

Stowarzyszenie „Partnerstwo Dzikie Mazury” [Wild Mazury Partnership Association]

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**Regional Director for Environmental Protection**

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15-554 Białystok

**Case: In connection with the Announcement of the Regional Directorate for Environmental Protection WOOS-II.4201.1.2012.AS on assessment of the impact of the following enterprise on the natural environment: „Budowa dwutorowej napowietrznej linii elektroenergetycznej 400 kV Elk – granica RP”**

[Construction of 400 kV double track aerial power line from Elk to the boundary of the Republic of Poland]

**Stowarzyszenie „Partnerstwo Dzikie Mazury”, as a social organisation acting in an agreement with the society, raises remarks and objections to the procedure carried out in connection with evaluation of the impact of the enterprise called „Budowa dwutorowej napowietrznej linii elektroenergetycznej 400 kV Elk – granica RP”**

- 1.) The name of the enterprise clearly indicates that the connection between Elk and the boundary of the Republic of Poland is planned as an aerial power line. The proceedings in the case should be discontinued at the very beginning owing to the assumption concerning lack of any alternative solutions, such as underground power lines. The fact of accepting the aerial power line solution as the only possible one in advance is against the principle of analysing the latest available technical solutions and the principle of prudence.**

**The report states as follows:** The obstacles encountered during formulation of the Report include almost complete lack of scientific literature concerning the impact of power lines on the examined plant and animal species. Most of the works provided very general statements only, which were very often not supported by any substantive data, or they related to the impact of electromagnetic fields on human health. This is why the process of formulating the conclusions was based mainly on the experience and knowledge of their authors and consultations with other specialists.

With the exception of birds, the spectrum of literature concerning the impact of high voltage power lines on wildlife is very limited. There is also no data coming from any experiments, or field research, which could constitute a good base for discussion on the actual impact of the planned 400 kV power line between Elk and the boundary of Poland. The process of formulating the assessment was based on the best expert judgement and followed the principle of prudence (Art. 6 sec. 2 of the Environmental Protection Act “Those, who undertake actions whose negative impact on the environment is not fully identified are obliged to act prudently and undertake all the possible preventive measures”)

**Notes: Those who do not consider all the possible solutions and technologies do not follow the principle of prudence. As the current state of knowledge concerning the impact of high voltage power lines on the environment is quite unsettled, it is necessary to perform a comprehensive analysis of the available technologies and the necessity of locating the investments of this type in the public space.**

**The comparative analysis included in the report is a standard text pasted in all the high voltage reports. This fact indicates lack of proper analysis of the problem.**

**Quote: Summary of the cable variant**

**“Summing up, the environmental issues of the selection between the aerial and the cable power line must be investigated in the context of many various aspects, such as: landscape, ecology, archaeology, agriculture, noise emission, and water pollution. The crucial comparative factor which must be taken into account for both the power transmission arrangements is the problem of the impact of the electric and magnetic field.”**

**Note: The assumptions accepted for the comparison were in contradiction to the current global knowledge and the tendencies in the sphere of ensuring the proper standards for the environment.**

**For example, the guidelines for the high voltage power lines in Sweden state as follows:**

**<http://www.svk.se/Start/English/Environment/Electrical-and-magnetic-fields/>**

„The policy of Svenska Kraftnät concerning magnetic fields

When new power lines are planned, Svenska Kraftnät must ensure that the magnetic fields do not exceed the value of 0.4 microtesla in the areas constantly inhabited by people.

When the licences for the existing power lines are renewed, Svenska Kraftnät takes measures to limit the impact of the magnetic fields. Those actions shall be performed in the areas where people are constantly exposed to the influence of the magnetic fields which substantially differ from the norm. The condition is keeping the costs and the results reasonable.

Application of the magnetic policy

In connection with extending the licenses for our present transformation of the aerial power lines, actions aiming at limiting the magnetic fields are performed, or purchase of the buildings located so close to the power lines that the magnetic field exceeds 4.0  $\mu\text{T}$  is offered.

For any brand new AC power lines, our policy states that the magnetic field must not exceed 0.4  $\mu\text{T}$  at any place where people reside for a prolonged period of time.

The maximum values for our 400 kV AC aerial power lines measured at the central point under a power line are as follows: At 50 metres, the magnetic field value is 4  $\mu\text{T}$ , and at 130 metres the magnetic field value is below 0.4  $\mu\text{T}$ .

