THE ECONOLER SERIES

THE ENERGY EFFICIENCY AND RENEWABLE SOURCES FUND 2005-2020

The Bulgarian Green Bank

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Acronyms and abbreviations

BgEEF	Bulgarian Energy Efficiency Fund
DEA	Detailed energy audit
EBRD	European Bank for Reconstruction and Development
EE	Energy efficiency
EEE	Econoler-EnEffect-Elana
EERSF	Energy Efficiency and Renewable Sources Fund
EPC	Energy performance contract/contracting
GHG	Greenhouse gas
IEA	International Energy Agency
IFI	International financial institution
LFI	Local financial institution
M&V	Measurement and Verification
ME	Ministry of Energy
MOEW	Ministry of Environment and Waters
PEA	Preliminary energy audit
PIU	Project Implementation Unit
RES	Renewable Energy Sources
RS	Republika Srpska
SEDA	Sustainable Energy Development Agency
SME	Small and medium-sized enterprise
UNDP	United Nations Development Programme
USAID	U.S.Agency for International Development
WB	World Bank

A Word from the President

Québec City, May 2021

Dear Readers,

As energy efficiency (EE) is becoming an increasingly attractive solution to climate change mitigation worldwide, there is an urgent need to create better access to financing that is adapted to the specific needs of EE initiatives. Issues regarding how to improve access to EE financing will continue to hold the attention of many private and public-sector stakeholders who are committed to pursuing EE at their facilities and in their operations in the years to come.

Econoler is pleased to share with you, through this highly informative booklet, valuable experience gained and insightful lessons learned from the operation of the Energy Efficiency and Renewable Sources Fund (EERSF, formerly the Bulgarian Energy Efficiency Fund, BgEEF) over the last nine years.

Econoler, as a successful international EE consulting firm that has made important contributions to numerous EE initiatives in over 160 countries - including those related to EE financing - is proud to put our knowledge, know-how, expertise, and experience at the service of our clients to identify and implement cost-effective solutions to meet their EE financing needs.

It is my hope that the true narrative of EERSF that we tell in the following pages, will offer you a glimpse of some of the most effective EE-financing concepts, approaches, and practices that your organization can also embrace to develop and secure the right kind of financing to make your or your clients' EE projects a reality. Happy reading!

Pierre Langlois,
P. Eng., President Econoler

Introduction

Energy efficiency (EE) is widely recognized as not only the cleanest and cheapest way for a country to address its energy security and energy demand issues, but also one of the most efficient ways to reduce greenhouse gas (GHG) emissions causing climate change.

However, despite the numerous potential benefits for countries and end-users, only a small fraction of financially viable EE projects are being implemented. Some of the main reasons underlying this low level of EE development are the multiple barriers that exist in the market, including the following four main types:

1. Policy and regulatory barriers;
2. Barriers related to energy end-users (in both the public and private sectors);
3. Barriers related to suppliers of energy-using equipment and energy services; and
4. Barriers related to financing.

One of the publications in *The IEA Policy Pathway Series*[1] makes the following observation with regard to the financing barriers faced by enterprises of all kinds and SMEs in particular:

> *Even when the first three barriers have been overcome, financing barriers arise because energy users are generally unwilling to invest their own funds in EE projects; they have many of what they consider to be higher-priority investment options for their funds. Most energy users, including large industrial firms, small and medium enterprises (SMEs), commercial sector energy users, and*

1. IEA, "Joint Public-Private Approaches for Energy Efficiency Finance", The IEA Policy Pathway series, 2011. Page 9

public agencies, therefore, seek external financing for their EE projects. However, banks and financial institutions (referred to herein as local financial institutions or LFIs) are generally reluctant to provide loans even for highly profitable EE projects because of their lack of knowledge and understanding, and their perception of high risk with respect to EE projects. Among the potential EE investors and EE-supporting industry, SMEs are affected much more by the "disconnect" between the financing needs and the lending practices of LFIs than large industrial firms with substantial balance sheets that can borrow funds with fewer restrictions. Because a substantial portion of EE potential is in SMEs, mechanisms must be developed to "scale up" lending to SMEs for the implementation of EE projects on a national and international level.

