

ENERGY EFFICIENCY IN THE INDUSTRIAL SECTOR: PRACTICAL SOLUTIONS



LEADING THE ENERGY CHANGE

Summary



- ▶ Energy Efficiency in Russia : New law to make History
- ▶ FENICE RUS: Business Model for the Russian market of Energy Efficiency
- ▶ Specificity of the Russian Market for an ESCO operating in the field of Energy Efficiency
- ▶ Main issues in the development of Energy Efficiency activity in Russia



Energy Efficiency in Russia : Federal Law as a start-up

23/11/2009: the New Federal Law on energy saving and energy efficiency is adopted.

The new law:

- ✓ regulates energy saving and energy efficiency issues
- ✓ imposes restrictions on the use of energy wasting products in general and incandescent light bulbs in particular
- ✓ requires the marking of goods according to their energy efficiency class
- ✓ introduces energy efficiency standards for new buildings and installations



Energy Efficiency in Russia : Federal Law as a start-up

2 sectors of realization

civil

industrial

Civil sector:

- ✓ highly receptive to new energy efficiency and energy saving standards
 - ✓ huge advertising campaign in public places and mass media
- ⇒ First results expected in “short period”





Energy Efficiency in Russia : Federal Law as a start-up

Industrial sector: abundant and more challenging

Client-related difficulties:

- ▶ Ownership factor (State owned VS private)
- ▶ Money factor (financing capability for Investment)
- ▶ Time factor (modernization period VS payback)
- ▶ Russia's geographical dispersal factor

Possible solutions:

- ▶ Partnership with major Russian Energy Market players
- ▶ Target clients: Foreign companies or Russian Companies with Foreign shareholders

FENICE RUS: Company Profile



► FENICE RUS:

- Created in November 2009
- 100% subsidiary of Fenice Spa (100% EDF Group subsidiary),

► Specialized in Identification and Implementation of Energy Efficiency Projects for Industrial sector :

- Energy Audit,
- Identification of sustainable projects,
- Financing and Implementation of EE Projects,
- Operation and Maintenance of modernized assets for the duration of the contract,

► Wide experience and references in several countries (Fenice Spa)

- Italy,
- Poland,
- Spain,
- Russia

FENICE RUS: Business Model



Through its internal resources, Fenice applies an integrated Value Chain business model to all of its operations:

Services offered



ENERGY EFFICIENCY SERVICE

- Fulfilment of an energy audit: analyses done on specific technologies (compressed air, cold production) are carried out with the collaboration of specialised constructors;
- Fenice guarantees the study, fulfilment and financing of projects accepted by the client;
- The new assets are the property of Fenice until the end of the contract, at which time they are managed by the client;
- The Savings realized are shared with the client;
- Methods used to calculate energy efficiency are transparent and shared with the client;
- Medium / long-term contracts (>7 years)

UTILITIES MANAGEMENT

- Two possibilities: assets owned by Fenice or assets owned by the client but managed by Fenice;
- The services offered by Fenice consist essentially of Operation and maintenance (O&M)
- Definition of a Service Level that foresees the application of penalties in the case of interruption of service;
- Financial Risk Management on the part of Fenice.

Utilities : main fluids or energy used in an industry (Compressed air, steam, hot water, cooled water, electricity, gas...)



Energy Efficiency Service Contracts

FENICE RUS has signed with Avtovaz two 10-year Service Contracts for the optimization of the Energy Efficiency of the Factory:

Compressed Air Modernization Contract :

- signed in November 2009,
- Commercial Operation started in December 2010,

⇒ Total Electricity Saving : 40% for Compressed air production

Heating Optimization Contract :

- signed in June 2010,
- Commercial Operation Started in February 2011

⇒ Total Heat Energy Saving : 20%,

Under these contracts, FENICE RUS is responsible for Engineering, Installation, Financing, Start-up, Operation and Maintenance of the new assets



History of the Compressed Air Project... in photos

Situation “BEFORE” (June 2010)



Dismantling (August 2010)



Situation “AFTER” (November 2010)





Energy Efficiency in Russia : Opportunities and Difficulties

► Opportunities:

- Energy Efficiency is a new concept that Main Industrial Companies will include in their strategy thanks to
 - Federal Law on Energy Efficiency
 - Increase of Energy Cost => increase of the impact and sensibility,
- Huge potential :
 - in western Europe countries: 10 Energy Audits (FENICE RUS Model) gives about 2 to 3 potential projects,
 - In Russia : 10 Energy Audits gives about 20 to 30 sustainable projects

► Difficulties:

- New Concept, not yet fully integrated in the mentality of the decision making managers,
- Human Resources: Few Professionals with E.E. related Education,
- Legal: no appropriate legislation to characterize Energy Service Contract



Thank you for your attention!

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