7							
Kosovo (*)	20.8	20.0	19.8	19.0	18.6	18.4	18.3	17.7	18.7	18.9	19.5	18.5	24.4	22.9	18.2	19.2	21.4		20.1	20.7	21.6	22.9	25.0

(*) S2005 is the share of energy from renewable sources in 2005, baseline used for the calculation of the indicative trajectory (in accordance with Directive 2009/28/EC on the promotion of the use of energy from renewable sources).

(*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Source: SHARES_summary_results in <http://ec.europa.eu/eurostat/web/energy/data/shares>

eurostat

According to the EU directive the share of energy purchased from renewable sources shall be at least 40% by Companies and at least 40% of the total generated electric power in countries by 2030.

Based on the Eurostat statistics (see above) we have perspectives for growth.

Nowadays green energy companies:

Burn biomass.

Use wind parks.

Build very expensive CSP stations (in southern regions).

Use geothermal sources.

But all these solutions are more like expensive patching holes.

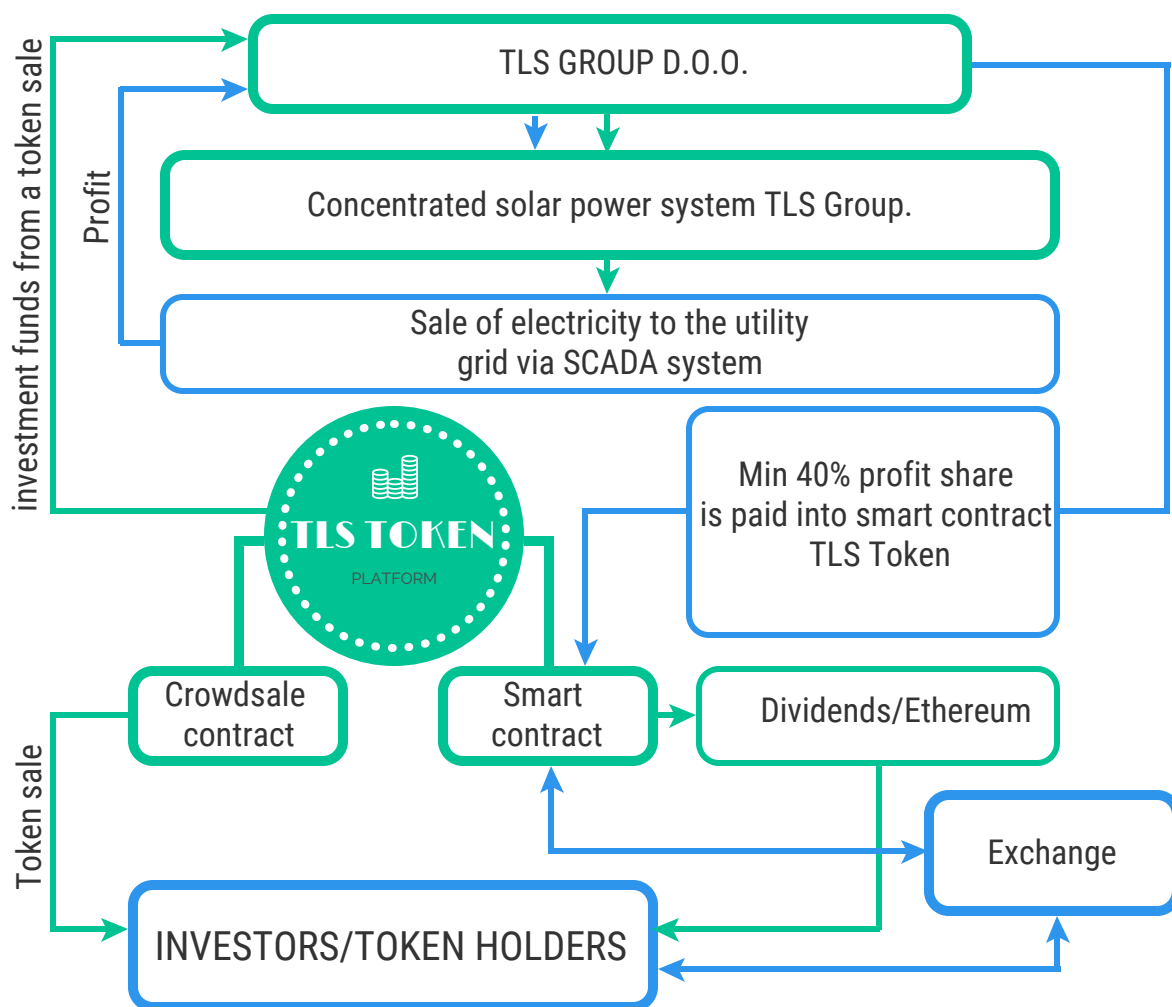
We offer a relatively simple and easily scalable solution.