The above characterization of SMEs' situation also applies to bigger energy users and public-sector entities that want to use their own financing resources for core activities and are therefore reluctant to see their operating budgets affected by non-core investments, such as EE improvement measures and projects.

Generally, local financial institutions (LFIs) handle EE projects, at best with a great deal of caution and at worst, with enormous reluctance and suspicion because of the following main factors related to the unique nature of EE projects:

A lack of information and awareness about EE;

- The size of EE projects (usually smaller and below the threshold that LFIs are willing to finance on a case-by-case basis);
- The perceived higher transaction costs; and
- The perception of high risk that EE projects can bring to the financial sector.

In recent years, to provide better access to EE financing some governments and international financial institutions (IFIs) have been supporting LFIs by providing dedicated

EE credit lines, often coupled with a technical assistance program. To date, this "dedicated EE credit line" approach has achieved moderate success, because quite often the same barriers described above arose, making the EE initiative unsuccessful or non-sustainable in the long run.

Another less commonly used pathway towards improving access to financing for a country's developing EE market has been the creation of specialized and dedicated funds or financing facilities. Such funds and facilities not only provide access to appropriately structured financing, but also help develop pipelines of EE projects to be implemented. The Energy Efficiency and Renewable Sources Fund (EERSF) is one of these funds. Since its creation in 2004 (named BgEEF[2] at the time), it has become a widely lauded model of success and an inspiring example to other countries in the region and elsewhere in the world.

Innovatively structured, EERSF serves as a lending institution, a credit guarantee facility and a consulting company all rolled into one. It provides Bulgarian enterprises, municipalities and private individuals with not only technical assistance in developing EE investment projects, but also financing or co-financing; it even plays the role of guarantor to other financing institutions.

2. In May 2011, under The Energy from Renewable Sources Act, BgEEF was assigned additional functions for funding projects of energy generation using renewable sources, in addition to EE projects. The name of the fund was changed to Energy Efficiency and Renewable Sources Fund (EERSF). In this text, we still refer to this fund as "EERSF".

History[3]

In 2004, many businesses and organizations in Bulgaria that intended to invest in EE measures were faced with multiple seemingly insurmountable barriers to gaining access to commercial financing suitable for EE, including those major ones described below.

- Considering the size of Bulgaria's economy, its commercial banks' level of intermediation was then quite low by international standards. A lack of competition allowed banks to manage risks by limiting their lending volumes, demanding high collateralization (200% or higher), charging high interest rates to local businesses (between 10% and 18%, despite inflation being contained at 4%), focusing on short-term lending (with loan maturities of 1-2 years) and investing in low-risk government securities.
- Bulgaria's judicial system was quite ineffective, thus making debt recovery and collateral seizure a rather long process. The impact of the perceived high credit risk was felt most strongly by SMEs, housing cooperatives, municipalities, hospitals and other similar energy consumers, which sometimes did not have a long-enough credit history or lacked suitable collateral values to be associated with EE projects.Approval of credit applications often took months.
- Commercial banks were generally not familiar with commercial and technical issues related to EE projects. They lacked the financial and technical skills required for preparing robust EE business plans to develop bankable EE projects. EE projects and energy supply projects often had to compete for financing with one another; the size of EE projects was generally smaller than that of energy

3. A major portion of information presented in this section has been extracted from the"World Bank Implementation Completion and Results Report" (September 22, 2010;TF-54515).

supply projects. Commercial banks perceived the risks and transaction costs of EE projects as too high.

- Innovative financing approaches, such as energy performance contracting (EPC) were hardly used, if at all. Neither was bundling of individual EE projects (proposed by different owner entities and each too small to justify an energy performance contract) to create a financially viable package for LFIs. Such packaging of EE projects is generally considered an innovative and effective way to attract capital for projects deemed too small for financial institutions. Additionally, Bulgaria's energy service industry at the time was characterized by a lack of maturity and competition, with private energy service companies (ESCOs) operating for the most part on a small-scale with a very limited balance sheet.

