

<b>ALTIPLANO Sp. z o.o.</b>				
Received on	<b>14 March 2012</b>			
Ref. No.	19	03	12	P

GK. III 7625/40/B/20/10/11/12

## DECISION ON ENVIRONMENTAL CONDITIONS

Pursuant to Article 71(2)(2), Article 75(1)(4) and Article 82 and Article 85(1) of the Act of 3 October 2008 *on the Provision of Information on the Environment and Environmental Protection, Public Participation in Environmental Protection and Environmental Impact Assessments* (Journal of Laws No. 199, item 1227, as amended), as well as § 3(1)(6) of the Regulation of the Council of Ministers of 9 November 2004 *on determination of types of projects likely to have a major environmental impact and detailed conditions connected with qualifying a project to prepare a report on environmental impact* (Journal of Laws No. 257, item 2573, as amended) in connection with § 4 of the Regulation of the Council of Ministers of 9 November 2010 *on projects likely to have a major environmental impact* (Journal of Laws No. 213, item 1397), in connection with Article 104 of the Act of 14 June 1960 - *Code of Administrative Procedure* (Journal of Laws of 2000, No. 98, item 1071, as amended), having examined the application of Altiplano Sp. z o.o. and having carried out the proceedings on environmental impact assessment,

### I determine

the environmental conditions for the project under the name: “Bąków 2B wind farm with auxiliary infrastructure in the commune of Grodków, Opolskie Voivodeship”:

#### I. I specify:

Type and location of the project:

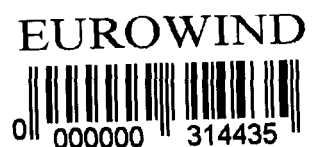
The investment in question will involve the construction of a wind farm. The wind farm will be located in the area of the villages of Młodoszowice, Bąków and Kolnica in the commune of Grodków, district of Brześć, Opolskie Voivodeship.

The planned investment aims to generate electricity from a renewable source that is wind. The scope of the project includes the construction of:

- up to seventeen wind power plants,
- internal connection infrastructure in the form of medium voltage (MV) power cable lines and telecommunication lines (optical fibres), connecting individual power plants into cable circuits, which will be connected to the external MV/WN “Bąków” substation, belonging to another designed wind farm (Bąków 2C),
- access roads to the power plant, manoeuvring, assembly and storage yards,
- construction facilities.

Parameters of the wind power plants:

- maximum total height of the power plant: 200 m,
- maximum height of the tower: 140 m,
- maximum rotor diameter: 120 m,
- maximum sound power of the individual turbines – 106.0 dB(A), except for the EW 11 turbine, whose maximum sound power is 104.0 dB(A) and the EW 13 turbine, whose maximum sound power is 105.0 dB(A).



**II. Conditions for the use of the land in the execution and operation or use phase of the project, with particular regard to the need to protect valuable natural values, natural resources and historical monuments, and to limit nuisance to the neighbouring areas:**

**1. Execution phase of the project:**

- 1.1. Carry out construction works and transport of construction materials only during daytime, i.e. between 6:00 AM and 10:00 PM, excluding construction periods where continuity of works is required from a technological point of view and excluding transport of wind power plant elements.
- 1.2. Carry out works using efficient construction equipment, carry out regular technical inspections of the equipment used and supervise its technical efficiency.
- 1.3. In the course of construction works, take all precautions to prevent pollutants (e.g. oil-derived compounds) from penetrating into the soil and water environment. In consequence, the area intended for the construction facilities and the material base must be properly sealed. In addition, in the event of a spill, the works contractor should have suitable sorbents for removing contaminants, especially petroleum-based (e.g. fuels, lubricants) and synthetic (e.g. oils) sorbents.
- 1.4. Preserve the fertile soil layer removed from the excavation surface and restore it after the construction work is completed.
- 1.5. Locate parking spaces for heavy equipment, construction facilities and storage areas for construction materials as far as possible from residential buildings and surface watercourses.
- 1.6. Switch off machinery and equipment during work breaks; avoid idling of machinery and equipment.
- 1.7. The construction site must be equipped with TOI-TOI container sanitary units with watertight collecting tanks. Dispose of domestic sewage at the sewage treatment plant.
- 1.8. Do not place any trees or shrubs around the turbines or along the access roads.
- 1.9. As far as possible, carry out the felling of trees and shrubs, if any, between 1 October and 29 February.
- 1.10. The felling of trees and shrubs between 1 March and 30 September may only be carried out after an ornithological survey has first established that no protected bird species nest in the trees and shrubs to be removed.
- 1.11. The removal of ground cover should, as far as possible, be carried out between 1 September and 14 March.
- 1.12. The removal of soil cover in the period from 15 March to 31 August can only be carried out after an ornithological survey has first established that no protected bird species nest in the area where soil cover will be removed.
- 1.13. The turbines under construction must be brand new.

**2. Operation phase:**

- 2.1. To produce wind energy use up to seventeen wind turbines with a capacity of up to 4 MW and a sound power level of no more than 106 dB(A) each, with the exception of the EW 11 turbine, which has a maximum sound power level of 104.0 dB(1) and the EW 13 turbine, which has a maximum sound power level of 105.0 dB(A).
- 2.2. During the execution and operation of the investment, collect waste selectively in a manner preventing the access of unauthorised persons and posing no threat to the environment, health and life of humans, in designated places as described, on a hardened ground, protected against penetration of leachate to the ground, until it is collected by authorised entities.

