



Proceedings from the Third National Roundtable in Bulgaria

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**PRESENTING THE INVESTMENT CONCEPT FOR THE
NATIONAL DECARBONISATION FUND**
**National roundtable for financing energy efficiency investments in
Bulgaria**
2–3 June 2022
Burgas, Expo Centre "Flora" and online

130 stakeholder representatives	9 speakers
	91 delegates
	30 participants on-line

Discussion topics:

- Role and opportunities of the existing financial mechanisms for joint work with (National Decarbonization Fund) NDF
- Financing opportunities in projects for production and consumption of renewable energy
- The effect of NDF on energy efficiency projects in the building stock

Plenary session:

The national round table on "Presentation of the first results of the project for structuring the National Decarbonization Fund" was opened by Mr. Dragomir Tzanev (EnEffect).

In the opening session, Mr. Nikolay Nalbantov from the Ministry of Energy (ME) presented the national goals for increasing energy efficiency (EE), as well as the necessary investments for their implementation and increasing the consumption of energy from renewable energy sources (RES) according to the national strategic documents (National Energy and Climate Plan, Long-Term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-Residential Buildings by 2050). According to these documents, the main instrument for achieving the national goals is the National Decarbonisation Fund (NDF). ME has an idea to use the fund as a central unit for managing EU Operational Programs for EE, as well. Furthermore, Mr. Nalbantov presented the planned investments in the component "Low Carbon Bulgaria", part of the National Recovery and Resilience Plan (NRRP), as well as the procedures under the RES and EE Investment Program administered by the ME.

Mr. Olivier Dumoulin from the European Investment Bank (EIB) and member of the NDF structuring team, presented the scope and objectives their team's work. Mr. Dumoulin emphasized that the NDF is an instrument for achieving national long-term goals, as well as a condition for receiving part of the capital from the RRP. The technical assistance due by the 3rd quarter of 2022 consists of the preparation of the following documents – analysis of the market and regulatory framework with recommendations for changes, investment strategy with proposals for financial instruments and sources of capital, fund structure, procedures and a roadmap. A proposal for regulatory changes is expected to be developed in the first quarter of 2023 and NDF should start working in the third quarter. The beneficiary of the technical assistance is the Sustainable Energy Development Agency (SEDA), supported by the European Commission (EC), while the team working on the fund structuring is composed of a consortium of external experts led by PwC, and Mr. Marko Markov is their team lead.

Mr. Marko Markov presented the results of the market analysis, in particular the identified barriers and needs for investments for the next 10 years. He mentioned the common barriers for all types of buildings that NDF will target. The biggest issue is the quality of EE measures and the practical use of public resources. Other identified problems are lack of qualified staff, lack of awareness of the EE benefits, lack of specialized technical assistance, the small volume and technical complexity make investment in EE measures unattractive to the financial sector, lack of good collateral, and lack of good communication and transparency of national policies towards the financial sector. For the assessment of the needs of the needed investments was taken the assessment in the national long-term strategy. Several scenarios were developed - the first option reflects what has been planned according to the strategy and the inflation of 28%; another option increase by 4% the renovation rate by 2030; and the other two scenarios include construction measures that the long-term strategy does not include. Mr. Markov said that it was taken into account that the first 5 years the renovation rate will be slower and in this period the investments will be focused on market development. Depending

on the different scenarios, in the next 10 years, between BGN 3.5 and 6 billion of additional capital in the housing sector will be needed, for the private sector - between BGN 350 and 700 million, and for the public sector the planned funds under programs and others tools will be sufficient until 2025.

Mr. Valentin Mihov briefly presented the Bulgarian Development Bank (BDB), its financial solutions and goals. He noted that one of the main goals of the bank in the last 2 years is to finance the transition of small and medium enterprises (SMEs) to a green and sustainable economy. They have found that SMEs are not aware of doing a green business under the new regulations, but they are interested. Mr. Mihov gave examples of green investments in all sectors and presented their product for financing a photovoltaic plant, as well as other products that show their flexibility. In conclusion, he pointed out that the role of BDB is to get involved in financing SMEs' projects with high risk, due to the lack of adequate collateral.