The serious barriers to implementing EE and providing suitable EE-related financing in Bulgaria prompted its government to create the Bulgaria Energy Efficiency Fund (BgEEF, now EERSF), a dedicated EE fund with the mission to build a sustainable market-based capacity for developing and financing EE projects through a commercial mechanism.

The Energy Efficiency Act enacted in February 2004 by the Bulgarian Parliament aims to foster broad-based and sustainable commercial financing for EE projects. In accordance with Chapter 4 of this Act, EERSF, a commercially oriented revolving EE fund, was established to demonstrate financial profitability of investments in the EE sector. The stakeholders' strong financial support for the initial capitalization of EERSF was critical to its successful establishment.

Thanks to the dedicated efforts of Bulgaria's Ministry of Economy, Energy and Tourism, the initial capitalization of the EERSF was entirely composed of grant funds provided by the following sources:

- The Global Environment Facility through the International Bank for Reconstruction and Development - The World Bank - USD 10 million;
- The Government of Austria - EUR 1.5 million;
- The Government of Bulgaria – EUR 1.5 million; and
- Private Bulgarian companies.

Objectives and Operational Structure

Since the very beginning of its operations, EERSF has had the capacity for handling key issues related to both an EE project's technical development and financial structuring. Designed to be flexible, it has been able to design and offer various types of adapted financial products demanded by the evolving EE market in Bulgaria. To fulfill its multi-faceted mission, EERSF serves as a bank, a credit-guarantee facility and a technical advisory company.

The Fund has been structured as a self-sustaining entity focused on facilitating EE investments and promoting the development of a well-functioning EE market in Bulgaria. The Fund's main environmental objective has been to support the identification, development and financing of viable EE projects to help substantially reduce greenhouse gas (GHG) emissions by the country.

EERSF's three-fold mission

- Facilitate EE investments
- Pursue substantial reductions of GHG emissions
- Promote the development of a well-functioning EE market in Bulgaria

Types of Projects Supported by EERSF

As agreed upon by the founders of EERSF, the financial resources of the Fund can be used to finance only the following six types of investment:

1. Investments in improved EE in industrial processes, including but not limited to:
   - Purchase of equipment, machinery, and tools;

- Installation of the purchased equipment; and
- Training of staff in the proper use of the equipment and new technologies.

2. Rehabilitation of buildings in all sectors, including but not limited to, industrial, commercial, multi-family residential, single-family residential and municipal buildings at all levels, healthcare facilities, schools, universities, and cultural facilities.The rehabilitation should be directed towards improving EE, including but not limited to:
   - Modernization of heat exchanger substations;
   - Heating insulation, including new thermally insulated doors and windows, roofs, ceilings and wall insulation;
   - Solar window treatment and passive solar devices;
   - Improvements to mechanical heating ventilation and air-conditioning; and
   - Improvements to interior and exterior lighting.
3. Improvements to heat sources and distribution systems, including but not limited to:
   - New high-efficiency boilers and burners;
   - Automatic boiler control systems;
   - Solar hot water heaters for summer use;
   - Substantial efficiency-driven modernization of existing boilers;
   - Boiler heat recovery devices; and
   - Small cogeneration systems.
4. Rehabilitation of municipal facilities, e.g., street lighting.
5. Other energy end-use applications, including but not limited to:
   - Energy management control systems;
   - Power factor correction measures;

- Air compressors; and
- Fuel-switching (only those options conducive to GHG emission reductions).

6. Demand-side off-grid renewable energy generation:
   - Solar panels for hot water;
   - Small PV installations;
   - Biomass heating and power generation installations; and
   - Geothermal heating installations.

Project Financing Structures and Terms

EERSF's initial capitalization was used to: 1) provide seed capital for the Fund; 2) defray initial setup and operating costs until EERSF reached financial self-sufficiency; and 3) partially defray initial costs of EE capacity-building (project development, financial packaging, etc.).