We are ready to install stations in all regions that have at least 250 sunny days a year. It is a fairly large list of countries all over the world. Only in Europe they are Austria, Bulgaria, Croatia, France, Germany, Hungary, Italy, Macedonia, Malta, Montenegro, Romania, Spain.

Business model

how we make money

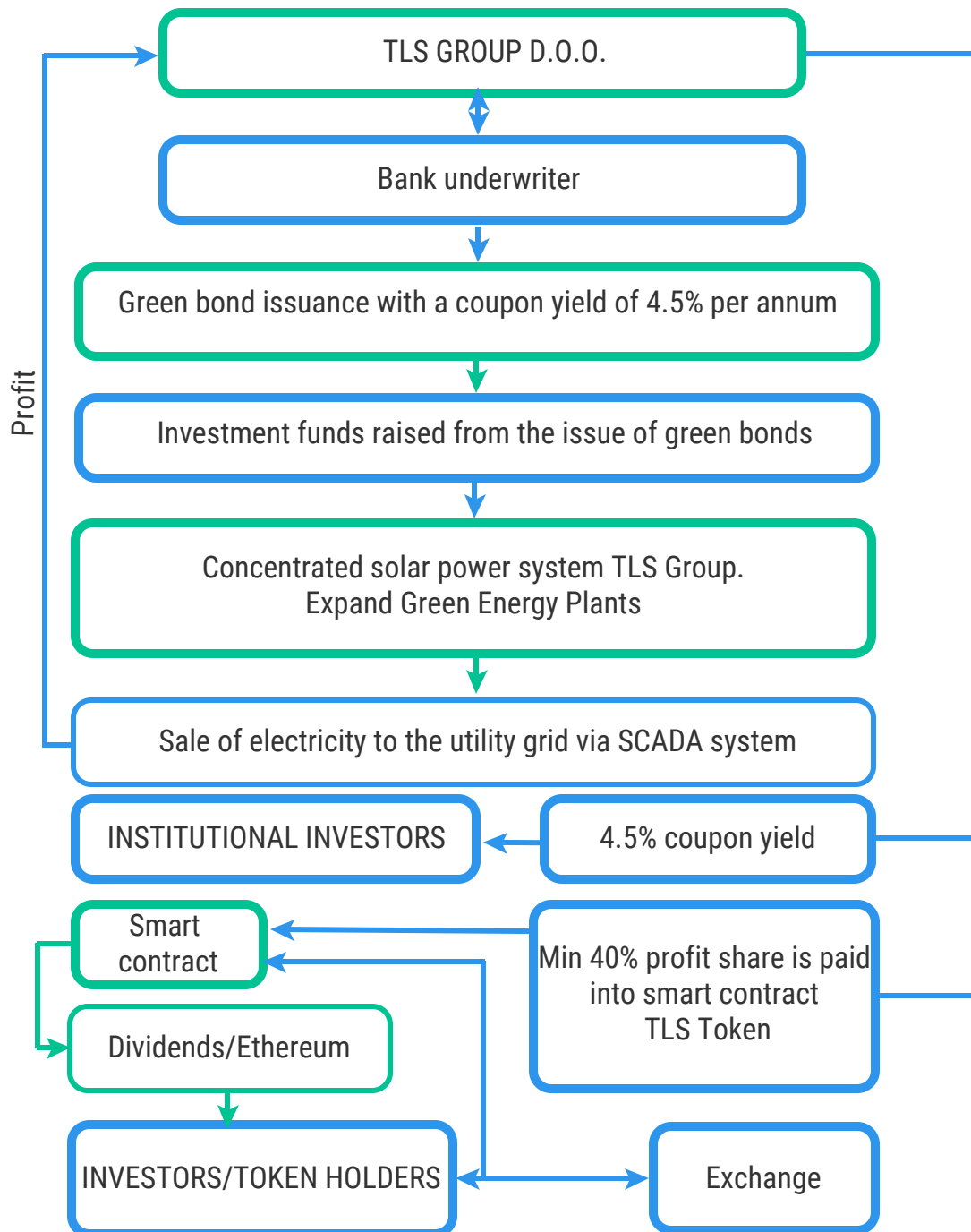
BUSINESS MODEL STAGE 1

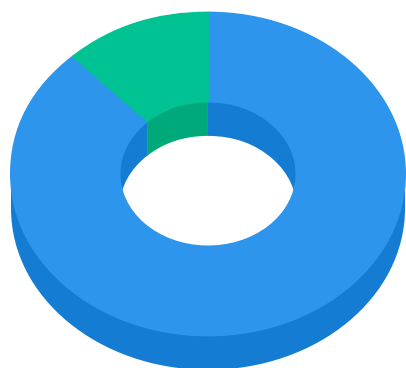


Business model

how we make money

BUSINESS MODEL STAGE 2





● Investing ● Development

The emission of tokens is realized through a Crowd sale contract containing Minted tokens, so when buying tokens through our platform, new tokens are issued.

The maximum possible token issue is 2 billion tokens.

12% of the token sales will be spent on research and development.

The remaining 88% will be invested in the construction and launch of Green Energy Plant based on CSP.

The tokens are supported by the right to receive a 40% share of the company's profits in the form of dividends distributed on a proportional basis.

Description of main functions of TLS contracts:

