# Position on the development of renewable energy sources (RES) and biodiversity conservation in Bulgaria

In response to the climate crisis and in order to achieve energy independence and security, we support the accelerated introduction of renewable energy sources (RES) in Bulgaria. Achieving carbon neutrality is in line with our country's commitments to the Paris Agreement and the Green Deal, but it should not put at risk the objectives related to biodiversity and farmland protection.[[1]](#footnote-1)

It is important to note that large-scale renewable energy projects are industrial projects that can alter the landscape, disrupt ecological connectivity and have significant impacts on biodiversity if implemented in unsuitable locations.

Amendments to the Renewable Energy Directive[[2]](#footnote-2) are currently under discussion, that include mapping suitable areas for renewable energy development where environmental impacts are low. On the other hand, some of the proposed amendments to the Directive aimed at excluding renewable energy projects from being subject to Environmental Impact Assessment (EIA) risk non-compliance with European environmental legislation. This could be a dangerous precedent, which could be repeated many times in the future with regard to other sectors. In any case, the need and pressure for the implementation of RES in the upcoming years will persist and it will be of utmost importance to establish where and how RES should be implemented.

Deviating from environmental norms in the European Union (EU) or in Bulgaria, disregarding the voice of citizens by bypassing the public consultation process, and focusing on the construction of RES projects in valuable natural territories without assessing the alternatives would collectively cause significant public discontent, but most of all could lead to significant and irreversible damages to biodiversity.

We call for assurances that the European Green Deal will not jeopardise the conservation of biodiversity and valuable natural territories in Bulgaria.

The Bulgarian Coalition “For the Nature” presents its position on the most significant aspects of RES development which could affect biodiversity conservation in Bulgaria.

Amendments of the RES Directive would also require amendments in national legislation (the Energy Act, the Renewable Energy Act, the Spatial Development Act and subordinate legislation). We believe it is vital that our proposals, jointly developed by biodiversity, energy and climate experts, are taken into account at the stage of legislative amendments and subsequent implementation, as well as during the completion of the Environmental Procedures of the National Recovery and Resilience Plan (NRRP) and the National Energy and Climate Plan (NECP), in order to ensure balance between all sectors.

**1. The climate and biodiversity crises should be considered in conjunction.** Biodiversity is under pressure from changes in our climate, but also from human activities, including the implementation of renewable energy projects. Biodiversity conservation and restoration are climate tools just as important as renewable energy: combining the introduction of RES and conservation of natural assets is the most effective way to achieve climate neutrality in Bulgaria.

**2. Highest priority should be given to energy efficiency** as a means not only for achieving sustainability of the energy system, reducing energy import costs, but also for increasing competitiveness. It is necessary to implement interest-free loans and to reduce the procedural burden of access to financial resources to enable households, businesses and the public sector to improve energy efficiency of residential and non-residential buildings, heating and cooling processes and working methods and specific production as quickly as possible. There should be a targeted policy to improve energy efficiency in other sectors - transport, industry, agriculture and forestry, tourism, etc. It is necessary that the measures as part of the National Nearly Zero-Energy Building Plan 2015-2020 are implemented[[3]](#footnote-3).

**3. It is urgent to accelerate investments in renewable energy[[4]](#footnote-4), energy efficiency[[5]](#footnote-5),[[6]](#footnote-6) and circular economy** to support energy independence and to gradually end the use of fossil fuels. This will lead to a reduction in prices and improve resilience to price fluctuations and resource scarcity. The country's entire energy system should be connected in a SMART grid, prioritising the decentralisation of the entire energy sector, rather than focusing only on the production of electricity.

**4. The use of a differentiated approach is key to identifying areas for renewable energy development, both on land and in the marine environment:**

1) **“Go-to areas”** are priority areas that include the most suitable areas in industrial and urban territories - e.g., disturbed land, open cast mines, roof spaces, car parks and transport corridors, but necessarily outside protected and conservation areas, and for wind farms - necessarily outside important bird migration routes. It is important to analyse the abovementioned areas as soon as possible in order to assess whether the potential RES capacity is sufficient to achieve carbon neutrality by 2050. An unofficial analysis[[7]](#footnote-7) shows that only the available disturbed areas are sufficient for the establishment of the required capacity of photovoltaic power plants (PVPP). An official analysis should be carried by the Ministry of Environment and Water and the ministry of Energy in order to establish this.

2) **“Second Choice Areas”,** to be used only after space has been exhausted in the “priority areas”. These areas should be considered within a wider context, where assessments, consultation and environmental permitting procedures are applied.