The main portion of the capital has been used to provide beneficiaries with access to financing via two main types of financing products: 1) lending products and 2) guarantee products. What follows is a brief overview of how these two types of products work.

Lending Product

EERSF has been structured as a mechanism that promotes competition under normal market conditions through an efficient process, which has been improved over time.

EERSF's EE Financing Application Process and Project Cycle

After multiple rounds of improvement and adjustment, EERSF's EE project cycle currently consists of eight steps, as summarized in the following table.

Normally, it takes up to six weeks to complete project appraisal, provided that the project developer manages to submit all necessary documents accompanying the IPP on time.

Eligibility Criteria

All EE projects approved and supported by EERSF have to meet the following eligibility criteria:

- Involving the application of well-proven technologies;
- Project cost from EUR 15,000 to EUR 1,500,000, though exceptions are possible if rightly justified;

Table 1: EERSF'S EE Financing Application Process and Project Cycle

Step No.	Action	Carried out by
1	Project identification: i.e., submission of the results of a detailed energy audit (DEA) or a proposal for implementing a set of energy-saving measures	Project developer
2	Initial project screening	EERSF
3	Completion of the Initial Project Proposal (IPP)	Project developer
4	Submission of IPP and accompanying documents to EERSF	Project developer
5	Assistance in project design and completion of related documents	EERSF
6	Project appraisal and credit-worthiness assessment	EERSF
7	Formal decision on approval for financing	EERSF
8	Preparation and signing of the contract for financing and disbursement of funds	EERSF and project developer

- The equity contribution by the project developer should be at least 10% of total project value;

Standard Loan Collaterals

EERSF requires standard collaterals including mortgages, pledges, claims on accounts and commercial contracts, financial risk insurance, bank guarantees. The type of collateral and its size are defined according to the financial standing of the borrower while taking into account the added assets created by the project to be implemented.

Interest Rates

Applying a market-based approach, EERSF has been providing loans to EE projects at commercial-market interest rates. The

interest rate applied is fixed for the whole credit period. The borrower does not pay any additional fees and taxes or any penalty charges for early repayment of the loan. Over the years, EERSF has been providing loans according to the terms and conditions, as summarized in the following table.

Table 2: Terms and Conditions for Loans

Total project investment size	Annual Interest Rate	Maximum Tenor	Minimum Equity Contribution by Project Developer
Up to EUR 500,000	4 - 7%	up to 7 years	10%
Exceeding EUR 500,000	3.5 – 5.5%	up to 7 years	10%

Guarantee Products

In order to achieve its leveraging objective to use its limited funds to involve LFIs in the EE market, EERSF designed and implemented three main types of specialized guarantee products for the early stage of its operations: 1) partial credit guarantee; 2) portfolio guarantee for energy performance contracting; and 3) residential portfolio guarantee. Below is a brief overview of how these types of guarantees work.

Partial credit guarantee

EERSF has designed and offered collateralized credit guarantees covering up to 80% of the credit value to secure loans for EE project contractors.

Individual (per-project) guarantee commitments must not exceed EUR 400,000. Guarantees on greater amounts may be provided in exceptional cases requiring approval by EERSF's Management Board. The credit guarantee provided by EERSF has been recognized by the Bulgarian National Bank as a first-class collateral equivalent to a bank guarantee.

Portfolio guarantee for energy performance contracting

EERSF has been providing uncollateralized guarantees to a portfolio of receivables of energy service companies (ESCO) derived from energy performance contracts (EPCs). EERSF guarantees that it will cover up to 5% of the delayed payments of the covered portfolio.

Residential portfolio guarantee

EERSF guarantees that it will cover the first 5% of defaults within a condominium building (or portfolio of condominiums).

The following table summarizes the main terms and conditions, applicable to all type of guarantee products (project and portfolio type of guarantees).

