Position of EA “For the Earth” on the approved by the EC version of the
“National Recovery and Resilience Plan”

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The current comments refer to version 1.5 of the NRRP from 06.04.2022.

We are thankful that the Government has respected our insistence on sharing interim
versions of the National Recovery and Resilience Plan (NRRP), which we expresed in our
position during the consultation on the original version. The current version, together with
the updated information on milestones and targets, gives a fuller picture of the planned
measures / projects, individual budgets and timescales for implementation. With our
position, we hope to contribute to an even better final version of the document, taking into
account the reduced budget for Bulgaria of EUR 578 million, as well as to contribute with
guidance on the implementation.

In addition to our still valid comments, expressed in our positions on the previous versions
- since not all of them were taken into account, we add the following:

The NRRP does not yet regard the provided funds as EU loan capital (public debt).
Although the plan mainly includes projects that are necessary and most often long planned,
i.e. they do have the possibility to meet the EC criteria for sustainability and reasonable
use of EU funds. However, how is Bulgaria expected to contribute to the repayment of this
public debt back should be a topic or at least hinted at in the plan?

We would like to underline that our general impression from the plan is that it includes
mostly long-planned and urgent projects. Most of these projects would have happened
anyway – with national budget funds or EU funds. Without trying to offend anyone with too
much suspiciousness, we are frankly concerned that there is a risk that these new EU
funds will free up additional resources from the national budget, which, as we all know, is
spent far less transparently. If this happens, it is possible that the effect on the sustainable
development achieved by the plan and the EU funds will be offset by other projects and
spendings that may not comply with the principles of sustainability. We would be pleased
if the Government could convince us that our doubts are unfounded. An assessment of
how heavily the national budget has been undermined by all the unforeseen expenditures
in relation with the pandemic crisis would be convincing, so we do not get the impression
that unnecessary space is being freed up for splashing of funds.

This would be also addressing our next point - the five-year plan is worth BGN 12 billion,
that is roughly an extra BGN 2.4 billion in the economy per year.

No multiplicative and spillover effects are developed and modeled in the plan. The coordination between the European funds and the funds from the national budget is still missing in the plan. For example it is not clear from the program for energy efficiency of the building stock how the funds provided there shall be supplemented with additional European and national money, regardless of the fact that at least two other programs in the new multiannual financial framework provide funds for building measures and for renovation and it is also clear that national and private funding is needed in order to reach the pace of renovation of buildings under the Renovation Wave initiative. Can the government explain whether we will be able to avoid the scenario where the mass of money that is being invested now and that is not even ours, after a few years when the funds for recovery are no longer available, we will not draw us in a situation of additional inflation caused by over-inflated income at a rate we cannot sustain? How is this risk intended to be mitigated?

Huge funds are provisioned predominantly for the construction of infrastructure and buildings - ordinary measures that are carried out anyway. And once again the funds directed for human resource development seem comparably too small.

**OVERVIEW OF KEY REFORMS FROM SECTION "LOW-CARBON ECONOMY"**

**Launch of a state enterprise "Conversion of coal regions"**

Although according to the NRRP this is not an official reform on the implementation of which future payments to Bulgaria will depend, this idea implies corrupt practices. Reclamation is an activity that mines are legally obliged to carry out. Mines are also legally obliged to maintain a reclamation fund (in fulfillment of the "polluter pays" principle) until their closure. It turns out that the state will get to pay twice for the same thing. The Ministry of Economy should already have funds in the reclamation fund (polluter pays) while this project provides that the state is to pay once more with European funds from the Just Transition Fund for the same thing. This type of projects create a serious risk for transfer of responsibility for the land restoration from the companies that have benefited from the of mining and fossil fuel energy production to the Just Transition Fund and other related funds.

**Reform 11: Improving corporate governance of state-owned companies in the energy sector**

"In addition, an independent audit report will be submitted to the European Commission, presenting a detailed assessment of market compliance regarding cross-subsidies between state-owned or state-controlled energy companies in relation to coal-fired power generation."

