Słupsk, 19.10.2024

Signed by / Podpisano przez:
Juliusz Marek Gajewski
Uniwersytet Morski w Gdyni
Date / Data: 2024-11-19 12:25

RWE Offshore Wind Poland Sp. z o.o.
ul. Deotymy 21
76-200 Słupsk, Poland

Represented by:
Juliusz Gajewski, an Authorised Proxy
Joanna Grochocka, an Authorised Proxy

Service address:
[Juliusz Gajewski
Gdynia Maritime University
Maritime Institute
ul. Roberta de Plelo 20
80-548 Gdańsk, Poland
phone no. + 48 603 088 967]

Regional Director for Environmental Protection
in Szczecin
ul. Teofila Firlika 20
71-637 Szczecin, Poland

Concerning Writ no. WONS-OŚ.420.20.2020.KK.43 of 19 August 2024

Acting as an authorised proxy of RWE Offshore Wind Poland Sp. z o.o. with its registered office in Słupsk, entered in the register of entrepreneurs of the Polish National Court Register (KRS) under number 0000293888 (hereinafter "**the Company**"), in connection with the writ no. WONS-OŚ.420.20.2020.KK.43 of 19 August 2024 ("**the Writ**"), received on 19 August 2024, I submit explanations prepared in cooperation with the team of authors of the environmental impact assessment report on the FEW Baltic II offshore wind farm ("**the Investment**"), taking into account the amendments introduced ("**the EIA Report**").

Detailed explanations in the order corresponding to the clauses of the Writ

Re 1. Contents of the Writ: *"Analysis of the scope of the Investment covered by this procedure in terms of the possibility of introducing amendments to the decision on environmental conditions issued on 30 November 2021, with particular emphasis on the type of foundation used, i.e. including also a jacket foundation (three-legged jacket substructure with 3 piles of up to Ø 4 m in diameter, each) [in addition to the monopile foundation (monopiles with an external diameter of Ø 11.4 m)], not covered by the procedure concluded with the issuance of the above-mentioned decision.*

According to the materials submitted, as part of amending the decision on environmental conditions, it is planned that the basic parameters of the Investment should be changed, i.e.: the maximum number of WTGs (from 44 to 25); the maximum rotor diameter (from 205 m to 305 m); the maximum installed capacity of the offshore wind farm (from 350 MW to 440 MW); the maximum total height of an offshore wind turbine generator together with the rotor (from 300 m to 327 m); the maximum sweep area of

a single rotor (from 49,087 m^2 to 73,062 m^2), which will result in a smaller number of WTGs, and in turn, the area of all rotors installed within the farm will be reduced from 2,159,828 m^2 to 1,826,550 m^2; the type of foundation used (from a monopile foundation to a monopile foundation or a jacket foundation); the maximum diameter of the foundation dictated by the diameter of the monopile used (from 12.5 m to 11.4 m in the case of a monopile foundation and in the case of a jacket foundation with 3 piles with a maximum diameter of 4 m); the type of foundation for the offshore substation (from a monopile with a maximum diameter of 12.5 m or a jacket foundation with 3 or 4 piles with a maximum diameter of 3.5 m to a monopile with a maximum diameter of 11.4 m or a jacket foundation with 3 piles with a maximum diameter of 4 m); the maximum area of the scour protection system per one foundation (from 1,257 m^2 to 1,257 m^2 for a monopile or 945 m^2 for a 3-legged jacket foundation); the depth of the foundation (from 25–50 m to 25–43.5 m for a monopile or 25–45 m for a jacket foundation) and the cable network (originally, a network with a power of 33 and 66 kV or higher was planned, consisting of three-core cables with a screened copper or aluminium conductor with a cross-section of 120–800 mm^2 or larger, with an external cable diameter of 130–170 mm and a weight of 20–50 kg/m, whereas as part of the amendment, to enable work with the largest inter-array cables, copper cables with a cross-section of up to 1200 mm^2, an external cable diameter of approx. 181 mm and with a weight of 65 kg/m in the air and smaller aluminium cables with a cross-section of 240 mm^2, an external diameter of approx. 146 mm and a weight of 30 kg/m in the air are planned to be used). In addition, should a monopile reach an early refusal point in the process of pile-driving (due to the occurrence of compact soil layers in several locations, which may constitute an obstacle to the conventional driving of monopiles into the ground) and it is necessary to use a support method of driving-drilling-driving the pile into the seabed (DDD method) – within the framework of this procedure, approx. 35,520 m^3 of soil material from drilling the soil layers inside the monopile is planned to be levelled/put aside within the construction site, in the immediate vicinity of the monopile (over an area of approx. 18,000 m^2) and to secure the foundation from scouring, the natural material obtained in the construction process is to be spread over an area of approx. 50,700 m^2.

The materials submitted suggest that the effects of the proposed amendments are local and limited to the original findings of the environmental impact assessment, and therefore, the changes do not generate new or greater impacts compared to those assessed in the original report submitted at the stage of the proceedings concluded with the issuance of the decision on 30 November 2021. Nevertheless, it should be noted that such far-reaching changes to the applicable decision on environmental conditions requested by the Investor may undermine the sense of the proceedings, the final effect of which is the issuance of a decision. In the opinion of the Authority, the changes introduced are significant, as in the case of using a jacket foundation (in addition to a monopile foundation (which was not covered by the original procedure and raised doubts as to the possibility of including them in the procedure aimed at amending the decision issued on 30.11.2021. Additionally, the changes related to the increased total height of a WTG and the increased rotor diameter affect the collision height, thus affecting the probability of higher collision and mortality rates, which may result in a reassessment of the transboundary impacts of the Investment. To properly conduct the procedure in this case, this issue should be clarified."

General explanation regarding the nature of the changes and the possibility of including them in the proceedings aimed at amending the decision issued on 30 November 2021

The subject of the proceedings, in this case, is the amendment of the decision on environmental conditions (DEC) for the FEW Baltic II OWF, which has established the basis and granted the Applicant the right to implement the Investment consisting in the construction of installations using wind energy to generate electricity within the maritime areas of the Republic of Poland. The aforementioned

qualification results from the executive provisions, i.e. the Regulation of the Council of Ministers of 19 September 2019 *on types of projects likely to have significant effects on the environment.* An analogous qualification was previously provided for in the regulation issued by the Council of Ministers on 9 November 2010 with the same title. Both regulations were issued based on Art. 60 of the Act of 3 October 2008 *on the provision of information on the environment and environmental protection, public participation in environmental protection and on environmental impact assessments*.

The Investment discussed is based on the technology of generating electricity using the forces of nature, namely wind, which sets in motion a turbine that subsequently generates electricity. Ones of the fixed and necessary elements of a wind turbine generator (WTG) are the foundations (which allow the WTG to be placed on the seabed), blades installed on the nacelle, and rotor. A wind power station also has other permanent elements, but they are not the subject of explanations provided in this part, and they are not the subject of the comments received from the body conducting the proceedings. The indicated elements or their construction are the source of the analysed impacts, the effects of which on the environment have already been discussed and assessed in the environmental impact assessment report. As part of the requested amendment, the Investor does not withdraw from the right to implement the Investment, i.e. an offshore wind farm, which is an electricity production technology, but rather petitions for a different shape of this Investment than the one specified in the DEC by changing the project parameters (including the number and height of WTGs) and their structural elements – foundations, i.e. the way they are seated in the seabed. The requested amendment does not in any way lead to a change in the technology of the Investment's operation, which is the basis for its qualification for the obligation to obtain a decision on environmental conditions. Concerning this last element, it cannot therefore be said that the change leads to a change in the technology of the Investment itself – this has been defined by the provisions of law and is not subject to change – but to a change in the solution regarding the foundation method used in the Investment based on the type of foundation used. It should be noted that such solutions are based on different technical arrangements, but only in relation to the method of WTG installation, and not the method of the Investment's operation or its nature, which constitutes the basis for putting it under the obligation to conduct an environmental impact assessment preceding the permit for its implementation. Analogous conclusions should be drawn with regard to increasing the height of WTGs and the span of rotor blades, which results in a reduced number of power stations in relation to what was originally planned. Such amendments are undoubtedly significant for the environment due to the different impacts involved and they require an appropriate assessment and possibly, as a result of this assessment and if justified, also changes in the conditions related to ensuring environmental protection. Justification of amendments may also be in the interest of the Investor, provided that this does not lead to a conflict with the law or a failure to ensure an appropriate level of environmental protection. In the case of projects that have obtained a decision on environmental conditions, this assessment may be carried out in the form of a decision amendment. It should be indicated here that in Art. 87 of the Act of 3 October 2008 *on the Provision of Information on the Environment and its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments,* the legislator established the legal basis for amending a decision, referring to Art. 155 of the *Code of Administrative Procedure* through its appropriate application. This procedure has been provided for in the event that specific legal provisions do not oppose the annulment or amendment of such a decision and this action is in the public interest or the legitimate interest of the party involved. This legitimate interest of the party may consist of economic aspects or, for example, changes related to the development or availability of the technologies used. The latter considerations are of particular importance in the case of investments developed at a rate that outpaces the Investment preparation process itself due to their complex nature. It seems suitable to cite here the judgement of the Supreme

Administrative Court of 4 April 2024 (III OSK 1579/22), in which the view was expressed that: "In the court-administrative case-law, the position is expressed clearly that taking into account the interest of the party within the meaning of art. 155 of the *Code of Administrative Procedure* should be understood in such a way that having the option of a more favourable decision for the party, which does not conflict with the applicable legal order, the Authority adopts this method of legal settlement, changing the decision less favourable for the party to a more favourable one. The content of the "just" (and therefore qualified) interest of the party should be determined in a given case and must be specified based on its factual and legal status." In the case discussed, the basis for the proceedings is already expressed in the just interest of the party, i.e. the Applicant, which recognises it both in economic considerations and those resulting from the need to adapt to technological progress.

In the case of offshore wind farms, the situation related to changes in the method of their implementation can be clearly seen, for example, in the practice of public administration bodies and proceedings already conducted for amendments of similar scope. At this point, it is worth referring to Art. 8 § 2 of the *Code of Administrative Procedure*, according to which, without due cause, public administration authorities do not depart from the established practice of resolving cases characterised by the same factual and legal situation, as well as the same scope of amendments, i.e. consisting in a reduction of the number of power stations and changes in their parameters (see, for example, the decision of the Regional Director of Environmental Protection [*RDOŚ*] in Gdańsk, reference number RDOŚ-Gd-WOO.420.3.2021.KSZ.14, RDOŚ-Gd-WOO.420.41.2022.AM.6 or RDOŚ-Gd-WOO.420.29.2023.AJ.8). Additionally, in court case-law, the procedure for amending decisions on environmental conditions provided for in Art. 87 of the Act of 3 October 2008 *on providing information on the environment and environmental protection, public participation in environmental protection and on environmental impact assessment*, in connection with Art. 155 of the *Code of Administrative Procedure*, is mentioned as an expression of procedural economy, because it can focus on the analysis of the effects of the changes introduced, admittedly, in the context of the impact of the entire investment on the environment, but without the necessity to make changes or re-arrangement in the areas of its implementation, in which the planned changes will not entail any consequences. Additionally, in the case-law of administrative courts, a rather fundamental issue is raised regarding the nature of this procedure, related to the fact that it cannot be used to verify the correctness of the previously made arrangements, but only to assess the circumstances subject to change.

In the case-law of administrative courts, the issue of amending a decision on environmental conditions is an issue in which the views of the courts tend towards the position that changing the parameters of an investment after the decision on environmental conditions had been issued is permissible, and if it prompts the need to change the environmental conditions – even necessary. At this point, we can cite the ruling of the Regional Administrative Court in Łódź on 12 April 2017, in which the court expressed an opinion that: "Since amending the parameters of a wind farm, including even technological changes, does not require a change in the environmental decision, no new decision needs to be issued for the Investment amended. This is still the same investment – a wind farm – and it is only important that the Investor abides by the parameters specified in the environmental decision and the local spatial development plan". The ruling refers to a situation in which the planned changes were within the limits of the boundary parameters established by the decision already issued. In the case of the proceedings in question, while some of the parameters are within the limits of the originally issued decision, some of them require updating the DEC. About the cited ruling, the issue related to technology, which the Regional Administrative Court in Łódź identifies with the very nature of the Investment target, i.e. a wind farm, is also important. Another ruling worth citing is the judgement of the Supreme Administrative Court in Warsaw of 3 February 2015 (II OSK 1606/13), in which the court states that *"(...) within this variant, the scope of this undertaking was reduced from 15 WTGs to 14 WTGs due to*

the Investor's withdrawal from the construction of WTG no. 11. For this reason, there is no basis for repeating the procedure concerning the report on the environmental impact of such an undertaking as well. It should also be noted that the report contains an assessment of the impact of the entire investment on the environment, including the emission of permissible noise levels in the environment, and not only of its individual WTGs. In turn, the precise location of the WTGs in question on the designated parts of these plots is not decided in these administrative proceedings, but only at the stage of issuing a building permit, taking into account, of course, the requirements introduced by the framework (settlement) of the environmental decision."

It should also be noted that Art. 155 of the aforementioned Act provides one of the rights of the party that can choose the path of proceedings and in a situation where there are grounds for applying such a procedure, the Authority is bound by the party's application. The basis for applying the amendment procedure is undoubtedly the identity of the administrative case.