The plenary session ended with a presentation by Mr. Kamen Slavov from the Fund of Funds. He briefly presented information about the fund and its portfolio. Additionally, he presented their experience and specific examples of supporting EE investments in other financial institutions, e.g. loans for EE Measures in Student Dormitories, Electric Vehicles and Infrastructure for Gabrovo, Electric Vehicles and EE of Buildings for Cleanliness and Gardens and Parks, Energy Efficient Lighting of the Stadium, etc. Mr. Slavov gave many examples of green projects that they are working on. Some of them are from risk financing - small investments that unlock new sectors and markets. Other examples were given in microcrediting, where most of the projects are focusing on RES / EE, also the Recovery program with 22 projects with a green element, as well as an investment platform with FLAG and EIB, loans in the water sector, structuring of NDF.

Key quotes from plenary session:

„NDF is a key instrument that is mentioned in many strategic documents in Bulgaria regarding EE investment and in particular the long-term renovation strategy. And more recently the creation of this fund has been included as a policy reform and milestone in the RRP“

Olivier Dumoulin, EIB

„Indeed, it is time for energy efficiency to be seen as an investment, not a gift, and to be served with instruments that combine a grant component and some type of financing combined with a risk-sharing tool.“

Marko Markov, Econoler

„A platform like NDF would be a key for making green investments. We, the Fund of Funds, believe that the coordinated approach, the coordinated effort in this direction, which we currently call the NDF, will be the right tool.“

Kamen Slavov, Fund of Funds

Discussions and conclusions from the parallel sessions:

Parallel session 1: Role and opportunities of the existing financial mechanisms for joint work with NDF

Moderated by Marko Markov

The session began with short presentations by representatives of various financial institutions that finance sustainable energy projects.

Mrs. Nadia Dankinova from FLAG / FGR talked about the experience of the institutions she represents in structuring and managing financial instruments in EE. She shared successful examples and market failures, and analyzed the reasons for them. It has become clear that the FLAG / FGR is partnering well with private financial institutions, which are showing increasing interest in investing in sustainable energy but they need technical assistance. Mrs. Dankinova also talked about the launched initiative to create a new Investment Fund for Clean Energy, which will raise funds from local and international financial institutions and donors.

Mrs. Galya Vasileva (Executive Director of the Bulgarian Energy Efficiency and Renewable Sources Fund - EERSF) presented the portfolio of financial instruments and experience that EERSF has gained over the past 15 years. She said that the fund is fully operational and currently provides funding for various types of EE and RES projects on a purely market basis. EERSF can support the implementation of projects, that will receive grants under the RRP and the EU Operational Programs, by providing the necessary bridge funding.

Mrs. Kamelia Georgieva from the National Trust Eco Fund spoke about the financial products of NTEF. They are combining remunerative financing with a grant component. She outlined the role of the NTEF as a source of "complementary" funding for EE projects and gave an example of funding for medical institutions with up to 25% grant. Mrs. Georgieva explained to the participants how the NTEF focuses on behavioral models in the evaluation and implementation of its projects. It became clear that NTEF uses ICP protocols and a specialized software model to calculate the value of the required grant component.

Mr. Momchil Ignatov from Postbank said that private financial institutions in Bulgaria are interested in increasing the share of "green" loans driven by the desire to achieve their ESG goals, as well as to help their borrowers to improve their financial condition through optimization of energy consumption. Banks demand fast and flexible approach for EE financing and partnership with NDF. Additionally, technical assistance is needed to enable financial institutions quickly and easily assess the credit risk of EE projects, as well as to demonstrate to their customers the positive effect on cash flows. According to Mr. Ignatov, the NDF should not offer an excessively large grant component - only as long as it is necessary for the funded projects to become profitable. Banks are aware of the investment needs of their clients and because of their extensive branch networks, they could easily be a strategic partner of the NDF. However, they would expect help or compensation for the monitoring and reporting of the achieved results.