What is the point of such an audit report without the inclusion of
measures/promises/roadmap that aim to stop cross-subsidies, including subsidies through preferential prices for cogeneration (both for coal and for gas) - Article 33 of the Energy Act. All this gives the impression that currently the subsidising of coal is not good while the subsidising of gas is acceptable. But we are reminding that both – coal and gas are fossil fuels the use of which should be phased out, not encouraged with public funds. Should the audit report not be addressing the market NON-compliance of the subsidies and suggesting ways to address them quickly!

Reform 10 - Decarbonisation of the energy sector

"The decarbonization of the energy sector will be focused on reducing carbon emissions from electricity production by 40%, using the baseline levels from 2019. The reduction of the emissions goal must be achieved in 2025 (measured and confirmed with 2026 data) and will be reinforced by updating the national legislation in the Climate Change Limitation Act, which will also create a clear plan for gradual phase out of coal plants by 2038 and will have a regulatory cap on their carbon dioxide emissions applicable from 1 January 2026."

The planned 40% drop in the emissions in the energy sector effectively means retired coal capacities and reduced use of coal even by 2025. This seems like a higher level of ambition than the previously discussed and not included in the final version of the plan reform for retired coal capacity of 1.6 GW (or ⅓ of the total) by 2025. It is not clear whether the most polluting combustion plants will be shut down first - as we have been pushing for years, or whether every coal-fired plant will operate at reduced capacity, potentially mainly in the winter months. The reform will speed up the energy transition also for some of those working in coal mines, whose employment will be proportionally reduced. We insist that the first closed mines of Mines Maritsa Iztok to be the ones located in the immediate vicinity of the villages of Beli bryag and Troyanova, whose residents have been living in imminent danger of displacement for years, without even receiving adequate compensation for the moral and material damage suffered.

The NRRP states that the exploration and construction of geothermal energy sources and storage facilities will make possible the smooth decarbonisation of the Bulgarian energy sector by reducing emissions, rather than by closing coal-fired power plants in the coming years. The government's desire to achieve a smooth transition with a parallel catch-up of a significant number of years of inaction and failed reform of the sector is now almost impossible.

The development of renewable energy sources and storage technologies must occur in parallel with the closure of coal-fired capacity. While climate science gives us a time horizon till 2030, the war in Ukraine has given us a good incentive to move away from dependence on Russian gas, but also to accelerate the end the use of fossil fuels in general so we do not find ourselves locked into a situation of building new and costly infrastructure and terminals.
The achievement of energy security though the use of local resources should not come at the cost of the healthiness of the local communities. That is why we welcome the firm stance of the Regional Environmental and Water Agency (REWA) and the Ministry of Environment and Water (MEW) on maintaining the closure of the thermal power plant Maritsa 3 due to its systematic failure to comply with the operational standards. It is also time to address the systematic violations of sulphur dioxide levels, in compliance with the EU Court of Justice ruling.

**Reforms related to EE and RES:**
The creation of the Decarbonisation Fund (for public sector, corporate clients and residential buildings) was mentioned or the first time in the Long-term National Strategy for the Renewal of the National Building Stock, adopted in January 2021. The Recovery Plan continues to have many unknowns about the Decarbonization Fund. We see delays and unfinished preliminary preparatory work. Analysis of the obstacles for energy efficiency investment, of the legislative changes..? is still to be done and it will be available at the end of 2024. Probably due to its late start the continuation of the national programme for the renovation of (only) multi-family residential buildings is not mentioned among the available 20% co-financing sources in project 9a.

Its operationalization is very close in the time with the dates for the start of the Social Climate Fund in 2025. It is not clear how the two funds will interact and complement each other, and according to us, the Social Climate Fund should be administered by the Council of Ministers and not by the Ministry of Social Wellfair.