In the material sense, an administrative case consists of subjective and objective elements, which together build its sameness. Object sameness occurs in a situation where the same entity is the addressee of rights or obligations. In turn, subject sameness is the sameness of the content of these rights and obligations and their legal and factual basis (cf. judgement of the Supreme Administrative Court of 2 December 2009, file reference no. II GSK 234/09). This means that the sameness of the administrative case occurs in the case where identical entities appear in it and it has the same subject, covered by the same legal status, in an unchanged factual state. The administrative body conducting the proceedings under Art 155 of the Code of Administrative Procedure must therefore examine whether there is a case sameness. If the result of this study is positive, i.e. the change of the "original" permit granted to the party will occur in the same legal status and the sameness of the subject and object of the administrative-legal relationship will be maintained, then the Authority should revoke the original decision and amend it.

In the case of the application in question, we are dealing with the same subject matter of the case, i.e. determining the conditions for the implementation of the Investment consisting of the construction of an offshore wind farm, within a maritime area that has not changed. The modification in this Investment consists of changes in its parameters, for the verification of which an environmental impact assessment would have to be conducted and, if necessary, the conditions for the Investment implementation would require an adjustment. To conduct such a procedure in relation to changes in the method of setting up WTGs on the seabed, the Investor has already presented the appropriate data and conducted the necessary analyses in relation to the components impacted. This means that the requested changes fit within the limits that provide grounds for applying the procedure for amending the decision on environmental conditions and do not require a new decision on environmental conditions.

Explanation regarding the use of jacket foundations

The change in the Investment parameters requested by the Investor regarding the use of jacket foundations in addition to monopiles was due to a better understanding of the geological conditions in the area of the Investment and technological solutions available. The proposed change concerns only the foundation technology and does not change the very nature of the Investment. It should be noted that the Investment itself, together with the technology ensuring its operation, has been defined in the Regulation of the Council of Ministers of 19 September 2019 *on types of projects likely to have significant effects on the environment*. The method of foundation of wind farms is only an element of this Investment, just as solutions aimed to protect the environment or ensure monitoring of impacts

are its element. Such elements, as practice shows, may be subject to changes, which does not affect the identity of the Investment or lead to a technology change.

The analyses carried out as part of the environmental impact assessment report submitted have shown that the changes planned to be introduced are, in principle, either limiting the possible impacts or not causing the impact of the amended Investment to exceed the limits established for the original assumptions of the planned investment. It should be noted that changing the WTG foundation method as an elementary solution for the entire Investment is essentially the same as changing the method of founding a building on land. Changing the foundations of a building does not mean a change in the technology planned for the building itself, but is only related to a different method of its implementation, the application of which requires opening (as part of the procedure for amending the final decision) an environmental impact assessment and establishing appropriate conditions related to environmental protection for the planned change. Similarly, changing the type of road surface, even with a different construction technology, would not turn the road into something else than just a road. Only the method of its construction and possibly the environmental effects and activities related to environmental protection are changed and this is the only aspect that should be subject to assessment. In this respect, reference can be made to Art. 72 § 2 of the Act of 3 October 2008 *on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessment*, which indicates in which situations it is not necessary to obtain a new or change an already issued decision on environmental conditions. On the contrary, it can be concluded from this provision that going beyond the limits of the exclusion provided for therein will result in the need to change the decision on environmental conditions if it has been issued. Of course, the Investor may also apply for a new decision, but this action is within the sphere of the Investor's rights and the choice of the procedure that is appropriate for the Investor, with the proviso that the change is permissible unless legal regulations preclude it.

In this respect, reference should also be made to the meaning of the term "technology". No legal definition cannot be used to determine it, because no such definition has been introduced so far. Following the PWN dictionary (t/n – the most renowned record of the Polish language), it should be assumed that "technology" means "a method of carrying out a production or processing". In this case, taking into account the subject of the proceedings and the basis for conducting the environmental impact assessment, the technology change can therefore be discussed in relation to changes in the method of electricity production, and not in the type of foundation to be used. Such a change bears the traits of modifying the method of implementation and operation of the Investment, resulting in the need to modify the findings of the environmental impact assessment in this respect.

It should also be noted here that the use of a jacket foundation is associated with the generation of lesser adverse impacts than a monopile. For this reason, this solution was not included in the modelling of the dispersion of the suspension (Appendix 1 of Volume III of the EIA Report), which, following the adopted approach, was carried out for the most unfavourable scenario, i.e. the foundation of monopiles. If the Investor had decided to install a jacket foundation, the impacts would have been smaller than the results obtained in the modelling carried out for the needs of the EIA Report and would not have caused a lower assessment. It should also be noted here that the modelling carried out to change the parameters of the Investment did not indicate an increase in its impacts in relation to the variant of the Investment covered by the applicable decision.

Similarly, sound source modelling has shown that the broadband SEL generated by the installation of piles for the foundation of a jacket foundation will be lower than the noise generated by piling for the installation of a monopile by over 4 dB (Lippert *et al*., 2023). Therefore, it was assumed that the

modelling of far-field noise propagation and assessment of the impact of underwater noise on marine organisms would be performed only for the more energetic process, i.e. the piling of a large-diameter pile (monopile). This is a conservative approach, providing the possibility of assessing the worst-case scenario in terms of the noise propagation range. If the Investor had decided to install a jacket foundation, the ranges of noise impact would have been smaller than in the results obtained in the modelling performed for the purposes of the submitted report, which would not lower the assessment of the underwater noise impact.

It should be noted that the sound source modelling ("Prediction of the underwater noise emission during the construction of the Baltic II OWF" [Lippert *et al*., 2023]), forming the basis for the noise propagation modelling, covered not only monopiles but also jacket foundations, which are covered by the Applicant's Proposed Option (APO) as one of the potential foundation types to be applied; nevertheless, the propagation model only covers the monopile as the foundation type with the greatest impact. It results from the fact that the broadband SEL generated by the installation of piles for the setting of a jacket foundation will be lower than the noise generated by piling for the installation of a monopile by over 4 dB (Table 1). Therefore, the expected ranges of underwater noise impact on marine organisms will be lower.

Table 1. The maximum SEL values calculated as part of the sound source modelling in the FEW Baltic II area for the two types of foundations (Lippert et al., 2023)

Foundation type	**SEL [dB re 1 µPa²·s]**
Monopile	225.0
Jacket	220.8

However, it should be noted here that the use of jacket foundations was considered by the Investor as only an acceptable option, and in most, if not all locations, monopiles were to be used.

Based on detailed project-specific analyses/calculations presented in the EIA Report, as well as the RWE company's experience in the development of many other offshore wind farms (OWFs), it was concluded that the environmental impact of jacket foundations is lower than that of monopiles. This applies to all environmental aspects considered in the EIA Report, including underwater noise and sediment dispersion.

Ultimately, the Investor decided to proceed with the monopile type foundation. The decision to carry on with the monopile was made based on solely technical and commercial arguments, including (but not limited to) the following:

- the monopile is the best technical solution, based on both soil and weather conditions, as well as the expected size of the WTGs;
- the structure is cost-effectiveness, both in terms of production and installation;
- its operation is simpler and the operating and maintenance costs are lower;
- the monopile involves lower levelized cost of electricity (LCOE) for the Investor (taking into account lower costs passed on to the end consumer);
- the supply chain is more available, including local suppliers.

For this reason, the Investor, also in response to the expectations of the Authority, decided to abandon the use of a jacket foundation during the implementation of the Investment and in the process of amending the decision on environmental conditions.

Explanation regarding the use of a method supporting the insertion of piles into the seabed (drive-drill-drive method; DDD)

Due to better recognition of the seabed structure in the points where the foundations are to be located compared to the data available at the stage of developing the previous EIA, the Investor allowed the possibility of using the DDD technology (drive-drill-drive) in the event of a monopile encountering an early refusal point in the process of its insertion (due to the occurrence of compact soil layers in several locations, which may constitute an obstacle to the conventional driving of monopiles into the ground). It should be noted here that the obtained geological exploration results show that the potential application of this solution may be limited to only several locations, and the above technology will be used only when necessary. There were cases when, despite the fact of identifying hard soil conditions, the monopile driving procedure proved to be effective and the target depth levels were achieved.

A detailed description of the application of this method was included in Volume I of the EIA Report (Chapter 3.1.3.1), while the potential application of the DDD method was also taken into account in the calculation assumptions of the suspension dispersion modelling carried out to change the Investment parameters, which is described in detail in Annex 1 of Volume I of the aforementioned report.

Based on a simulation of seabed intervention work conducted with the use of the DDD technology, it was established that the maximum thickness of the new sediment layer formed after the works are completed (in a range of the assumed 150 m from the worksite) is up to 12 mm. It should be emphasised that this value applies only to the finest fraction, which becomes suspended in the water column, and the range of its dispersion may extend at a distance of a little over 2 km. In this scenario, the process of drilling and discharging the soil material into the water was modelled. The suspended solids with a mean concentration of 5 $mg \cdot l^{-1}$ will remain in the marine environment for approximately 9 hours after the completion of underwater works. The impact of the suspended solids on the marine environment is short-term.

The calculation results obtained as a result of the new modelling for the analysed calculation scenarios, taking into account the scope of the works performed in the FEW Baltic II area in more detail than the first version of the EIA, do not imply any deterioration in the parameters of the marine environment disturbance due to works causing sediment agitation. The new variant, the APO, is characterised by a smaller number of WTGs than the variants analysed for the purposes of the applicable DEC, which is reflected in the reduction of the potential negative impacts from the OWF construction. Admittedly, this variant also assumes depositing on the seabed the material excavated during the drilling operations inside the monopiles, however, the conducted modelling allows us to establish that the impacts will not increase for this reason. As a result of the changes assumed, the area of the seabed occupied by the foundations decreases compared to the originally assumed area. Also, the total area planned for the scour protection and spreading of natural material obtained in the construction process during drilling inside the monopiles is smaller compared to the area planned for scour protection assumed in the original assessment. Due to the changed parameters, the significance of impacts does not change, also in the transboundary context.

Explanation regarding the change in the maximum total height of the offshore WTGs and the increase in the rotor diameter

Due to the continuous technological progress in relation to the parameters of offshore WTGs, primarily the availability on the market of WTGs with increasingly higher power and, consequently, larger sizes, the Investor decided to update the parameters of the Investment by increasing the maximum total

height of the WTGs and the diameter of their rotors. It should be noted here that although the parameters of a single WTG have been increased, their use allows for a significant reduction in the total number of structures (from 44 WTGs in the previous APO variant to 25 WTGs in the APO variant after the changes) and a reduction in the total sweep area of the rotors, and consequently, a reduction in the generated adverse impacts.

The above change in parameters was included in the new analysis (in which collision risk modelling was performed) carried out to update the EIA Report, the detailed results of which are presented in Volume III (Chapter 4.9.1.2).

Based on the general model of the bird collision risk (Table 4.23 below, Chapter 4.9.1.2.3, Volume III), in terms of the lowest number of collisions (aggregate value) and with the identical number of endangered subjects of assessment (the index of "0" in each variant), the variant taking account of the changed Investment parameters (APO 25 x WTG) proved to be slightly more favourable in comparison with the previous variant archived (the current RAO 44 x WTG). This refers to bird migrations in spring and autumn, both during the day and at night.

With the above-mentioned indicator species/groups being distinguished (Table 4.24 below, Chapter 4.9.1.2.3, Volume III), in terms of the lowest number of collisions (aggregate value and individually for individual subjects of assessment) and with the identical number of endangered species/ groups (the index of "0" in each variant), the variant taking account of the changed Investment parameters (APO 25 x WTG) also proved to be slightly more favourable in comparison with the previous variant (RAO 44 x WTG). This refers to migrations of the indicator species/groups in spring and autumn, both during the day and at night.

Table 4.23. The summary of the differences between the FEW Baltic II investment options in detailed assessment – general compilation

FEW Baltic II options – summary of the comparison:		**APO variant**	**RAO variant (the Investor's variant as in the 2021 DEC)**
Comparative assessment of the FEW Baltic II options for aggregate values of the collision rate Subjects of assessment in individual flight analysis modules		**APO 25 x WTG**	**RAO 44 x WTG**
Diurnal migrations in spring and autumn	Number of all subjects of assessment	22	22
	Number of subjects of assessment with the collision rate of "0"	5	5
	Number of subjects of assessment with collision occurrence (excluding the rate value of "0")	17	17
	Total value of the collision rate for all subjects of assessment	39.39	52.21
Nocturnal migrations in spring and autumn	Number of all subjects of assessment	3	3
	Number of subjects of assessment with the collision rate of "0"	0	0
	Number of subjects of assessment with collision occurrence (excluding the rate value of "0")	3	3
	Total value of the collision rate for all subjects of assessment	117.59	170.13

Table 4.24. The summary of the differences between the FEW Baltic II Investment options in detailed assessment – for the indicator subjects of assessment

FEW Baltic II options – summary of the comparison:		**APO variant**	**RAO variant (the Investor's variant as in the 2021 DEC)**
Assessment of the FEW Baltic II options for the distinguished indicator subjects of comparative assessment		**APO 25 x WTG**	**RAO 44 x WTG**
Diurnal migrations in spring and autumn/indicator species, including 1 group)	Long-tailed duck	0.00	0.00
	Common scoter	0.68	0.77
	Razorbill	0.00	0.00
	Little gull	0.12	1.35
	Geese	16.35	21.17
	Divers	0.17	0.26
	Common crane	3.99	5.34
	in total:	Σ 21.31	Σ 28.89
Nocturnal migrations in spring and autumn/indicator group	Small nocturnal migrants	92.20	132.45

The comparison of the results obtained (the expected number of collisions) did not show sufficiently significant differences to assign different degrees of impact assessment to the different options. Therefore, in the cumulative assessment for each variant, the collision risk was assessed with the same categories of negative significance.

