



## Bulgaria: Energy Efficiency and Renewable Sources

Position of the Bulgarian Coalition for Sustainable use of the EU Funds and CEE Bankwatch Network: Funding for clean energy through the Structural and Cohesion Funds for the programming period 2014-2020

### Recommendations

- Funding needs to be available for small-scale renewable energy applications in industry, the tertiary sector, public buildings and households as well as in rural areas in order to make them more attractive even without national support (e.g. feed-in-tariffs)
- At least EUR 400 million from the European Fund for Regional Development should be directed towards housing energy retrofits – the needs are much higher but the country is unlikely to be able to manage a much bigger renovation programme.
- At least EUR 400 million through OP Competitiveness towards clean energy applications in small and medium enterprises – support only for ambitious energy savings and introduction of renewable energy.
- No support for gas infrastructure (except for biogas)
- Any support from EU funds for newly built buildings planned in the period 2014-2020 must be conditioned on fulfilling zero-energy criteria set by the Energy Performance of Buildings Directive II (EPBD II) from 2014
- Conditionality must be set for any new or renovated building with EU funds support to count on renewable energy as the main source for heating and cooling (15% is the minimum required by the Bulgarian Renewable Energy Act)
- An obligation needs to be set to use green procurement rules for spending of Structural and Cohesion Funds – recommended as an ex-ante condition as there are already developed and easy to apply rules in Bulgarian that remain unutilized due to the fact they are not obligatory.
- All building stock that has a long life-span and is being renovated must aim for ambitious energy saving levels closer to zero energy standards. Some renovated buildings could be exempted from this requirement – e.g. prefabricated buildings with a short lifespan that will be demolished before ambitious energy saving measures pay back.
- Infrastructure for electric vehicles needs to be developed with incentives to charge during the hours when there is an excess of renewable energy in the network.
- Utilization of green electricity in rail transport
- No support for energy recovery from municipal waste incineration
- Development of administrative capacity, human resources and support for “green jobs” adequate for the schemes for clean energy that are promoted during the period 2014-2020

### Problem analysis

Renewable energy Rooftop PV systems have so far had to undergo more or less the same complicated licensing procedures as large solar to be able to sell electricity to the grid. According to one study by the Bulgarian Photovoltaic Association a rooftop PV requires around 8 working hours to get approved and arranged in Germany, whereas in Bulgaria it requires 404 hours.

The new Bulgarian RES law - implementing the Directive on Renewable Energy 2009/28/EC - generally transferred the simplification of procedures onto local authorities, thus asking 264 municipal authorities in Bulgaria to develop their own package of application documents, without considering their limited capacity and almost no authority to deal with the grid operators, for example. Some important packages and rules were supposed to come with the new regulatory framework, however the regulations were never put in place. The Energy Act narratively proposes the possibility of having RES heating and cooling networks that use the existing district heating networks but there have been no steps towards such a system yet.



In such an unclear regulatory framework the European budget offers a great opportunity to fund small-scale renewable energy applications in industry, the tertiary sector, public buildings and households – allowing technologies such as photovoltaics to be less reliant on feed-in-tariffs and making it possible for such installations to become attractive even when needed to cover only a household's own needs and to secure the clean redevelopment of Bulgaria.

## Energy efficiency in buildings

Designing, funding and constructing to “nearly zero energy” in 2018 means starting planning in this way as early as 2014. Even within the current programming period there is potential that should not be missed – e.g. Sofia Tech Park that is to be built and that may become an energy model for newly constructed buildings. Considering the requirements of Directive 2010/31/EU on the Energy Performance of Buildings, the zero energy performance of a building should be a condition for any investment from the Cohesion and Structural Funds into new construction and reconstruction.<sup>6</sup>

Considering the energy intensity in the country and the poor condition of almost the entire building stock, even reaching the minimum binding level of energy savings will not guarantee fair improvements. Bulgaria will have to find ways to accelerate these levels of energy efficiency improvements beyond the minimum requirements in the Energy Efficiency Directive. The requirements for heat and cooling network development, co-generation etc. will require significant reforms to be quickly implemented in the energy companies and - notably - the district heating companies.

Natural gas - just as any fossil fuel - has to be phased out by 2050 and any public support for fossil fuels should completely end. Providing support for gas with public money now will only create a new problem, and the growing market for gas will make it harder to get rid of it when the time comes. Regarding the gas network, additional attention should be paid to the possibility of every biogas producer feeding into gas pipelines without a minimum quantity that has to be provided in order to get access to the network. Infrastructure financing connections of rural biogas sources should be available.