We find that an information campaign is being planned this time as a positive trend, unlike the planning of other projects.

**Reform to Facilitate and increase the effectiveness of the investments in the energy efficiency of multi-family residential buildings**

In the introduction, among the goals of the reform is the elimination of the obstacles to energy efficiency investments in multi-family buildings, such as to facilitate the decision-making for owners of separate units in multifamily residential buildings. The example given is a really important aspect that remains unaddressed in the current reform, since the proposals that follow are in the direction of opening a bank account of the owners' association and professional management of the buildings. The latter is currently also possible for those willing to pay for such a service. The new thing is that the rights and obligations of professional house managers will be regulated enabling them to forward most of the administrative burden of the projects aiming to increase of the energy efficiency of building, which we note as a positive development. NGOs are not in the target group for initial consultations on the reform and it is not clear why.

**The development of a definition and criteria for "energy poverty"** is a delayed process, but at least it is moving towards a solution for a better protection of the Bulgarian citizens.
in the light of the liberalization of the energy market and the spikes of the energy prices. It is important to have a broad format discussion about the criteria and also at an early stage with the participation of representatives of the public sector. As an organization following the topic, we are not yet involved in such processes.

Engagement and close work with the Energy Efficiency and Energy Poverty Alleviation Subcommittee of the Green Deal Advisory Council is necessary. A universal definition, that is also differentiating the different levels of energy poverty is needed for the purposes of EE projects, but also for the social climate plans, along with the implementation of supportive measures for the energy poor people.

**Financing mechanism for energy efficiency, RES projects and the energy bills**

The reform seems like a realization of the principles of the ESCO contracts that guarantees the results, while avoiding the payment of the entire investment in bulk and in advance by the residents.

A curious moment in the reform is that the owners will be able to freely choose the Executors of the energy efficiency measures. According to our interpretation of this proposal the Electricity Distributing Companies (EDCs) will have contracts with ESCO companies among which the owners will be able to choose to work with. Here, it would not be applicable for EDCs to use their ESCO units to implement energy saving measures for end users as part of their energy saving obligations.

**Reform One-stop service.**

We consider as a positive step the launch of the "one-stop service" - a comprehensive service for the energy renovation process - from initial information from a reliable source, through integrated legal, organizational, technical, financial and social services, to contacts and recommendations for investor control and quality of execution of the investment process.

For us, it is essential that the 28 regional centers engage also in a process to build the capacity for monitoring the energy savings achieved. We suggest training for energy auditors to be carried out in the one-stop centers - an activity that has almost stopped for the last 8 years. Preferential training of local experts will generate additional local jobs with high added value.

The fact that there is practically no training of new staff, the lack of sufficient and well-trained staff in the whole environment are probably among the reasons why a second energy efficiency survey is not carried out to verify the promised on paper achievements of energy saving in the renovated buildings. Unfortunately, we do not see such a verification activity in the list of covered activities of project 9a either. The necessary large-scale renovation of the national building fund cannot be done without such specialists
proving the real effect of the implemented measures.

Reform 7. Liberalization of the energy market by 2025.

This is a much-needed reform, increasing the competition in the sector, which requires proper planning and implementation, including across the following directions: Network Digitization/Data Access (Q2/2022), Net Metering (Q1/2022) and Smart Metering (Q4/2024).

Component 1: Education and Skills

Project 2: Modernization of the educational infrastructure

In relation to the renovation, the option to choose the installation of gas condensing boilers is still available, which means a gas dependency for another 20 years or so.

The good news is that the permissible measures have been extended to include also heat pumps and photovoltaics, which in the previous versions was not foreseen.