Moreover, the detailed assessment ultimately allowed for indicating a more favourable option (according to the lowest number of expected collisions), however, marked as "slightly" more favourable according to the above-mentioned prerequisites. To sum up, As a result of comparing the detailed assessment of the considered options of the Investment implementation, and based on the obtained results of model surveys of the expected collision rate, the variant incorporating the proposed changes was indicated as slightly more favourable compared to the previous variant of the Investor (DEC 2021).

In the context of the issue raised, the proposed change in the project leads to a reduction in the number of WTGs and an increase in their height (from 300 m to 327 m) and the diameter of each individual rotor (from 250 m and an area of 49,087 m^2 to 305 m and an area of 73,062 m^2). However, the project implementation will result in reducing the maximum area of all the rotors installed within the offshore wind farm area from 2 159 828 m^2 to 1 826 550 m^2. This last parameter is of particular importance as it translates into the barrier effect and the collision risk.

Taking into account the impact assessment of the proposed changes to the parameters: maximum WTG height and rotor diameter, there is no basis to claim that these alterations negatively affect the probability of increased collision and mortality rates, and therefore they do not require a new transboundary impact assessment for the Investment.

Re 2. Contents of the Writ: *"An analysis of the requested changes to the Investment implementation conditions stipulated in the decision on environmental conditions issued on 30 November 2021 was conducted in terms of the justification for introducing changes to the provisions of the condition or its complete removal. If a modification of the condition resulting from applicable regulations or safety reasons proves necessary, the provisions of this condition should be clarified to clearly indicate what obligation stems from these provisions, i.e. by providing specific actions or mitigation measures, without referring to general formulations. In the matter discussed herein, the positions of the authorities co-participating in the proceedings should also be taken into account, i.e. the Director of the Maritime Office in Szczecin (letter of 31 July 2024, ref. no.: WŚ.52011.5.24.AZ(10)) and the Regional Director for Environmental Protection in Gdańsk (resolution of 01 August 2024, ref. no.: RDOŚ-Gd-WOO.4221.70.20244.KB.1 – received on 07 August 2024). It should be emphasised that the Investment implementation conditions imposed by the decision on environmental conditions result from a number of in-depth analyses conducted during the proceedings concluded with the issuance of a decision on environmental conditions and which the Investor has undertaken to implement. Based on the analyses, the Investment implementation conditions were determined by the authorities co-participating in the proceedings, i.e. the Director of the Maritime Office in Szczecin (resolution of 18 October 2021, ref. no.: OW.52011.4.21.AZ(50) and the Regional Director for Environmental Protection in Gdańsk (resolution of 30 September 2021, ref. no.: RDOŚ-GdWOO.4221.52.2020.AT.7). In addition, some of the Investment implementation conditions covered by the decision amendment result from the conducted transboundary impact assessment proceedings, during which the parties exposed were Sweden and Denmark. It should be emphasised that the proposed changes in the conditions of the decision on environmental conditions issued on 30 November 2021 (in the scope of seawater, benthos, ichthyofauna, marine birds, and migratory birds) are based on the analysis of previous materials already assessed in the proceedings concluded with the issuance of the above-mentioned decision on environmental conditions (The 2019 Report). However, the new analyses presented in this proceeding, dictated by the change in the Investment parameters, i.e. the use of a monopile foundation with a pile diameter of 11.4 m, include only the results showing the spread of suspended solids, their concentration in the water column, and the deposition of sediments on the seabed, in the winter (Appendix 1 – Model calculation results. Suspended solids dispersion in the FEW Baltic II area, Volume III – Environmental Impact Assessment) and acoustic emissions accompanying piling in the FEW Baltic II area, were carried out for a WTG located in the north-eastern part of the OWF area in the winter (Appendix 2 – Underwater noise propagation modelling for the monopile driving operations at the construction stage, Volume III – Environmental Impact Assessment). In addition, some of the conditions were formulated in a general and imprecise manner (it is not known what specific obligations result from them), and thus may make it difficult for the Authority issuing the decision to enforce them. In connection with the above, the following investment implementation conditions covered by this procedure should be subject to special analysis:*

- *In relation to avifauna and changes to the records in clauses B.I.3.7, B.I.3.8, B.II.7, B.IV.3.2.e, and B.IV.3.2.f in the decision on replacing radar systems with other monitoring systems and shut-down systems, limiting monitoring to the flights of cranes and nocturnal migrants and changing the dates of avifauna monitoring*

Collisions with the turbines of power stations operating at sea concern mainly migratory birds – passerines and waterfowl. In undisturbed conditions, the altitude at which birds conduct their nocturnal migrations over land significantly exceeds the height of the largest WTGs. However, the situation is different in unfavourable weather conditions, i.e. during fog, rain, low clouds, or wind opposite to the direction of migration. In such cases, birds significantly lower their flight altitudes, entering the collision zone. A similar situation applies to birds migrating through an OWF. Such significant changes as

increasing the total height of the WTG and increasing the rotor diameter affect the collision altitude, additionally influencing the probability of increased collision and mortality rates. Ducks wintering in the Polish zone of the Baltic Sea – the long-tailed duck (a vulnerable species) and common scoter – are particularly vulnerable. These species were recorded within the area of impact of the FEW Baltic II investment, which is located on their migration route to breeding sites in the tundra of northern Europe, including Sweden and Denmark. The admission of bird flight detection systems other than radar systems does not raise any objections, but it is not advisable to completely abandon a solution that effectively detects small birds. It should be noted that this type of system is recommended in the case of bird protection on offshore wind farms. When monitoring bird flights, it is important to remember to maintain constant registration of bird flights through the OWF area, while simultaneously using a system that will automatically detect birds, and their flight routes and automatically assign information allowing to determine the size of the birds flying and their flight parameters. The system should enable the detection and recognition of flight patterns of all bird species, and its reaction should be a temporary shut-down or reduction of the rotor speed. In addition, the use of a detection system should not be limited to selected species and/or groups of birds (the common crane and nocturnal migrants in this case). Due to technological limitations, the assumptions regarding the effectiveness of the flight monitoring system and its ability to selectively detect and respond to only a few groups of avifauna seem to be questionable. The proposed provisions do not define what type of system would be used. Therefore, the technology behind the system used to detect birds in flight has not been described. Possible types of such systems include visual, sound, and radar systems. Each of the types used has certain functional limitations and is not able to detect the flight of birds representing only a few selected groups. In the opinion of the Authority, the applied monitoring and detection system and the response system should be comprehensive and respond to all groups of migratory birds. This is all the more important because the most numerous migratory species recorded in the Investment area were birds from the Anatidae family. It should be noted that abandoning the radar and focusing on migratory cranes may be important in the context of transboundary impact on avifauna migration corridors. In addition, climate change is causing a gradual extension of bird migration periods, causing avifauna to start their flights earlier in spring and later in autumn. Therefore, it should be considered that the migration date be specified as follows: in spring – between 1 March and 15 May, and in autumn – between 1 September and 15 November.

- *With regard to changes in the record on the conditions concerning marine mammals, ichthyofauna included in clause I.2.17 of the decision regarding the lack of indication of specific mitigation measures minimising the impact of underwater noise on pinnipeds and porpoises and the adopted sound exposure level from SEL_{ss} to SEL_{cum}*

In the opinion of the Authority, the general formulation of the condition records without indication of specific mitigation measures (the phrase "for example" was used instead) minimising the impact of underwater noise will not fully protect the above-mentioned group of animals from the adverse impact of the Investment. In addition, as part of this procedure, only the modelling of underwater noise propagation at the construction stage during the piling of a monopile in the winter period was presented, which means that the other phenological periods and the planned use of the jacket foundation are omitted. This prevents the Authority from carrying out a full assessment of the impact of the implementation of the works on the above group of animals, and thus the adoption of the provision of the condition proposed in the application covered by this procedure.

- *With regard to the changes to the records of the condition presented in clause B.I.2.18 of the decision regarding the implementation of construction works*

The proposed records do not indicate the obligation to stage the works, i.e. to build subsequent wind stations adjacent to each other to gradually fill the water area with WTGs, which in the opinion of the Authority is important in the case of minimising the negative effects of the Investment implementation in relation to individual groups of animals occurring in the Baltic Sea.

- *In relation to the removal of the condition included in **clause B.I.2.19 of the decision**, concerning the laying of inter-array cables under the seabed surface.*

It should be noted that as part of the modification of the Investment parameters, there are to be used cables with cross-section, diameter, and weight parameters larger than the parameters of cables assessed at the stage of the procedure concluded with the issuance of a decision on environmental conditions. Therefore, the justification for removing this condition should be based on in-depth analyses in this respect.

- *In relation to the removal of the condition included in **clause B.I.2.19 of the decision** regarding painting the WTG rotor blades to reduce the collision risk.*

It is necessary to point to indisputable evidence that the effectiveness of painting the rotor blades black has not been confirmed as an element limiting collisions in the case of bird species recorded within the FEW Baltic II area, and thus the possibility of derogating from the provisions of the Regulation of the Minister of Infrastructure of 12 January 2021 on the air obstacles, obstacle limitation surfaces and devices of a hazardous nature (Journal of Laws 2021, item 264). I would like to mention that the imposition of the condition regarding painting one of the three rotor blades of each WTG black, which was also proposed by the Investor, has been recognised by the exposed parties in the transboundary impact assessment proceedings as appropriate for the protection of avifauna.

- *With regard to changes to the condition provisions or removal of provisions on the Environmental monitoring, i.e. in **clause B.IV.3.1 a) of the decision** regarding Monitoring of water and seabed sediments and the requested change concerning the lack of necessity for surveys to be performed in the reference area (covering at least 4 points) constituting the background for the surveys carried out and the location of measurement and control points; in **clause B.IV.3.1.b) of the decision** regarding Monitoring of sediment dispersion and the requested removal of the condition due to the risk of the monitoring being performed during the driving of monopiles and for economic reasons; in clause **B.IV.3.2.a) of the decision** regarding Monitoring of water and seabed sediments and the requested change in the location of measurement and control clauses without the need to for such points to be distributed over the reference area, which constitutes the background for the surveys carried out, and the date of performing the surveys; in **clause B.IV.3.2.b) of the decision** regarding Monitoring of benthos and the requested change in the number of foundations covered by monitoring (the current number is 5, while 3 has been proposed) and the date of performing the tests; in **clause B.IV.3.2.e) of the decision** regarding Monitoring of migratory birds and the requested change to the condition regarding the date and method of conducting surveys; in **clause B.IV.3.2.h) of the decision** regarding Monitoring of porpoises and the requested change to the survey period, without indicating the methodology and location of observations; in **clause B.IV.3.2.i) of the decision** regarding Monitoring of noise and the requested change concerning the survey period and the lack of methodology and specific location of noise measurements indicated.*

In the opinion of the Authority, the planned changes regarding survey limitations or corrections to the monitoring systems, e.g. of porpoises and underwater noise, are significant. Some of these changes seem justified, while some cause significant limitations in relation to the previous arrangements

included in the environmental decision, such as the resignation from sediment dispersion monitoring. The above also prevents the confirmation of the assumptions adopted by the Investor and indicated in the report at the stage of the proceedings concluded with the issuance of a decision on environmental conditions on 30 November 2021. Additionally, in terms of monitoring water and seabed sediments and the date of monitoring proposed by the Investor in the winter period preceding the commencement of construction works, this may be a factor influencing the obtained results. This results from, for example, the water temperature and its resulting ability to dissolve substances, and/or the occurrence of various concentrations of substances in water, or the levels of individual parameters, e.g. carbon dioxide content affecting the value of the pH parameter. It should be emphasised again that the scope and methodology of monitoring described in the decision on environmental conditions were determined based on numerous analyses conducted in this field and were also indicated by the Investor in the supplements to the report. Therefore, introducing significant changes to the monitoring records or abandoning the monitoring of certain environmental components may prevent the Authority from fully assessing the impact of the Investment implementation on individual elements of the environment, thus confirming the effectiveness of the minimising measures applied by the Investor.

- *In relation to the deletion of conditions in **clauses**: **B.I.1.1.c); B.I.1.1.e), B.I.1.2; B.I.1.3.; B.I.1.5; B.I.1.11; B.I.1.12; B.I.1.13; B.I.2.10; B.I.2.16 of the decision***

It should be noted that the conditions requested to be deleted have been imposed by an authority co-participating in the proceedings, i.e. the Director of the Maritime Office in Szczecin (resolution of 18 October 2021, ref. no.: OW.52011.4.21.AZ(50)) during the proceedings concluded with the issuance of a decision on 30 November 2021. Taking into account the current position of this authority communicated in the current proceedings (letter of 31 July 2024, ref. no.: WŚ.52011.5.24.AZ(10)), the justification for deleting the above conditions should be re-examined and/or some of them should be specified if possible."