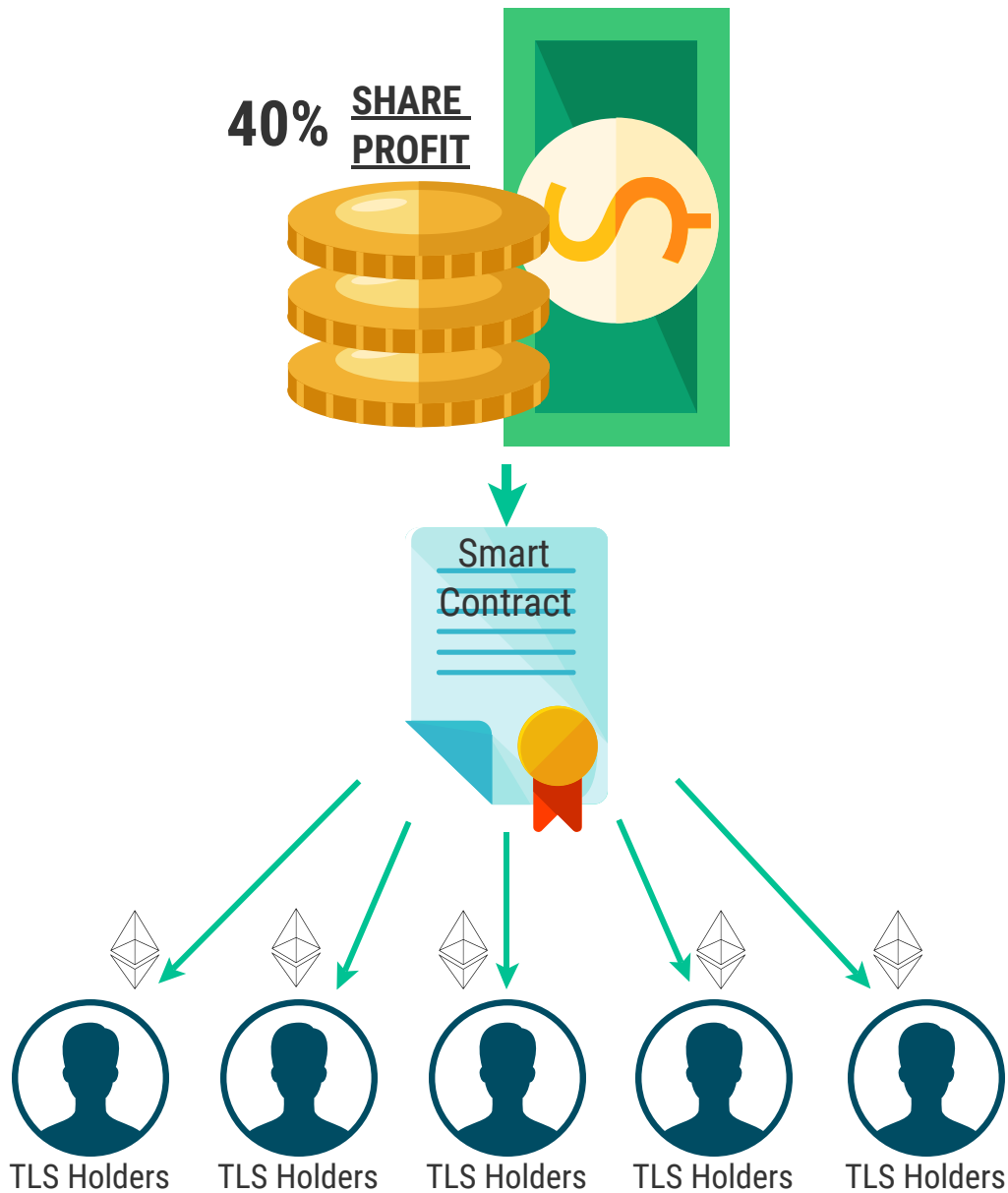
Crowd Sale Contract

- Count Managers**
Shows the number of smart contract managers
- Managers**
Check Manager Function
- New Owner**
Owner transfer function
- Paused**
Function of freezing token emission
- Crowd Sale closed**
Stops token emission permanently...

Smart Contract TLS Token

- | | |
|--|--|
| Approve
Address approval function | Withdraw Ether
Dividend Payout Function |
| Multi transfer
Mass transfer function of tokens | Burn from
Function for burning tokens from an approved address |
| Burn
The function of burning tokens from the address of the contract owner | |