Table 3: Terms and Conditions for Guarantees

Type of Guarantee	Annual Fee	Maximum Tenor
Partial - 80% on a "pari passu" basis	0.5 - 2%	Up to 7 years
Partial - 50% on a first-loss basis after the bank-creditor	0.5 - 2%	Up to 7 years

Mechanism for Revolving EERSF

Since its creation, EERSF has been operating on a self-sustaining basis as a revolving EE facility with capacities for conducting technical and financial evaluations. Since 2011, all its funds raised through the initial capitalization have been fully invested in projects. EERSF has been only relying on revenues from the repayment of loans, which is a usual feature for this type of fund. Thanks to a rigorous selection process, the Fund has developed a very strong portfolio of projects and has been achieving a steady volume of operations each and every year since its creation.

Management of the Fund

Originally set up according to Chapter 5 of the Energy Efficiency Act, EERSF's structure of governance was modified according to relevant provisions in the Energy from Renewable Sources Act in 2011. EERSF's current governing roles are assumed by the following bodies and entities:

- Funders'Assembly (FA)
- Management Board (MB)
- Fund Manager (FM)
- Executive Director (ED)

Funders' Assembly (FA)

The FA includes representatives from EERSF's primary sources of financing:

- The Government of Bulgaria
- Private funders and contributors

Every two years, the FA holds a regular session, where it adopts or updates operational regulations, elects the Management Board (MB) members, and addresses other issues within its power through legal means or international agreements.

Management Board (MB)

The MB is the primary governing body responsible for the overall strategic management of EERSF in compliance with its established objectives and principles of operations. MB sessions are convened every month upon a formal invitation by the MB Chairman.

The MB consists of 11 members:

- One representative of the Ministry of Energy (ME) designated by its minister;

- One representative of the Ministry of Economy designated by its minister;
- One representative of the Ministry of Regional Development designated by the Minister of Regional Development;
- One representative of the Ministry of Environment and Waters (MOEW) designated by the MOEW;
- The Executive Director of the Sustainable Energy Development Agency (SEDA);
- Six representatives elected by the General Donors' Assembly, including:
  - one representative of non-government organizations focused on reducing the risk of global climate change;
  - three high-level experts with experience in financing power-generation projects;
  - one EE expert with advanced education in engineering;
  - one renewable energy expert with advanced education in engineering.

Fund Manager (FM)

Since its creation, EERSF's day-to-day operations have been handled by an FM. In addition, the FM is responsible for ensuring the successful implementation of project cycles. The principal mandate of this position is to operate the Fund as a profit-oriented business in a way that promotes EE investments and the development of a sustainable EE market in Bulgaria. The FM selects, develops and applies the appropriate financing tools based on specific project needs and characteristics and considerations related to the overall management of the project portfolio.

From the start of its operations, EERSF's Fund Manager has been Econoler-EnEffect-Elana (EEE), a Canadian-Bulgarian consortium selected through a rigorous international procurement process. The consortium is comprised of an

international EE consulting firm, Econoler[4], and two local Bulgarian firms: the Foundation "Center for Energy Efficiency "EnEffect"[5] and the non-banking financial institution "Elana Holding" PLC[6].

Executive Director (ED)

The FM team is led by a full-time ED, proposed by the FM and appointed by the MB. The ED manages the day-to-day operations and administration of the Fund, including:

- selecting and developing commercially viable EE projects and building their financial structures;
- developing, managing, and evaluating the product portfolio;
- managing EERSF's financial resources;
- performing the monitoring, reporting, and budgeting functions, and any other required tasks.

The ED also attends the MB meetings as a non-voting member, presenting various financing opportunities for approval and reporting on the regular operations of the Fund.

4. www.econoler.com
5. www.eneffect.bg
6. www.elana.net

Overview of Results: 2006 – 2020

Between mid-2006 (when it was first launched) and the end of 2020, EERSF provided EE loans to a total of 212 projects, with the total project investment reaching more than USD 57.7 million. Additionally, over the course of this period, the Fund provided partial credit guarantees or portfolio guarantees to 33 projects, with the total project investment amounting to USD 14.7 million.

