

“Energy Service Contracts – ESCO”

FIRST St. Petersburg Energy Service Company



FIRST SPB ESCO / Green Energy One
– Best Foreign Concept in Energy Efficiency in Russia
(2014, 2016 and 2019 ENES Award)

2020



FIRST Saint Petersburg Energy Service Company

Energy Service Contracts – ESCO

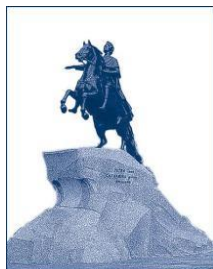
FIRST Saint Petersburg Energy Service Company identifies energy saving solutions based on the most efficient technology – without any cost or obligation for the customer. The customer and FIRST enter into an Energy Service Contract, where FIRST takes care of financing, installation of equipment, operations and maintenance and all practical work for the contract period. FIRST also prepares reports that documents the saving and reduced CO2 emissions. The savings will give reduced energy bills for the customer and will also be used to pay back the money that FIRST has used to pay for the investment in addition to profit from the savings.



FIRST St Petersburg Energy Service Company – shareholders and management

- The Homeowners Association of St Petersburg, a non-profit organization for owners of private apartments in St Petersburg established by the City Government of St Petersburg.
- Green Energy One AS, owned by Norwegian private shareholders. *)
- Nordic Commodities AS (NC), a Norwegian project developer, participating in the development of FIRST based on a management agreement with GEO.
- FIRST has together with GEO and SPB HOA entered into an agreement on energy efficiency investments in 250 000 m2 apartment buildings in St. Petersburg, estimated 25 buildings.
- FIRST St. Petersburg Energy Service Company (FIRST SPB ESCO) was established July 2014 as a Public Private Partnership by the Homeowners Association of St Petersburg and the Norwegian company Green Energy One AS, the shareholders have entered into an agreement regulating the operations and appointment of directors and procedures for decisions and management.
- FIRST is managed by key personnel from the shareholders, who also hold key positions in the St Petersburg Cleantech Cluster, a cluster within green energy development.

*) There are two sister investment companies, GEO and Gtrren Energy Two, originally planned to have different strategies (efficiency and renewable), but will now be merged into one company Green Energy One AS



**Noncommercial
Partnership
«The St. Petersburg
House Property Owners
Association»**



The Strategy Statement - why invest in energy efficiency in Eastern Europe

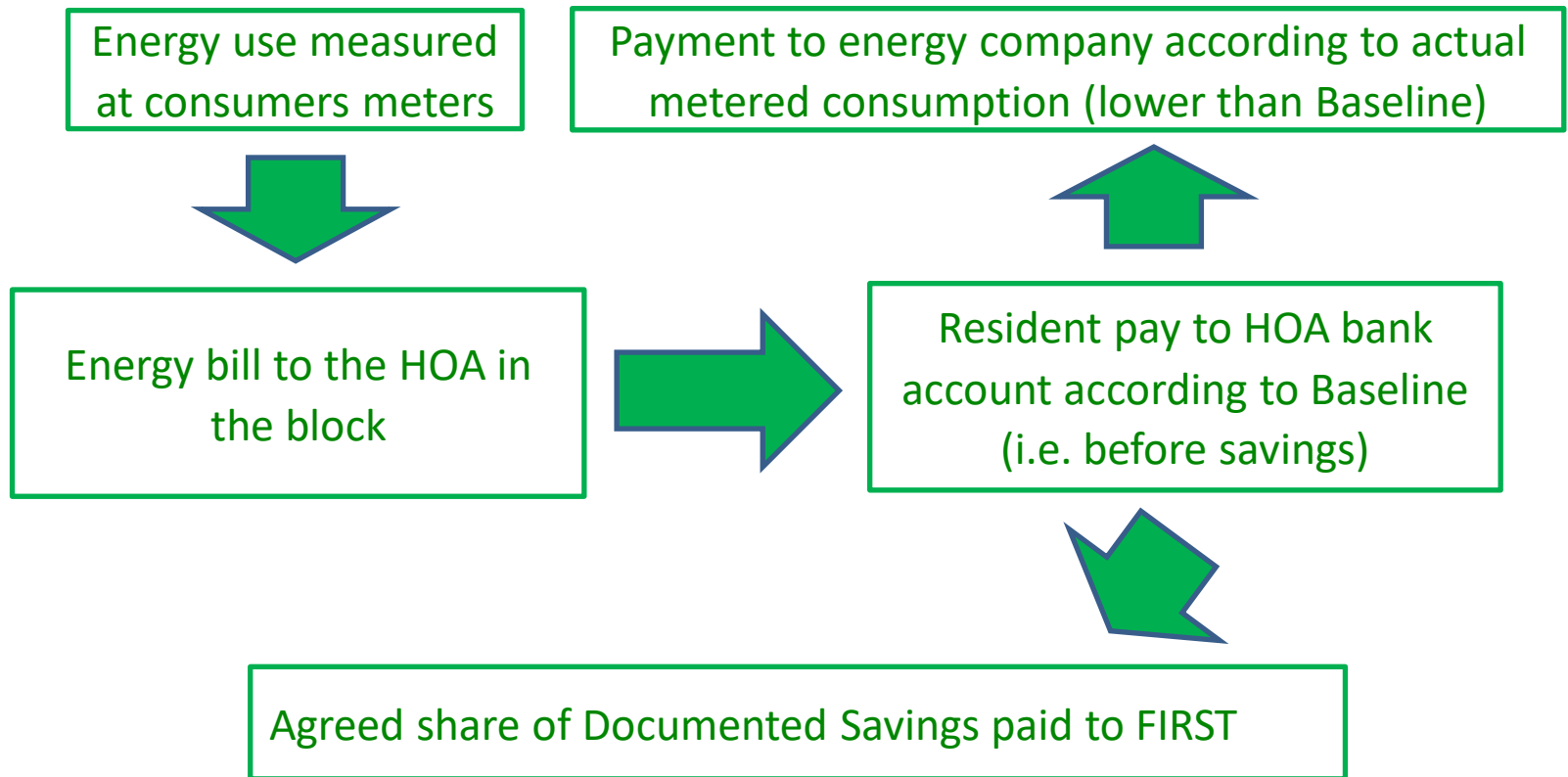
- The objective is to identify projects with low cost of development and high saving potential
- The answer is to find a solution that works in the practical life and with cooperation with local and governmental institutions
- The energy consumers in East Europe has inherited an inefficient energy system with a lot of up grading to be done
- In East Europe the financial market still has few offers for investments in efficiency
- The consumers in East Europe shows less interest in long term investments for saving energy



