

FSP-Industry CJSC

Volume of investments required: **\$ 3 000 thousand**

Intended use of investment required:

R&D	17%
Fixed assets acquisition (expansion of production)	10%
Marketing (EPCT technologies)	7%
Working capital	66%

Company profile:

1. Date of establishment - 1998.
2. Stage of development - Seed
3. Size and source of investment to date - \$ 500 th. (private investments)
4. Industry - The uninterrupted power supply local power grids working from renewable power sources
5. Target market - Any human life sphere which has a requirement to energy consumption
6. Sales in 2003 - None
7. Description and value of assets - None
8. Intellectual property rights - Patent N 2153752: "Method of uninterrupted power supply of consumer from electric power grid working from renewable power sources". The holder of Patent - the company Director General.
9. Signs of public recognition - The EPCT technologies as a new conceptual and technical solutions
 - have been specially accepted for Program of development of small energetics in the regions of Kareliya Republic devoid of centralized power supply;
 - have been accepted by Goskomsever as basic project solutions for White sea Program;
 - were a winner of the Bulgarian Academy of Sciences competition on alternative power sources in 2000;
 - have a series of publications;
 - according to expression of interest are perceived by the 6-th Framework Program of the European Union;
 - have an offering from "ILIP" JSC to grant in the European states .

Owners:

1. Proletarsky Zavod JSC **24%**
2. FSP Ltd. Co. **76%**

Management and key personnel:

Kouznetsov, Sergey Nikolayevich - the Company Director General from the moment of the enterprise foundation, The Regional Academy of Endoecology academician, 50 years old. He is the author and the holder of the patent on the above mentioned EPCT technologies. A university degree in the field of power engineering. Has passed all the way from a worker up to the enterprises top manager. Twelve years of experience in enterprise managing.

Alekseev, Lev Borisovich - the Vice-Director, cand. phys.-math. sci., 65. He has the inventor's certificates and patents in the fields of high-energy physics and of physical processes control. Main organizer and R&D consultant in business.

Ivastchenko, Pavel Ivanovitch - the Vice-Director, cand. engin. sci., 54. He has the inventor's certificates in the fields of control system and electronics. Developer of the perspective directions in business.

Products characteristics:

EPCT technologies are a complex of the technically-organizing measures and equipment allowing to transform under common control system non-stable parameters of different renewable energy sources (wind, water stream, sun) into stable parameters of electrical current, and to organize electric power systems of a local (autonomous) operation with automatic ensuring of real energy balance only by dynamic interaction of system elements.

The technical and design solutions within the framework of the EPCT technologies allow to:

- Create any block-modular uninterrupted local power system of any power, any standard, in any place and with any

development scenario for local infrastructure.

- Work with any kind of renewable energy sources under common control system.
- Install power systems equipment at any location in immediate proximity to consumers which results in complete minimisation of power line construction.
- Ensure real power balance in a "generation - consumption of power" system.
- Make the operation of an electric power system completely automated.
- Guarantee the highest level of environmental safety.
- Reduce expenditures for use of unrenovable power sources to 80-100 %.
- Guarantee large-scale and even mass production of standard equipment.
- Create special features, for example: different standards in one system on consumer's demand.
- Create mass production of typical equipment blocks.
- Make a repair's operation in an electric power system without cutting off of a consumer from power supply.
- Considerably to diminish expenditures and periods for project development and civil and erection works at creation of local electric power systems.
- Ensure to remote consumer a price for energy close to the price in the centralized electric power systems.
- Provide a consumer with different kinds of energy from an single power grid.
- Produce a cheap hydrogen and oxygen, when needed.

Comparative analysis with existing alternatives:

Characteristics	Local power grids under EPCT equipment (experemental samples)	Centralized power systems(CPS)	Local power grids under diesel power station equipment(DPS)
Technical restriction to using	None	Restricted by place ofInstallation and power balance	Restricted by current quality and power balance
Ecological impact	Friendly	Dangerous	Dangerous
Running (maintenance) costs	Acceptable	Acceptable	High
Cost of electric power, (\$/kWh)	0,02 - 0,1	0,02 - 0,1	0,6 - 4,0
Cost of thermal power, (\$/kWh)	0,005 - 0,01	0,007 - 0,03	0,6 - 4,0

Electric power systems (both centralized, and local (autonomous)) are a unique product with requirement to special designing and calculations. EPCT technologies considerably simplify a designing procedure and reduce a designing period of electric power systems by changed approaches to power grids construction and by integration of a typical elements into the system. Only EPCT technologies are capable to ensure the optimized operation of an electric power system under all parameters: electric power capacity, current quality, price and ecological safety.

Markets/Competition:

	Characteristics	EPCT technologies	CPS	DPS
2004	Geographical region – worldwide. Market size \$ 60,000 billion.			
	Company market	-	58 000 /	2 000 / 3%

	share \$ billion/%		97%	
	Geographical region – worldwide. Market size \$ 72,000 billion.			
2008	Company market	0,007 /	69 600 /	
	share \$ billion/%	0000001%	97%	2 400 / 3%