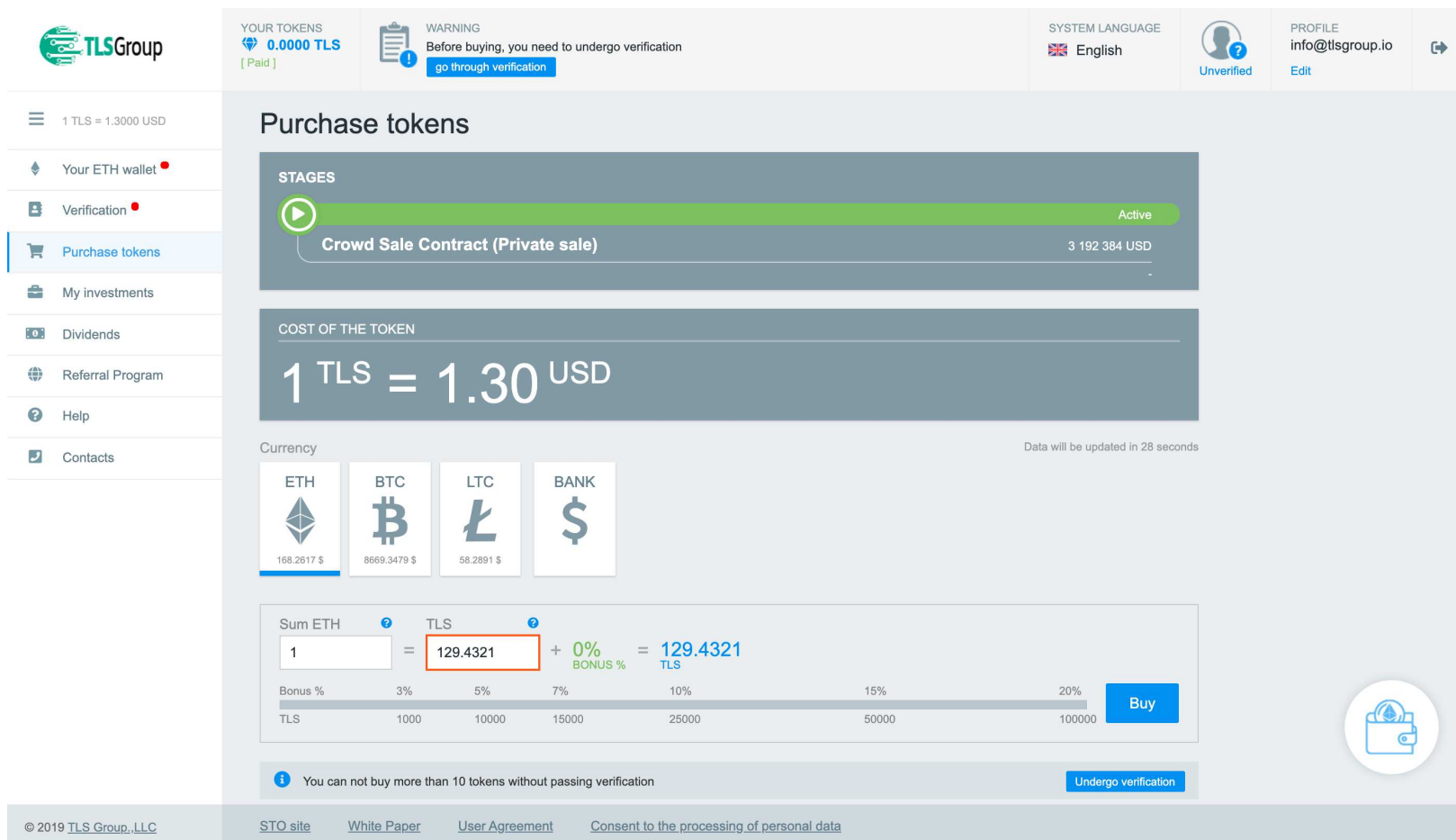
Value Distribution Mechanism



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EVERYTHING YOU NEED TO KNOW

COMMUNICATION & DATA VISUALIZATION



The screenshot displays the STO Platform interface. At the top, the 'YOUR TOKENS' section shows 0.0000 TLS with a '[Paid]' status. A 'WARNING' message states: 'Before buying, you need to undergo verification go through verification'. The 'SYSTEM LANGUAGE' is set to English. The user profile is 'Unverified' with the email 'info@tsgroup.io'. The left sidebar contains navigation options: '1 TLS = 1.3000 USD', 'Your ETH wallet', 'Verification', 'Purchase tokens', 'My investments', 'Dividends', 'Referral Program', 'Help', and 'Contacts'. The main content area is titled 'Purchase tokens' and features a 'STAGES' section with a progress bar for 'Crowd Sale Contract (Private sale)' which is 'Active' and valued at '3 192 384 USD'. Below this is the 'COST OF THE TOKEN' section showing '1 TLS = 1.30 USD'. A 'Currency' section displays rates for ETH (168.2617 \$), BTC (8669.3479 \$), LTC (58.2891 \$), and BANK (\$). The 'Purchase tokens' form shows a calculation: 'Sum ETH 1 = 129.4321 + 0% BONUS % = 129.4321 TLS'. A 'Buy' button is present. A warning message at the bottom states: 'You can not buy more than 10 tokens without passing verification' with an 'Undergo verification' button. The footer contains copyright information and links to 'STO site', 'White Paper', 'User Agreement', and 'Consent to the processing of personal data'.

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First step

Sign up

Second step