- 2.3. Ensure the surface discharge of rainwater and snowmelt into the area to which the investor has a legal title.
- 2.4. Do not place any trees or shrubs around the turbines or along the access roads.
- 2.5. Prevent tree and shrub succession around the turbines and along the access roads.
- 2.6. Avoid illumination of the power station with white light and flashing light, with the proviso that this does not apply to lighting resulting from air traffic safety regulations.
- 2.7. On the plots of land where wind turbines will be installed, carry out maintenance works (mainly mowing) during the non-breeding season.
- 2.8. Use a uniform colour scheme for all power stations (white or grey, possibly greenish at the base).
- 2.9. Do not place advertising inscriptions on the structures, with the exception of the turbine manufacturer's or investor's logo.
- 2.10. If the analysis referred to in point V.1. suggests that the identified mortality of birds has a significant negative impact on local or migrating populations, it is necessary to apply, as a minimising measure, the shutdown of the turbines causing mortality (rotor stopping) during those periods of the year (specified in the post-execution analysis by a range of daily dates) and times of the day (specified by hours) when there is the highest risk of collision with a turbine of the species for which the analysis shows such a risk. Other measures should also be applied to minimise the impact of the wind turbines on birdlife, the necessity of which is suggested by the findings of the analysis.
- 2.11. If the analysis referred to in point V.2. suggests that the identified mortality of bats has a negative or potentially negative impact on local or migrating populations, it is necessary to apply, as a minimising measure, the shutdown of the turbines (rotor stopping) at wind speeds below 6 m/s during those periods of the year (specified in the post-execution analysis by a range of daily dates) and times of the day (specified by hours) when there is the highest risk of collisions of bats with the wind power plant. Other measures should also be applied to minimise the impact of the wind turbines on chiropterofauna, the necessity of which is suggested by the findings of the analysis.
- 2.12. Before the wind farm is put into operation, as-built measurements of the environmental noise level in the nearest protected areas should be carried out under extremely unfavourable conditions, i.e. at the maximum sound power of the individual turbines specified in this decision, which has been declared by the Investor as the limit for the power of the turbines that have the greatest impact on the environmental noise level being exceeded in the nearest protected areas,
- 2.13. After the completion of the wind farm operation, the area designed for the individual turbines must be restored to its original state, i.e. the land must be suitable for agricultural use.
- 2.14. A report on the periodic technical controls of the individual turbines must be submitted to the Mayor of Grodków each time.

### **III. Environmental protection requirements to be included in the documentation required for the issuance of a building permit.**

1. Design up to 17 wind turbines in the following locations:

Designation of the power plant	Plot no.	Surveying section
EW 10	17/1	Bąków
EW 11	21/1	Bąków

EW 12	581/2	Młodoszowice
EW 13	716	Młodoszowice
EW 14	17/1	Bąków
EW 15	13/1	Bąków
EW 16	21/1	Bąków
EW 17	581/2	Młodoszowice
EW 18	17/1	Bąków
EW 20	584/2	Młodoszowice
EW 21	581/2	Młodoszowice
EW 23	439	Kolnica
EW 25	431	Kolnica
EW 26	438	Kolnica
EW 27	427	Kolnica
EW 30	427	Kolnica
EW 40	394	Kolnica

Slight shifts in the location of the turbines (within the aforementioned plots of land) are permitted so that the noise impact standards and other recommendations for maintaining buffers from important bird and bat sites identified in the environmental impact report are met.

2. Use the following power plant parameters in the design:

- maximum total height of the power plant: 200 m,
- maximum height of the tower: 140 m,
- maximum rotor diameter: 120 m,
- maximum sound power of each turbine in the source – not exceeding 106 dB(A), except for the EW 11 turbine, whose maximum sound power is 104.0 dB(A) and the EW 13 turbine, whose maximum sound power is 105.0 dB(A).

3. Place the wind turbines on foundations in the form of footings or foundation slabs or on piled foundations.

4. If it is necessary to ensure that the electrical and technical connections are located at a height above the expected floodwater level, design the foundations of the power plants on artificially excavated ground elevations of up to 3 m above sea level (by which the total height of the power plant will be increased).

5. Design the connection of the wind power plants by means of underground medium voltage (MV) power lines to the external MV/HV “Bąków” substation, which is part of another designed wind farm (Bąków 2C).

6. Design access roads with parameters allowing the acceptance of a significant load and allowing access to the power plant site, as well as manoeuvring, assembly, storage yards and construction facilities.
7. Determine the conditions and manner of management of earth masses, removed or relocated during earthworks, in connection with the execution of the investment and not causing the soil and ground quality standards to be exceeded.
8. The guidelines included in the construction and as-built project must contain solutions aimed at minimising the negative environmental impacts of the project, taking into account the applicable regulations.

**IV. I express my position on the need to conduct the environmental impact assessment of the project and proceedings on a transboundary environmental impact as part of the proceedings for the issuance of the decision referred to in Article 72(1)(1) of the Act of 3 October 2008 on the Provision of Information on the Environment and Environmental Protection, Public Participation in Environmental Protection and Environmental Impact Assessments (Journal of Laws No. 199, item 1227, as amended).**

The project in question does not require an environmental impact assessment and proceedings on a transboundary environmental impact as part of the proceedings for the issuance of the decision referred to in Article 72(1)(1) of the Act of 3 October 2008 on the provision of information on the Provision of Information on the Environment and Environmental Protection, Public Participation in Environmental Protection and Environmental Impact Assessments (Journal of Laws No. 199, item 1227, as amended).

**V. I impose an obligation to present a post-execution analysis within the following scope:**

**1. Post-execution analysis regarding the impact of the project on birdlife**

The purpose of the post-execution analysis is to determine the impact of the wind farm on birdlife. In the absence of legal norms concerning the manner and scope of this assessment, the authority believes that it is reasonable to perform it in accordance with the methodology described in the guidelines for the assessment of the impact of wind power plants on birds, applicable at the moment of commissioning the project. Such monitoring should be commenced within the first 12 months of operation, conducted for at least 3 seasons, within the first 5 years from the start-up of the investment and its results along with the analysis should be submitted to the authority issuing the decision on environmental conditions and to the Regional Director for Environmental Protection in Opole by 31 January of each year following the year in which one of the three full cycles of observations was completed.