The Values of the Business Concept

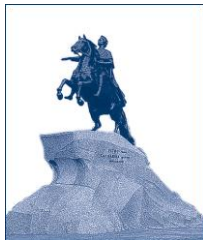
- FIRST SPB ESCO has been developed over a period of more than 5 years and has a market position in Russia that has a significant value within energy efficiency, renewable energy and Cleantech investments.
- The agreement with the Homeowners Association of St Petersburg and the possibilities and the advantage of entering into similar agreements on a large scale
- FIRST provides a head start when it comes to bring in customers of ESCO contracts as well as the general marketing of energy and cleantech equipment and services all over Russia as well as CIS-countries and Easy-Europe.
- The development has received strong support from the City Government of St Petersburg and used as example of the City's efforts in the green economy,
- The concept is based on proven technology and standardized solutions which means the investments are scalable, with a large number of identical customers and projects
- FIRST has based its business on international standards for responsibility, sustainability and transparency and with a high ethical standard and satisfies the requirements of the international public institutions that have supported the development.

The flow from the ESCO contract. The role of residents and Homeowner Association (HOA)



In this way the residents will get lower energy bills without any own cash investment

Structure of FIRST cooperation



- Green Energy One AS and the Homeowners Association of St. Petersburg, each holding 5000 of the company's 10 000 shares, with a nominal value of 1 RUB each share.
- GEO invested 50% of the shares as cofounder of FIRST and thereafter issued a shareholder loan of 2 170 000 RUB to finance the investments in the Pilot Project ESCO.
- As Investment in Kind, HOA took on the administrative costs of establishing the company, registration, accounting, office etc. in the first years. The income from the ESCO, together with the work of HOA meant that no further investments were necessary to cover operational costs of the pilot project. Based on this split of costs, GEO then wrote off the loan to FIRST. FIRST has after this no debt.
- The continuation of the model will be based on shareholders loans from GEO and/or investments in equity in FIRST.

Business Process – Step by Step activities

Presentation to customer



Standard presentation with focus on customer benefits

Express Energy Audit



Report based on the information of building an effect of investments

Offer from providers



Presentation of tender to providers on Short List

Business proposal to customer



Technical and financial calculations

Application for GEO funding



Presentation to GEO of Report with application

Application to banks and other sources



Loan application and possibility for support/grants

ESCO Contracts with customers
Contracts with providers



Preparation and signing of ESCO based on Audit report and financial conditions

Cash transfer from GEO and others and set up of payment routines



Project variables entered into the financial model and cash flow budget

Strategy and time schedule

Result 2019

Established concept of ESCO in Russia including contracts. Financial solutions. Technical solutions and partners. Acquired studies from project developers and shares in FIRST. Established position in the market. Completed the first installation of equipment.