Component 4: Low Carbon Economy

Project 9a: Support for sustainable energy renovation of the residential building stock

Some advantages we identified in the draft program are:
• this time the renovation is up to energy class B with the possibility to include also RES measures;

• the introduced opportunities for ESCO contracts and financing for the Multi-family residential buildings (MRBs), with 20% self-participation at stage 2; This seems to us like buildings with low energy performance will be prioritized for the achievement of the maximum effect of energy savings - such requirement for prioritization of the buildings with the worst energy performance has been dropped from the previous version

• one-stop technical assistance is introduced;

• the possibility for "new" applications - it's good that, unlike the initial version, new buildings are now also eligible for renovation - not only the 3,000 or so on the waiting list on the Bulgarian Development Bank's website. The latter still have a time competitive advantage if they have already finalised the technical and energy surveys needed to apply.

Unfortunately, the disadvantages of the program are also significant:

• the negative practice that provides 100% grant for the first applicants is preserved;
financing is necessary not only to provide support and include more buildings and households but also to encourage the owners to take good care of the renovated properties;

• for the planned second stage, with an 80% grant, it is very possible that the funds will be spent already in the first stage (as in 2015, the application under the National Program for the EE of multi-family residential buildings - NPEEMRB)

• lack of mechanism to monitor the energy saving achievement;

• lack of support for single-family houses, and overall almost no preferential financial instruments are available for them. We look forward to some progress on the new scheme for single-family houses under the OPRD.

"The planned resource for this component is BGN 1,496.4 million. The predominant part of the resource (BGN 1,189.5 million) is at the expense of the Recover and Resilience Facility, and the national co-financing (BGN 306.9 million) should be provided by the owners' associations (BGN 70.6 million) and the state budget (BGN 236.3 million)."

It is not clear what is the state participation - the self-participation of the energy poor? Technical support and program management?

A large part of the 1.2 billion BGN set in the NRRP is directed for renovating residential buildings. It will be used according to the well-known scheme of 100% grant-in-aid without any participation of the owners. This is an unsustainable policy. In this approach, the quality of implementation is not controlled by the owners and is a prerequisite for corruption. With this budget, we expect barely between 700-900 buildings to be renovated due to the increased prices of construction materials.

We recommend in this case that there be a parallel mechanism - for the owners who want to renovate their buildings through independent participation.

In Bulgaria, there are over 60,000 multi-family residential buildings (MRBs) that need repair. So far, only 2,000 of them have been renovated, with BGN 2 billion from the national budget. With European funds - several hundred more buildings are renovated. More than €25 billion will be needed for the renovation of the remaining multi-family residential buildings. At the current rate of renovation, it will take at least 200 years to accomplish this task. Therefore, investments in energy efficiency must be significantly increased.

"A mandatory requirement after the implementation of the measures on all components is the achievement of primary energy savings of 30% for each site, as the achieved energy parameters are to be evaluated on the basis of a prepared energy efficiency audit report."

From project 2 it can be concluded that all buildings from the considered categories
of buildings with energy consumption class D and lower clearly meet the minimum requirement for an average level of renovation and primary energy savings above 30%, which means that the set milestone in the energy renewal plans is too low!

Project 9b: Support for sustainable energy renovation of the non-residential building stock

"The second and third components provide financing measures for energy renovation of non-residential buildings, including public buildings and buildings related to the sectors of production, trade and services, as well as buildings related to the sector of tourism. Eligible beneficiaries under the third component include micro/small, medium and large enterprises throughout the country with a maximum intensity of 50% of the financial grant. The planned resource is 617.7 million at the expense of Recovery and Resilience Mechanism, supplemented by national and private co-financing."

Here, unlike the grants provided for residential buildings, we see that the selection principle will not be first-come, first-served and the accepted proposals will be subject to evaluation. The main criteria, according to the fact sheet, will be the availability of an energy survey and a financial analysis.

Project 10: Program for the financing of one-time measures for energy from renewable sources (ERS) in single-family buildings and multi-family buildings.