**About 5 metres from the centre of the underground power line ditch, the magnetic field value is below 0.4  $\mu\text{T}$ .”**

**We can notice a distinct difference in the statements of the investors of the designed power line and the position of the specialised unit constructing high voltage power lines in Sweden. The designed distance for the places occupied by people is 35 metres “The width of the technological strip for the subject power line, i.e. the area where limitations in the sphere of land development might occur shall be 70 m (2 x 35 m both ways from the power line axis).” (sic!) and, as can be seen in the information from Sweden above, the required magnetic field level is finally achieved at the distance of 130 metres. Hence the minimum strip width must be 260 metres wide.**

**The next distortion concerns the magnetic field level for the cable power lines, of which the designer wrote that it is higher, and the Swedes state that the magnetic field value in this case is acceptable in the distance of 5 metres from the underground cable power lines.**

- 2.) Worldwide research shows a highly negative impact of the electromagnetic radiation on the health of the people, especially the children, in the vicinity of high voltage power lines, including 400kV. <http://www.electric-fields.bris.ac.uk/Sageletter.pdf>**

**The minimal suggested distance from a 400kV high voltage power line to the areas inhabited by people should not be less than 300 metres.**

- 3.) The designed power line shall have a huge negative impact on the landscape and the environment, this is why the best possible options are the “zero variant,” or the underground cable power line. Justifying the necessity of building the aerial power line with the high cost of the cable power lines, or lack of technology seems highly far-fetched.**

**Providing the energetic safety of the country as a priority must not be based on degradation of the natural environment, the landscape, and the living conditions of the region's inhabitants. The social protests in the communes where the power line is planned clearly indicate the necessity to change the priorities in order to protect the most important values, which are secured by the Constitution of the Republic of Poland and the international conventions.**

- 4.) Quote - "The negative impact of the power line on the analysed abiotic elements will be practically eliminated with utilisation of the mitigation measures. Only the impact connected with the noise, which cannot be eliminated in certain weather conditions, and the electromagnetic field, involving the buildings located within the assumed by the investor 70 m (2x35 m) wide "technological strip" will remain.

**Note: - as it can be seen from the note above, the investor does not even try to keep the acoustic standard within the acceptable norm.**

- 5.) **The fact that the investor exerts pressure on the population, which will be subjected to the impact of the 400 kV power line located on 70-80 metre high pylons, with a definite negative impact on the environment, is a non-ethical and shame worthy action. The social resistance is caused by a lack of reliable information, which, as it can be seen from the comparison with the guidelines for Sweden, really takes place.**

**The concerns of the people are justified, and the only vision of the investor is locating the line at any cost and showing the futility of the resistance against "the national and international public benefit investment".**

- 6.) **As the possible technical and organisational solution options have not been depleted, we hereby request discontinuance of the proceedings and investigation of the proposals put forward by the parties taking part in the proceedings.**
- 7.) **The principles of safe work under 400 kV power lines in the area which is, after all, an agricultural area have not been explained to the farmers in any way, and the guidelines and experiences of the Central Institute for Labour practically exclude possibility of work with utilisation of machines, presence of people and animals under hanging power lines. This situation is unacceptable and highly reprehensible as there are known occurrences of death caused by electrical discharges in the vicinity of such investments.**
- 8.) **We consider establishment of a limited utilisation zone around the designed power line as a necessary step. The actions taken up by the investor, which aim at releasing the investor from any responsibility for the potential future results, which are achieved with utilisation of unclear expressions used in the transmission service and tenancy of land agreements, are reprehensible. The responsibility for any further property and compensation claims is transferred to the local authorities, of which fact they are not clearly informed.**
- 9.) **Quote - Birds.** In order to limit the negative impact of the investment on birds the following minimising actions should be accounted for: Where the possibility of collisions of the key bird species is greatest (the territories of lesser spotted eagle, the areas of dense nesting of white stork) it is necessary to mark the power lines properly, which should reduce the number of birds colliding with the power lines (Jenkins et al.) 2009)".

**Notes: - we explicitly state that the power lines are the greatest threat to the avifauna of the region, especially concerning the predatory and migratory birds. Mere marking of the power lines is just a facade of low practical effectiveness. The change of the concept to the cable, or underground power line would eliminate the threat problem completely.**

- 10.) **The stated working temperature of 80 degrees Celsius indicates that the proposed technical solution is deficient, and will cause great energy losses during its transfer. The concurrent communication concerning the possibility of transferring the energy from the planned and existing wind farms is a misunderstanding. It should be added that the wind farms cause high social unrest and do not have any economic justification. The fact of designing the localisation of the power line according to the planned localisation of the wind farms, without taking the great financial and social cost under consideration, raises concern. The society of Mazury and Suwalszczyzna**

**strongly opposes development of big scale wind power plants, this is why using such arguments is met with firm rejection for any investments which could contribute to the increased plague of the wind turbines in our region.**

**If the social, health, and environmental results are properly analysed, and the impact on the aesthetics of the tourist areas is taken into account, it becomes clear that it is necessary to perform a repeated, multi directional analysis of the energetic link between Elk and Alytus.**

**For the above reasons we hereby petition to deem Partnerstwo Dzikie Mazury a party and a social and environmental problems consultant for the subject investment. We simultaneously request for delivery of the information concerning the latest decisions made in this matter.**

**We attach the Statute of our Association.**

**Kind regards**

**Zbigniew Sienkiewicz**

**also representing “Bezpieczna Energia” [Safe Energy] Coalition of Associations, bringing together 23 associations from Warmia-Masuria Province**

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