

ENERGY EFFICIENCY PROGRAMS

FUNDING MECHANISMS A BRIEF OVERVIEW OF PROGRAMS IN BULGARIA

1. Summary

As the world's economies seek to decarbonize, energy efficiency efforts have gained broad acceptance as a crucial instrument to attain lower greenhouse gas emissions at least cost. Access to adequate financial resources is paramount in any effort to implement meaningful energy efficiency initiatives. This brief overview highlights the major funding instruments employed in Bulgaria, as well as others implemented elsewhere, with comments on their applicability in this country.

Broadly adopted energy efficiency funding mechanisms worldwide involve a significant public finance contribution. In Bulgaria, both national and EU-mandated instruments have depended upon government action to rally resources and provide predictable implementation guidance.

Energy efficiency funding programs are tailored to address the needs of businesses and residential users, as well as municipal entities and non-profit groups. Resources are provided for a number of energy efficiency measures, primarily focusing on new construction, equipment purchases and building retrofits.

2. Funding Energy Efficiency in Businesses and Organizations

A number of mechanisms exist to ensure that businesses interested in making strategic energy efficiency investments can access resources. They address varying needs in terms of upfront cost mitigation, payback period, overall return on investment, etc.

2.1. Energy Efficiency and Green Economy Grants

These grants are made available to micro, small and medium-sized businesses under the Competitiveness Operational Program funded through the European Fund for Regional Development and the Bulgarian governmentⁱ. A total of €150 million have been allocated with individual grants for large investment projects capped at €1 million, and at €200000 for small investment projects. Eligible investments include equipment and technology, as well as services. Project co-funding levels are between 30% to 50%, depending on a number of criteria. Information sessions regarding the specifics of this opportunity are currently under way in various cities throughout the countryⁱⁱ.

2.2. Agricultural Energy Efficiency Grants

Various Rural Development Measures provide grant support for energy efficiency investment laterally. An example is the now oversubscribed Measure 123, Adding Value to Agricultural Products, which helps agro-processing enterprises recoup the cost of certain energy efficiency improvement investments.

2.3. Other Sources of Grant Support

Revenues from Bulgaria's excess Assigned Amount Units (AAUs) are administered by the National Trust EcoFund to provide grant support to businesses, non-profit entities, residents' associations, municipal and national authorities as they implement building energy efficiency projects under the Green Investment

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Schemeⁱⁱⁱ. A recent agreement for the purchase of AAUs by Austria has prompted an extraordinary call for projects^{iv}.

2.4. Loans and Loan-related Instruments

Loans are made available for energy efficiency investments through several facilities. They are typically packaged with consulting services and may involve additional investment incentives, such as subsidies, preferential terms, etc.

2.4.1. Bulgarian Energy Efficiency and Renewable Energy Credit Line (BEERECL)

BEERECL^v is a credit facility made possible by the European Bank for Reconstruction and Development, in partnership with the European Union and the Bulgarian government. Six commercial banks^{vi} act as on-lending entities to provide industrial energy efficiency loans of up to €2.5 million. In addition, eligible projects receive consultation assistance and, upon successful completion, a grant of up to 15% of the disbursed loan amount. The grant is made through the Kozloduy International Decommissioning and Support Fund (KIDSF). A mirror program aimed specifically at residential energy efficiency improvements is structured similarly. It is outlined in 3.3 below.

2.4.2. Bulgaria Energy Efficiency Competitive Industry Financing Facility (BEECIFF)

BEECIFF^{vii} is another EBRD-supported lending facility providing the loan counterpart to the grants outlined under 2.1 above. This facility operates through the lending capacity of six commercial banks^{viii} to provide loan assistance to businesses applying for grants to ensure that applicants have secured at least 80% of the total project cost up-front, whether through their own funds or through a bank loan.

2.4.3. Completed EBRD Loan Programs

A third EBRD energy efficiency support program, the Energy Efficiency Finance Facility^{ix}, was just completed, having disbursed €20 million to over 40 industrial projects in Bulgaria.

2.4.4. Loans under the Bulgarian Energy Efficiency Fund (BEEF)

BEEF^x provides several products to businesses, municipal authorities and individuals aimed at facilitating investment in energy efficiency improvements. Loans are made available to businesses at interest rates between 5% and 10% for a period of up to 5 years and require borrower contribution that varies depending on the specific terms of financing, e.g. if a commercial bank is involved in the transaction.

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2.4.5. Partial Credit Guarantees

BEEF provides PCGs of up to €410000 to support borrowing entities for a period of up to 5 years. Depending on BEEF's creditor priority relative to the borrower's commercial bank lenders, its PCGs are capped at 50% to 80% of the total project loan.

2.4.6. Portfolio Guarantees

To facilitate the process of project risk assumption by ESCOs, BEEF provides portfolio guarantees, up to a negotiated limit, with 5% of the total portfolio amount being a realistic range. A similar instrument is available to residential retrofit projects to mitigate the risk assumed by the lending commercial bank.