Conclusions from the first parallel session:

- The need for capital is greater than what public resources (EU funds or the national budget) can provide. The state cannot meet the set goals for decarbonisation without the use of financial instruments.
- More specialized tools are needed on the market. When creating such, it should be used an approach that mixes risk-sharing tools with those for technical assistance and the grant element. Also, it will be valuable to use an approach for creating specialized tools aiming the needs of different types of clients and / or projects (niche approach).
- Inconsistencies in policies and poor planning of government financial programs confuse market participants. It is necessary better communication between the state and the private sector, as well as a coherent approach to moving to lower - intensity grant schemes and more financial instruments, so the needs of all types of clients are met.
- Bulgarian financial institutions, which are mainly banks, could be a good partner for NDF. They are aware of the investment cycle, but in order to be able to operate well, they need to receive funds quickly and flexibly, so that the flow of capital is not interrupted. However, banks will need technical assistance to ensure quality control of funded projects. Therefore, a national database containing information about ESCOs with good rating, as well as a database with already implemented EE projects for benchmark, would be very useful.
- Banking institutions have no experience with condominium financing. In order to enter to this market, NDF and other financial institutions, will need to create sufficient instruments combining risk-sharing and technical assistance. Changes in the legal and regulatory framework for condominium management are also needed in order banks to be able to lend more confidently to condominium owners' associations.

Parallel session 2: Financing opportunities in projects for production and consumption of renewable energy

Moderated by Stanislav Andreev

The first presentation of the parallel session was presented by Mr. Ivaylo Alexiev, Executive Director of SEDA. Mr. Alexiev started with an overview of RES at the RRP, firstly reflected in the section "Intelligent Industry".

"Green Bulgaria" is the next section of the plan, assigned to RES, according to Mr. Alexiev. There are also opportunities for 100% financing of households for solar panels for domestic hot water (DHW) with a suitable pump and automation. The maximum amount of the grant can reach up to BGN 1,960.

The other option for households is a 70% grant, not exceeding 15,000 BGN, for photovoltaic plants for own consumption with a capacity of up to 10 kWp. Mr. Alexiev added that a facilitation will be done in the legal framework, so the regime for commissioning of this type of capacity will be eased. A specific requirement for the automation system will be to protect the plant from the return of electricity from the grid.

Mr. Alexiev calculated roughly that for small power plants for households will be made investments of BGN 240 million, which is approximately 240 MW of installed capacity for own consumption.

He ended his review by mentioning that the RES capacities of 1.4 GW in the RRP will be a subject of a series of tender procedures for their construction.

In conclusion, it was mentioned that the start of the program is next year and that it will be under the ME.

In the short discussion that followed, Mr. Alexiev added that the subsidy for the photovoltaic plant for own consumption will reach only 10,000 households and should be considered as a pilot project. Also in this case, the challenge will be to use the best technologies on the market. It was also recommended that the beneficiaries should envisage funds for the maintenance of the purchased equipment.

The session continued with a presentation by Mr. Andreev in connection to a pre-feasibility study for the commissioning of renewable energy plant for the needs of an industrial park in Burgas. Mr. Andreev started with a short comment that the use of batteries is not financially profitable if there is no grant over 70%.

Mr. Andreev also mentioned some advantages for companies in an industrial park that are associated in order to use community RES: (i) saves a number of fees (e.g. debt to society), (ii) optimizes sales to a supplier from one plant with larger capacity, (iii) optimizes combination of producer companies with different capacity, with companies with different consumption, (iv) optimizes the produced renewable energy between different modes of consumption of companies (only 30 % of RES can be consumed by one company, against 70-80% of the cooperative), (v) predictable constant price of energy within the cooperative (287 BGN / MWh).

Mr. Stefan Abadjiev has concluded the session with a presentation on Energy Communities. Mr. Abadjiev pointed out that the main disadvantage is the limited capacity of the electricity transmission network, which leads to solutions requiring the local energy production to be consistent with the local consumption.

It was emphasized that energy distribution companies do not have relation to the possibility of building energy communities. This is only the case when the supply of energy outside the community is envisaged.

Mr. Abadjiev announced that he is actively working on legislation for energy communities, reflecting the directive.