After registration it is necessary to specify the address of your Ethereum wallet, dividends will be charged to the entered address. In case of purchase of tokens through Ethereum payment must be made from the address you specified. For this purpose, it is best to use Metamask, as the platform is built on interaction with this software product.

Ethereum address

[Download from MetaMask](#)

ID 6

To get the tokens you need to have an Ethereum-purse.

What is it and how to register it read [here](#).

In your personal account, all **purchased** **< / b> You tokens. The date and time of real charging of tokens on ETH-addresses you can learn in White Paper or check with the organizers of the ICO.**


A beginner's guide to

EVERYTHING YOU NEED TO KNOW

COMMUNICATION & DATA VISUALIZATION

Third step

For further work with the platform, it is necessary to pass verification, only then you can buy tokens.



In the verification process, errors were found.
Please correct them and retry the verification request

[Verify account](#) Filling out the application will take several minutes



Personal data



Registration address



Documentation

First Name

Last Name

Patronymic

Sex

Birthday

Series and number of the document

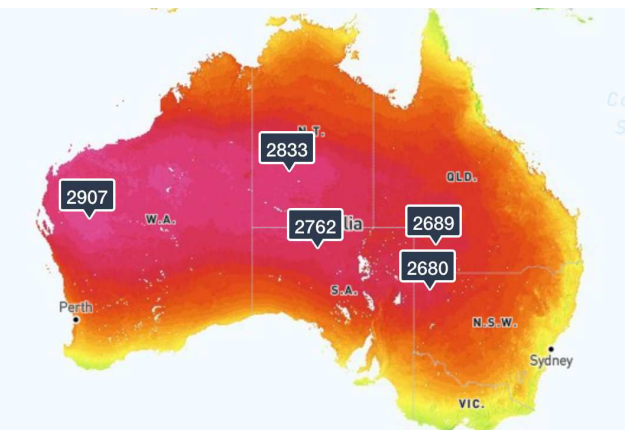
Country of issue of the document

Registration Date

[Next stage](#)

Growth metrics

DNI indicators of Europe and Australia



As part of the 10-year program of development of our company in Europe and Australia, it is planned to build and launch at least 10 energy complexes with a capacity of 8 megawatts per hour each. The list of countries and republics is selected according to DNI - Average value of direct sunlight for the year. This list includes Austria, Bulgaria, Croatia, France, Germany, Hungary, Italy, Macedonia, Malta, Montenegro, Romania, Spain, and Australia.