**2. Post-execution analysis of the impact of the project on chiropterofauna**

The purpose of the post-execution analysis is to determine the impact of the wind farm on chiropterofauna. In the absence of legal norms concerning the manner and scope of this assessment, the authority believes that it is reasonable to perform it in accordance with the methodology described in the guidelines for the assessment of the impact of wind power plants on bats, applicable at the moment of commissioning the project. The monitoring in this respect should be commenced within the first 12 months of operation, conducted at least for three seasons, within the first five years from the start-up of the investment, with studies being obligatory for the first two years, while the third season of studies may be conducted in the third, fourth or fifth year of the farm's operation. The results of the studies along with their analysis should be submitted to the authority issuing the decision on environmental conditions and the Regional Director for Environmental Protection in Opole by 31

January of each year following the year in which one of the three seasons of observations was completed.

### **3. Post-execution analysis of the impact of the project on the state of the acoustic climate in areas legally protected against noise**

The analysis should include the results of environmental noise measurements from the operation of the wind farm, carried out within 6 months of the commissioning of the facility, at three points with coordinates in the state 1992 system, i.e.:

- $x = 323\ 930$ ,  $y = 379\ 590$ , Bąków section,
- $x = 323\ 550$ ,  $y = 382\ 180$ , Młodoszowice section,
- $x = 322\ 050$ ,  $y = 382\ 171$ , Kolnica section,

or at points where noise standards are suspected to be exceeded.

In the event that noise standards are exceeded in protected areas by any of the turbines, the turbine must be shut down immediately. The re-activation of the turbine will be possible once the causes of the noise standards being exceeded have been removed and the relevant noise studies have been carried out.

The analysis in the aforementioned scope should be submitted to the Mayor of Grodków as the competent authority to issue a decision on environmental conditions and to the Regional Director for Environmental Protection in Opole within 9 months from the date of commissioning the facility.

## **VI. The characteristics of the entire project constitute attachment no. 1 to this decision on environmental conditions.**

### **STATEMENT OF REASONS**

1. Altiplano Sp. z o.o. with its registered office in Gdańsk applied to the Mayor of Grodków for issuing a decision on environmental conditions for the project consisting in the construction of the Bąków 2B wind farm with auxiliary infrastructure in the commune of Grodków, Opolskie Voivodeship. The application was accompanied by:

- the project information sheet;
- a copy of the cadastral map, certified by the competent authority, covering the area where the project is predicted to be implemented, and covering the area affected by the project;
- an extract from the land register covering the area where the project will be implemented and covering the area affected by the project.

The Mayor of Grodków commenced the proceedings on 7 July 2010.

2. The Mayor of Grodków is the competent authority to issue a decision on environmental conditions for the project in question pursuant to Article 75(1)(4) of the Act of 3 October 2008 on the *Provision of Information on the Environment and Environmental Protection, Public Participation in Environmental Protection and Environmental Impact Assessments* (Journal of Laws No. 199, item 1227, as amended), hereinafter referred to as the “Environmental Protection Act.”

3. The planned project is one of the projects that may potentially significantly affect the environment as referred to in Article 59(1)(2) of the Environmental Protection Act, for which the obligation to conduct an environmental impact assessment is determined pursuant to Article 63(1) of this Act.

4. The project is listed in § 3(1)(6) of the Regulation of the Council of Ministers of 9 November 2004 *on determination of types of projects which may significantly affect the environment and detailed conditions connected with qualifying a project to prepare a report on environmental impact* (Journal of Laws No. 257, item 2573, as amended). This regulation was in force at the moment of submitting the application for a decision on environmental conditions for the project. Pursuant to § 4 of the Regulation of the Council of Ministers of 9 November 2010 *on projects likely to have a major environmental impact* (Journal of Laws No. 213, item 1397), to the proceedings on decisions referred to in Article 71(10) and Article 72(1) of the Environmental Act, initiated before the entry into force of this Regulation, the current provisions apply.

5. For projects which may potentially significantly affect the environment, pursuant to Article 71 of the Environmental Protection Act, a decision on environmental conditions is required.

6. Pursuant to Article 64(1) of the Environmental Protection Act, the authority conducting the proceedings requested opinions on the necessity to conduct the environmental impact assessment of the planned project and the scope of a potential report from the State District Sanitary Inspector in Brzeg (application of 7 July 2010, ref. no. GK.III 7625/40/B/2/10) and the Regional Director of Environmental Protection in Opole (application of 7 July 2010, ref. no. GK.III 7625/40/B/2/10).

7. These authorities issued the following decisions:

- State District Sanitary Inspector in Brzeg – decision of 19 July 2010 ref. no. NZ/BK-4325-1-25/10, stating the need to conduct the environmental impact assessment and defining the scope of the report;
- Regional Director for Environmental Protection in Opole – decision of 26 July 2010, ref. no. RDOŚ-16-WOOŚ-6613-2-302/10/mw, stating the need to conduct the environmental impact assessment and determining the scope of the report.

8. Having analysed the submitted documentation and having consulted the above-mentioned authorities, on 6 August 2010 the Mayor of Grodków issued decision ref. no. GK. III 7625/40/B/3/10, stating the need to conduct the environmental impact assessment and determined the scope of the environmental impact report for the project.

9. Pursuant to Article 63(5) of the Environmental Protection Act, after issuing the decision stating the need to carry out the environmental impact assessment and determining the scope of the report, on 28 October 2010 the authority conducting the proceedings issued a decision under ref. no. GK. III 7625/40/B/6/10 to suspend the proceedings on the decision on environmental conditions until the applicant submits the environmental impact report for the project.

10. On 9 September 2011, the applicant provided the Mayor of Grodków with a report on the environmental impact of the project made by Grupa Doradcza SMDI, SMDI Doradztwo Inwestycyjne Sp. z o.o. sp. k., with its registered office in Warsaw, team of authors composed of: Beata Bojanowska, MSc; Diana Brzozowska, MSc; Ewa Jaroszyńska, attorney at law, Krzysztof Mielniczuk, MSc Eng.; Maciej Stryjecki, MSc Eng.; Krzysztof Kręciproch, Eng. (acoustic analysis, field and electromagnetic radiation analysis); Prof. Przemysław Busse, PhD (ornithological monitoring); Paweł Kmiecik, MSc Eng (chiropterological monitoring); Anna Bartnik, MSc Eng (chiropterological monitoring); Krzysztof Badora PhD (landscape analysis). In the opinion of the authority conducting the proceedings and the bodies providing opinions, the report meets the statutory requirements and corresponded to the specified scope set out in the decision of the Mayor of Grodków.