2.5. Energy Service Company (ESCO) Contracts

ESCO contracts are an instrument which allows entities to significantly mitigate the up-front cost of energy efficiency projects. ESCOs are commercial entities which assume the design and implementation of the entire energy efficiency project for a client. ESCOs are responsible for securing financing, by accessing their own resources or, more frequently, raising funds externally. Project costs, including the ESCO's fees, are paid out over time, as the resulting energy savings are realized. This mechanism targets primarily municipal and state-owned entities, and has been gaining increasing popularity due to its potential to mobilize third-party financing, as well as its flexibility and specific project risk allocation.

2.6 Newly-Launched Programs

Targeting small and medium-sized enterprises, the Green Industry Innovation Program is a new business development program launched by the European Economic Area^{xi}. Worth €13.7 million, this program aims to encourage 'eco-innovation' in business and support the greening of local industries. The program is run by Innovation Norway and will promote business-to-business cooperation between the two countries. Improvements of technology and processes, waste and waste water management, energy efficiency, certification and verifications, strengthening of competences and capacity building are among the activities which will be eligible to receive support.

3. Funding Residential Energy Efficiency Efforts

Buildings can represent nearly 40% of energy requirements in an economy and are therefore a pivotal area to target to attain meaningful efficiency gains. They provide significant opportunities for cost-effective investments in efficiency. Retrofitting and efficiency investments in existing buildings represent nearly 50% of the efficiency/carbon reduction potential of buildings in the average European economy^{xii}. In addition, deep retrofits, which address a building's overall and long-term energy efficiency performance, deliver the most cost-effective results over time. Since cost is the single most prohibitive barrier to optimal investment in this area, sufficient and stable capital is understandably a priority.

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3.1. Grants

Grants of up to 50% of project cost are made available through the Ministry or Regional Development and Public Works (Housing Policy), which recently launched its Energy Renovation of Bulgarian Homes program^{xiii}. The funds under this program total €26 million and are provided by the EU's Regional Development Fund, through the Regional Development 2007-2013 Operational Program. The program operates in 36 urban areas throughout the country. Eligible recipients include owners' associations in multifamily buildings whose purpose is primarily residential. Eligible investments include a diverse group of building retrofit measures. Grant support is packaged with a technical and energy efficiency audit, which is fully funded by the program. The program will run until 2015.

3.2. Loans and Bank Guarantees through the Building Renovation Fund

A Building Renovation Fund (BRF) of €5.3 million is made available through a commercial partner bank to facilitate the implementation of projects funded under 3.1 above. BRF will be tapped to provide escrow accounts, low-interest preferential loans and bank guarantees to grant recipients seeking to raise funds to cover the balance of their project's cost.

3.3. Loans and Grants through the Residential Energy Efficiency Credit Line

REECL^{xiv} is a €40 million facility made possible through the European Commission, EBRD, and the Bulgarian Energy Efficiency Agency. The facility works with 4 partnering commercial banks^{xv} to provide loans to homeowners' associations seeking to finance eligible energy efficiency projects. Incentive grants are provided upon successful project completion and may cover up to 35% of total project cost. The grant component is made available through KIDSF. These funds will be available through mid-2014.

3.4. Residential Portfolio Guarantees through BEEF

As discussed in 2.4.6 above, BEEF offers this instrument to mitigate the commercial lender's risk in residential efficiency improvement projects with the purpose of facilitating the flow of external financing.

3.5. Energy Performance Contracting with ESCOs

Another mechanism, already in place for businesses, whose principal purpose is to bring together financial resources, energy efficiency project expertise and the residential customer, is the use of energy performance contracts (EPCs). EPCs involve a broader use of ESCOs to attain energy savings for residential buildings as well. An example involves pilot projects under the FRESH^{xvi} Initiative, involving Bulgarian, as well as other European social housing operators.

3.6. Tax Incentives

A fiscal mechanism which is probably somewhat underused entails incentives through tax exemptions and fee waivers at the national and local level. Currently, property tax exemptions for retrofitted buildings, if

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successfully certified, may last up to 10 years. Additionally, some municipalities have opted to waive building permit fees and sidewalk usage fees for the duration of building retrofit projects.

No significant tax credits or reduced VAT rates have been legislated in support of energy efficiency initiatives.

3.7. European Investment Bank Energy Efficiency Support Program

To assist urban areas with technical expertise and organizational capacity to implement large energy efficiency projects, the EIB has launched ELENA, the European Local Energy Assistance facility. Funding for this initiative comes from the Intelligent Energy Europe II program and covers up to 90% of the technical support cost local and regional authorities incur to prepare energy efficiency or renewable energy projects^{xvii}.

3.8. Private Sources of Financing

Commercial lenders have been hesitant to develop innovative stand-alone instruments targeting energy efficiency projects, other than those which involve at least some public funds. Currently, no retail bank offers energy-efficiency specific financing instruments.

4. Looking Outward

As the table below demonstrates, energy efficiency measures in Bulgaria can benefit from most of the financial instruments currently deployed in the European Union^{xviii}. Nearly all conventional and some innovative mechanisms are available to businesses, public entities and/or residential projects in this country.