In the final part of the session, participants discussed various opportunities to support beneficiaries through one-stop-shops, and specialized platforms offering solutions and assistance.

Conclusions from the second session:

- There is a tendency to ease the regime of commissioning of small RES for own use.
- Through the funds provided through the RRP it will be introduced 200 MW of capacity for own electricity consumption in households.
- Although the subsidy for photovoltaic plants will only reach 10,000 households, it will show major weaknesses that need to be addressed in subsequent larger programs.
- A step in the right direction will be the requirement of the program to purchase technology with the best quality on the market, not the cheapest, as it used to be the case.
- The construction of a community RES by an association of companies in industrial parks can lead to number of optimizations, such as the elimination of additional fees (up to BGN 77-80), balance of consumption within the group, etc.
- A proposal for a law on energy communities is going to be published soon.

Parallel session 3: The effect of NDF on energy efficiency projects in the building stock

Moderated by Dragomir Tzanev

After the introductory presentations, the moderator gave the floor to the participants in the hall, some of whom were representatives from Habitat for Humanity, BAIC, BACC, BCC, SEDA, EnEffect.

The main topic of the session was the update of the rules for the National Energy Efficiency Program. According to the latest version of the RRP the grant scheme should be opened in July. However, the rules are still not ready. It is unclear whether there will be a public debate on the rules, but there are changes that are of concern. There would be a change in the procedure for submitting the applications. The applications will need to be submitted in few regional centres run by private actors, which may reduce the trust and the interest in remote urban centres. Until these centres are ready to operate, applications will be submitted directly to the Ministry of Regional Development and Public Works (MRDPW). This would lead to a loss of momentum, accumulated capacity, and trust. Some of the positive results from the previous program were the success achieved in the association of property owners, as well as the trust built between them and local authorities. Furthermore, the local authorities have built internal capacity and found the appropriate ways to convince people of the benefits of EE. From this point of view, the centralization of these programs should not be allowed; moreover, the proposed model has already been proved as unfunctional in previous programmes (2012-2015).

It was clarified during the session that public consultations in connection with amendments to the Law on Condominium Development are currently underway. Key changes are being discussed. They will ease the procedure for owners to associate so that a small number of them cannot block the process. During the public consultations opportunities are being sought to make the financing of owners' associations more realistic. Additionally, mechanisms for control and approbation in case of non-compliance with the legislation are also discussed. It was mentioned that the process of public discussion is not well organized by the Ministry of Regional Development and Public Works - information is received the day before the sessions.

Furthermore, it was discussed the need to facilitate certain procedures under the Law on Spatial Planning, as well as the need for technical assistance aimed at owners' associations. Now, they need to start procedures for issuing a technical passport and a certificate for energy performance and energy audit. This supposes access to professional services that are not available everywhere and opens up an opportunity for businesses to be more active and offer their services. However, the mechanisms by which this process will be supported are not yet available. Information centres in Gabrovo and Burgas have been opened and they are trying to deliver information to owners and local businesses. However, in some places such a business does not exist, and small municipalities will have difficulty finding a suitable consultant in larger cities.

The main conclusions made at the end of the session were the following:

- The services under the National Energy Efficiency Program should be closer to the end users and they should receive information from sources they already trust.

- Public consultations are currently underway on changes to the regulation. Changes should facilitate the association of owners, as well as their participation as an association in credit transactions, control mechanisms and sanctions. Better coordination is needed of these meetings to maximize the benefits of the accumulated professional capacity.
- A set of regulatory and communication changes is needed to facilitate the provision of technical support.

Closing session - Lessons learned and upcoming activities

Moderated by Dragomir Tzanev

On the second day of the event, the program began with a summary of the discussions in the parallel sessions, conclusions and recommendations, providing all participants with the opportunity to ask their questions to the moderators.

Mr. Marko Markov presented the conclusions of the first session, which were followed by increased interest in the structure and functions of the future NDF. Currently, the work of the team is at an early stage. They are still developing the investment strategy, which is yet to be approved. In the investment strategy all possible sources of funds for capitalization of NDF are taken into account. He also said that a range of products taken from best practices around the world has been considered, as some of the measures could be paid through utility bills or local tax. However, those mechanisms would require regulatory changes. Mr. Markov also added that the fund could act as an intermediary, as well as a national database of ESCOs with good ratings, and a database with different types of projects, suitable for benchmarking.

