GTurbo - Token-option for gas turbine production

Brief description of the project

The GTurbo project combines advanced technologies in the field of finance and industrial production of GTT-3PN gas turbine units.

Gas turbines GTT-3 (M) and GTT-3PN are used in UKL-7 units for the production of non-concentrated nitric acid. It is the basis for production of nitrate nitrogen fertilizers (ammonium nitrate and its modifications), as well as complex fertilizers (containing nitrogen, phosphorus and potassium). The industry of nitric acid in the countries of the former USSR still remains the largest in the world. Gas turbines are designed and produced by 5 countries in the world including Russia.

Compared with GTT-3M, the new turbine GTT-3PN allows to produce 24,000 more tons of nitric acid per year (22% of the total production of one turbine per year), which is equivalent to a gain of $ 3.5 million per year. Decentralized direct investment in the project will be implemented through the purchase of the GTurbo option. The GTurbo financial instrument will be launched on the Ethereum blockchain platform.

Definitions

The underlying asset is the asset on which the financial derivative (option) is based. It is a product, in our case, GTT-3PN gas turbine unit and GTurbo derivative.

The gas turbine unit GTT-3PN is used for the production of fertilizers (ammonium nitrate), which are used for agricultural needs. Derivative or derivative financial instrument is a contract under which parties obtain the right and / or take the obligation to perform certain actions with respect to the underlying asset. This contract is an agreement between two parties under which they assume an obligation or acquire the right to transfer the underlying asset within the prescribed period at the agreed price.

The GTurbo derivative is an optional contract for the sale of the GTT-3PN gas turbine in the form of GTurbo intangible asset (see below), which includes an option (put option) for the token buy-back at the agreed time at the agreed price. Cryptoeconomy is a socio-economic relationship in a digital society that focuses on interactions using network protocols. The main areas that are part of the study of crypto-economics are: cryptographic tokens (crypto-currencies), digital assets; decentralized social security and crowdfunding systems; decentralized management systems; self-fulfilling "smart" contracts; commerce markets for computing resources; online trust systems and reputation systems; consensus algorithms, etc.

Option is one of the derivative types; the contract for the sale of the underlying asset (in our case, GTurbo), whereby the option buyer acquires the right to sell the asset at a predetermined price at a specified future time. Primary capital formation, or ICO, Initial Coin Offerings, is a way to attract capital through the use of crypto investments in the project at its initial stage (including using crypto currency). The text of the document will use the "ICO" abbreviation.

Introduction. Project Description

More than 50 percent of the total volume of nitric acid in the CIS countries is produced by large-tonnage UKL-7 units, the operated quantity of which on the territory of Russia, Ukraine, the Republic of Lithuania and Uzbekistan is about 100 units, including conjugate production of sodium nitrite-nitrate, concentrated nitric acid, etc.

Energy-efficient UKL-7 units with GTT-3 gas turbine drive were developed and started to be put into operation more than 30 years ago. UKL-7 units operate in a mode of almost complete closed energy balance, since a gas turbine is used as an air compressor drive with the recovery of the energy of compression and heat of the off-gas in it. As a closing drive, an electric motor with a phase rotor is adopted, which can work in both the motor and generator modes. In terms of intensity of technology, structure, power, flexibility, autonomy and environmental friendliness these units are still among the competitive ones. However, a long period of operation necessitated the stylistic and physical modernization of their engine parts and energy technology in general.

The equipment limiting the service life of the UKL-7 units is GTT-3 (GTT-3M) gas turbine units, the warranty resource of which in the industry is in 1.5-2 excess, which requires significant costs for capital repairs with replacement of basic units (using expensive repair kits), purchasing components and spare parts. According to statistics, the failure of the main equipment and downtime due to GTT-3 fault account for 23.9% of the total amount of UKL-7 lost time.

We propose to reconstruct the energy-technological scheme of UKL-7 units by introducing a new development - GTT-3PN gas turbine unit with full-axial compressor, created on the basis of the reconstructed existing GTT-3M unit. This solution will allow to obtain a significant economic effect due to changes in the configuration of the machine, physical and stylistic updating of the main element of the gas turbine unit, which determines its productivity and reliability, the turbocharger unit, with relatively low capital costs, using the existing base of the GTT-3M machine.

Project summary. Commercial component of the project

This project assumes crowdfunding investment in the GTurbo derivative (see the definition above), which is implemented as a financial instrument on the Ethereum blockbchain platform and is ensured with gas turbine unit GTT-3PN industrial product.

The main stages of the project are: "Fundraising (pre-ICO)", "Fundraising (ICO)", "Production" and "Buy-back". The road map of the project is as follows:

Stage 1 "Fundraising (pre-ICO)" December 2017 - January 2018. Pre-ICO for the acquisition of GTurbo options using Ethereum blockchain. The cost of the token will be $ 0.05, with a total of 26,000,000 tokens put out for sale (a total of 416,000,000 GTurbo tokens will be issued). On the first day of pre-ICO, a "bonus" of 30% of the purchased number of tokens will be available. Pre-ICO collected funds will generate a marketing budget for the ICO. Note: additional information will be posted on the project website.

Stage 2 "Fundraising (ICO)" February-March 2018. Running ICO for acquisition of GTurbo options using Ethereum. The cost of the token will be $ 0.1, only 390,000,000 tokens will be put up for sale. On the first day of ICO, a "bonus" of 30% of the purchased number of tokens will be available. ICO collected funds will form investment budget to upscale the capacity of gas turbines. Note: additional information will be posted on the project website.