Using only its initial USD 15 million in capital, the Fund has catalyzed to date more than USD 72 million in EE investments in Bulgaria.

As of December 31, 2020 the EE investments financed or guaranteed by EERSF had achieved 129,160 MWh/year in energy savings and avoided 93,052 kt/year of CO_2eq in emissions. The following figures (Figures 1 and 2) highlight some of EERSF's major achievements.

Figure 1: EERSF Loan Portfolio Status 2006-2020 (year-end numbers)

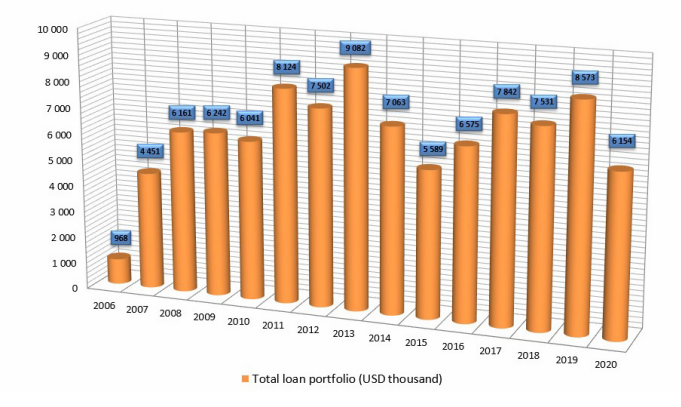
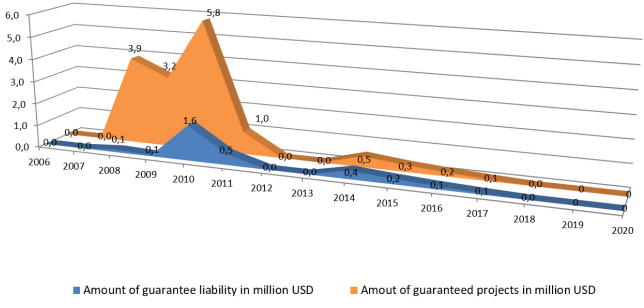


Figure 2: Guaranteed Project Investments and Amount of Issued Guarantees (Million USD), 2006-2020



In the Fund's first two years of operation, there was no market demand for the guarantee products because at the time, the EE market was still the process of expanding while bank lending was easily accessible, and banks had lowered their risk and collateral thresholds. In the wake of the 2008 economic slowdown, commercial banks tightened their lending requirements, resulting in a higher demand for guarantees over the period 2008-2010.

In 2011-2020, the market demand for EERSF's guarantees dramatically decreased and almost completely disappeared for the following reasons:

- The bulk of the guarantees were provided to ESCOs doing EE business in the public sector. In 2011- 2020, the public sector received an influx of EU funds for EE interventions, with 70-90% of the funds in grants. This dramatically reduced the market size for these ESCOs, with many of them simply becoming contractors.
- Over the same period, the government implemented a policy to reduce public spending. As a result, not many EE projects were undertaken in the public sector, apart from those financed by EU grant programs.

- Over the same period, private-sector EE interventions almost came to a standstill. The country's slow economic growth, coupled with a string of poor government policies, led to a significant reduction in domestic and foreign investments in the private sector. In addition, delayed government payments on public contracts led to the default of many SMEs in the country.

All these factors had negative impacts on not only Bulgaria's lending market but also on the demand for EERSF's guarantees. The following table gives an overview of the financed projects by contract type.

Table 4: Financed Projects by Contract Type, 2006-2020

No	Type of Contract	Number of Projects	Total Value of Projects (USD)*	Total Value of Credit (USD)
I.	**Credit Contracts**	**212**	**57.7 million**	**41.9 million**
1	– Municipalities (incl. ESCO contracts)	106	25.2 million	17.2 million
2	– Corporate clients and SMEs (incl. ESCO contracts)	80	20.8 million	15.8 million
3	– Other clients (hospitals, universities, residential)	26	11.7 million	8.9 million
II.	**Guarantee Contracts**	**33**	**14.7 million**	**2.68 million**
1	– Partial credit	4	4.1 million	2.32 million
2	– Guarantees for ESCO	29	10.6 million	0.36 million

* Used Exchange Rate: 1 USD = BGN 1.65

International Recognition

Since it was officially launched, EERSF has received multiple awards and has been recognized on many occasions for its excellent performance in EE financing.

