

**Russia, Kursk****Summary**

1. **Volume of investments required – \$ 2100 thousand.**
2. **Production** – electrochemical supercapacitors and systems based on it for power engineering and industry (uninterrupted power systems), auto- and railway vehicles (starting engines).
3. **Trade marks** – none.

Company profile

Date of establishment – October 1990. Research and manufacturing profile including special application for Ministry of Defence; by 2003 – a leading player in the capacitor world market.

Signs of public recognition – 2003, scientific achievements, Argonne National Laboratory, USA. 2003–2004, “100 of the best Russian products”. 2004, ELIT JSC is a winner of national prize “Gold Mercury” of the Chamber of Commerce of the Russian Federation. 2006 – winner of the 7th Russian Venture Fair in category “Original Business Idea”.

Number of employees – 60 persons.

Team

Belyakov Alexey – Director General, 47 y.o. Has more than 20 years of experience in research, development and manufacturing of Electrochemical Power Sources. In 1988 was titled “the Best Technologist of the Year” by the Ministry of Electrotechnic. Has a title “The USSR inventor”. He was a leader of some state scientific and technical programs in the Ministry of Science of Russia, an expert of this Ministry. Alexey Belyakov has published 32 articles and has obtained 22 patents in the field of chemical power sources. An active international member of the Electrochemical Society (ECS). Historical Society of USA “Who’s who” recognized A. Belyakov having demonstrated exemplary achievement and distinguished contribution to the business community by publishing in “Who’s Who of Professionals”, 2004–2005 International edition).

Zhirnov Alexander – Director for Marketing, 37 y.o. Has 12 years experience in implementation information projects on small and medium-sized companies, including working as a project manager. The University Diploma, Physicist.

Products characteristics

Current production – electrochemical supercapacitors, optimized for high power charge/discharge. Car-Audio and a family of start of internal combustion engines supercapacitors for auto- and railway vehicles including cars and diesel locomotives to 2200 kW are serially manufactured.

Products under development – Power Quality systems. High power UPS: voltage drop and overload compensation, avoidance of avalanched failure. It is used to compensate peak loads and to deliver uninterrupted power for energy consumers and power circuits of active control. Provide power supply for period from 30 microseconds to 3 seconds. The main reasons of power distortion – regimes switch on/switch off of loads, storm, wire laps, switch over leading lines. The very period which takes 90% of power failures in Russia and 97% – in Europe. At the same time existing backup power systems cannot guarantee power supply for 0.5 second. Another advantage – high readiness to recurring switching – from 1 second. For traditional UPS – minutes, hours. Systems under development are noted by sufficient reliability, low response time and environmental friendliness. Power Quality systems are used in power engineering, industrial companies, housing and communal services. Pilot samples demonstrate high efficiency while solving certain tasks.

Current state

The company possesses production, laboratory, and controlling and measuring equipment. It has high skilled personnel. The company is making R&D works of new super-capacitors design. In 2006 R&D works on the State Contract with the FASI was made and the serial production of power sources for Power Quality systems has already been mastered. The deliveries of high-voltage supercapacitors are carried out. R&D works on advanced capacitor system and its application for tasks of hybrid vehicles are carried out. The design of supercapacitors and production technology are protected by patents of Russia, of the USA, Canada and European Union.

Development strategy**Use of funds**

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| 1. R&D | 20.0% |
| 2. Acquisition of fixed assets (technical re-equipment) | 22.0% |
| 3. Marketing | 24.5% |
| 4. Acquisition of current assets | 9.5% |
| 5. Other (Special technological equipment and rigging) | 14.0% |

Prospective outcome of investment

The widening level of available information about the application of supercapacitors. The increasing quantity of companies, manufactured the equipment based on supercapacitors. The widening spheres of application. The market entry of Europe, the Near East, China, the USA. The increasing of sales volume.

Marketing & Sales

Supercapacitor market is just established. Though it's ready to accept about \$ 800 mln within next 2 years (RF and USA, Frost&Sullivan). Nowadays Supercapacitors are used for start of internal combustion engines of cars and locomotives and for car-audio. Together with market and hybrid vehicles development, these segments will increase to \$ 240 mln (Russia – about \$ 120 mln) by 2011. The most interesting are segments of high-voltage Supercapacitor applications – power quality, recuperation. According to forecast market volume for these segments will reach about \$ 600 mln (Russia – about \$ 180 mln) by 2011. R&D works for high-voltage Supercapacitors carried out during last years confirm a certain competitive advantages. Now competition in RF is not developed because of market establishing and technological backwardness. The main competitor in USA – Maxwell, in Europe – EPCOS (Siemens). From technical point of view, their products are 3–100 times worse as for all the parameters. Their slight advantage in specific energy is achieved by acetonitrile, which is a serious menace for ecology.

With project development ELIT JSC share in Supercapacitor market will be \$ 21 mln: start of ICE – \$ 7 mln (Russia – about \$ 5 mln), power quality and recuperation – \$ 14 mln (Russia – about \$ 11 mln).

Key directions – "education" increase of the customer, advertising, exhibitions, conferences. Adaptation R&D works at customer, co-operation with manufacturers of end-product, definition of requirements, "futures". Moderate price policy at the initial stage, indemnification of costs due to investments.

The main customers – companies, for which 1 second loss of power supply leads to huge damage. It is oil refining, telecommunications, oil and gas-pumping stations, chemical production, electric power industry, electronic industry, etc. At the first stage of product promotion the first three directions will be paid more attention because the companies of these branches are the most dynamic for new products, the process of making decision as for financing there is the most flexible, they possess sufficient purchasing power. At the same time questions of reliability and quality of power during technological process are very critical for these buyers. High-power UPS, offered in this project, have the greatest advantages in reliability and response time. R&D work are 50% realized, there is an arrangement to carry out tests with further purchase up to 30 systems according to test results.

Main measures to promotion – direct offers and contacts to consuming companies. The second way – creating of new dealer networks in regions and penetration to the existing ones, engaged in power quality supply and uninterrupted power supply. Now ELIT JSC has some dealer networks in USA (3 companies), in China (1 company), in the Russian Federation and in CIS (4 companies).

Now at the same time there are projects and their realization on systems of energy quality, using Supercapacitors. on the market of Europe, of the Near East. The possibility of price fall and the increasing of volumes allows to be a vendor for these applications right now, that, taking into account the ecology and the safety (the absence of acetonitrile) is given probably.

Interaction with investor

The proposed share – 30%, the term of investment – 5 years. The exit of investor – the purchase of shares or IPO.