11. Pursuant to Article 97 § 2 of the Code of Administrative Procedure, when the reasons justifying the suspension of proceedings have ceased to exist, the public administration body shall resume the proceedings ex officio or at the request of a party. Accordingly, on 19 September 2011, the Mayor of Grodków issued a decision with ref. no. GK. III 7625/40/B/9/10/11 to commence the proceedings on issuing a decision on environmental conditions for the project.

12. Pursuant to Article 77(1)(2) of the Environmental Protection Act, the Mayor of Grodków, in his letter of 24 November 2011, ref. no. GK. III7625/40/B/12/10/11, applied to the Regional Director for Environmental Protection in Opole for the conditions of project implementation to be agreed.

13. Pursuant to Article 77(1)(2) of the Environmental Protection Act, the Mayor of Grodków, in his letter of 24 November 2011, ref. no. GK. III7625/40/B/12/10/11, applied for an opinion to the State District Sanitary Inspector in Brzeg.

14. These authorities issued the following decisions:

- State District Sanitary Inspector in Brzeg – decision of 14 December 2011, ref. no. NZ/BK-4325-1-25/10, containing a positive opinion on the implementation of the project and specifying the conditions for its implementation;
- Regional Director for Environmental Protection in Opole – decision of 30 December 2011, ref. no. WOŚ.4242.167.2011.IOC, agreeing the conditions for the implementation of the project.

15. Pursuant to Article 79 of the Environmental Protection Act, the public participation procedure had been conducted before the decision was issued.

The public was informed about:

- the start of the environmental impact assessment of the project,
- the initiation of the proceeding,
- the subject of the decision to be issued in the case,
- the authority competent to issue the decision and the authorities competent to issue opinions and make arrangements,
- the opportunity to consult the necessary documentation for the case and the place where it was made available for inspection,
- the possibility to submit comments and applications,
- the manner and place of submitting comments and applications, indicating at the same time the 21-day time limit for their submission,
- the authority competent to consider comments and applications.

Public disclosure was made by:

- making the information available on the website of the Public Information Bulletin of the Municipal Office in Grodków,
- announcement on the notice board of the Grodków Municipal Office,
- announcements in the places where the project was carried out, i.e. in the villages of Bąków, Młodoszowice, Kolnica, Gnojna, Wojsław and Jutrzyzna (Commune of Wiązów).

On 21 March 2011, the Mayor of Grodków received documents submitted by the Village Council of Młodoszowice, i.e.



1. Resolution No. 1/2011 of 06.02.2011 on a protest against the construction of the wind farms at a distance of less than 3 km from the buildings of Młodoszowice and on a request to the Mayor of Grodków to establish a protective zone around the village of Młodoszowice at a distance of 3 km.
2. the minutes of the meeting of the rural village of Młodoszowice held on 6 February 2011.
3. submitting the proposals of the Village Council of Młodoszowice
4. List of the village residents present at the village meeting,
5. letter of the Village Administrator of Młodoszowice concerning the establishment of a protective zone at a distance of 3 km around Młodoszowice of 28 April 2011.

The Mayor of Grodków, with letter no. GK. III 604.62.2011.md of 15 April 2011 informed the Village Council that the establishment of a protection zone around Młodoszowice at a distance of 3km from buildings, where the construction of wind farms would be prohibited, can be considered when amending the spatial development plan for the village of Młodoszowice. Moreover, the issue raised in the aforementioned resolution was taken into consideration when analysing the documentation of the proceedings, as already indicated in the response to comment no. 1. The acoustic analysis attached to the report unequivocally proves that the noise emitted by the wind farm located at distances of less than 3km from buildings will not exceed the regulations and norms applicable in Poland, and they are the only one that the authority conducting the proceedings can refer to. It should also be emphasised that the conclusion of this decision contains conditions for the implementation of the project aimed at noise protection.

During the period for submitting comments from 9 January 2012 to 30 January 2012, the Mayor of Grodków received a total of 54 protests, identical in content. In view of the above, information on how and to what extent the comments and requests made in connection with the public participation were taken into account is presented together below.

Comment No. 1 reads: “According to the ‘Senate Committee of the Republic of Poland’, a number of medical studies and publications worldwide and in Europe have demonstrate that too close location of wind farms from human habitats has a very negative impact on the lives of people living in the area and is the cause of many diseases, including vibroacoustic disease.”

The issues raised above were taken into account during the analysis of the project documentation. Particular attention was paid to the issue of the correct positioning of the wind turbines so that it complies with the law and the applicable standards, especially with regard to noise and the impact on human and animal health.

Due to the potential negative impact of the wind farm on the environment (including human health), the Mayor of Grodków issued a decision ordering an environmental impact assessment of the project.

Therefore the investor prepared a report on the environmental impact of the project, where the impacts of the planned investment were examined in detail at each of its stages. The report indicates that the impact of the wind farm on, inter alia, surface water and underground waters, air, ground surface, landscape, cultural landscape and historical monuments was analysed, considering that the impact on these elements of the environment may also indirectly affect human health and comfort of living (chapter 7.4). In addition, the report is accompanied by separate, specialised studies on those emissions that may have a direct impact on humans, i.e. noise and electromagnetic fields and radiation. The acoustic analysis includes, inter alia, a reference to the low frequency noise generated by the wind turbines (chapter 7.4).

The note in one of the comments *about too close proximity of the wind farm to human habitats* has been analysed in the environmental impact report, which confirms that the impacts of the aforementioned investment will in no case exceed the applicable standards and regulations (acoustic analysis presented in Appendix No. 12 to the environmental impact report). The above opinion has been confirmed by two specialised opinion-giving bodies: the Regional Director of Environmental Protection in Opole (the authority in charge of environmental protection issues) and the State District Sanitary Inspector in Brzeg (the authority in charge health protection and sanitary hygiene), who issued decisions agreeing the conditions for the implementation of the investment in question.