We are pleased to note the 7-fold increase in the budget of this good scheme, in accord with our recommendations in our previous submissions for a significant increase in the budget. Currently, the total planned resource is BGN 240.0 million (BGN 140.0 million at the expense of the Recovery and Resilience Mechanism and BGN 100.0 million national and private co-financing) with an implementation period between 2022-2025. In the previous version, the total planned resource was BGN 31 997 342.00 including BGN 19 999 644.00 from the Instrument for Recovery and Sustainability and BGN 11 997 698.00 of own funding from the final beneficiaries.

Households can install photovoltaic installations with a power exceeding 10 KWp and a value of BGN 15 000, but grant funding is limited to BGN 15,000.

It is good that more expensive systems with accumulated and additional payment are included / not limited, which were not available in the previous renewal program.

Pros:
• 7-fold increase in the budget
• increased capacity of PV systems from 3 to 10 kw;
• possibilities for integration of energy storage systems;
• possibility to pay extra for more powerful systems;
• inclusion of single-family houses;
• national scope - only energy poor from 21 municipalities cannot apply, as they are covered by other identical measure.
• the low-quality air conditioners from previous versions have been excluded and now the focus is only on RES measures.

**Cons:**
- no need for a 100% DHW grant valid for all citizens’
- the program is not intended to be combined with preceding energy-saving measures, which are essential for the achievement of optimal results, including the avoidance of rescaling of the systems

Many DHW systems can already be seen in the Bulgarian cities and villages. It seems that people can cope with this energy-saving measure on their own, which is why we think that the previous 50% co-financing was more appropriate, while a 100% grant is acceptable only for the most poor.

Here, at least, it is clear that the national budget will cover the amount of VAT for households receiving energy subsidies, unlike the state contribution in project 9a. But we do not see how the reimbursement principle will be applicable for the energy poor - "After approval of the installation and its commissioning in the energy system, households submit an application for reimbursement."

**Project 11: Energy efficient municipal systems for outdoor artificial lighting (OAL)**

The measure works well with the implementation of ESCO contracts and transition based on market principles, there is no need for a 100% grant for municipalities with public funds

**Project (New1) BG Restore: National infrastructure for the storage of electrical energy from RES**

The pros in a nutshell:
- most individual RES systems in the NRRP will be with batteries;
- batteries can be charged and discharged simultaneously;
- good solution for morning/evening/winter peaks;
- load balancing of the electricity system together with Pumped-storage Hydroelectric Power Station PSHPS/ here the load balancing capacity of PSHPS is doubled.

**Cons:**
- mega project – concerns about corruption;
- lack of regulatory framework for batteries (industrial/private);
- the technology is not specified.

6 GWh batteries on the territory of Bulgaria - the entry of this ambitious project was a surprise in the new editions of the NRRP. This is a good idea compared to the steam-gas plant in Maritsa Iztok - so beloved by the Bulgarian politicians until recently. But Putin's war in Ukraine made this inadequate project impossible. The new 6 GWh battery project
raises many questions.

The largest flexibility capacity of the electric system in Bulgaria is the 860 MW Chaira Pumped-storage hydro-power, which can balance the grid for up to 8.5 hours, but fails to do so due to constant breakdowns and repairs. This new balancing capacity practically doubles the capacity in Bulgaria with completely new technology. An additional advantage is that the batteries can be charged and discharged at the same time. The question is why the government decided on structuring a state enterprise instead of at least offering a public-private partnership - To get European funds more easily? Or to guarantee the project completion by 2026? To what extent will it be completed on time given the shortage of materials that is expected in the near future? Why is the participation of small companies not foreseen in the project? Will the auction be conducted in a transparent manner involving small market participants? Who will be responsible for its implementation - will it be through tenders with equal access? There are public doubts that this project was proposed for a specific battery company owner.

"In order to achieve transparency and efficiency, the implementation of the project is expected to be carried out by an international financial institution with experience in the management of energy projects in the region, including the structuring and the implementation of the procedures described above, the regulatory changes and the structuring of the partnerships". The roles and relationships between the project company, the consulting financial institution and the operator of the facilities remain unclear. Legislative changes are also important, subtleties such as the regulation of batteries as production power when they send energy to the system, while the same principles apply to them as to manufacturers.