3) “**No-go areas”** – areas impermissible for renewable energy projects and all other energy facilities, such as fossil fuel extraction, to prevent significant cumulative negative environmental impacts in valuable and sensitive natural areas, are recommended to be:

● All national protected areas designated under the Protected Areas Act.

● All sites from the Natura 2000 European network, with the exception of existing constructions in these areas, and movable facilities in the areas where renewable energy capacity is for personal use.

● Important areas for breeding, rearing, hibernation and migration for species subject to strict protection under Directive 2009/147/EC and Directive 92/43/EEC, as well as for migratory non-endangered bird species.

4) **Development of RES in the marine environment** – A zoning map for RES facilities in the marine environment should be developed, taking into account previous assessments of the suitability of such facilities in the Black Sea[[8]](#footnote-8) and considering studies and analyses of breeding, migrating and wintering birds and other animals in the shelf zone of the Black Sea, so as to prevent environmental risks. Until the establishment of this map, no energy projects, both RES projects and conventional projects, should be deployed in the Black Sea.

It is important to create a unified cadastral map depicting the relevant permissible and impermissible areas. The map would be of great benefit not only to enterprises at the stage of planning projects, but also to the government and citizens in exercising effective monitoring and control.

5. **Achieving large-scale deployment of solar and wind power plants** requires transparent planning, including the use of a strategic approach, inter-institutional coordination, financial resources for employment of sufficient staff in relevant authorities, timely and effective participation of independent experts, citizens and local authorities, not weakening of environmental legislation. There is strong public support for EU environmental legislation, as demonstrated by the fitness checks of the Birds and Habitats Directives[[9]](#footnote-9),[[10]](#footnote-10) and The Water Framework Directive[[11]](#footnote-11),[[12]](#footnote-12). If RES implementation is done at the expense of the environment, there is a real risk of losing public support for its use.

6. **Currently, the development of the renewable energy sector in Bulgaria lacks guarantees for the protection of biodiversity:** the Environmental Assessment (EA) of the National Energy and Climate Plan (NECP) has not yet been completed[[13]](#footnote-13); the assessments related to the National Recovery and Resilience Plan (NRRP) are also not completed, nor any environmental safeguards in the plan itself, despite the proposition of 1.4 GW of RES capacity to be implemented. **Until approval of all new and updated strategic documents for RES development, together with relevant environmental assessments and compatibility assessments, the conditions and restrictions of Strategic Environmental Assessment Statement 1-2/2012, issued in relation to the National Renewable Energy Action Plan 2010-2020, should be applied to individual and new capacity projects.[[14]](#footnote-14)**

7. **Civil society should be consulted and informed, while giving priority to renewable energy projects involving local communities.** There is an urgent need to change the legal framework to allow citizens and local communities to easily build RES for their own use. New buildings and industrial parks should be obliged to include energy efficiency measures and RES installations. Priority should be given to renewable energy projects that empower consumers. Renewable energy projects that involve large losses for energy transmission (including energy exports) should not be supported.

8. **There is a need to expand innovative technology research and prototypes in the field of renewable energy at the pre-market stage, in partnership with research institutes, private investors and registered patent holders.** There are currently a number of financial and organisational barriers to innovation in the field of RES, particularly for designers outside the Bulgarian Academy of Sciences (BAS). In order to stimulate the innovation processes, public institutions and organisations need to provide extended funding and expert advice at the prototyping stage, feasibility studies and validation in a laboratory setting, and in relevant industrial environments. There are existing innovations in Bulgaria[[15]](#footnote-15) that need to be multiplied and given the opportunity to develop.

9. **All restrictions applicable to renewable energy capacity should also apply to all fossil fuel projects, including oil and fossil gas projects.**

**10. Specific recommendations by type of RES:**

**Wind energy projects**

1. When constructing new wind energy projects, the Zoning Map in relation to birds[[16]](#footnote-16), published in 2013 by the Ministry of Environment and Water, should be consulted in addition to other species of fauna and flora where necessary.
2. Environmental assessment procedures with regard to the National Energy and Climate Plan (NECP) and the National Recovery and Resilience Plan (NRRP) should be completed. The assessments must include adequate measures, including the designation of important bird migration routes as no-go areas.
3. There should be a minimum requirement of one-year study of the impacts on birds and bats (that include breeding, migration and wintering surveys) as part of the Strategic Environmental Assessments (SEA), Environmental Impact Assessments (EIA) and Appropriate Assessments (AA) for new wind farms and technological improvements of existing wind farms (repowering).