Comment No. 2 reads: “The construction of wind farms in the vicinity of villages results in the value of properties (houses and building plots) being significantly reduced, by up to 60%, as it is impossible to find anyone willing to build houses or buy flats in such areas. People who live in rural areas or wish to move there pay utmost attention to peace and quiet and the beauty of the landscape that characterise these places. Does the commune intend to set aside funds from its budget to cover the losses suffered by local residents?”

The above-mentioned issue has been taken into account while analysing the project documentation. The environmental impact report includes, inter alia, the analysis of the impact of the project on tangible assets (chapters 7.3.9. and 7.4.9.). As can be seen from the report, the results of the analyses carried out in the areas where the wind farms operate do not support the opinion about a decrease in the value of properties in these areas.

Comment 3: “Wind farms emit very annoying and monotonous noise, which, according to people living in the area, can be heard even at a distance of 2.5 – 3 km. This noise causes sleep problems, nervousness, nausea and dizziness. Poland still lacks detailed regulations on the construction of wind farms and therefore the only norms are the inflated noise standards set before wind farms appeared in Poland. Many countries in Europe and worldwide apply regulations to prevent the construction of such farms closer than 1.5 – 3 km.

This issue has been taken into account when analysis the report as indicated in chapter no. 7.4 of the environmental impact report. The acoustic analysis attached to the report clearly demonstrates that the noise emitted by the wind farm will not exceed the regulations and standards in force in Poland.

Comment 4: “Wind farms spoil the landscape for miles around, the ones being built next to our village are expected to have a total height of over 180m !!! And they will be a dominant feature of the landscape. Their number and the connection to the Wierzbnik wind farm planned to the east and south will make us feel as if we are living in the middle of a wind power plant.”

The issue of the impact of the wind farm on the landscape has been taken into account when analysis the report. In the report on the environmental impact of the project, the landscape analysis is attached as a separate appendix. The analysis of the project variants presented in the report (chapter 6), in turns, shows that the variant finally selected for implementation respects all recommendations included in the landscape analysis.

Comment 5: “Windmills have been proven to interfere with TV, radio and mobile phone reception. In places where windfarms have been built, the windfarm companies have often been forced to purchase satellite sets, but the residents have to bear the costs of additional fees.”

This issue has been taken into account when analysing the environmental impact report. It is addressed in the analysis of electromagnetic field and radiation attached as an appendix to the

environmental impact report (chapter 11). This chapter describes in detail the potential impact of the wind farm on radio and television reception and mobile phone operation. It demonstrates that the proposed wind farm will not have a significant impact in this respect.

Comment 6: If the windmills are positioned on the eastern, southern or western side – and this is how they are due to be positioned around our village – they will cause very annoying shadow flicker over very long distances (depending on the time of year). The only way to avoid this is to cover the windows with blinds during the day.”

The environmental impact report (chapter 7.4.6.) shows clearly that the maintained distance from the buildings will reduce the effect of shadow flicker on nearby residential areas.

Comment 7: “Many thousands of birds over our heads migrate every year, and the construction of such a farm will hinder their migration. There will be many collisions with windmill propellers, causing the birds to die!”.

The above issue has been taken into account when analysing the report . An appendix to the environmental impact report is an ornithological analysis, which examines the above issue, based on a year-long pre-investment monitoring of the investment area (Appendix no. 7). Monitoring also took place during the periods of spring and autumn migration of birds.

Moreover, as shown by the analysis of the project variants (chapter 6 of the report), the variant of the investment finally selected for implementation was developed after taking into account the recommendations of all the nature studies attached to the report, including the ornithological analysis.

Comment 8: “And most importantly!!! When establishing the last spatial development plan around our village, and before including in it the possibility of building wind farms in this area, no one carried out a thorough analysis: what will be the impact of such farms on the lives of local people? And no on-site consultations with residents were carried out, which would have given us in-depth insight into the intended investments and would have given us an opportunity to express our opinions on these issues.

The proposed wind farm will be developed in accordance with the current local development plan. The procedure for its enactment was conducted in accordance with the applicable regulations, including, inter alia, proceedings with public participation, so-called public consultations.

As for the request concluding the above protest that the power plants should be moved at a distance of 3 km from the village of Młodoszowice, it should be stated that the power plants will be erected only in areas designated for this purpose in the current local spatial development plan at distances from built-up areas agreed with the State District Sanitary Inspector in Brzeg and the Regional Director of Environmental Protection in Opole.

Moreover, it should be noted that the above-mentioned comments (protests) relate to issues discussed and explained in the environmental impact report. As can be seen, these comments challenge and question the provisions of the environmental impact report. Pursuant to the judgement of the Supreme Administrative Court in case no. II OSK 1717/10, if one questions the findings of an environmental study, one should present an expert opinion specifying its flaws” (“Rzeczpospolita” of 29 December 2011, supplement “Dobra firma”). In the case in question, the entities filing the discussed protests did not present any studies (expert opinions) confirming the allegations.

16. Pursuant to Article 10 § 1 of the Code of Administrative Procedure, on 9 January 2012, the Mayor of Grodków notified the parties to the proceedings, by means of an announcement, about the possibility to read the documentation of the proceedings, including the content of the collected materials, evidence and submitted demands, and to comment on them, before a decision on environmental conditions was issued for the project in question, within 7 days of the announcement.

Public disclosure was made by:

- making the information available on the website of the Public Information Bulletin of the Municipal Office in Grodków,
- announcement on the notice board of the Grodków Municipal Office,
- announcements in the places where the project was carried out, i.e. in the villages of Bąków, Młodoszowice, Gnojna and Kolnica (Commune of Grodków) and Jutrzyzna (Commune of Wiązów). The announcements were sent in a separate letter to the village leaders of the respective villages and to the Municipal Office of Wiązów to ensure that they were posted on notice boards. The announcements were posted for a period of 14 days.