## Green procurement

Labeling - despite the broadened scope - does not cover all products, neither there are schemes with European funding that have much relevance to the Green Procurement Directive. An obligation to use green procurement rules in spending of Structural and Cohesion Funds, especially under programmes which involve tendering for new equipment, should be set.

## Energy in Cohesion Policy allocations

### Cohesion Fund

In the current programming period the Cohesion Fund is the main source for OP Transport (to be renamed to OP Transport Infrastructure for the period 2014-2020, hinting what the priorities are) and OP Environment. It provides for transport projects, water treatment projects and waste management. The funding from the Cohesion Fund in Bulgaria has so far translated only into support for highways (polluting automotive transport), landfills (most often not even utilizing the generated methane energy-wise) and wastewater plant projects – some far too expensive and constructed in the most unexpected places in the country while other places are desperately in need of wastewater treatment (like some Black Sea and mountain resorts). Thus only grey infrastructure is supported and the experience that is developed in Bulgaria is limited only to large projects.

Cohesion Fund funding priorities must be:

- low-carbon transport infrastructure and transport schemes,
- development of ecosystem-based water treatment
- waste management prioritizing the first steps of the binding waste hierarchy
- smart grids (the local green solution)
- energy efficiency in housing with an ambitious target in residential energy retrofits.

### ERDF

The European Regional Development Fund is the main source of funding for OP Regional Development and OP Competitiveness. Support to clean energy has to continue much more intensely towards building renovation, intelligent grids, renewables and energy efficiency in buildings and industry, and the development of greener, more sustainable and less energy demanding urban environments.

<sup>6</sup> For old prefabricated blocks whose lifespan is no more than 3-4 more decades it should not be obligatory to invest into in passive standards as the buildings will be demolished sooner than ambitious energy efficiency measures will pay back.



## ESF

The European Social Fund will be the main source for OP Human Resources and OP Technical Assistance and Administrative Capacity. The funding has to focus on green jobs and the training of human resources that can support projects related to the transition to an energy-efficient, renewables-based economy. In this programming period there was no measure in OP Human Resources focused on green jobs. This already predetermines that there is not much experience to step on for 2014-2020. For the next programming period much more out of the box thinking is required when it comes to supporting projects through ESF. Such measures should provide assistance and incentives for the development of community initiatives, capacity building and training for environmentally friendly measures.

Many more community-led projects should be supported in urban areas – for example municipalities should make it possible for small local groups or even individuals to get small funding to keep and maintain their areas and neighbourhoods. Such projects have been successfully implemented already in this programming period mostly for maintenance of green areas but the scope should be broadened also to support the development of small energy projects – funding the time, efforts and the capacity building of people, making it possible to train people to apply for small grants (and making small grants available and accessible with less bureaucracy) and providing additional incentives and training for active citizenship.

Currently, the ESF in Bulgaria focuses mainly on basic-level training (like language training), without a long-term strategy of the development of human resources and capacity at all levels of the state apparatus and throughout society.

## The future Operational Programmes in 2014-2020 and Energy

### OP Transport Infrastructure

With more focus on railways that use electricity and with the gradual penetration of electric vehicles, OP Transport Infrastructure has to consider making a competitive link towards the use of green electricity in the railways and to developing the necessary infrastructure for electric vehicles. The planning and implementation of cycling infrastructure has to find a place in this programme.

### OP Regional Development

The National Renovation Programme, which envisages the renovation of 680,000 dwellings (80,000 multifamily buildings) around the country, has been rusting since 2005. The existing estimate of investment needs to put the programme in motion is about EUR 2 billion – providing half of it through public funding comes to EUR 1 billion or easily over 1/3 of the current ERDF levels for Bulgaria. As most calculations in the National Renovation Programme were done in the period 2004-2005 some recalculations might be necessary. The initial calculations in the National Renovation Programme from 2005 estimated that around 800 m BGN (approx. EUR 400 million) will be required to realize the programme at 20% subsidy for the projects. The current scheme offers 50% subsidy so the levels of public funds required should be adjusted up to EUR 1 billion. It is questionable whether Bulgaria could cope with such an extensive renovation programme. A simple calculation shows that renovating 80,000 buildings from now until 2020 results in 30 renovated buildings per day. It is unlikely that the country has the capacity to do quality work at these levels of demand. Considering the levels of the new EU budget dedicated for climate protection and clean energy, housing renovation allocations needs to be over EUR 400 million from the ERDF – this is approximately EUR 60 million per year over a 7-year period. This will cover the investment needs of this sector more realistically than the current renovation scheme with EUR 32 million for 1.5 years.