Mr. Stanislav Andreev summarized the discussion and the conclusions of the second parallel session. Attendees' questions were focused on the private sector and funding of innovative technologies and their documentation. The banks' representatives also raised the issue with the future of a photovoltaic plant, owned by a company that could become insolvent before the plant ends its useful life. They were interested what can be done with the power plant. It was discussed that the equipment could be easily moved, resold by the owner bank, which again implies technical assistance. Another topic that excited the audience was the interest of the people working in the sector and the obstacles for RES financing. The latest change that facilitates investment is the elimination of long procedures for small power plants for own production. The expansion of the market would lead to a greater interest in capacity building of the people working in this field.

Mr. Dragomir Tzanev presented the results from a roadmap for improving knowledge and skills in the construction sector for the period 2013 - 2020 (developed by the European initiative BUILDUP Skills). He mentioned that only some of the priorities were implemented: all state educational standards in the construction sector in connection to different occupations have been changed, a huge range of materials have been created, and a new Masters' programs have been launched. It followed a summary of the third parallel session.

The program continued with the presentation of measurements of indicators for additional benefits.

Mr. Borislav Ivanov presented the results of measurements of the indoor microclimate of 24 apartments in a multi-family building in Gabrovo. The sample includes homes without insulation, others - with 5 cm of insulation, and such - with 10 cm of insulation. They were divided by heating source (air conditioning, central heating, pellets). The size and the number of occupants of the apartments are taken into account in the final results so that similar dwellings can be compared. As expected, the consumption was concentrated in the evening on weekdays regardless of the season, with a variation of the amount of energy according to the season. An interesting conclusion was that the renovated apartments with 10 cm insulation have 33% lower costs than those with 5 cm insulation, and 50% lower than those without insulation. During the heating season, as expected, the apartments with 10 cm insulation maintain a higher average temperature (21.3 degrees) compared to the apartments with 5 cm insulation - 20 degrees and those without insulation - 18.3 degrees. Another interesting fact is that the humidity in homes that use wood and pellets for heating is the highest one. On the other hand, CO₂ measurements show that the recommended upper limit (up to 1000 ppm) is only reached for apartments that are heated by wood (average value of 1000 ppm), apartments heated by air conditioners have an average value of 1500 ppm, and those heated by central heating - 1800 ppm. In all cases, however, it was noted that at night-time the concentration of CO₂ significantly exceeded the norms, reaching health-threatening values of nearly 4000 ppm. The ventilation options available on the market were discussed and it was suggested that ventilation systems be included in the requirements for new buildings or that information on building ventilation be added to the energy certificates and in the specially designed brochure for distribution in banks to raise awareness owners and users.

At the end, Mr. Alexander Stankov presented the benefits of building renovation in all aspects, mentioning not only the energy benefits (independence from energy suppliers and the lower price of energy), but also the comfortable environment (good sound insulation, thermal comfort, removal of internal pollutants, humidity control, air quality), economic benefits (lower emissions, better productivity and efficiency, disease reduction, better conservation), healthy living conditions (lower risk of respiratory diseases, better sleep and concentration, prevention of mould and condensation). According to a study by Alpha Research the aesthetic urban environment is one of the main benefits. Increased property prices were also mentioned as a benefit, as well as increased local competitiveness and reduced unemployment. The benefits are many, as one of the online participants (Mr. Pavel Manchev) mentioned that according to a study led in US, the financial benefits for a municipality from the renovation of its building stock can be estimated from 30 to 120% of non-energy savings. Mr. Dragomir Tzanev announced that a special material has been developed, which describes the main sources of information, benefits, and effects of EE measures. It is intended for distribution by financial institutions.

The national round table on " Presentation of the first results of the project for structuring the National Decarbonization fund" was closed by Mr. Dragomir Tzanev, who emphasized that the event has opened new opportunities for meetings, initiatives and research.