In 2006, the Bulgarian Agency for Energy Efficiency awarded EERSF the title of "the best specialized institution for financing EE projects in Bulgaria".

In 2007, the World Bank commended EERSF as a "highly satisfactory (or best practice) operation, whose design and implementation should be disseminated internationally". In the same year, the Fund became the financier of choice for EE in the public sector (municipalities, public healthcare, and education). In 2007, building on the highly successful market penetration achieved by its direct lending products, EERSF launched its partial credit guarantee products dedicated to EE.

In 2008, EERSF was recognized for a second time as a "best practice operation" by the World Bank. In the same year, the Fund launched its 5% first-loss EE portfolio guarantee targeting the portfolio-based receivables of Bulgarian ESCOs. Launched at exactly the right time for the Bulgarian market, this well-designed product has become a true success story.

In its 2010 project completion report, the World Bank[7] has the following praise for EERSF:

> *At the time of appraisal, the project design represented what was considered "best practice" for EE-programs in Central and Eastern Europe. In fact, the project's quality at entry was rated highly satisfactory by the World Bank's Quality Assurance Group which stated that "the project's preparation process can be considered a good example of what needs to be done early in the project design to ensure successful implementation".*

7. World Bank "Implementation Completion and Results Report (September 22 2010;TF-54515)".

Lessons Learned for the Design and Management of EE Funds

EERSF's strategic mission, as defined in the agreement with the funders, is to develop and expand the local EE market. Though not the only player in the EE financing market in Bulgaria, EERSF has clearly been a key instrument in striving towards this goal.

Since the beginning of EERSF's operations, its Fund Manager has been unwaveringly committed to cultivating a specific niche market for EE financing, rather than solely focusing on the financial survival of EERSF.

As a result of its ongoing and carefully conducted work to identify the market's needs for EE financing EERSF, led by its Fund Manager, identified a huge demand for credit among municipalities, SMEs, hospitals, and universities. It was not an easy task for EERSF to develop its own niche market because two EBRD credit lines were already successfully operating in Bulgaria, namely one credit line for EE and RE projects in the industrial sector and one credit line targeting EE in households.

Thus far, EERSF has succeeded in not only creating its own niche market by catering to the specificities of EE projects and small-scale demand-side RE projects, but also establishing itself as one of the leading financial institutions lending to Bulgaria's various economic and social sectors including municipalities, hospitals, and universities.

Lessons Learned

Adequate response to market changes is an important factor for the smooth implementation of an EE fund. Such innovative facilities are particularly vulnerable to market developments.

In the case of EERSF, in spite of the fact that the Fund Manager made appropriate and timely operational decisions, the fund did not meet the initial expectation of its funders for its potential role in the EE financing market in Bulgaria (co-financing with commercial banks), as revealed in a mid-term review conducted by the World Bank. However, the fund was highly successful in identifying another market niche by providing loans and guarantees to public-sector EE projects and by actively supporting the preparation of EE projects.

Fund operators and managers must ensure that the features offered by the fund are in demand and appropriate for the market. In EERSF's case the design of the facility was based on the assumption that commercial banks in many cases would ask for a Partial Credit Guarantee as a condition to enter into EE finance. However, the Bulgarian finance community did not perceive much of a need for such a guarantee when financing EE projects. Public-sector borrowers generally have had good repayment records; in the case of the corporate sector seeking EE loans, such loans would be provided based on their balance sheets and the LFI's previous experience with providing loans to these parties. In Bulgaria, a major sales effort by the Fund had to be conducted in order to persuade banks to purchase Partial Credit Guarantees.

Guiding Principles

The following noteworthy principles have been identified as critical to EERSF's success.

Principle One: Flexibility is a winning virtue.