When determining the scope and methods of environmental monitoring or identifying environmental impacts, it is necessary to first take into account and strive to meet the objectives for which the obligation for such monitoring was imposed. This objective is undoubtedly to provide appropriate information, i.e. information on the state of the environment or its individual elements or data on the actual impact of the Investment on the environment or these elements. The basic condition is therefore to ensure the effectiveness of monitoring, which is possible thanks to its good planning and selection of appropriate survey tools. In the cases where the law does not define the legal principles of conducting monitoring, the entity planning to implement its target has the freedom to select the tools for its conduct. It can use a commonly or typically used method or propose another equivalent or more effective method. In this respect, a thorough description and presentation of arguments confirming the method's effectiveness is required.

The possibility of using a monitoring method and recognising it as appropriate should therefore be determined based on whether it allows achieving the purpose for which it was selected. There are no legal or substantive contraindications to monitoring to be conducted using tools, mechanisms, or devices based on combined action. Also, nothing impedes monitoring based on the verification of data related to impacts obtained from an analysis of the intensity of occurrence of a given element or environmental resource verified against a computational mathematical model of the risk of undesirable impact. In this case, the application of such a monitoring model should be determined primarily by its effectiveness assessed in comparison with other methods used, which do not allow (e.g. due to the conditions of the Investment implementation) to achieve monitoring results as good as the commonly used methods. It should be noted that when assessing the effectiveness of the

proposed monitoring, the Investor's experience, expert knowledge, as well as scientific developments and other important considerations should also be taken into account. In the case of the possibility of using an effective monitoring tool, there is no reason to apply additional monitoring methods even if such methods had been deemed justified in the initial assessment of the Investment. In this respect, the Authority should also take into account the organisational or economic considerations of the Investor, because the Investor's action in this scope is not aimed at limiting monitoring, but at using other monitoring activities.

Explanation regarding avifauna and changes to the records of clauses B.I.3.7, B.I.3.8, B.II.7, B.IV.3.2.e, and B.IV.3.2.f in the decision on replacing radar systems with other monitoring systems and shut-down systems, limiting monitoring to the flights of cranes and nocturnal migrants, and changing the dates of avifauna monitoring

The changes proposed in clause **B.I.3.7** aim to define the nature of the monitoring system by its function, i.e. the use of solutions that will automatically detect bird flight routes and automatically assign information allowing to determine the size of flying birds and flight parameters, i.e. the altitude, speed, and course of the flight paths. The system should allow for detecting and identifying the flights of the common crane and nocturnal migrants. This provision allows for the admission of bird flight detection systems other than radar systems and will allow for the selection of the best available technological solution. Therefore, the Investor proposes the following change to the provision:

Bird flights across the OWF area should be continuously recorded using a flight intensity monitoring system employing at least a radar system or another system characterised by detection efficiency no worse than that of a radar system, which automatically detects the flight paths and assigns information making it possible to define the sizes of birds flying in the area and their flight parameters, i.e. the altitude, speed, and course of the flight paths. The system should allow for detecting and identifying the flights of the common crane and nocturnal migrants.

Similarly, the provisions proposed in clause **B.I.3.8**, do not define the type of system, but only its function. The system should record bird flights, recognise at least common cranes (as their collisions raise the greatest concern from the point of view of cumulative impacts), detect bird flights at night (due to the lack of knowledge on collision avoidance), and shut down individual WTGs when necessary. The period of operation of the shut-down/reduction system has also been changed (extended) to 31 October from the originally planned 15 October, which will allow for better coverage of the peak seasonal migration period of night migrants at collision altitudes (i.e. from 15 March to 30 April and from 1 September to 31 October).

Also in clause **B.II.7**, a provision defining the function of the system has been proposed, i.e.:

The system should ensure constant observation and recording of a stream of birds migrating through the farm area and immediate shut-down of WTGs along the route of the expected flight of nocturnal migrants and cranes, with an increased risk of collision for the migrants – by automatically detecting the movement of birds and automatically assigning information to determine the size of flying birds and their flight parameters (altitude, speed, and the course of the flight route). The proposed system of temporary shut-down/reducing the speed of FEW Baltic II WTGs should be optimised through the introduction of an automatic system for monitoring migrating bird collisions with the use of at least a radar system or any other system showing at least the same effectiveness of detection as the radar system, which will allow precise, real-time assessment of the necessity, scope and timing of its

application, as well as the identification of specific WTGs, the operation of which would require a short-term suspension of operation.

This approach allows for avoiding an indication of a specific technological solution (radar), as the systems offered today use different technologies to achieve the goal of detecting and identifying birds in flight. Taking into account the comments of the Authority, the Investor proposes the following change to the provisions:

Include in the project the need to implement a system of temporary shut-downs during avifauna migrations to enable:

a) *(a) temporary, remote shut-down/reduction of the activity of individual WTGs or the entire wind farm, with particular attention to weather conditions causing limited visibility during the period of the most intense migration of nocturnal migrants, i.e., from 15 March to 30 April and from 1 September to 31 October;*
b) *(b) temporary remote shut-down/reducing the activity of individual WTGs when flying cranes are detected.*

Based on the OWF bird flight monitoring system, the system should ensure immediate shut-down/reduction of the speed of WTGs along the route of the expected flight of nocturnal migrants and cranes, with an increased risk of collision for the migrants – by automatically detecting the movement of birds and automatically assigning information allowing for determining the size of flying birds and their flight parameters (altitude, speed, and the course of the flight route). The proposed system of temporary shut-down/reducing the speed of FEW Baltic II WTGs should be optimised through the introduction of an automatic system for monitoring migrating bird collisions with the use of at least a radar system or any other system showing at least the same effectiveness of detection as the radar system, which will allow precise, real-time assessment of the necessity, scope and timing of its application, as well as the identification of specific WTGs the operation of which would require a short-term suspension of operation.

The proposed changes to the provisions of clause **B.IV.3.2.e)** – concerning the monitoring of migratory birds conducted from research vessels – aim to adapt the provisions to the technical capabilities of today's survey systems by defining the monitoring function without specifying the technology in detail. The monitoring will have to effectively recognise flight trajectories, also ensuring species identification of diurnal migrants. The monitoring described in this way will also allow for assessing the effectiveness of "corridors" between OWFs, which is why it is necessary to adjust the monitoring period to the date of commissioning of the neighbouring OWF Bałtyk II. There is no need to extend the monitoring period because, if necessary, information on bird migrations can be obtained from the shut-down system installed in the farm area, while the proposed monitoring is to assess the validity of the assumptions adopted.

In turn, the changes in clause **B.IV.3.2.f)** are aimed at harmonisation of the dates of both monitoring surveys, which will allow for a one-to-one comparison of data, and remove the inconsistency in the description which indicates that mortality rate monitoring should be carried out during the autumn migration period, while the date of this monitoring (of bird mortality) is not consistent with the date of monitoring dedicated to autumn migrations. The provision regarding the number of devices to be installed has also been clarified so that the system can cover at least 3 power stations. The optimum arrangement of the systems to be installed within the farm area will depend on the selected technological solution, which is why it was decided to supplement the provisions of the clause with the locations of system installation points. The following change to the provision is proposed:

Bird mortality/collision rate

The monitoring aims to examine the actual level of mortality among migratory birds, with particular emphasis on the objects of conservation in the Natura 2000 SPAs, during nocturnal and diurnal migrations of birds. The monitoring should continue for 4 years, during seasonal spring migrations (from the beginning of March to the end of May) and autumn migrations (from the beginning of July to the end of November). The survey scope and methods should rely on the use of an automated system for recording birds/collisions with WTGs, providing the possibility of conducting measurements both at night and during the day.

As part of the monitoring, the automatic bird collision detection system should be installed on at least three WTGs within the FEW Baltic II area:

- *in the eastern part of the FEW Baltic II area, on one of the extreme WTGs located in the immediate vicinity of the zone free of FEW Baltic II WTGs near the neighbouring Bałtyk II OWF;*
- *on one of the WTGs located in the western part of the FEW Baltic II area;*
- *on one of the WTGs located in the central part of the FEW Baltic II area.*

It is allowed to install the system in other locations if they are identified as optimal for the system to be installed by the system provider or based on the data obtained as a result of monitoring surveys and ornithologists' recommendations.

Monitoring should also take into account the issue of transboundary impacts.

A detailed description of the proposed migratory bird monitoring is provided in Table 18.1, Chapter 18.7 in Volume III of the EIA Report; below, an update conducted as part of this supplement/reply to the writ is presented.

Table 18.1. Proposed migratory bird monitoring in the FEW Baltic II Investment area

Monitoring module	**Migratory bird monitoring surveys – recommendations for the Investment operation phase**
Migratory bird monitoring	- the monitoring of migratory birds should be conducted using simultaneous visual and radar observations to identify flight trajectories (including altitude), response, and species, as well as acoustic surveys conducted at night; - as part of radar surveys of migratory birds, the flight trajectories of birds flying towards the OWF and their reaction to encountering a barrier in the form of the OWF should be determined and the intensity of migration in the OWF area and in its immediate vicinity should be assessed; - the migratory bird survey stations are to be located on a fixed platform (such as a substation) or an anchored vessel, which allows observation of the OWF from the direction from which birds are coming at a given stage of migration (in spring, the south-western edge of the OWF, and in autumn, the north-eastern edge of the OWF); - migratory bird monitoring should be carried out in two cycles during the year, due to the two periods of bird migration, i.e. from early March to late May and from early July to late November; - the timing of the monitoring: in the first and second years after the construction of the FEW Baltic II is completed; to collect data taking into account the migration corridor shared by the FEW Baltic II and the Bałtyk II OWF, the third year of the monitoring should be planned as the year after the Bałtyk II OWF is put into operation, or in the fifth year after the construction of FEW Baltic II if the Bałtyk II OWF is not put into operation in 3 to 5 years from the construction of the FEW Baltic II; - in each of the bird migration seasons, completing no less than 20 days of observations in 2–5-day sessions, evenly distributed throughout the season.
Monitoring of bird flights through the FEW Baltic II area	Include in the project the need to implement a system of temporary shut-downs during avifauna migrations to enable:

Monitoring module	Migratory bird monitoring surveys – recommendations for the Investment operation phase
	(a) temporary, remote shut-down/reducing the speed of individual WTGs or the entire wind farm, with particular consideration given to weather conditions causing limited visibility during the period of the most intense migration of nocturnal migrants, i.e. from 15 March to 30 April and from 1 September to 31 October; (b) temporary remote shut-down/reducing the speed of individual WTGs when flying cranes are detected. Based on the OWF bird flight monitoring system, the system should ensure immediate shut-down/reduction of the speed of WTGs along the route of the expected flight of nocturnal migrants and cranes, with an increased risk of collision for the migrants – by automatically detecting the movement of birds and automatically assigning information allowing for determining the size of flying birds and their flight parameters (altitude, speed, and the shape of the flight route). The proposed system of temporary shut-down/reducing the speed of FEW Baltic II WTGs should be optimised through the introduction of an automatic system for monitoring migrating bird collisions with the use of at least a radar system or any other system showing at least the same effectiveness of detection as the radar system, which will allow precise, real-time assessment of the necessity, scope and timing of its application, as well as the identification of specific WTGs the operation of which would require a short-term suspension of operation.
Monitoring of bird mortality	The monitoring aims to examine the actual level of mortality among migratory birds, with particular emphasis on the objects of protection in the Natura 2000 SPAs, during nocturnal and diurnal bird migrations. The monitoring should continue for 4 years, during seasonal spring migrations (from the beginning of March to the end of May) and autumn migrations (from the beginning of July to the end of November). The survey scope and methods should rely on the use of an automated system for recording bird collisions with WTGs/their victims, providing the possibility of conducting measurements both at night and during the day. As part of the monitoring, the automatic bird collision detection systems should include at least three WTGs within the FEW Baltic II area: – in the eastern part of the FEW Baltic II area, on one of the extreme WTGs located in the immediate vicinity of the zone free of FEW Baltic II WTGs near the neighbouring Bałtyk II OWF; – on one of the WTGs located in the western part of the FEW Baltic II area; – on one of the WTGs located in the central part of the FEW Baltic II area. The system may be installed in other locations if they are identified as optimal for the system to be installed by its provider or based on the data obtained as a result of monitoring surveys and ornithologists' recommendations. Monitoring should also take into account the issue of transboundary impacts.

It should also be noted here that the provisions regarding monitoring proposed in clauses **B.IV.3.2.e)** and **B.IV.3.2.f)** concern post-investment monitoring conducted during the operation phase in the farm area from aboard vessels. However, the provisions included in clauses **B.I.3.7**, **B.I.3.8**, and **B.II.7** refer to the detection system which will be installed on WTGs and connected to the shut-down system, and which will be started in the case of detecting common crane and nocturnal migrant flights.