Our team is planning to build and launch a station at 8 Mw/h in the Republic of Northern Macedonia, Bitola district, 2020. The choice of this republic is since power generating companies use renewable energy sources are exempt from tax for 10 years, which is a weighty argument for the start.

According to the Paris Agreement, by 2030 the EU will try to reduce greenhouse gas emissions by at least 40% compared to 1990 levels. The European Union has already set a target to increase the share of renewable energy to 20 percent by 2020. Alternative energy currently accounts for 17% of the block's energy balance. It is planned to reach 40-50% of the total energy output by 2030.

According to the EU law EEG 2017, energy companies and private businesses in the EU must consume electricity from renewable sources, buying it up to 40-50% of the total electricity consumption. According to the table above, the market volume for our technology is tens of billions of euros. Further expansion of the company's energy field will take place in the EU as negotiations with the energy networks of the countries are held and memoranda are signed.

Growth metrics

How we will achieve our growth goals.

We look forward to finding a strategic partner with whom we can work together on our project. With the launch of the first complex, we intend to apply for the construction of our plants in all the above countries, states, and provinces. By using direct channels and methods, we will be able to interact with the power grids of the countries.

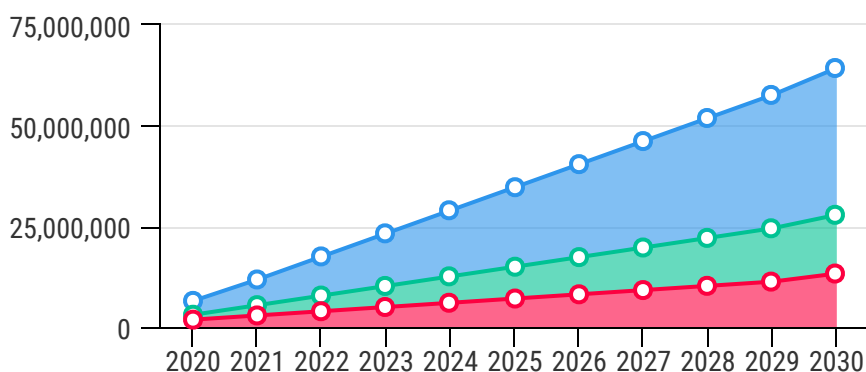
We are confident that our post-launch statistics, as reflected in the SCADA report, will show a significant advantage over all existing solar power generation technologies. Our efficiency factor and financial model make this component second to photovoltaic power plants in the installation process. Unbeaten in terms of cost per unit kWh per cycle is more than 10 years.



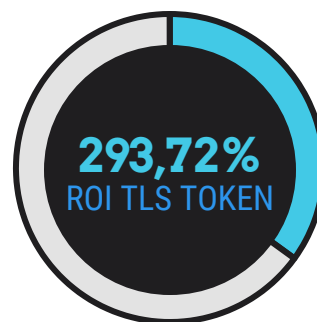
Financial model

Construction and start-up costs of Green Energy Plant 8Mw/h				Calculation of equipment performance based on DNI and thermal indicators for 1 CSP Dish Stirling solar system			
Title	quantity	price	total	DNI			
CSP	320	66000	21120000			1565	
Data Center including communications	1	800000	800000	Mirror M2		92	
Land m2	18000	6	108000	KWh/year		86388	
administrative staff	4	27200	27200	KWh/day		236,68	
Technical staff	2	6400	6400	Performance KWh		26,30	
Service personnel	3	7200	7200	Max Performance KWh		33	
accounting department	1	1500	1500				
		total:	22070300	Mirror/occupied area		92m2/4m2	
				The overall noise level		first 20 min no more 70Db	