17. In the area intended for the project, the provisions of the local spatial development plan are in force, approved by the Resolution No. XXXV/376/2006 of the Grodków Council of 27 September 2006 and by Resolution No. XXV/263/08 of 30 December 2008 amending the resolution on the local spatial development plan for some localities in the Commune of Grodków. The authority analysed the provisions of the local spatial development plan and identified the project to be compatible with its provisions, which state: ... “2) it is allowed to run overhead and underground technical infrastructure networks, transformer stations, telecommunication masts and wind power plants, in accordance with the applicable special provisions”.

18. As the number of parties to the proceedings exceeds 20, pursuant to Article 49 of the Act of 14 June 1960 – *Code of Administrative Procedure* (Journal of Laws of 2000, No. 98, item 1071, as amended) and Article 74(3) of the Environmental Protection Act, the parties were informed about the stages of the proceedings in the form of announcements. Announcements were posted for a period of 14 days.

19. When determining the environmental conditions for the execution of the project, included in the conclusion of this decision, the authority took into account the findings included in the environmental impact report described below. The decision takes into account the recommendations contained in the report and in the opinion of the State District Sanitary Inspector in Brzeg and the agreement of the Regional Director of Environmental Protection in Opole.

The submitted documentation analyses the variant of the project selected for implementation and alternative variants.

The first alternative variant was the broadest variant of the project, consisting of 26 wind power plants, making it possible to achieve the maximum efficiency of energy production in the area considered by the investor.

Subsequent alternative variants were created by reducing the above-described broadest variant of the project based on the conclusions resulting from analyses performed for the purposes of the environmental impact report: analysis of potential social conflicts, landscape analysis, ornithological monitoring, chiropterological monitoring, habitat inventory, analysis of impact on the integrity, coherence and subject of protection of Natura 2000 areas and acoustic analysis. After having verified

the project within the framework of these studies, the investor abandoned the construction of a total of 9 power plants, shifted some of them and adopted limits on the sound power of the turbines.

After analysing the content of the submitted materials, it has been concluded that the variant selected for implementation by the investor is the preferable one for the environment. It takes into account the recommendations contained in the ornithological and chiropterological report and the demands contained in the landscape and acoustic analysis of the project.

#### Impact during the construction stage

Based on the submitted documentation, it is concluded that the construction stage of the wind turbine will not result in significant changes to the soil and water environment. It is assessed that, with the proper storage of construction materials, proper location and securing of the construction facilities, the use of efficient construction equipment and provision of portable toilets, there will be no adverse impact on the soil and water environment. Such situations may only occur in case of emergencies. Indirect impacts on groundwater may also occur at the construction stage due to the dewatering of excavations for the wind turbine foundations and cable lines. They may cause a short-term lowering of water levels (drainage effect). It is therefore recommended to plan the investment works in such a way that the foundations, after construction and assembly, are immediately covered with concrete and the cable trenches are backfilled as soon as possible, immediately after the cables have been laid.

During the construction works there may be negative impacts affecting the state of atmospheric air and acoustic climate around the investment. During the wind turbine construction works, there will be emissions of pollutants into the air, originating from combustion of fuel (diesel oil) in engines of construction machinery and vehicles delivering materials, secondary dusting due to vehicle traffic in the area of construction works and dusting due to movement of earth masses, cement and construction aggregates. These impacts will include the works area and a zone approximately 15 – 20 m away from the construction site – away from built-up areas. The source of negative acoustic impact at the stage of construction works will be the operation of heavy construction equipment (wheel excavators, loaders, bulldozers), in particular during the construction of foundations and site levelling. In addition, sound intensity will increase in the vicinity of the routes of vehicles transporting construction materials. Taking into account the transient nature of the project execution phase and the fact that the construction and assembly works will take place mainly during daytime, it should be considered that this stage will not cause permanent negative changes in the environment and will not result in exceeding the permissible levels of noise in the environment.

During the construction of the proposed project (power plant foundations, installation of the power plant, road, electricity network, etc.), construction waste of group 17, characteristic of construction, installation and finishing works (including soil and earth from contaminated areas), will be generated. Waste generated during the construction will be collected within the construction site, in a designated area, in special containers. Hazardous waste, if any, will be collected in a separate container suitable for this type of waste. Once the containers are full, the waste will be handed over to companies with the appropriate permits for recovery or treatment. Some of the waste generated during the construction may be handed over by the holder to individuals or organisational units. Soil from and around the assembly yard and the areas of the new access roads and cable trenches will be heaped and the area will be restored to its original state upon the completion of the project. Soil from the cable trenches will be used for backfilling. Soil and soil from the excavated soil for the foundations will be managed partly on site, while the rest will be removed to a place designated by the commune. The method and conditions for the management of the earth masses will be specified in the building permit decision. The proper collection of the generated earth masses (if possible selection), transport,

processing and storage will prevent negative impacts on the ground surface and indirectly on other elements of the natural environment.

Based on the natural analyses carried out in the report, it has been concluded that the impact of the project on the natural elements of the environment at the construction stage may consist of:

- the direct destruction of vegetation (mainly field crops) in the area where the construction of the power plant, roads, assembly yards and cables is planned (which is also associated with the destruction of breeding, resting or feeding grounds of local animal species);
- animals being disturbed due to increased vehicle traffic, noise and dust,
- the drainage of nearby areas as a result of excavations for the foundations and cable trenches
- the possibility of small animals falling into the foundation pits and cable trenches.

However, the vegetation will be restored after the construction is complete (within a few months), with the exception of the areas directly occupied by the power plants and roads. Animals will be disturbed only for a short term and they should return to their breeding grounds, resting sites or feeding areas after the construction is complete. The drainage of groundwater from the wind farm areas, if any, can be counteracted by backfilling the cable trenches as soon as possible after they have been dug, immediately after the cables have been laid in them, while the foundations should be covered with concrete immediately after assembly, which will also prevent the soil from softening. Small animals should be prevented from falling into cable trenches and foundation trenches by immediately backfilling such trenches or covering them with concrete. Construction workers should be required to inspect excavations and, if any animals are identified, to release them with due care. During the construction stage, the project is not expected to have a significant negative impact on the natural elements of the environment, including the integrity, coherence and subject of protection of Natura 2000 areas.