The Investor declared the operation of the detection system associated with the power plant shut-down system for the common crane due to the fact it was the species with the highest predicted number of collisions, not only among the identified species assessed individually but also as regards the species groups assessed. This species was also distinguished as regards the forecast (the cumulative number of collisions in all analysed OWFs) of the percentage share in the estimated abundance of the biogeographical population (approx. 350,000 individuals), which is close to 1% (approx. 0.87%). If the analysis conducted shows that, as a result of the project implementation, the number of affected birds constitutes 1% or more of the total biogeographical population of a given species, the impact caused is a relevant one. This suggests that the population is at a substantial risk, and it is necessary to undertake mitigation measures. To compare, the share of collisions in the biogeographic population of the long-tailed duck *Clangula hyemalis* or the common scoter *Melanitta nigra* is 0.005% and

0.074–0.088%, respectively. These differences result from the different flight patterns of these species, in particular the long-tailed duck, which migrates at low altitudes. However, taking into account nocturnal migrants, for which the species composition has not been identified, it was decided to introduce a WTG shut-down system, based on the high number of potential collisions and the accumulation of mass flights in a short time window. Consequently, making allowances for short interruptions in the functioning of the OWF can significantly reduce the risk of collisions for nocturnal migrants.

Table 6.10. The model survey results for the risk of bird collisions with FEW Baltic II WTGs (diurnal and nocturnal flights) cumulatively for all OWFs analysed

FEW Baltic II: Risk of cumulative bird collisions with WTGs – cumulative impact									
Bird migrations in spring and autumn (cumulatively) – diurnal flights				**Projected number of collisions – spring and autumn migrations (total) [approx. indiv./year]**		**% share of collisions in the biogeographical population size as a result of cumulative impact**			
The subject of the FEW Baltic II assessment			**PAI**	**FEW Baltic II APO**	**FEW Baltic II RAO**	**APO 25 x WTG**		**RAO 44 x WTG**	
No.	**Species/ group**	**Scientific name**		**APO 25 x WTG**	**RAO 44 x WTG**	**Min.**	**Max.**	**Min.**	**Max.**
1.	Divers	*Gavia*	98%	115.43	115.65	0.019%	0.019%	0.012%	0.012%
2.	Swans	*Cygnini*	98%	65.48	65.23	0.016%	0.016%	0.015%	0.015%
3.	Geese	*Anserini*	99%	2257.37	2282.54	0.066%	0.066%	0.062%	0.062%
4.	Long-tailed duck	*Clangula hyemalis*	99%	86.61	86.28	0.005%	0.005%	0.005%	0.005%
5.	Common scoter	*Melanitta nigra*	99%	606.75	605.17	0.088%	0.088%	0.074%	0.074%
6.	Velvet scoter	*Melanitta fusca*	99%	83.72	83.84	0.038%	0.038%	0.020%	0.020%
7.	Dabbling ducks	*Anatinae*	98.3%	2479.84	2470.80	0.023%	0.023%	0.015%	0.015%
8.	Razorbill	*Alca torda*	99.2%	0.15	0.15	0.000%	0.000%	0.000%	0.000%
9.	Common guillemot	*Uria aalge*	99.2%	0.09	0.09	0.000%	0.000%	0.000%	0.000%
10.	Great black cormorant	*Phalacrocorax carbo*	98%	590.87	589.80	0.097%	0.097%	0.080%	0.080%
11.	Little gull	*Hydrocoloeus minutus*	98%	166.22	174.64	0.173%	0.173%	0.097%	0.097%
12.	Black-headed gull	*Chroicocephalus ridibundus*	98%	258.59	258.44	0.010%	0.010%	0.008%	0.008%
13.	Large gulls	*Larus canus, Larus fuscus, Larus marinus*	98%	1817.49	1811.82	0.113%	0.113%	0.079%	0.079%
14.	Skuas (*)	*Stercorariidae*	95%	N/D	N/D	N/D	N/D	N/D	N/D
15.	Terns	*Sterninae*	99%	122.42	122.45	0.005%	0.005%	0.003%	0.003%
16.	Common crane*	*Grus grus*	83%*	3070.88	3067.34	**0.877%**	**0.877%**	0.876%	0.876%
17.	Waders and sandpipers	*Charadrii, Scolopaci*	98%	339.60	338.90	0.003%	0.003%	0.002%	0.002%
18.	Passerines	*Passeriformes*	98%	2144.73	2162.39	0.000%	0.000%	0.000%	0.000%
19.	Common swift	*Apus apus*	99%	756.95	761.82	0.002%	0.002%	0.001%	0.001%
Total:				14963.18	14997.34	-	-	--	-

Assessment of the FEW Baltic II cumulative impact: The modelling results for the risk of cumulative bird collisions with WTGs – spring and autumn migrations.

The FEW Baltic II OWF options (as of: May 2024):

- *the Applicant's Proposed Option (APO 25 x WTG),*
- *the Rational Alternative Option (RAO 44 x WTG);*

The assessment scope of the cumulative impact of collisions – extended model surveys:

- *the FEW Baltic II Investment under assessment,*
- *other OWFs included in the analysis: Bornholm Bassin Syd, 44.E.1, Bałtyk II, Baltica, Bałtyk III, Baltic Power, BC-Wind, Bornholm Bassin Ost, Baltic Edge, Baltic Offshore Beta, Baltica 2+ Sodra Victoria, Bałtyk I, Baltica 1, Njord, 14.E.1 14.E.2, 14.E.3, 14.E.4, 43.E.1, 46.E.1, 60.E.3, 60.E.4, Öland-Hoburg II, Blekinge, Kriegers Flak, Kriegers Flak 2, Kriegers Flak 2 – Nord, Kriegers Flak 2 – Syd, Bornholm I, Bornholm II, Aflandshage, Nordre Flint, Kadet Banke, Arkona (Germany), Wikinger, Windanker (O-1.3), O 2.2, Baltic Eagle, Arcadis Ost 1, Arkona (Sweden), Skane, Triton, Sydkustens Vind (Kustvind), Baltic 1, Baltic 2, Sjollen, and Lillgrund.*

The results of the bird collision risk modelling (the operation phase):
Collision risk – the number of collisions with WTGs during spring and autumn migrations – in total (indiv./year).
AI – avoidance index. PAI – preferred (recommended) avoidance index.
*Diurnal migrants: the common crane * – update: PAI change from 98% to 83%, according to the current state of knowledge.*
Details – following the methodology (Chapter 2.9.5).
(*) No data – N/D – no possibility of comprehensive assessment due to the lack of sufficient data on collisions for OWFs.

It should be highlighted that, in the context of mitigation measures, protective measures should refer to those species which require protection due to adverse impacts identified. Therefore, these is no justification for the application of mitigation measures for all bird species if adverse impacts are not of substantial significance for them. Attention should be also paid to the fact that in the case of other offshore wind farms constructed in Polish sea areas (PSA), the DEC provisions regarding detection and shut-down systems refer most often to common cranes only (Baltic Power, BC-Wind) or such systems are not planned to be applied at all (Baltica [2+3]). Similarly, in the EIA report prepared for the Bałtyk I OWF investment, the Investor did not take account of this mitigation measure. In this context, it is also worth emphasising that the above-mentioned OWFs occupy larger areas and involve the construction of a higher number of WTGs than the FEW Baltic II (25 WTGs, 440 MW). For comparison: Baltic Power (131 km^2, 76 WTGs), BC-Wind (86 km^2, up to 41 WTGs), Baltica [2+3] (270 km^2, up to 209 WTGs), Bałtyk 1 (129 km^2, up to 104 WTGs).

Clarification regarding marine mammals and ichthyofauna and changes to the provisions of clause B.I.2.17 of the decision regarding the lack of indication of specific mitigation measures to minimise the impact of underwater noise on pinnipeds and porpoises and the adopted sound exposure level from SEL_{ss} to SEL_{cum}

The noise reduction measures used in the modelling of underwater noise propagation were selected based on solutions currently available on the market and knowledge of what degree of reduction these systems offer to demonstrate that the noise from piling of monopiles can be reduced to a level that does not potentially adversely impact the environment. However, it should be noted that newer noise mitigation technologies are being developed on the market and when actual construction works begin, it may turn out that there are systems with higher efficiency and lower costs, or the system included in the analysis is no longer in use. In such a situation, the Investor does not rule out the use of a noise reduction system other than the one included in the noise modelling. During the modelling carried out for the needs of the EIA Report, the near-field mitigation system (NFS) and the double far-field mitigation system (DFFS) were used as mitigation measures, taking into account systems such as IQIP-NMS/IHC-NMS and DBBC. It should be noted here that the names of the systems cited are the proper names of underwater noise reduction systems, often patented and limited to specific contractors. Indicating a specific solution in the decision would make such an approach impossible, but it should be stressed that the Investor's objective is not to select any other mitigation system, but a system that will effectively reduce the level of generated sound without causing a potentially

significant adverse impact of noise on marine organisms. It should be emphasised at this point that in the case of underwater noise, a specific noise level needs to be maintained, and the type/kind of mitigation measure used does not directly translate into an impact on vulnerable groups of animals, it is only about reducing and ultimately maintaining a certain level. In connection with the above, we propose the following changes in point c) of the provision:

c) an underwater noise reduction system should be designed and applied (for example, in the form of bubble curtains, AdBM technology, HSD system, IQIP-NMS/IHC-NMS system or a combination of the above-mentioned various mitigation measures, also in combination with pile driver attachments in the form of the PULSE or MNRU system or others with a similar effect) minimising the impacts of underwater noise on pinnipeds and porpoises and characterised by a degree of reduction ensuring that at a distance of 8 km from the source of sound and within the boundaries of Natura 2000 sites established to protect porpoises and seals (the nearest ones are the Swedish Natura 2000 site Hoburgs Bank och Midsjöbankarna SE0330308 located at a distance of approximately 28 km and Ostoja Słowińska PLH220023 situated at a distance of approximately 48 km from the Investment area) the noise does not exceed the maximum underwater noise levels: SEL_{cum} of 140 dB re 1 µPa2s and weighted with the HF function (the HF weighting function for marine mammals highly sensitive to high-frequency sounds – porpoises) and SEL_{cum} of 170 dB re 1 µPa2s and weighted with the PW function (the PW weighting function for pinnipeds – seals). If sound measurements show that the said thresholds are exceeded, pile-driving should be stopped. The fact should be notified to the locally competent regional director for environmental protection immediately, but no later than within 7 days from the incident occurrence. The procedure can be continued after relevant measures agreed on in writing with the regional director for environment protection and ensuring that the sound thresholds are not exceeded have been implemented.

Clarification of changes to the records of the condition presented in clause B.I.2.18 of the decision regarding the implementation of construction works

The change to the notation is to ensure a rational way of carrying out the work – a sequence of foundation laying works -> construction of towers -> installation of nacelles and rotors. The original notation may suggest that successive neighbouring power stations may be constructed, but for different stages of construction both the area occupied during construction of the various parts of the power station and the construction schedules of the various elements of the power station may differ and require the work to be organised differently.

The effects of the change proposed do not generate transboundary impacts. They only have local impacts confined to the findings of the original environmental impact assessment. The amendments do not require the conditions for the Investment implementation to be updated or changed due to the findings of the transboundary environmental impact assessment.

Because of the concerns of the Authority for how the Investment implementation was divided into stages, the Investor proposes the following change to the provisions:

The construction works for individual stages of WTG installation should be carried out gradually to limit the area of the work performance, i.e. adjoining WTGs should be constructed one by one, starting in one location so that the area gradually becomes built up with the structures. At the same time, sequential work performance is admitted, with a division into the construction stages, i.e. installing in the first place the foundations for all WTGs, followed by the towers of all WTGs, the installation of nacelles and rotors, and so on until all the works are completed.

Clarification regarding the deletion of the condition included in clause B.I.2.19 of the decision, concerning the laying of inter-array cables under the seabed surface

In the FEW Baltic II location area, there occur organisms living at greater depths, and all species of benthic organisms found there are eurythermic, i.e. resistant to temperature changes. The condition which is requested to be revoked was copied from the requirements that the BSH (the German equivalent of the maritime offices) sets for the OWFs in Germany as a precautionary condition and was transferred from the conditions set for the OWFs the connection infrastructures of which pass the Wadden See National Park. In the coastal zone of this nature conservation area, in the areas periodically exposed during low tides, there live a huge number of species of marine organisms, including those sensitive to temperature changes. Such conditions justified the application of the condition discussed. However, it should be noted that the reason for the request to repeal the condition is that in the case of the Investment in question, we are not dealing with conditions or organisms that would justify maintaining the condition in question. Currently, this issue has been analysed in more detail, also in relation to the basis for establishing this condition in the first place, which is not pertinent to the environmental conditions of FEW Baltic II, and its application cannot be justified even by precautionary considerations. The effects of the change proposed do not generate transboundary impacts. They are local impacts not exceeding the original findings of the environmental impact assessment. The amendments do not require the conditions for the Investment implementation to be updated or changed due to the findings of the transboundary environmental impact assessment.