Plan 2020

Managing investments in Russia and work towards finding financial partner for FIRST to established large scale portfolio.

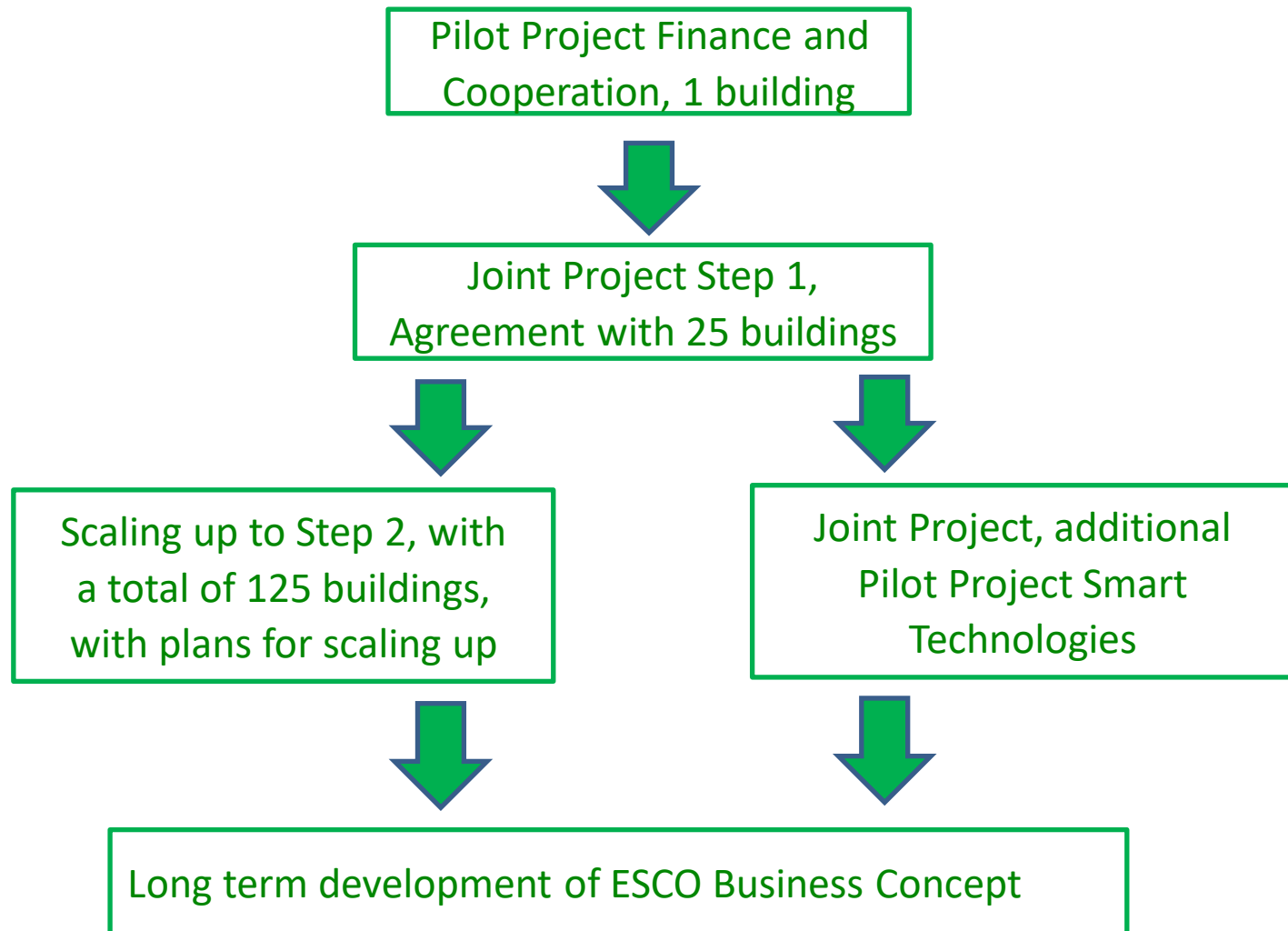
Expand business into new Russian regions.

Establishment in the Baltics, etc. on the same principle as FIRST, with partners

Plan 2021 ...