It is also not clear what will be the fate of the batteries in 10-15 years. After about 6 years of operation, the batteries need refurbishment. Through the process of refurbishment or renewal the battery is cleaned from the sulfates in it, the electrolyte solution inside is replenished which allows the battery to recharge and function like new. Where will this additional capital investment come from - the fees paid by the RES producers to use the facility will not be enough. The project sheet states that no additional subsidies from the state will be needed.

The battery technology - why it is not specified in the design sheet. Lithium, nickel or another metal will be used? This is an important question to clarify in the current situation of tight supply of metals worldwide.

It is said that the facilities will be distributed strategically evenly on the territory of the country, but land will also be sought for quick joining – for this purpose the possible use of damaged industrial land which would hardly have any other useful use needs to be considered.

For such projects, the role of the Committee for monitoring the implementation of the
projects in the NRRP is very important.

Several CEE countries - Czech Republic, Estonia, Hungary, Greece, Cyprus have already successfully established their monitoring committees, only Greece and Cyprus have not included at least one environmental NGO in the committee.

Requests for transparency in the CEE region from a year ago are available here: https://www.cashawards.eu/2020/12/18/out-of-sight-out-of-mind-recovery-planning-in-central-eastern-europe-has-a-new-motto/

The money from the NRRP is in the amount of 10% of Bulgaria’s GDP and it is of great importance any corrupt practices not to be allowed.

Project (New2): Scheme to support the construction of a minimum of 1.4GW of RES and batteries in Bulgaria

The project is for the generation of a minimum of 1.4 GW from renewable energy sources. A good idea, but the project will be implemented on the basis of five tender procedures every 6 months (starting from the third quarter of 2022), each of which will aim to build a minimum capacity of 285 MW of installed capacity from renewable energy sources (RES). In our view, the minimum capacity requirement of 285 MW favors only large companies to participate and excludes small producers from participating in tenders.

The biggest improvement in the plan – for which we give credit to the Bulgarian government – is the increase of the new renewable energy capacity at an accelerated pace, along with the withdrawal of support for the gas turbines that were supposed to replace some of the coal in the Maritsa Iztok complex.

The Bulgarian recovery and resilience plan will support investments for the production of at least 1.4 GW from renewable energy sources. This measure will be implemented on the basis of five tenders every six months (starting from the third quarter of 2022) as each of them will aim to build a minimum capacity of 285 megawatts (MW) of installed capacity from renewable energy sources. However, the minimum capacity requirement of 285 MW gives an incomparable advantage to the big companies and deprives the small companies of the opportunity to participate in the tenders.

Here, as in the RESTORE battery project, there are not any biodiversity safeguards. There are no guarantees that the construction of new RES capacities will not be at the expense of biodiversity destruction. There should be a Strategic Environmental Assessment of the NRRP, as well as an Environmental Impact Assessment (EIA) of every major project. We are concerned that the plans for an accelerated increase in renewable energy capacity imply a quick procedure for mega-projects in violation of European environmental legislation. For such projects, the role of the Committee for monitoring the implementation of the
projects in the NRRP is again very important.

*Project (New3): Exploration and development of a pilot project for combined heat and power production from geothermal sources*

The project includes update of the information about the geothermal potential in the country and preparation of a design solution for a pilot system for the utilization of geothermal energy for the combined production of electricity and heat.

The update of the information about the energy potential of the geothermal energy includes the identification of the quantities available for exploitation, as well as the relevant qualities of the geothermal waters available in the country as well as 3D seismic mapping of deep geothermal reservoirs providing conditions for the production of electricity.