Clarification regarding the deletion of the condition included in clause B.I.2.20 of the decision regarding painting of the WTG rotor blades to reduce the collision risk

Our experiences to date with rotor tip/blade painting include studies conducted on the island of Smøla in central Norway over 10 years, the results of which confirmed a reduction in collision mortality by 70% on average for painted WTGs in the case of the white-tailed eagle (*Haliaeetus albicilla)*. However, these are the first studies to confirm the effectiveness of this type of mitigation measure. In laboratory studies (Hodos, 2003), the degree of blade blurring was tested using different patterns and colours on one of the blades (the common kestrel was used in the experiment). Of all the patterns, the blade painted uniformly black best reduced the blurring effect of the image perceived by kestrels. At the same time, the experiment with different blade colours produced inconclusive results. The degree of vision blurring was highly dependent on the background image (e.g. forest, blue sky, etc.). None of the known studies have been carried out under offshore conditions, with a specific, homogeneous scenery devoid of features typical of topography on the land. With this in mind, it is debatable which colour would work best at an offshore wind farm to reduce the risk of collision. In addition, the referenced studies were carried out for only one species (not identified so far in any offshore wind farm bird surveys conducted in Polish sea areas). In the case of wind farms located in the offshore zone, there is no reliable information indicating which pattern or colour on rotor blades would be best to minimise the risk of bird collisions. Therefore, available research results on the use of blades painted in different colours cannot be directly transferred to the reality of offshore wind farm operations, including the FEW Baltic II in particular. The aforementioned publication did not cite information on how many birds of individual species flew across the wind farm area, and therefore the results of the mortality study cannot be cross-referenced to the numbers of birds flying in the area and their species. To carry out such a cross-reference, information on the flux of birds flying across the wind farm is needed, so that the data could be compared with the information available for FEW Baltic II.

According to the results of the latest surveys conducted at the Eemshaven offshore wind farm in the Netherlands (14 WTGs), where half of the WTGs have one blade painted black, the black colour of the blades has no statistically significant influence on reducing the mortality rates for wetland bird species. The surveys were conducted in the BACI (Before-After Control-Impact) system, i.e. a control monitoring program was carried out to analyse mortality rates with no black blades being used, followed by an analysis after their introduction. The surveys are under way, and, due to the high level of bird species variations, the final conclusions will be drawn after the monitoring program is completed. Bearing these arguments in mind, it is recommended that painting one blade black be given up as the effectiveness of this mitigation measure needs to be carefully analysed by way of further research. This mitigation measure may be effective for certain bird species, e.g. predatory birds, and less effective for wetland birds, which primarily migrate over sea areas during the day. Moreover, the authors of these surveys point out that light-coloured blades contribute to a decrease in mortality rates of birds active at night.

Under applicable regulations, black is not authorised for marking air obstacles, and the use of such a colour requires a special permit. Applying for such a permit may significantly delay the implementation of the entire project, contradicting both the interests of the Investor and the public interest. Another risk is that the guarantee issued by the WTG manufacturer may be lost due to interference not foreseen in their specifications by painting one of the rotor blades black and concern about the actual consequences in the form of, among others, uneven wear of the WTG blades threatening serious damage to the turbine. The rules for marking WTGs for aviation safety purposes are set out in §27 of the Regulation of the Minister of Infrastructure of 12 January 2021 *on air traffic obstacles, obstacle limitation surfaces and dangerous devices* (Journal of Laws 2021, item 264). Painting the rotor blades in a manner inconsistent with this provision will result in non-compliance with the common law. No decision on environmental conditions can impose conditions causing a breach of other generally applicable provisions unless a provision of a legal act offers such a possibility. It should be stressed at this point, that according to the information presented in the environmental impact assessment report for the Baltic Power offshore wind farm investment, the effectiveness of painting the rotor blades black as an element reducing the collision rate for bird species identified for the FEW Baltic II was not confirmed. The effects of the proposed amendment do not generate transboundary impacts. These impacts are confined to the original findings of the environmental impact assessment. The amendment does not require the conditions for the Investment implementation to be updated or changed due to the findings of the transboundary environmental impact assessment.

Clarification of changes to the records of the condition presented in clause B.IV.3.1.a) of the decision regarding the water and seabed sediment monitoring

The first monitoring surveys are aimed at determining the initial conditions in the Investment area. Conducting the surveys in winter is optimal in this case, as it allows for reducing the impact of biotic factors. Continuous monitoring has been abandoned because, by design, FEW Baltic II is not expected to pollute water and sediments. Therefore, it will be sufficient if such a state of water and sediments is confirmed five years and ten years after the start of the OWF operation. If the area is found to be polluted, further monitoring will be agreed with the administration. Since there are no known studies suggesting that any OWF causes water and sediment pollution, no pollution is assumed in this case and the multiple annual tests have been replaced with tests that are less frequent but cover more stations, which will allow better detection of pollutants. Monitoring in the reference area has also been abandoned – such an area must be characterised by similar physicochemical conditions to the OWF area, which is very difficult due to other objectives implemented in the PSA, e.g. designation of such

areas for the construction of other OWFs. In addition, considering that the original condition of the farm area is already known (before the construction of the Investment) and it is not assumed that the area will be polluted by the farm, conducting tests in the reference area will not provide any significant information.

Clarification regarding the deletion of the condition records presented in clause B.IV.3.1.b) of the decision concerning sediment dispersion monitoring

The proposed monitoring is intended to assess whether the assumptions made in the environmental impact assessment were correct. Monopile driving is one of the operations that cause sediments to disperse to the least extent. This is a clear conclusion from the analysis of the results of the suspended solids dispersion modelling presented in Appendix 1 to Volume III (Table 6.2) of the submitted new EIA Report. Consequently, from the point of view of environmental impact, this is a problem of very little importance and there is no need for this type of monitoring.

Table 6.2. The maximum concentrations during the work performance based on the envelope analysis

Method	**The highest instantaneous concentration envelopes at a distance of 150 m from the worksite [mg·l^{-1}]**	**The highest instantaneous concentration envelopes at a distance of 500 m from the worksite [mg·l^{-1}]**	**The concentration range over most of the area affected by the disturbance [mg·l^{-1}]**
Cable embedment using the chain-cutting method (150 m·h^{-1})	40	17	6–15
Cable embedment using the chain-cutting method (100 m·h^{-1})	31	12	5–15
Boulder clearance	74	33	6–20
Clearing the seabed of boulders while excavating a trench for the cable using the ploughing method	120	47	7–20
Pile driving	7	1	5–10
Pile driving with the use of the DDD method	81	30	6–15
Cumulative activities including the external cable embedment using the ploughing method while simultaneously clearing the seabed of boulders and trenching using the ploughing method	132	70	6–20

It should also be emphasised here that the monitoring of sediment dispersion during monopile driving, as proposed in the current DEC, involves a potential threat to the safety of people and equipment as well as significant and unjustified costs.

The range of sediment dispersion will be limited by the very likely use of a large bubble curtain, which, by reducing the density, will cause most of the suspended solids to settle in the area limited by this curtain. Secondly, conducting measurements and surveys between a monopile being driven and a bubble curtain is dangerous and unacceptable under the OHS regulations. The proposed monitoring requires the use of devices deployed on the seabed or installed in the water depth, which can be destroyed. The use of acoustic sensors is impossible in practice due to underwater noise. The effects of the proposed amendment do not generate transboundary impacts. The amendments do not require the conditions for the Investment implementation to be updated or changed due to the findings of the transboundary environmental impact assessment.

It should also be noted that in the area of the wind farm, preparatory works may also be carried out to remove obstacles on the cable routes, such as pre-lay grapnel runs, boulder picking, and driving of foundation piles for jacket support structures. However, no computational models were developed for such work due to the negligible environmental impact in terms of suspended solids release. The modelling carried out for the scenario taking into account the driving of a monopile into the ground showed that the impact of the suspended solids in every aspect – the retainment period of deteriorated conditions, suspended solids concentration values, the spatial extent of the impact, and thickness of newly formed sediments – the impact of suspended solids is basically negligible.

Clarification regarding the change in the condition records presented in clause B.IV.3.2.a) of the decision regarding the water and seabed sediment monitoring

The proposed monitoring is intended to assess whether the assumptions made in the environmental impact assessment were correct. Continuous monitoring has been abandoned because, by design, FEW Baltic II is not expected to pollute water and sediments. Therefore, it will be sufficient if such a state of water and sediments is confirmed five years and ten years after the start of the OWF operation. If the area is found to be polluted, further monitoring will be agreed with the administration. Since no pollution is assumed, multiple annual surveys have been changed to surveys that are less frequent but cover more stations, which will allow better detection of pollution. This record is similar to the provisions of the DEC issued for the Baltic Power OWF. Monitoring in the reference area has also been abandoned – such an area must be characterised by similar physicochemical conditions to the OWF area, which is very difficult due to other objectives implemented in the PSA, e.g. designation of such areas for the construction of other OWFs. In addition, considering that the original condition of the farm area is already known (before the construction of the Investment) and it is not assumed that the area will be polluted by the farm, conducting tests in the reference area will not provide any significant information. If significant changes in the levels of the substances monitored are observed, the necessity for possible further monitoring and its scope will be agreed with the General Director for Environmental Protection in Szczecin. The amendments do not require the conditions for the Investment implementation to be updated or changed due to the findings of the transboundary environmental impact assessment.

Clarification regarding the change in the condition records presented in clause B.IV.3.2.b) of the decision concerning benthos monitoring

Due to the limited number of habitat types and relatively uniform geomorphological conditions, it was decided that the number of survey stations could be reduced from 5 to 3 without compromising the reliability of the monitoring conducted. Changing the dates of surveys will allow for the unification of these dates with other monitoring studies conducted in the OWF area.

Proposed change in the records of the condition presented in clause B.IV.3.2.c) of the decision concerning ichthyofauna monitoring

The following change to the provision is proposed:

The monitoring aims to identify the impact of the Investment on ichthyofauna.

Periodic monitoring of ichthyofauna should be conducted, which should be correlated with the surveys of benthic communities developed on the artificial reef. To ensure the comparability of the results, the monitoring should be conducted following the methodology adopted for the pre-investment monitoring, i.e. using the same locations, the same survey equipment, and the same frequency of surveys to the extent possible. The surveys should be conducted immediately after the OWF

construction is completed, and then six years following the structure installation. Moreover, as part of the monitoring, at the same locations and with the same frequency, ichthyoplankton sampling should be conducted in accordance with the methodology recommended by the Food and Agriculture Organization of the United Nations (FAO) (Smith and Richardson, 1977).

The proposed amendments, i.e. resignation from the reference area, and reducing the monitoring duration to immediately after the completion of the construction and six years after the structure installation, are aimed to minimise the adverse impact of the surveys on ichthyofauna resulting from substantial fishing efforts (e.g. during the inventory surveys for the Baltica OWF, approx. 1560.75 kg fish were caught in bottom-set gillnets) and the non-selectivity of the applied research gear. Taking account of the decreasing fish populations in the Baltic Sea, in particular, the cod population, and the decreasing total allowable catches, which is addressed in the report "*Niespokojny Bałtyk. Polskie rybołówstwo a morskie farmy wiatrowe" ["The Rough Baltic Sea. The Polish Fisheries vs. Offshore Wind Farms]* (Instrat Policy Paper 01/2024, Warsaw, October 2024), the form of monitoring proposed in the valid DEC is not only unnecessary but also prodigal. Moreover, it should be emphasised at this point that the EIA Report defined the Investment's impact on ichthyofauna as a local impact of low intensity.

Clarification regarding the change in the condition records presented in clause B.IV.3.2.e) of the decision concerning migratory bird monitoring

The proposed amendments to the records on the monitoring of migratory birds conducted from aboard research vessels aim to adapt the provisions to the technical capabilities of today's survey systems by defining the monitoring function without specifying the technology in detail. The monitoring will have to effectively recognise flight trajectories, also ensuring species identification of diurnal migrants. The monitoring described in this way will also allow for assessing the effectiveness of "corridors" between OWFs, which is why it is necessary to adjust the monitoring period to the date of commissioning of the neighbouring OWF Bałtyk II. There is no need to extend the monitoring period because, if necessary, information on bird migrations can be obtained from the shut-down system installed in the OWF area, while the proposed monitoring is to assess the validity of the assumptions adopted.

Clarification regarding the change in the condition records presented in clause B.IV.3.2.h) of the decision concerning the porpoise monitoring

The following change to the provision is proposed:

The porpoise occurrence monitoring should be conducted <u>in the first year</u> after the construction of the entire OWF is completed, using the same methods as during the pre-investment monitoring until the porpoise occurrence is observed again.

The reference to the range of the pile-driving response in the operation phase worded in the clause may be misunderstood, which is why it has been proposed to refer rather to the monitoring methodology applied in the construction phase. Moreover, it has been proposed to change the monitoring duration until porpoises are detected again, which will prove that they have returned to the OWF area, and the original condition has been restored and, consequently, the monitoring aim has been achieved.

Clarification regarding the change in the condition records presented in clause B.IV.3.2.i) of the decision concerning the noise monitoring

The proposed provision is more coherent and simpler and achieves the objective of establishing the actual impact on the ambient noise. In practice, surveys are carried out anyway with the use of

submerged sensors deployed for an extended period of time (e.g. 3–4 weeks), which allows several data sets to be selected for different weather conditions. “Hunting” for particular weather conditions with sensors located close to the vessel is economically unjustifiable and, in addition, its results may be distorted by recording the noise generated by the vessel.