Stage 3 "Production". March - June 2018 - modernization of business processes to increase capacity and start production of turbines with new business logic. June 2018 - June 2019 - the first cycle of production of turbines.

Stage 4 "Buy-back" June 2019.

GTurbo options buy-back will be as follows:

Buy-back Period	The percentage of tokens for buy-back from the total number of tokens sold	The buy-back price of one token	Profit in comparison with ICO price
March 2018	0.64%	$0,15	50%
June 2019	36,06%	$0,2	100%
June 2020	28,85%	$0,25	150%
June 2021	24,04%	$0,3	200%

Buy-back Period	The percentage of tokens for buy-back from the total number of tokens sold	The buy-back price of one token	Profit in comparison with ICO price
June 2022	10,42%	$0,4	300%

Note: *the price of the token on the pre-ICO is $ 0.05, on the ICO - $ 0.1.*

The main purpose of crowd investments in the GTurbo commodity option for investors is to acquire an option with a profit of 62% (the estimated average amount of future revenue per year); the acquired GTurbo derivative is ensured with a real commodity, which in the case of currency fluctuations is "protected" by the value of this constantly high-demand asset.

Brief description of the production process

The investment project under consideration provides for scaling production in two stages: the first stage is the outsourcing the manufacture of components for the GTT-3PN gas turbine. Appropriate arrangements with third parties have already been made. Assembling of plants is carried out in our own production facilities. The second stage is the expansion of our own production to increase the production capacity of components.

Gas turbines market of for UKL-7 units

Currently, more than 50 percent of the total volume of nitric acid in the CIS countries is produced by large-capacity UKL-7 units, the operated quantity of which on the territory of Russia, Ukraine, the Republics of Lithuania and Uzbekistan is about 100 units including conjugate production of sodium nitrite-nitrates, concentrated nitric acid, etc. At the moment, in addition to our production in Russia, a GTU-8 turbocharger is being built on the basis of the Nikolayev ship engine, but there is no large-scale produced engine. In this model, there is no increase in performance compared to GTT-3M. To date, they work only in Nevinnomyssk, other mills do not order them. Dalenergomash announced the production of GTT-9, but not a single sample was produced and it is not supplied for existing production facilities.

GTurbo Project Revenues

Current revenues associated with the daily operation of the plant are presented in the table:

Indicator name	Value
The volume of production of GTT-3PN gas turbine unit (units)	3
Average cost of production of 1 turbine	$4,166,667
Average sale price of 1 turbine	$8,333,333
Total turnover per year	**$25,000,000**

Note: *the billing period is defined as 1 year.* Note: *the exchange rate RUB/USD is taken 60*

Planned revenues from the plant's activities for the year should be $25 million. With large volumes of production, it is possible to scale up to 10 gas turbines a year.

Project summary

The GTurbo project team consists of developers of innovative technologies, technologists, scientists-experts, managers, economists with experience in industry and finance.

Sergey Vladimirov, Phd of Economics, Professor, Academician of the Russian Academy of Natural Sciences (RAE). Leningrad Military Space Academy named after AF Mojajsky, qualification - the engineer-inspector of technical supervision of especially important ground and underground constructions.

Vitaly Filipov, The economist, the manager, the developer of financial technologies in the banking, state, investment spheres. Vitaly was involved in investment campaigns to attract investments in the industrial sector, in particular, with the support of the state..

Ivan Andrysiak, Applicant of the Candidate's Degree in Pedagogical Sciences "NATIONAL STATE UNIVERSITY OF PHYSICAL CULTURE, SPORTS AND HEALTH. P.F. LESGAFT", St. Petersburg.

Oleg Prokura, Academician of the International Academy of Social Technologies, Oleg's qualification is a teacher-specialist in adult education and educational activities.

The organizers of the project have publications, scientific articles, author's certificates and patents, corresponding to specialization in industry.

The members of the team have the experience of business cooperation with the largest enterprises of Russia: OJSC AKRON (Veliky Novgorod), KOAO Azot (Kemerovo), JSC Minudobrenia (Rossosh), Fergana Azot (Fergana), JSC Azot , JSC Azot (Kemerovo), ZMU KChKK (Kirovo-Chepetsk), Gazprom, and others.

The experts of the team have experience of cooperation with industrial, construction, design, manufacturing companies in attracting financing from banking, private and foreign organizations.

Conclusion

The participation of investors in the project involves the purchase of the GTurbo derivative, which is implemented as a financial instrument on the Ethereum blockchain platform;[2] in its turn, GTurbo is secured by an industrial product - GTT-3PN gas turbine unit.The sale of GTurbo options will occur within the ICO (at the 1st and 2nd stages of the project - in December 2017 - March 2018). The acquisition of GTurbo options can be carried out with the help of the Ethereum blockchain.

In the early days, the option will be offered to investors "with a bonus" from the base cost of the GTurbo asset. A more detailed description of the terms of investment in the GTurbo option is available on the project website.[1] The presented technology for the production of the GTT-3PN gas turbine unit is an existing production facility with an annual turnover of more than $16 million. The GTT-3PN gas turbine has a specific advantage over its "predecessor" GTT-3M, as well as higher service characteristics. This technology is in demand by the market, as the whole world uses ammonium nitrate in agriculture - fertilizer that can not be produced without our gas turbine units!

References

1. http://GTurbo.io
2. https://www.ethereum.org