There is no significant impact of electromagnetic fields during the construction and installation stages of apparatus, equipment and installations.

During the construction stage, moderate impacts on human health and life are expected (noise, air pollution, risks associated with increased traffic). Elimination of these hazards requires the appropriate organisation of works, marking of work areas, as well as compliance with health and safety rules and road regulations.

The construction stage will have a positive impact on material assets in the commune. Due to the necessity to provide good quality roads for the transportation of the power plant elements, some sections of the public roads will be reconstructed and repaired, which will then be used by residents. These works will be carried out at the investor's expense.

The construction stage of the wind farm will involve a temporary reduction in the aesthetic value of the landscape as a result of the works and the organisation of the works facilities.

The construction of the wind farm will result in changes to the cultural landscape through the introduction of its new permanent elements, i.e. the wind turbines.

During excavation for the foundations and cable trenches, there is a possibility of encountering archaeological monuments. In this situation, construction work should be suspended and the conservation services should be contacted to agree further action.

It is possible that the impacts described above may accumulate in the event that several wind farms are constructed in the immediate vicinity at the same time.

Taking into account the temporary nature of the construction works and the relatively short period of time, it can be concluded that this stage will not cause permanent negative changes to the environment.

#### Impact at the operation stage

At the operation stage of the wind farm, no negative impacts on the soil, water and air environment are expected.

The operation of the wind farm will cause constant emissions of electromagnetic fields and radiation. However, its impact will be negligible and will not exceed the applicable standards.

The operation of the wind farm will result in constant noise emissions to the environment. Noise generated by the wind turbines will mainly come from the movement of rotor blades (aerodynamic) and, to a lesser extent, from the operation of the generator. The acoustic impact of the project will be long-term and related to the duration of operation of the wind power plant. However, the noise generated by the wind farm will not exceed the applicable standards, provided that the parameters of the power plant specified in the conclusion of this decision, in particular the acceptable sound power of individual turbines, are maintained.

During the operation of the wind turbine, waste may be generated from maintenance and repair work carried out on the site. This will be waste from groups 13, 15, 16 and 17. All waste generated during the operation of the wind farm will be collected on an ongoing basis by a maintenance company. This includes hazardous waste. Waste generated during the operation of the wind farm will not be collected or stored at the wind farm site.

The operation of the wind farm will not have a significant negative impact on living conditions and human health. Painting the tower wings with matt paints will prevent the effect of light reflections that could be troublesome for observers, and the distance kept from buildings will minimise the effect of shadow flicker. The most onerous impact of the wind farm is noise emission, which, however, will not exceed the applicable standards.

According to the nature studies attached to the environmental impact report, the planned wind farm may cause impacts on some species of birds and bats. However, these impacts will not be significant, provided that the minimising and mitigating measures indicated in the conclusion of this decision are applied.

The operation of the wind farm will have an impact on its landscape. This impact, however, cannot be described as positive, neutral or negative, as this is purely a matter of the observer's subjective assessment.

According to the report, no significant negative impact of the investment on material assets is expected. The results of the analyses carried out in the areas where the wind farms are operating do not unequivocally indicate that there is a connection between the construction of a wind farm and a decrease in land prices. The wind farm will be constructed only in typically agricultural areas, as indicated in the local spatial development plan, which was consulted with the residents of the commune.

Neither the execution nor the operation of the investment in question will pose a threat of a serious accident as defined in the Environmental Protection Act.

Due to the location of the project (far away from the national borders) and its nature (operation causes only local impacts), the investment does not require proceedings for a transboundary environmental impact.

The impacts at the stage of the wind farm operation may also accumulate with the impacts of other wind farms planned in the vicinity of the investment, in particular noise, impact on the landscape and on the natural elements of the environment. It is anticipated that cumulative impact will not exceed the applicable standards, provided that the investor applies the minimising and mitigating measures indicated in the conclusion of this decision.

20. Having analysed the content of the report, points I, II and III of this decision set out the environmental conditions for the execution of the project and the conditions to be included in the documentation required for the issuance of the building permit, in order to minimise the negative environmental impact of the planned project.

A provision was introduced in the decision limiting the scope of possible tree felling to minimise the impact of the project on the habitats of protected bird species and green areas.

The felling of trees and shrubs and the removal of ground cover carried out, if possible, between 1 October and 29 February, i.e. a period when the bird species present on the site are not breeding.

The recommendation to carry out an ornithological survey for the felling of trees and shrubs between 1 March and 30 September and the removal of ground cover, where possible, between 1 September and 14 March is intended to protect the breeding grounds of the protected bird species shown to exist in the area in question in the environmental impact report from being destroyed.

The illumination of the power station with white light and flashing lights should also be avoided, with the proviso that this does not apply to illumination resulting from air traffic safety regulations. White light illumination may disorient passing birds and direct their movements towards the wind turbines and lead to a concentration of insects in the vicinity of the operating turbines. Significant numbers of insects may in turn attract feeding bats. Avoiding lighting other than that prescribed by air traffic safety regulations is a measure to minimise the mortality of birds, bats and insects, which may include protected species. The low frequency of light flashes illuminating the turbines reduces the possibility of passing birds getting disoriented. This condition is intended to reduce the risk of birds colliding with the power plant.

The condition concerning the application of a uniform colour scheme of the power plant (white, grey, possibly greenish at the base) and the prohibition of advertising inscriptions on the structures, with the exception of the logo of the turbine manufacturer or the investor, has been set due to the potentially negative impact of the investment in question on the landscape shown in the report. The above-mentioned measures are intended to minimise this impact.