The pilot project of the plant for the combined production of electricity and heat will be developed on the basis of an analysis of the conditions in the following potential locations in Bulgaria according to the results of the studies:
A. The course of the Struma River
B. Sofia Valley and the town of Sapareva Banya,
C. Pazardzhik and Plovdiv
D. The course of the Erma River
D. The regions around Vratsa and Lovech
E. The region around the city of Varna

*14: Scheme to support pilot projects for the production of green hydrogen and biogas*

and Reform 7: Preparation and adoption of a National Road Map to improve the conditions for deployment of the potential for development of hydrogen technologies and the mechanisms for the production and supply of hydrogen

We consider as positive the absence of the P13 project for the construction of future hydrogen transport infrastructure, which we rejected in the previous opinion of For the Earth as a project that uses the promise of hydrogen transportaion as a cover for building unnecessary gas infrastructure. Unfortunately, we still see support for the concept of heating through green hydrogen.

Our position, which we repeatedly express, is that this is an example of a false solution, since there are more effective and at the same time cheaper solutions - such as heat pumps for example.

Positive sides:
• reduced pilot funding
• no support for connection to the electricity and gas network
• biogas is a good solution when bio-waste that would otherwise be landfilled is actually used
Problems sides:
- uncertainty about the application and selection procedures
- lack of regulatory framework

P14 is a good first step towards decarbonisation of the industry and it is good to build and develop the production of green hydrogen only for use in hard-to-decarbonize industries. It should be noted, however, that the projects at NRRP are scheduled until 2026, and hydrogen technologies, including those related to its storage are still poorly developed; considering that green hydrogen is obtained from RES, the question is whether there is a sufficiently developed RES basis for the mass production of green hydrogen. Green hydrogen is still only 0.1% of global hydrogen production, so there is still some risk of delaying the complete phase-out of fossil fuels.

Like green hydrogen, technologies for efficient biogas production are underdeveloped and will take time to catch on.

Biogas projects will also allow the use of biological products, not only waste, which increases the risk for competition between food and energy production. Subsidies and use of arable land specifically for energy fuels to be converted into biogas (sugar beet, maize, instead of only bioresidue utilization) should not be allowed. No more waste (be it food, animal, forestry) should be produced for the purpose of biogas production. The risk of building entire plants for the production of biogas, which can reduce arable land, also increases.

There should be no place in the NRRP for biogas that is extracted from land that could be arable; it is important to be careful that it also leaves a loophole for additional gas infrastructure for interconnection with the gas network.

Component 8: Transport connectivity

The reforms and projects in the transport sector proposed in the latest version of the NRRP are significantly improved compared to the previous versions. It is also undeniable that the reforms and projects will significantly contribute to improving the sustainability of the transport sector by reducing its carbon footprint. Focusing the majority of the investment (over BGN 1 150 million out of a total of BGN 1 303 million) in improving the railway infrastructure, rolling stock and transport service will significantly help to reduce the oil dependence and the transfer of cargo and passengers from carbon-intensive to low-carbon modes of transportion.

To a large extent, the entire investment is in accordance with the principle of "not causing significant damage". Regarding the "Polluter Pays" principle it is evident that the reforms are not so clearly planned. We will be able to give an assessment of its application after the preparation of the strategic documents of the proposed reforms.
What was adopted and improved according to our opinions:
• Focused large-scale investment in railway infrastructure, rolling stock and service;
• Reform aiming to reduce the share of carbon-intensive transport and the transfer of cargo and passengers to low-carbon and zero-emission modes of transport through the National Plan for the Development of Combined Transport until 2030, Plans for the Integrated Development of Municipalities with Plans for Sustainable Urban Mobility included in them, Green and electric mobility;
• Improvement of the railway connection with the EU (Romania) through projects 21 and 22;