**Photovoltaic (PV) projects**

1. The construction of new photovoltaic parks in the areas specified in 4.3. above should not be allowed. PV plants should also not be allowed in sanitary protection zones of water resources and drinking water supply facilities, due to the frequent use of chemicals to remove vegetation beneath the facilities; and the potential for these areas to be proposed as areas meeting the 10% target for strictly protected areas set out in the EU 2030 Biodiversity Strategy.
2. Priority areas for PV installation to include: artificial and built areas, buildings, transport infrastructure, parking facilities, landfills and wastewater treatment plants, embankment and tailing ponds, industrial sites, opencast mines and other types of mines.
3. Strategic Environmental Assessment should be conducted on the remaining areas (other disturbed land, sites impacted from mining, derelict gardens and fields, other agricultural land), as part of the Integrated National Energy and Climate Plan (NECP). Pending the preparation of this assessment, all photovoltaic plant projects in these areas should go through an Environmental Impact Assessment (EIA)procedure.
4. Photovoltaic projects should not be illuminated with strong lights at night to avoid attracting migratory birds.
5. No herbicides should be used for the maintenance of vegetation in PV parks and facilities.

**Agrivoltaics**

1. During planning and construction of agrivoltaics, follow all requirements for photovoltaics mentioned above, as well as subsequent additional conditions:
* facilities need to be placed high above the ground (a unified standard should be established);
* the agricultural land underneath the facilities should continue to be used for agricultural production;
* changes in the type of production in the agricultural area used for PV installations are acceptable, including the restoration of grassland to replace arable land;
* organic farming should be encouraged, as part of the framework of agrivoltaic projects;
* fencing of agricultural land occupied by photovoltaics should only be allowed if at least 25 cm high openings from the ground are secured (to avoid fragmentation for small animal species).

**Hydropower plants (HPPs)**

1. Given the detrimental impact on river ecosystems, their small contribution to the energy mix and the targets for restoring free-flowing rivers set out in the EU 2030 Biodiversity Strategy, the construction of new small and mini hydro plants is unacceptable.

1. Тhe applicable requirements specified in section 4.3 above shall be followed for the construction of hydroelectric power plants (HPPs).
2. In view of Bulgaria's poor and diminishing water resources, the massive development of the major rivers in the twentieth century and the exceptional biodiversity of the last stretches of the Danube that have not yet been subject to construction, as well as the status of Maritza and Arda rivers (most of which are sites of the Natura 2000 network), new large hydroelectric power plants (HPPs)should not be built.
3. In order to optimise existing large state-owned power plants, a financing plan should be established to improve infrastructure and increase efficiency of existing facilities.
4. Only the construction of micro-hydropower plants to supply huts and individual buildings may be allowed, provided that they do not consume significant quantities of water and that their construction is not prohibited.
5. Consider all other alternative energy storage technologies prior to planning new pumped storage hydropower plant (PAHPP) projects or expanding existing ones.

**Biogas and biomass energy**

1. Forests should not be used as a source for biogas and electricity production, neither should be used for heat production in large combustion plants.
2. To produce biogas and electricity, only waste from agriculture (green waste and manure), green waste from households, waste from sewage treatment plants, waste from industry, including the furniture industry and the production of building materials from wood should be used.

**The coalition “For the Nature” is comprised of the following organisations:** Association of Parks in Bulgaria, Bulgarian Association for Alternative Tourism,The Bulgarian Society for the Protection of Birds (BSPB), Bulgarian Society for Phytocoenology – 2001, Bulgarian Climbing and Alpinism Federation, The Bulgarian Federation of Speleology, Bulgarian Biodiversity Foundation, For the Earth Bulgaria (ZaZemiata), Centre for Environmental Information and Education, NC Future Now, Agrolink Association, Bikearea Association, White Shore Association, BALKANI Wildlife Society, “Borrowed Nature” Association (“Priroda Nazaem”), Green Balkans Association, Nature Fund Association, Sofia University St. Kliment Ohridski Student Council Club UNECO, Sofia Citizen Association “Shtastliveca”, Citizen group Save Irakli, Citizens for Rila and WWF Bulgaria, Greenpeace Bulgaria. The coalition is also supported by over 50 organisations, groups and initiatives. Learn more about the coalition here [http://forthenature.org](http://forthenature.org/).