Financial instruments in Europe	Financial instruments in Bulgaria
Grants/subsidies/funds	V
Loans	V
Tax/VAT incentives	V
Energy Supplier/ Efficiency Obligations	X
Third-party financing/EPC	V
Levies	X

Source: BPIE, research (V – yes, X – no)

Although there appears to be a variety of mechanisms in place in Bulgaria, the uptake has reportedly been modest so far. A general lack of awareness and perceptions of high up-front costs are the most significant impediments.

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Among the mechanisms not in use in Bulgaria, one that stands out and merits significant consideration involves Energy Efficiency Obligations^{xix}. Broadly in use in the United States and in some EU countries, EEOs are an instrument which engages distribution utilities, energy suppliers or independent entities in delivering performance-based energy savings to a broader market. This mechanism is attractive in that it does not rely on public funds. If designed well, it can contribute to the country's energy efficiency efforts.

5. Looking Forward

As with all efforts which require a significant up-front investment and lead to benefits that become obvious over time, energy efficiency efforts are heatedly debated, as is the optimal mix of public and private funds that must be dedicated to implementing them. Lack of project funding for energy efficiency initiatives is consistently identified as the top barrier, and it is ever more prevalent in an environment of global economic belt-tightening.

Financing options in Bulgaria rely heavily upon external public funds at this time. Moving away from government-provided or facilitated funds is pivotal to ensure the long-term viability of energy efficiency efforts. There is a clear need to continue to raise capital sustainably beyond the existing programs, some of which have fairly near sunset horizons. Energy Efficiency Obligations and Energy Performance Contracting are two innovative instruments that mobilize private funds and may thus contribute to meaningful energy efficiency measures, if used more broadly and in a manner adequately tailored to Bulgarian specifics.

Additionally, another major issue that must be addressed in any future policy design action with respect to energy efficiency is how to encourage changes in behavior to attain ongoing energy savings. It is widely known that, since the country's energy intensity is fairly high, simply focusing on the "low-hanging fruit" is likely to result in noticeable efficiency gains. Thus, large-scale residential retrofits are an obvious, and rewarding, first step. As both the circumstances and the policies evolve, however, the challenge is for funding instruments to be so designed as to encourage not only broad, but also deep efficiency measures, as well as sustainable patterns of green behavior for corporations and citizens alike.

Related to these broad considerations, there is a diverse group of specific policy questions that loom large and must, at the very least, inform the next wave of energy efficiency measures in Bulgaria:

- Do the existing mechanisms offer sufficient incentive for attracting domestic and foreign investment?
- Are there reliable ways to attract the substantial Bulgarian personal savings into the residential retrofit effort?
- How to secure the optimal technical standard of building retrofits so that buildings are locked in, at a minimum, medium-level energy saving mode?
- Are there financial provisions for the implementation of the near-zero energy standard for buildings which comes into effect in the EU in 2020?
- What is the most effective institutional management of the energy efficiency policies?
- Do energy efficiency policies have to be highly centralised, based on inter-institutional coordination or mainly dependent on local authorities?
- How can the financial savings from energy efficiency measures be directed into further energy efficiency measures or used to repay energy efficiency loans?
- Is there a role for the utilities companies to play in the residential retrofit efforts?

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Obviously, the above is simply a sampling of the issues which must be given serious consideration.

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Notes

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- ⁱ http://www.opcompetitiveness.bg/images/module3/430_igrp_2012_revised_11.09.2012.pdf
- ⁱⁱ <http://opcompetitiveness.bg/index.php>
- ⁱⁱⁱ http://www.ecofund-bg.org/NDEF/upload/approved_projects_NTEF.pdf
- ^{iv} To be submitted by October 30, 2012.
- ^v <http://beerecl.com/cms/?q=en/home>
- ^{vi} Allianz, DSK, Piraeus, PostBank, UniCredit, United Bulgarian Bank.
- ^{vii} <http://beeciff.org/cms/en>
- ^{viii} Allianz, DSK, MKB UnionBank, ProCredit Bank, Raiffeisen Bank, UniCredit Bulbank.
- ^{ix} http://bulgaria-eueeff.com/pages/eueeff-bg_starter_en.htm
- ^x <http://www.bgeef.com/display.aspx>
- ^{xi} <http://www.eeagrants.org/id/3193>
- ^{xii} *Residential Efficiency Retrofits: A Roadmap for the Future*, May 2011, Chris Neme, Meg Gottstein and Blair Hamilton
- ^{xiii} <http://mrrb.government.bg/?lang=bg&do=ispa>
- ^{xiv} <http://www.reecl.org/about.php>
- ^{xv} CIBank, DSK, ProCredit Bank, Raiffeisen Bank.
- ^{xvi} <http://www.fresh-project.eu/project/>
- ^{xvii} <http://www.eib.europa.eu/products/elena/index.htm>
- ^{xviii} http://www.bpie.eu/documents/BPIE/publications/BPIE_Financial_Instruments_08.2012.pdf
- ^{xix} Also known as White Certificates.