What is not included in accordance with our opinions:
• There is no a dedicated reform and measure that aims to restrict the carbon-intensive transport through the "Polluter Pays" principle, to increase the taxes and fees on fossil fuels in implementation of Specific Recommendation 1 of the Council of the European Semester "Improve tax collection through targeted measures in areas such as fuel taxes". There is a clear risk of not realizing the maximum effect of the planned reforms for the transition to a low-carbon transport sector;
• Both in the NRRP and in the related investments under the OP "Transport Connectivity" and the Mechanism for Connected Europe, there is a lack of targeted investment for the construction and the modernization of the TEN-T railway corridors Sofia-Vidin with Romania and Sofia-Kulata with Greece, which will continue to restricts to a large extent the railway transport of goods and passengers from and to neighboring EU member states;
• Pilot regions - districts and/or municipalities - were not selected and planned. In those regions it was foreseen that through a targeted investment, the obsolete carbon-intensive passenger vehicles would be completely replaced with new zero-emission vehicles, demonstrating in this way a comprehensive approach for reduction of the transport emissions;

• The investments in modern low- and zero-emission railway equipment, as well as in charging stations for electromobility, are not directly linked to investments in their energy supply from RES sources, thus compromising the goals for a low-emission and sustainable transport system.

Component 10: Business environment

Project 35: Support of a pilot phase for the introduction of building information modeling (BIM) in investment design and construction as a basis for digital reform of the construction sector in Bulgaria

The program is extremely late, as the activities foreseen in it overlap other current programs. It is not clear whether and how the use of products with a low carbon footprint will be prioritized. It is not clear whether and how the circular economy principle will be introduced to track a material/product/article throughout its life cycle, as well as whether the mentioned principle will be observed in the design of buildings.
Positive sides:
• Adherence to completely free software with Open BIM format;
• Specialized training for administration, design bureaus, construction and consulting companies;
• Development of a national model (NM) for BIM in construction;
• Development of university curricula for the integration of BIM in construction.

Problems:
• Lack of clarity regarding methodology and criteria for selection of products/products in the proposed (BIM) databases;
• Partial overlap with "The preparation and launch of a digital reform of the Bulgarian construction sector under the Structural Reform Support Program 2017-2020".

Solutions:
• Inclusion of research activities prioritizing the use of local materials and raw materials with a low carbon footprint;
• Prioritizing short circuits at the stage of building design;
• Inclusion of the principles of the sustainable circular economy from the earliest stage of implementation of the envisaged project.

CONCLUSION

With NRRP, the green energy transition in Bulgaria really started. In the Bulgarian plan, approximately 60% of the funds will go to support the green transition, probably the highest figure for the EU, due to the delayed finalization of the plan.

We take some credit for greening the plan, addressing numerous points of contention in our detailed opinions and in meetings with representatives of the caretaker government.

The NRRP has been significantly improved, though there is still room for improvement, which can be smoothed out in the implementation and with the help of citizen monitoring. Various representatives of civil society have proposed to create an independent monitoring committee to serve as a supervisory authority over the goals, tasks, planned reforms and deadlines specified in the recovery plan for Bulgaria. An independent monitoring committee is a must in any democratic country and we hope that this idea will be adopted soon.

The potential for energy savings in buildings, but also in industry, is still underdeveloped (verification of achieved energy savings is also lacking).

Energy efficiency + decentralized RES production + storage is the path to the energy independence of our country.
Green hydrogen is not a one-size-fits-all decarbonization solution, but a boutique one for certain carbon-intensive industries.

A stronger focus on climate change adaptation is necessary.

NRRP is a strategic document through which money is given against reforms - future payments depend on the implementation of energy reforms, not only on investment projects.

We find it positive that after many years of inactivity we now have an indicative end date for the use of coal. It is defined as "no later than 2038", which we hope, thanks to the efforts of the envisaged Climate Neutrality Commission and Energy Transition Subcommittee and with the active participation of the civil sector, will be achieved even earlier - no later than 2030, as climate scientists insist.

A key stage is the expansion of the structure of the advisory board for the Green Deal and the formation of subcommittees, including such for energy transition, which will make the necessary scenarios and modeling to confirm or shift the end date.