In relation to the deletion of conditions in clauses: B.I.1.1.c); B.I.1.1.e); B.I.1.2; B.I.1.3.; B.I.1.5; B.I.1.11; B.I.1.12; B.I.1.13; B.I.2.10; and B.I.2.16 of the decision

With reference to the provisions which were indicated in the original decision with the position of the Maritime Office in Szczecin, it should be pointed out that including them in the repeal application results from the fact that they *de facto* duplicate the obligations imposed directly under the generally applicable provisions of law, which prevail over the provisions of administrative decisions constituting pieces of legislation of individual nature. Therefore, public administration authorities do not need to introduce any obligations in relation to issues regulated by international agreements, laws, or regulations, as these obligations, irrespective of the issuance of decisions in specific situations, are based on the provisions of law. It has been claimed in judicial decisions and law-making practice that it is inappropriate to repeat in legal documents, including individual ones (decisions), legal obligations already established under other regulations. The Applicant understands and respects the position of the Maritime Office in Szczecin that referring to certain obligations in its standpoint was aimed at facilitating subsequent work of controlling authorities, but from the Investor’s point of view, maintaining such provisions in the conclusion of the decision may have an effect opposite to the one assumed by the Authority.

In this respect, it is worth mentioning that the General Director for Environmental Protection in Warsaw, in a two-instance decree regarding another offshore wind farm (case no.: DOOŚ-WDŚZOO.420.59.2021.SP.10), wrote "*It should be noted that the obligation to comply with the provisions of generally applicable law results from Art. 87 of the Constitution of the Republic of Poland, as well as from the very force of individual normative acts, and not from the statement of such an obligation in an administrative decision. Moreover, imposing on a party in the decision application procedure an obligation that results directly from a legal norm constitutes a qualified defect of the decision referred to in Art. 156 § 1 item 2 of the Code of Administrative Procedure, i.e. the decision was issued without a legal basis*” (see the judgement of the Supreme Administrative Court in Warsaw of 27 April 1983, ref. no. II SA 261/83, and the judgement of the Voivodship Administrative Court in Szczecin of 7 January 2013, ref. no. II SA/Sz 1062/12).

When assessing from the sidelines the activities of an authority issuing a decision based on copying the applicable legal standard and the obligations imposed thereunder, it is impossible not to raise an objection that the Authority acting in this way is not authorised to decide within the scope covered by specific regulations and its activity denotes exceeding its competence. The intentions behind such provisions are irrelevant in this respect, as they are not subject to potential assessment, but only the very fact of such action and its effects. Moreover, it should be pointed out that in the event of a change in the obligations copied from other legal acts, discord may occur between the provisions of the decision issued and newly formulated legal regulations.

The Investor understands the Authority’s concern for law and order, but it is legally doubtful that copying statutory obligations in the conclusion of the decision is the right solution. The objective of the Authority assessing or issuing a decision with reference to specific legal obligations can be achieved by way of instructing the Investor about these obligations, e.g. by way of including relevant provisions in the justification of the decision and not in its conclusion. Such a solution could point out or remind the Investor or, for example, controlling authorities about the existence of applicable legal acts and

obligations imposed thereunder. Including such provisions in the decision conclusion is a definite overregulation and contradicts the assumption of professionalism and the knowledge of the law by public authorities.

When submitting an application in this regard, the Investor primarily aimed to protect itself from being accused of having the decision issued with infringement of law in the event of an inspection. The basic objection that can be raised is exceeding its competence by an authority copying the provisions from specific laws. Moreover, the Investor was guided by caution and the need to avoid situations in which, as a result of amending or repealing the provisions of law copied as the provisions of the decision, interpretation doubts could arise as regards the Investor's rights or obligations.

Re 3. Contents of the Writ: *"In order to rule out transboundary impacts, the position of the Swedish and Danish parties presented during the conducted transboundary proceedings, which were concluded with issuing a decision on 30 November 2021 (provided by the Swedish Environmental Protection Agency in a letter as of 4 May 2021, ref. no. NV-03511-21 and the Danish Environmental Protection Agency in a letter as of 6 May 2021, ref. no. 2020 – 71469), and the Investor's replies given in letters as of 11 June 2021 should be analysed, with particular consideration given to the obligation to apply mitigation measures in relation to individual components of the marine environment, which were subsequently imposed in the decision on environmental conditions in the context of the justifiability of the amendments introduced in the provisions or their deletion.*

It should be pointed out that, during the conducted transboundary proceedings, the Danish and Swedish parties paid particular attention to the correctly indicated measures to minimise the adverse environmental impact, including the application of bubble curtains or other technologies (e.g. BBC, DBBC, hydro sound damper HDC, noise mitigation tube IHC-NMS) mitigating the impact of underwater noise on marine mammals, the application of the radar system of temporary shut-down of WTGs in critical periods of the highest collision risk (when the highest numbers of birds migrate at collision altitudes) with no indication of birds groups covered by this system, as well as the application of colour marking of WTGs and limited use of strong light. Moreover, as a result of the suggestions made by the potentially affected parties, the Investor undertook to apply mitigation measures as regards the time of piling or laying inter-array cables in accordance with the guidelines of the German BSH (2019), and to meet the condition not to exceed the single-strike sound exposure level SEL = 140 dB re 1µPa² s (SEL) at a distance of 8 km from the sound source and at the boundary of the nearest Natura 2000 sites, i.e. the Swedish site Hoburgs Bank och Midsjöbankarna SE0330308 and the Polish site Ostoja Słowińska PLH220023. Bearing the above in mind, it is necessary to make a thorough reference to the said issue.

At the same time, the Authority indicates that the current scope covered by the amended decision issued on 30 November 2021 requires that the affected parties be inquired about their willingness to participate in the proceedings as part of international consultations. Therefore, the position of the Swedish and Danish parties presented during the conducted transboundary proceedings, which were concluded with issuing a decision on 30 November 2021, should be thoroughly analysed along with the Investor's obligation to apply mitigation measures in relation to individual components of the marine environment, which were subsequently imposed in the decision on environmental conditions in the context of the justifiability of the amendments introduced in the provisions or their deletion to exclude transboundary impacts, and thus the above-mentioned countries recognising no need to join the transboundary proceedings."

When proposing the valid DEC to be amended, the Investor kept in mind the previous arrangements made as a result of the conducted transboundary proceedings, and the introduced changes do not entail any increase in the impacts in comparison with those described for the Investment option covered by the valid DEC. The Investor declares to meet all the agreed conditions, including, as regards the noise issue, keeping the SEL_{ss} and SEL_{cum} levels, and, what is more, the behavioural response in the Swedish Natura 2000 site, i.e. Hoburgs Bank och Midsjöbankarna SE0330308 (Volume III of the EIA Report, Chapter 3.2.3; Appendix 2 to Volume III of the EIA Report, Chapters 4 and 5). It should be highlighted here that, at the transboundary proceedings stage, the Danish and Swedish parties did not dictate any specific solutions. The presented technological solutions were proposed by the Investor, and this proposal was conditioned by the then state-of-the-art. At the current stage of the proceedings, these proposals have been verified and they can be modified, which does not entail any reduction in the protection of any of the animal groups vulnerable to the Investment's impact.

The required model and pattern of the conducted works in the first place require the maintenance of the deterrence measures and the soft-start procedure combined with observations of the nature aimed at confirming the non-occurrence of specific animal species in a given area. In relation to measures reducing underwater noise propagation, the Authority provided an exemplary (by using the phrase 'e.g.') set of feasible measures while declaring their expected effectiveness defined with the maximum noise levels allowed to be recorded in the marine environment at the distances from the piling site determined under the decision.

It should be highlighted here that the conditions regarding, inter alia, the application of the soft-start procedure, the design and application of technical solutions in the form of bubble curtains, noise measurements during the piling procedure, and the assurance that no more than two piling procedures are conducted at the same time taking into account other wind farms planned in the immediate proximity, shall remain unchanged. As a result, the proposed amendments do not cause any intensified transboundary impacts.

Clarifications as regards migratory birds and collisions

As regards the issues brought up by the Danish party, the following issues were raised:

a) The project's environmental impact on Natura 2000 sites and protected species, in particular, the important bird area F129 (Rønne Banke), which may be of importance for the assessment of transboundary impacts on birds of the project in question. This area is the most important Danish wintering area for long-tailed ducks, the number of which has been regularly exceeding 1% of the population along the international flight route. Moreover, the Danish party indicated other important bird species, i.e. the little gull, razorbill, and common scoter.

With reference to the issues presented in the position of the Danish party, it was indicated that the documentation submitted at that time presented extensive and thorough field surveys as the basis for a professional assessment of the project's potential impact on bird species and specific calculations were made, thus explaining the cumulative effect of the offshore wind farms planned in this area with regard to the consequences of collisions and barriers for birds of international importance.

In the context of the issue raised, the proposed change to the project results in reducing the number of WTGs and increasing their height (from 300 m to 327 m) and the diameter of each single rotor (from 250 m and an area of 49 087 m^2 to 305 m and an area of 73 062 m^2). However, the project implementation will result in reducing the maximum area of all the rotors installed within the offshore wind farm area from 2 159 828 m^2 to 1 826 550 m^2. This last parameter is of particular importance as it translates into the barrier effect and the collision risk.

With reference to this issue, it should be pointed out that detailed information in this regard included in the EIA Report prepared for the purposes of the DEC amendment is presented in Volume III, Chapter 8, which assesses the impact on Natura 2000 sites, including the Swedish site Hoburgs bank och Midsjöbankarna SE0330308 in the context of bird migrations. On the other hand, in Chapter 8.2 of the above-mentioned volume, Table 8.2 and Table 8.3 provide an assessment of the potential negative impact (individual and cumulative) of the Investment (collisions and barrier effect) on migratory birds (Natura 2000 SPAs). Based on the analyses conducted, the impact on the Natura 2000 SPAs was assessed as being "of low relevance" (individual impact) or "relevant" – "of low relevance" (cumulative impact) at the most. Moreover, it should be expected that this impact may be reduced to the level "of low relevance" at the most.

Table 8.2. The assessment of the impact significance in the FEW Baltic II OWF implementation phase and the relevance of the adverse (individual) impact on protected migratory birds in the Natura 2000 SPAs

Natura 2000 SPA ASSESSMENT FEW Baltic II implementation phase	**Natura 2000 Special Protection Area (Birds Directive)**	**The object of conservation – site's value**	**FEW Baltic II Significance of individual impacts**		**FEW Baltic II Significance of cumulative impacts FEW Baltic II**		**FEW Baltic II Assessment of adverse impact relevance**
Subjects of Natura 2000 / FEW Baltic II assessment – bird species	**Natura 2000 SPA population conservation connectivity**	**Natura 2000 SPA value**	**Barrier effect**	**Collisions**	**Barrier effect**	**Collisions**	**Summarised based on the highest categories**
Loons: the black-throated loon, the red-throated loon	Zatoka Pomorska PLB990003, Przybrzeżne wody Bałtyku PLB990003	C	Low	Low	Low	Low	Irrelevant impact
Swans: the whooper swan	Pobrzeże Słowińskie PLB220003	B	Negligible	Negligible	Negligible	Negligible	Irrelevant impact
Geese: the greater white-fronted goose, the bean goose	Pobrzeże Słowińskie PLB220003	C, A	Low	Low	Low	Low	Irrelevant impact
Long-tailed duck	Ławica Słupska PLC990001	B	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Long-tailed duck	Przybrzeżne wody Bałtyku PLB990002	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Long-tailed duck	Zatoka Pomorska PLB990003	A	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Long-tailed duck	Hoburgs bank och Midsjöbankarna SE0330308	A	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Common scoter	Przybrzeżne wody Bałtyku PLB990002	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Common scoter	Zatoka Pomorska PLB990003	A	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Velvet scoter	Przybrzeżne wody Bałtyku PLB990002	C	Low	Low	Low	Low	Irrelevant impact
Velvet scoter	Zatoka Pomorska PLB990003	B	Low	Low	Low	Low	Irrelevant impact
Velvet scoter	Ławica Słupska PLC990001	B/C	Low	Low	Low	Low	Irrelevant impact
Dabbling ducks: the common pochard, the common merganser / the red-breasted merganser	Pobrzeże Słowińskie PLB220003 Zatoka Pomorska PLB990003	A, C/C	Low	Low	Low	Low	Irrelevant impact
Razorbill	Przybrzeżne wody Bałtyku PLB990002	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Razorbill	Zatoka Pomorska PLB990003	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance

Natura 2000 SPA ASSESSMENT FEW Baltic II implementation phase	Natura 2000 Special Protection Area (Birds Directive)	The object of conservation – site's value	FEW Baltic II Significance of individual impacts		FEW Baltic II Significance of cumulative impacts FEW Baltic II		FEW Baltic II Assessment of adverse impact relevance
Subjects of Natura 2000 / FEW Baltic II assessment – bird species	**Natura 2000 SPA population conservation connectivity**	**Natura 2000 SPA value**	**Barrier effect**	**Collisions**	**Barrier effect**	**Collisions**	**Summarised based on the highest categories**
Common crane	Pobrzeże Słowińskie PLB220003	B	Negligible	Negligible	Negligible	Negligible	Irrelevant impact
Great black cormorant	Pobrzeże Słowińskie PLB220003	C	No change	No change	No change	No change	Irrelevant impact
Large gulls: the common gull	Przybrzeżne wody Bałtyku PLB990002	C	No change	No change	No change	No change	Irrelevant impact

Table 8.3. The assessment of the impact relevance in the FEW Baltic II OWF operation phase and the significance of the adverse (cumulative) impact on protected migratory birds in the Natura 2000 SPAs