Approximate calculation of profit and loss	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Power CSP Kw/h	26,30	26,30	26,30	26,30	26,30	26,30	26,30	26,30	26,30	26,30	26,30
The price of the station	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000
Quantity station	320	642	964	1286	1609	1931	2254	2576	2899	3221	3543
Power Kw/h	8415,27	16875,04	25354,79	33834,55	42314,31	50794,07	59273,82	67753,58	76233,34	84713,10	93192,85
Power Mw/h (Year)	27644,16	55429,68	83283,27	111136,85	138990,44	166844,02	194697,61	222551,19	250404,78	278258,37	306111,95
Price per Kw/h	0,12	0,12	0,12	0,12	0,12	0,12	0,12	0,12	0,12	0,12	0,12
Gross margin	3317299,20	6651561,86	9993992,12	13336422,37	16678852,63	20021282,88	23363713,13	26706143,39	30048573,64	33391003,90	36733434,15
Expenses											
payroll accounting with taxes											
administrative staff	42000,00	42000,00	42000,00	42000,00	42000,00	42000,00	42000,00	42000,00	42000,00	42000,00	42000,00
Technical staff	76800,00	76800,00	76800,00	76800,00	76800,00	76800,00	76800,00	76800,00	76800,00	76800,00	76800,00
Service personnel	86400,00	86400,00	86400,00	86400,00	86400,00	86400,00	86400,00	86400,00	86400,00	86400,00	86400,00
accounting department	18000,00	18000,00	18000,00	18000,00	18000,00	18000,00	18000,00	18000,00	18000,00	18000,00	18000,00
Different production costs	50000,00	50000,00	50000,00	50000,00	50000,00	50000,00	50000,00	50000,00	50000,00	50000,00	50000,00
Total:	273200,00	273200,00	273200,00	273200,00	273200,00	273200,00	273200,00	273200,00	273200,00	273200,00	273200,00
Modernization, expansion	21228000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00
Issue Green Bond	21228000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00	21280000,00
Green Bond Coupon Yield 4,5%	0,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00
			957600,00	957600,00	957600,00	957600,00	957600,00	957600,00	957600,00	957600,00	957600,00
				955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00
					955260,00	955260,00	955260,00	955260,00	955260,00	955260,00	955260,00
						955260,00	955260,00	955260,00	955260,00	955260,00	955260,00
							955260,00	955260,00	955260,00	955260,00	955260,00
								955260,00	955260,00	955260,00	955260,00
									955260,00	955260,00	955260,00
										955260,00	955260,00
											955260,00
Dividends for TLS token holders	1217639,68	2551344,74	3888316,85	5225288,95	6562261,05	7899233,15	9236205,25	10573177,36	11910149,46	13247121,56	14584093,66
Profit before dividend payment	3044099,20	6378361,86	9720792,12	13063222,37	16405652,63	19748082,88	23090513,13	26432943,39	29775373,64	33117803,90	36460234,15
Profit after dividend payment	1826459,52	3827017,12	5832475,27	7837933,42	9843391,58	11848849,73	13854307,88	15859766,03	17865224,19	19870682,34	21876140,49
Total profit:	1826459,52	2871757,12	3919615,27	4969813,42	6020011,58	7070209,73	8120407,88	9170606,03	10220804,19	11271002,34	13276460,49