- The Fund's excellent design enabled flexible funding operations over time and proved critical to its success in the changing market environment in Bulgaria. One of the key elements of the design was the underlying market study conducted before introducing the instrument in the market to determine the basic assumptions regarding

why, and under what circumstances the Fund should be designed to work.

- Since its creation, EERSF has played a major role in providing a variety of products dedicated to EE projects in the Bulgarian financial market. Inspired and encouraged by EERSF's success, an increasing number of local Bulgarian financial institutions are taking a heightened interest in financing EE projects, thereby consolidating the Fund's leveraging role in enhancing the overall availability of EE-related financing products in the market.

Principle Two: Rely on ESCOs' support to develop the market.

- ESCO-based contracts are becoming increasingly popular among contractors and end-beneficiaries thanks to EERSF, which has been the only Bulgarian financial institution that finances emerging ESCOs, thereby boosting the development of the ESCO market in the country. This has been quite an achievement considering that even in developed countries, ESCOs often find it challenging to obtain bank financing due to their limited ability to provide adequate collateral for loans.

Principle Three: Strive for market transformation.

- Nine years after EERSF's operations were first launched in Bulgaria, there is now a real market providing financial tools for the EE sector, and many financial barriers to EE implementation have been eliminated. EERSF is effectively fulfilling the mission that its original funders (primarily the GEF) assigned to it. As the Fund Manager, the consortium led by Econoler is fully aware that EERSF's achievements to date are only the foundation for the future development of Bulgaria's EE market, and that the Fund should gradually expand the scope of its intervention to many other sectors.

Principle Four: Seize every opportunity to create viable EE projects.

- Despite the current unfavorable economic environment, the Fund maintains a strong focus on identifying EE financing opportunities in the industrial sector. Currently, the specific features of EERSF's credit products are mainly geared to appeal to SMEs in such sectors as the processing and clothing industries, and to hotel operators which regrettably have been the worst-hit by the economic crisis among the Fund's potential customers.

Principle Five: Identify unaddressed niches.

- Innovatively structured EE funding bodies such as EERSF can play a major role in identifying and satisfying the financing needs for EE measures in those sectors or sub-sectors often shunned by financial institutions. In Bulgaria the education sector serves as an example: to date, EERSF has been the only financing institution in Bulgaria providing loans to universities for EE investments, and the Fund continues to make significant efforts to provide adapted products to the higher education sector.

Conclusion

Since its creation, EERSF has amply demonstrated that a well-structured and carefully managed fund dedicated to EE can be an effective approach to addressing the various barriers inherent in the EE market. By combining technical and financial expertise and integrating both kinds of expertise into one financing facility, the EERSF has offered a comprehensive solution to a complex problem faced by numerous organizations around the world.

Although limited by its small financial capacity, EERSF has achieved tremendous success with the innovative concept designed for its structure and operation. Its success has clearly demonstrated that EE markets needs such innovative approaches and that, given the right conditions its sustainable business model can be replicated in other regions and countries.

About Econoler

Econoler is a world-renowned consulting firm specialized in the design, implementation, evaluation and financing of energy efficiency projects and programs. From its creation in 1981 by Hydro-Quebec as the first Energy Service Company (ESCO) in Canada (the first utility-based ESCO in the world), the firm acquired early on a high level of expertise in the design and implementation of energy efficiency projects under a performance contracting (EPC) approach. Shifting permanently to consultancy work from the mid-1990s, with a strong focus on international activities Econoler also developed its expertise in all other aspects of demand-side energy efficiency as well as in small-scale renewable energy, climate and carbon finance, and energy access projects.

Since becoming a fully-fledged consulting firm over 25 years ago Econoler has carried out more than 4,000 assignments around the world in 160 industrialized, emerging, and developing countries, from all regions of the world. Our clients include national and local governments, public utilities, corporate sector as well as the leading UN agencies, multilateral and bilateral development banks and a host of other international organizations, foundations, and NGOs involved in fostering energy efficiency and sustainable energy.

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