Strong support for energy efficiency in public buildings has to continue with a set of ambitious energy saving levels and criteria for the quality of building materials when tendering. More transparency of the tenders is needed as there are some projects around the country that seem suspiciously expensive considering the energy efficiency measures applied. The Operational Programme should continue the push for a more sustainable urban environment with the development of bike lanes, green roofs (as energy savers), more pedestrian areas, implementation of anti-congestion measures, small renewables installations and reuse and recycling of waste including building materials.

### OP Competitiveness

Over EUR 300 million were supposed to support clean energy in business and especially in SMEs through grants and bank guarantee schemes within this programming period. Businesses have been promised these measures since 2007-2008. Only at the end of 2011 a measure for large industry started disbursing EUR 40 million. Schemes of EUR 150 million grants + EUR 150 million guarantees for SMEs commenced only in July 2012 – less than a year and a half before the end of the programming period. Proper utilization of these funds 1.5 years before the end of the programming period after keeping business on stand-by for over 5 years seems very unlikely. The next programming period should start clean energy funding for business from the very beginning, giving a clear signal to companies when and how much funding will be available. When financing clean measures for the generation of electricity under OP Competitiveness a double



subsidy is avoided because the power generating capacity does not get a preferential feed-in-tariff – this is an incentive for enterprises to choose the most market mature technologies to cover their energy needs and the extra burden of the higher energy prices for the consumers is avoided. The funding for clean energy in the next programming period should be at least doubled from EUR 190 to 400 million.

When financing a change of fuel base with new one that is again utilizing fossil fuels, increasing efficiency and decreasing total greenhouse gas emissions, high levels of subsidy have to be avoided – e.g. when reaching only 5-10% efficiency increases it is inappropriate to subsidize 70%, 50% or even 30% of the project price. Levels of subsidy should be sufficiently motivating to push for maximum energy savings and greenhouse gas emission reductions.

### **OP Environment**

OP Environment must stop funding landfills, must decrease funding for grey infrastructure and start to provide support the green infrastructure (e.g. ecosystem waste water treatment), that is also less energy intensive compared to grey infrastructure. Energy-wise, OP Environment should explicitly exclude energy recovery from municipal waste incineration, due to its energy inefficiency, poor use of recyclable resources and lock-in effect in preventing advances in waste prevention, re-use and recycling.

### **OP Administrative Capacity and Technical Assistance**

The people working in the state administration and local authorities need to increase their expertise in clean energy, developing local policies in clean energy and knowledge to support local people in their clean energy development – from providing assistance on building renovation to figuring out the best ways for community investments in renewables and assisting investors in clean energy schemes to quickly penetrate locally. More tools should be available online to allow people to skip unnecessary travel. Where appropriate municipalities should fund energy experts – one or more for larger municipalities and one per municipality cluster when the local authorities are smaller. Administrative capacity should open schemes to fund capacity building in civil society groups in the form of small grants and voucher systems.

### **OP Human Resources**

In the current programming period there is not a single measure aimed at developing skills for people to take green job positions ie. for green urban gardens, green job training, inclusion through green initiatives. 2007-2013 has represented a loss of opportunities to obtain experience and to define what is necessary for developing human capital towards the new energy efficient, renewables-based economy. There is a lack of quality green-tech work force skilled in energy retrofits, installation of RES, ecosystem restoration, and green infrastructure. These are foreign ideas to developers, which can be felt on the market. The signal for financing them has to be very strong, clear and timely.

### **Rural Development Programme**

The idea that the Rural Development Programme will mirror the functions of OP Regional Development was already previously mentioned. As of September 2012 it was still unclear what would be the demarcation between the two programmes – what is envisaged is that OP Regional Development will focus on the bigger cities and the urban areas where around 70% of the population is situated. Even though the programme is out of the SCF we mention it here to complete the picture of energy funded through the European budget. It is still very unclear if this concept is realized whether it will fund for example energy efficiency in family houses, biomass in rural areas, or even the utilization of local, sustainable building materials that can be used for insulation and better energy efficiency – e.g. straw and clay. It is also necessary to learn from the mistakes of this programming period – e.g. providing double incentives for renewables like PV in the rural areas by providing a grant and then by keeping them eligible for feed-in-tariffs. All these developments were meant to better the lives of people in the rural areas, however the application procedures were only possible for companies that could get the services of a consultant. Thus the subsidies never served their purpose to reduce regional disparities and instead they just widened the gap. The focus for 2014-2020 when funding clean energy should be on locally produced fuel – biomass from agriculture and forestry residues and biogas plants and very cautiously liquid biofuels (see Bankwatch's sustainability criteria<sup>7</sup>). A strong focus should be put on community-led and -owned renewable projects.

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