1. Including Bulgaria’s commitments as per the Habitat’s Directive [92/43/EEC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043), the Birds Directive [2009/147/EC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147), the Directive on the assessment of the effects of certain public and private projects on the environment [2011/92/EU](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011L0092) and the Directive establishing a framework for Community action in the field of water policy [2000/60/EC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060). [↑](#footnote-ref-1)
2. [Proposal](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A222%3AFIN&qid=1653033811900) for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency. [↑](#footnote-ref-2)
3. National Plan Nearly Zero-Energy Building Plan 2015-2020. Full text available [here.](https://seea.government.bg/documents/BG_National_nZEB_Plan_EN.pdf) [↑](#footnote-ref-3)
4. [The potential of energy citizens in the European Union.](https://cedelft.eu/wp-content/uploads/sites/2/2021/04/CE_Delft_3J00_Potential_energy_citizens_EU_final.pdf) [↑](#footnote-ref-4)
5. Stoykov, S., Rakovska, K., Todorov, T. A step in the right direction: Bulgaria’s recovery plan improved after lengthy negotiations. 28 April 2022. CEE Bankwatch Network. Available at: <https://bankwatch.org/blog/a-step-in-the-right-direction-bulgaria-s-recovery-plan-improved-after-lengthy-negotiations> [↑](#footnote-ref-5)
6. EnEffect Centre for Energy Efficiency. Roadmap for sustainable energy building refurbishment. [↑](#footnote-ref-6)
7. 3E News.Georgi Stefanov: 1/3 of the disturbed land in Bulgaria can be used for photovoltaic plants. 20 June 2022. Available at: <https://3e-news.net/bg/a/view/34528/georgi-stefanov-1-3-ot-narushenite-tereni-u-nas-mogat-da-se-polzvat-za-fotovoltaichni-centrali?fbclid=IwAR1m1fmQjWaRLxkdzJP2SVeHV33oMeWRr99aC9SUJl2m17dm-lswOx5Knkc> [↑](#footnote-ref-7)
8. Boero, F., Foglini, F., Fraschetti, S., Goriup, P., Macpherson, E., Planes, S., Soukissian, T., Adiloglu, B., Cristens, G., Delahaye, C. and Gregory, I., 2016. CoCoNet: towards coast-to-coast networks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential. Available at: <https://www.vliz.be/imisdocs/publications/320351.pdf> [↑](#footnote-ref-8)
9. Fitness Check of the Birds and Habitats Directives. Available at: <https://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm> [↑](#footnote-ref-9)
10. WWF. EU Nature Directives are ‘Fit for Purpose’, concludes European Commission expert study. 05 July 2016. Available at: https://www.wwf.eu/?272571/EU%2DNature%2DDirectives%2Dare%2DFit%2Dfor%2DPurpose%2Dstudy [↑](#footnote-ref-10)
11. Fitness check of the Water Framework Directive and the Floods Directive. Available at:<https://ec.europa.eu/info/publications/fitness-check-water-framework-directive-and-floods-directive_en> [↑](#footnote-ref-11)
12. WWF. EU Water Law Will NOT be Changed, Confirms European Commission. 23 June 2020. Available at: <https://wwf.panda.org/wwf_news/?364510/WFD-Saved> [↑](#footnote-ref-12)
13. <https://registers.moew.government.bg/eo/lot/29307> [↑](#footnote-ref-13)
14. Ministry of Environment and Water. Environmental Assessment Statement 1-2/2012. Available at: <https://registers.moew.government.bg/eo/file?fileKey=b57582a1-461d-4c45-8c67-f7ed9f9d42d7&fileName=Stanovishte-1-2-2012.pdf> [↑](#footnote-ref-14)
15. WIND TURBINES “WINDCHUTE”. More information can be found [here](https://cdn.fbsbx.com/v/t59.2708-21/278360527_376994050823156_3781629979915953444_n.pdf/10_4_New_Energy_Dynamics.pdf?_nc_cat=101&ccb=1-7&_nc_sid=0cab14&_nc_ohc=yzCfpZPvQrQAX9t_Ogw&_nc_ht=cdn.fbsbx.com&oh=03_AVKNZw01gXvteQniclI3QNqXeuV7BO_dljf_nciUpi7xNw&oe=62B1D090&dl=1). [↑](#footnote-ref-15)
16. Zoning Map in relation to birds. Available at: <http://natura2000.moew.government.bg/PublicDownloads/Auto/OtherDoc/276299/276299_Birds_120.pdf> [↑](#footnote-ref-16)