21. Point IV of this decision states that there is no need to carry out the environmental impact assessment and the proceedings on a transboundary environmental impact within the proceedings for the issuance of the decision referred to in Article 72(1)(1) of the Act on Environmental Protection. It has been considered that the data on the project available at the stage of issuing the decision on environmental conditions allow, in the opinion of the authority, for a sufficient assessment of the



project's environmental impact, including the cumulative impact, as well as that the project is not expected to have a significant negative impact on areas requiring special protection due to the occurrence of protected plant and animal species or their habitats or natural habitats, including Natura 2000 areas and other forms of nature conservation.

22. Point V of this decision obliges the Applicant to carry out a post-execution analysis, in 3 stages and based on the results of monitoring the impact of the wind farm on birdlife and chiropteroфаuna. The recommendation to carry out a post-completion analysis consisting of post-execution monitoring is related to the fact that a number of protected birds and bats have been identified in the area.

The recommendation to shut down the turbines (rotor stopping) is based on the need to minimise the negative impact on birdlife and chiropteroфаuna that may be demonstrated during the post-execution analysis. The use of such solutions is recommended by the European Commission in guidelines published in 2010 (European Commission. 2010. Guidance Document: Wind energy developments and Natura 2000), as one of the primary ways to minimise the impact of a wind farm on bats and birds. The wind speed at which the turbine should be shut down periodically has been determined during the studies referred to in the above-mentioned European Commission guidelines. According to these studies, wind speeds of less than 6 m/s lead to more than 80 per cent of bat death events caused by power plants.

In view of the above, having carried out an environmental impact assessment of the project, the Mayor of Grodków, taking into account:

- the opinion of the relevant sanitary inspection authority,
- the agreement made by the Regional Director for Environmental Protection,
- findings contained in the environmental impact report,
- the results of the public participation procedure, has issued this decision on environmental conditions.

### **Instruction**

Pursuant to Article 72 section 3 of the Environmental Protection Act, the decision on environmental conditions is attached to the application for issuance of decisions referred to in Article 72(1) 1 of this Act. This application should be submitted no later than within 4 years from the date on which the decision on environmental conditions became final, subject to section 4.

The parties may appeal against this decision to the Self-Government Appeals Board in Opole, through the Mayor of Grodków, within 14 days from the date of delivery of the decision.

/Stamp: MAYOR OF GRODKÓW/

MAYOR  
/Signature/  
*Marek Antoniewicz*

### Attachment:

Characteristics of the planned project, in accordance with Article 82 section 3 of the Environmental Protection Act

Copies to:

1. Altiplano Sp. z o.o, ul. Abrahama 1A, 80-307 Gdańsk

CC:

1. Other parties to the proceedings notified by way of a notice pursuant to Article 49 of the Code of Civil Procedure.

2. ad acta

**Appendix No. 1 to the decision on  
environmental conditions no. GK. III  
7625/40/B/20/10/11/12  
of 2 March 2012**

**Characteristics of the project involving the construction of the Bąków 2B wind farm with  
auxiliary infrastructure in the commune of Grodków, Opolskie voivodship.**

The planned Bąków 2B wind farm is a project for the production of electricity from a renewable source that is wind.

The project will consist of:

- up to 17 wind power plants;
- internal connection infrastructure, in the form of power 30 kV cable lines and telecommunication lines (optical fibres), connecting individual power plants into cable circuits, which will be then connected to an external substation (not being part of the Bąków 2B farm)
- access roads to the power plant, manoeuvring, assembly and storage yards,
- construction facilities.

The power plants will be located in the area of the villages of Młodoszowice, Bąków, Jutrzyzna and Kolnica, in the commune of Grodków, Opolskie Voivodeship, on the following plots of land:

Designation of the power plant	Plot no.	Surveying section
EW 10	17/1	Bąków
EW 11	21/1	Bąków
EW 12	581/2	Młodoszowice
EW 13	716	Młodoszowice
EW 14	17/1	Bąków
EW 15	13/1	Bąków
EW 16	21/1	Bąków
EW 17	581/2	Młodoszowice
EW 18	17/1	Bąków
EW 20	584/2	Młodoszowice
EW 21	581/2	Młodoszowice
EW 23	439	Kolnica
EW 25	431	Kolnica

EW 26	438	Kolnica
EW 27	427	Kolnica
EW 30	427	Kolnica
EW 40	394	Kolnica

The tower of each power plant will be a steel or concrete tubular (conical) structure, consisting of several or a dozen segments (depending on the model). The diameter of the base of the tower will be approximately 4 – 6 m, while the diameter of the top will be approximately 3 – 4 m. At the top of each tower there will be a rotating nacelle that positions itself with a rotor depending on the wind direction. The propellers are three blades made of glass fibre reinforced plastic.

The parameters of the wind turbines will be as follows:

- total height – 200 m (comprising maximum tower height –140 m and maximum rotor radius – 60 m);
- maximum rotor diameter - 120 m;
- zone below the rotor – not less than 60 m.
- maximum sound power of the individual turbines – 106.0 dB(A), except for the EW 11 turbine, whose maximum sound power is 104.0 dB(A) and the EW 13 turbine, whose maximum sound power is 105.0 dB(A).

The power plants will be founded on footings or piled foundations. In order to ensure that the electrical and technical connections are located above the expected level of any flood water, the foundations may be placed on artificially excavated ground elevations of up to 3 m above sea level.

There are plans to construct medium-voltage underground (cable) power lines connecting individual wind turbines with an external substation (not being part of the farm) and underground telecommunication lines are planned.

In addition, there are plans to build roads to allow access to the power station through the fields and to reconstruct the existing roads to allow the transport of the finished components from which the power stations will be assembled.

For the duration of construction work, the access roads to the power stations will end with paved assembly yards. Once construction is complete, only small manoeuvring yards will be left at the power plant to be used by power plant maintenance crews.

In the immediate vicinity of the assembly yards, storage yards and construction facilities will be located. They will be temporarily paved. Building materials for the construction of the power plant foundations, structure components and construction machinery and equipment will be stored there. There will be also welfare units, tool containers and portable toilets.

MAYOR  
/Signature/  
*Marek Antoniewicz*