● Profit Company ● Dividends ● Total Profit Company



In 10 years

Financial model

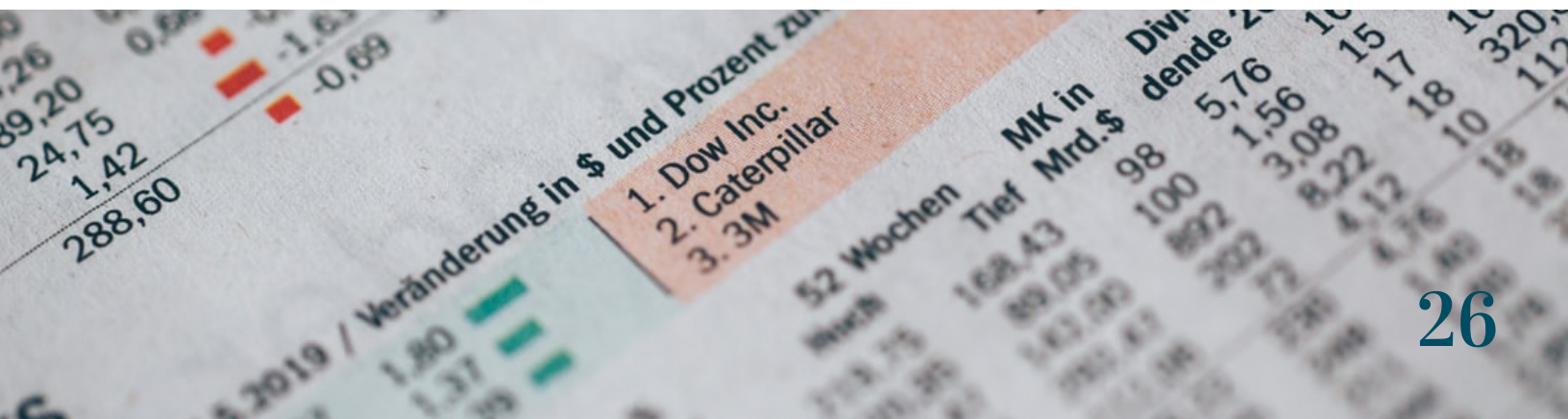
Green Eurobonds

Today there is a relationship with HSBC Holdings plc, JPMorgan Chase & Co., which underwrites Green Eurobonds. With state support and appropriate guarantees - banks will be ready to issue "Green Eurobonds." Obligations under Eurobonds data will be not more than 5% per annum. Based on experience In 2019, the volume of green bond production in the world more than doubled, exceeding \$223 billion. With the creation of the appropriate infrastructure with state support in Europe, it is possible to produce, demand for the financial market, Eurobonds.

Green bonds are debt papers whose funds are used to finance environmental projects. The system is created in several steps:

- Organization of commercial company, together with power generating company MEMO North Macedonia - Creation of minimum operating power plant CSP on 8MW - Passing the company audit
- Underwriting with HSBC Holdings plc, JPMorgan Chase & Co
- Issuing state guarantees in favor of Green Energy
- Green Eurobonds issue.

In the above-mentioned phases, it is possible to raise funds (with the obligation to ensure 5% annual profitability) in the amount of up to 500 million dollars, which will allow not only to return own investments in the 8 MW project but also to receive additional funds for the implementation of new green projects. And make a return on investment to the investor in 2 years with good profit.



SWOT analysis

Strengths

- Level of knowledge and experience
- Transparent source of investment repayment
- High performance
- Stable power generation for 40 years
- No disposal costs
- The warranty period of operation without replacement of components for 40 years
- Retrieval of profits for all levels, types, and classes of the investment community
- Low cost concerning competitors of similar equipment

Opportunities

- Expansion from Northern Macedonia to Central and the rest of South-Western Europe
- Job creation
- Building strong corporeal and state relations

Weaknesses

- The technology is unique and has little presence on the market.
- The cost of the equipment is second after the photovoltaic panels.
- Lack of funding for marketing and construction of Green Energy plant

Threats

- Economic contraction
- Government hesitation or inaction regarding the use of renewable energy sources as a viable resource and getting rid of petroleum products

Team



Khokhlov Ruslan
D.O.O. TLS Group
CEO/Founder



Viktor Kopylov
Si14 LLC President



Aleksandr Kkorogodsky
Akor Direct GmbH
Chief Designer



Anatoly Korogodsky
Akor Direkt GmbH
CEO



Vitalii Parkhomenko
D.O.O. TLS Group
CMO

Khokhlov Ruslan is the CEO of D.O.O. TLS Group who manages this company. Having more than 19 years of experience in foreign economic activity 5 years of them he lived and conducted his professional activity in China with many Chinese manufacturers and suppliers, as well as with the companies FESCO, Maersk, CMA CGM. He is an expert in logistics, customs law, banking infrastructure. He has great experience in IT and cryptographic technologies, network communication technologies, remote server administration systems, programming and WEB development.

Viktor Kopylov is a company consultant with wide experience in technical and fundamental analysis of stock and currency markets, preparation of one-time, daily, weekly and monthly analytical reports on the company's main performance indicators, preparation of databases, work with billing, statistical and analytical data on the B2B direction, and participation in budgeting, forecasting key performance indicators of the company.

Alexander Korogodsky is the Chief production designer and the research supervisor, the PDO chief (Parent Design Organization). More than 90 publications, i.e. scientific papers and study guides, 32 of which are inventor's

Anatoly Korogodsky is the technical manager of the engineering development direction of CSP systems: development and implementation of innovative technologies in the project.

Vitaliy Parkhomenko is engaged with interaction with energy companies and state authorities, development of new markets, interaction with environmental organizations, interaction with UNESCO, marketing maintenance.

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