Expand project portfolio and the establishment of investment funds with a license pursuant to the Law on Alternative Investment Fund

Decision process for FIRST Business development



Budget for the investments in 25 apartment buildings based on contract

GEO – FIRST SPB HOA



Key figures:

- MWh energy use 55,000
 - Savings estimate 27%
 - Savings MWh 14,850
 - Cost estimate, RUB 62,862,223
 - Tariff RUB/MWh 1,398
 - Savings RUB 20,760,300
 - Real IRR, 25 years 33%
 - Simple payback 3
- The calculations are based on the documented savings from the Pilot Project and from documented data pr 2017. The plan consists of Scalable Projects, each investment in each building is with the same equipment and 5-year ESCO Contract. The figures are for both the Heating Central as such and for the payments to FIRST. Cash flow to FIRST are paid “financing costs”, “Change in Debt” and “Net Cash” in Table.

Budget for the investments in 25 apartment buildings based on contract

GEO – FIRST SPB HOA



- The investment case has been analyzed using the planning model EEPS, a project of developing an energy efficiency planning tool for Russia, financed by the Norwegian Ministry of Foreign Affairs and prepared by GEO.
- The debt payments and the net cash flow from the ESCO projects, as shown in table, is the funds to be paid to FIRST over the 5-year contract period.
- The ESCO contract used in these cases are based on FIRST receiving 100% of Documented Savings for 5 years, after which the equipment will be handed over and the future cash form savings over the project lifetime will be in the hands of the customer

Environmental and other effects of the project

- The application for financing will partly be based on environmental effects as well as other positive effects, in addition to being profitable enough to meet investors financial requirements. The basis for evaluation of positive effects will be:
- The Annual savings of approx. 20 – 30 % of the investment cost and in addition
 - Significant environmental effects shall be achieved
 - Local contribution is required
 - Procurement of goods, works and services financed shall be open and fair
- FIRST seeks to fulfill also requirements of improving the standards of living by upgrading apartment buildings and reducing the energy bills of consumers.
- The environmental benefits from the project is mainly in the reduction of emissions of CO₂ from heat production in St Petersburg from the heat generation and distribution facilities. The CO₂ effect is calculated based on average emission of CO₂ for the regions pr energy unit.
- The FIRST concept is based on the active participation of the local Homeowners Association and the individual homeowners.
- FIRST has a local basis and the ownership is mixed private and NGO and represented by a PPP concept.

Barriers and misunderstandings

- Complicated contracts – FIRST has standardized set and summary with highlights
- The ESCO takes the profit – FIRST has a clear and precise calculation for the customer, the payment for FIRST is for actual work and for taking the risk, something the customer otherwise have to cover if investing on own initiative.
- High risk for the ESCO for default in payments – this is a business risk that the ESCO and its investors and financing partners must handle on a commercial basis as with all other types of credit financing.
- The ESCO excludes the long-term expensive cases – not true, the ESCO can invest in any project, but has of course to be profitable on a marked based evaluation, it is up to the customer and the ESCO together to analyze projects
- The ESCO company invests only in the best projects, the low hanging fruits – based on misunderstanding of economic realities, all investment programs must start with the projects with highest savings, the problem today is that even the low hanging fruits are not picked!
- Risk for ESCO that no savings will be achieved – a risk that exist in theory, but in most cases the investment is based on proven technology and solutions



Partners and sponsors

- Partners in developing and / or financing project development:
- World Bank - International Financing Cooperation
- Nopef Nordic Project Development Fund
- Nordic Council of Ministers Secretariat
- The Norwegian Barents Secretariat
- The Norwegian Ministry of Foreign Affairs
- The Norwegian Ministry of Petroleum and Energy
- Interdepartmental Working Group on Energy Cooperation Norway-Russia
- St. Petersburg Committee on International Cooperation
- Agency of Strategic Initiatives Russia (ASI)
- St Petersburg Cleantech Cluster
- GreenNet Finland
- St. Petersburg Energy Efficiency Center



Key personnel

- Nikolai Pitirimov, Director Homeowners Association St. Petersburg, Managing Director FIRST, Director SPB Cleantech Cluster
- Ragnar Ottosen, Chairman of Board FIRST, Green Energy One and Nordic Commodities,
- Board Member SPB Cleantech Cluster
- Evgenyi Lukoshkin, Chairman Homeowners Association St. Petersburg, Board Member FIRST
- Natalia Gmyleva, Chief Accountant FIRST
- Svyatoslav Kuzmenko, Technical Advisor FIRST
- Tom Langli, Managing Director Green Energy One and Nordic Commodities
- Natalia Yakutina, Financial Advisor Nordic Commodities



FIRST SPB ESCO <http://spbesco.wix.com/first>
Green Energy One AS/ Nordic Commodities AS,
Storgata 22, 2202 Kongsvinger, Norway