NATURA 2000 ASSESSMENT Operation phase	N2000 Special Protection Area (Birds Directive)	Object of conservation	Significance of individual impacts FEW Baltic II		Significance of cumulative impacts FEW Baltic II + 10 OWFs		Assessment of adverse impact relevance
Subjects of N2000 assessment – bird species	**N2000 SPA population conservation connectivity**	**SPA value**	**Barrier effect**	**Collisions**	**Barrier effect**	**Collisions**	**Summarised based on the highest categories**
Loons: the black-throated loon, the red-throated loon	Zatoka Pomorska PLB990003 Przybrzeżne wody Bałtyku PLB990003	C	Low	Low	Low	Low	Irrelevant impact
Swans: the whooper swan	Pobrzeże Słowińskie PLB220003	B	Low	Low	Low	Low	Irrelevant impact
Geese: the greater white-fronted goose, the bean goose	Pobrzeże Słowińskie PLB220003	C, A	Low	Moderate	Low	Moderate	Impact of low relevance
Long-tailed duck	Ławica Słupska PLC990001	B	Moderate	Moderate	Moderate/High	Moderate	Relevant impact
Long-tailed duck	Przybrzeżne wody Bałtyku PLB990002	C	Moderate	Moderate	Moderate/High	Moderate	Relevant impact
Long-tailed duck	Zatoka Pomorska PLB990003	A	Moderate	Moderate	Moderate/Moderate/High	Moderate	Relevant impact
Long-tailed duck	Hoburgs bank och Midsjöbankarna SE0330308	A	Moderate	Moderate	Moderate/High	Moderate	Relevant impact

NATURA 2000 ASSESSMENT Operation phase	N2000 Special Protection Area (Birds Directive)	Object of conservation	Significance of individual impacts FEW Baltic II		Significance of cumulative impacts FEW Baltic II + 10 OWFs		Assessment of adverse impact relevance
Subjects of N2000 assessment – bird species	**N2000 SPA population conservation connectivity**	**SPA value**	**Barrier effect**	**Collisions**	**Barrier effect**	**Collisions**	**Summarised based on the highest categories**
Common scoter	Przybrzeżne wody Bałtyku PLB990002	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Common scoter	Zatoka Pomorska PLB990003	A	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Velvet scoter	Przybrzeżne wody Bałtyku PLB990002	C	Low	Low	Low	Low	Irrelevant impact
Velvet scoter	Zatoka Pomorska PLB990003	B	Low	Low	Low	Low	Irrelevant impact
Velvet scoter	Ławica Słupska PLC990001	B/C	Low	Low	Low	Low	Irrelevant impact
Dabbling ducks: the common pochard, the common merganser / the red-breasted merganser	Pobrzeże Słowińskie PLB220003 Zatoka Pomorska PLB990003	A, C/C	Low	Low	Low	Low	Irrelevant impact
Razorbill	Przybrzeżne wody Bałtyku PLB990002	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Razorbill	Zatoka Pomorska PLB990003	C	Moderate	Moderate	Moderate	Moderate	Impact of low relevance
Common crane	Pobrzeże Słowińskie PLB220003	B	Low	Low	Low	Moderate/High	Irrelevant impact
Great black cormorant	Pobrzeże Słowińskie PLB220003	C	Negligible	Negligible	Negligible	Negligible	Irrelevant impact
Large gulls: the common gull	Przybrzeżne wody Bałtyku PLB990002	C	No change	No change	No change	No change	Irrelevant impact

On the other hand, the impact of the migration corridors on birds migrating within the planned OWF complex in relation to the location of FEW Baltic II is modelled in Chapter 9 of the above-mentioned volume. Based on the analyses conducted, the following was established:

- Based on the conducted assessment of the impact of the FEW Baltic II Investment and cumulative OWF impacts, no significant adverse impact on migratory birds is expected to occur.
- The FEW Baltic II Investment is expected to have no significant transboundary adverse impact on the environment.
- The application of mitigation measures will allow for maintaining the expected impact on the level of an insignificant adverse environmental impact.
- For the FEW Baltic II, it is required to leave a WTG-free corridor with a minimum width of 4 km near the north-western boundary of the Natura 2000 *Ławica Słupska* PLC990001, which takes account of the recommendations of the 2019 EIA Report regarding the need to establish a corridor during the implementation of subsequent OWF projects and is in accordance with the Spatial Development Plan for the Polish Sea Areas, and has been taken into consideration in the applicable DEC.
- It is assumed that the majority of birds migrating as broad arrays and encountering migration barriers in the form of OWFs situated to the north and west of the Słupsk Bank, will fly along the wind farms, and in the case of encountering a WTG-free corridor, they will use it.
- The use of the migration corridor situated to the west of the FEW Baltic II OWF, between the FEW Baltic II and Bałtyk II OWFs in accordance with the Decision on Environmental Conditions issued by the Regional Director for Environmental Protection in Szczecin on 30 November 2021, ref. no. WONS-OŚ.420.20.2020.KK.30) should reduce the cumulative impact of the FEW Baltic II on birds and will allow for maintaining the existing migration routes of birds, in particular the long-tailed duck and other objects of conservation in the nearby Natura 2000 SPAs.
- The establishment of migration corridors will allow maintenance of the coherence of the Natura 200 SPAs, including the sites situated in the territory of Sweden and Denmark, thus minimising the transboundary impact of the FEW Baltic II OWF.
- The use of migration corridors by migratory birds (the long-tailed-duck, the common scoter, the velvet scoter, the little gull, the razorbill and geese) should minimise the energy expenditure generated by the cumulative barrier effect to an insignificant level in relation to the total energy expenditure incurred by birds to cover the entire spring and autumn migration flyways.

Moreover, Chapter 12 of the above-mentioned volume (Transboundary impacts) analyses the influence of the proposed changes on transboundary impacts. The impact of underwater noise during the construction phase on adult fish and marine mammals, migratory birds and chiropterofauna was assessed to be insignificant. This assessment results from the considerations and conclusions presented in the Report prepared for the purposes of the valid DEC. It should be noted that as part of the administrative procedure in response to writ no. WONS-OŚ.420.20.2020.KK.4 of 17 August 2020, the assessment of the FEW Baltic II OWF transboundary impacts on migratory birds was presented, including the modelled impact of migration corridors.

In addition, as part of the administrative procedure for issuing the applicable DEC, a procedure for a transboundary environmental impact assessment was conducted. Given that the change in the Investment parameters will not generate any new transboundary impacts or increase those originally assessed in the report prepared for the purposes of the applicable DEC, it can be assumed that no re-assessment needs to be conducted in this respect.

Based on the general model of the bird collision risk (Table 4.23 below, Chapter 4.9.1.2.3, Volume III), in terms of the lowest number of collisions (aggregate value) and with the identical number of endangered subjects of assessment (the index of "0" in each variant), the variant taking account of the changed Investment parameters (APO 25 x WTG) proved to be slightly more favourable in comparison with the previous variant (the current RAO 44 x WTG). This refers to bird migrations in spring and autumn, both during the day and at night.

With the above-mentioned indicator species/groups being distinguished (Table 4.24 below, Chapter 4.9.1.2.3, Volume III), in terms of the lowest number of collisions (aggregate value and individually for individual subjects of assessment) and with the identical number of endangered species/ groups (the index of "0" in each variant), the variant taking account of the changed Investment parameters (APO 25 x WTG) also proved to be slightly more favourable in comparison with the previous variant (RAO 44 x WTG). This refers to migrations of the indicator bird species/groups in spring and autumn, both during the day and at night.

Table 4.23. The summary of the differences between the FEW Baltic II Investment options in detailed assessment – general compilation

FEW Baltic II options – summary of the comparison:		**APO**	**RAO**
Comparative assessment of the FEW Baltic II options for aggregate values of the collision rate Subjects of assessment in individual flight analysis modules		**APO 25 x WTG**	**RAO 44 x WTG**
Diurnal migrations in spring and autumn	Number of all subjects of assessment	22	22
	Number of subjects of assessment with the collision rate of "0"	5	5
	Number of subjects of assessment with collision occurrence (excluding the rate value of "0")	17	17
	Total value of the collision rate for all subjects of assessment	39.39	52.21
Nocturnal migrations in spring and autumn	Number of all subjects of assessment	3	3
	Number of subjects of assessment with the collision rate of "0"	0	0
	Number of subjects of assessment with collision occurrence (excluding the rate value of "0")	3	3
	Total value of the collision rate for all subjects of assessment	117.59	170.13

Table 4.24. The summary of the differences between the FEW Baltic II Investment options in detailed assessment – for the indicator subjects of assessment

FEW Baltic II options – summary of the comparison:		**APO**	**RAO**
Assessment of the FEW Baltic II options for the distinguished indicator subjects of comparative assessment		**APO 25 x WTG**	**RAO 44 x WTG**
Diurnal migrations in spring and autumn/indicator species, including 1 group)	Long-tailed duck	0.00	0.00
	Common scoter	0.68	0.77
	Razorbill	0.00	0.00
	Little gull	0.12	1.35
	Geese	16.35	21.17
	Divers	0.17	0.26

FEW Baltic II options – summary of the comparison:		APO	RAO
Assessment of the FEW Baltic II options for the distinguished indicator subjects of comparative assessment		**APO 25 x WTG**	**RAO 44 x WTG**
	Common crane	3.99	5.34
	in total:	Σ 21.31	Σ 28.89
Nocturnal migrations in spring and autumn/indicator group	Small nocturnal migrants	92.20	132.45

Moreover, extreme caution was applied to the common crane when assessing the significance of the impact of cumulative collisions, as this species is listed in Annex I of the Birds Directive. For the common crane, the collision risk modelling was based on the changed value of the recommended avoidance index (PAI): from 98% in the previous assessment to 83% in the current assessment.

The common crane was the species with the highest predicted number of collisions, not only among the identified species assessed individually but also as regards the species groups assessed. This species was also distinguished as regards the forecast (number of cumulative collisions) of the percentage share in the estimated abundance of the biogeographical population (approx. 350 000 individuals), which is close to 1% (approx. 0.87%). A schematic comparison (number of collisions/population size) allowed for estimating a smaller share of approx. 0.17–0.09% in the case of the little gull, geese, the common scoter, and the great cormorant (below 0.1%).

The impact analysis took account of the current state of knowledge about the analysis of vulnerability and the assessment of species sensitivity to collisions. The common crane is a species with a low avoidance index of 0.83 as regards the micro-avoidance response.

Table 6.10. The model survey results for the risk of bird collisions with FEW Baltic II WTGs (diurnal and nocturnal flights)

FEW Baltic II: Risk of cumulative bird collisions with WTGs – cumulative impact									
Bird migrations in spring and autumn (cumulatively) – diurnal flights				**Projected number of collisions – spring and autumn migrations (total) [approx. indiv./year]**		**% share of collisions in the biogeographical population size as a result of cumulative impact**			
The subject of the FEW Baltic II assessment			**PAI**	**FEW Baltic II APO**	**FEW Baltic II RAO**	**APO 25 x WTG**		**RAO 44 x WTG**	
No.	**Species/ group**	**Scientific name**		**APO 25 x WTG**	**RAO 44 x WTG**	**Min.**	**Max.**	**Min.**	**Max.**
1.	Divers	*Gavia*	98%	115.43	115.65	0.019%	0.019%	0.012%	0.012%
2.	Swans	*Cygnini*	98%	65.48	65.23	0.016%	0.016%	0.015%	0.015%
3.	Geese	*Anserini*	99%	2257.37	2282.54	0.066%	0.066%	0.062%	0.062%
4.	Long-tailed duck	*Clangula hyemalis*	99%	86.61	86.28	0.005%	0.005%	0.005%	0.005%
5.	Common scoter	*Melanitta nigra*	99%	606.75	605.17	0.088%	0.088%	0.074%	0.074%
6.	Velvet scoter	*Melanitta fusca*	99%	83.72	83.84	0.038%	0.038%	0.020%	0.020%
7.	Dabbling ducks	*Anatinae*	98.3%	2479.84	2470.80	0.023%	0.023%	0.015%	0.015%
8.	Razorbill	*Alca torda*	99.2%	0.15	0.15	0.000%	0.000%	0.000%	0.000%

FEW Baltic II: Risk of cumulative bird collisions with WTGs – cumulative impact									
Bird migrations in spring and autumn (cumulatively) – diurnal flights				Projected number of collisions – spring and autumn migrations (total) [approx. indiv./year]		% share of collisions in the biogeographical population size as a result of cumulative impact			
The subject of the FEW Baltic II assessment			PAI	FEW Baltic II APO	FEW Baltic II RAO	APO 25 x WTG		RAO 44 x WTG	
No.	Species/ group	Scientific name		APO 25 x WTG	RAO 44 x WTG	Min.	Max.	Min.	Max.
9.	Common guillemot	*Uria aalge*	99.2%	0.09	0.09	0.000%	0.000%	0.000%	0.000%
10.	Great black cormorant	*Phalacrocorax carbo*	98%	590.87	589.80	0.097%	0.097%	0.080%	0.080%
11.	Little gull	*Hydrocoloeus minutus*	98%	166.22	174.64	0.173%	0.173%	0.097%	0.097%
12.	Black-headed gull	*Chroicocephalus ridibundus*	98%	258.59	258.44	0.010%	0.010%	0.008%	0.008%
13.	Large gulls	*Larus canus, Larus fuscus, Larus marinus*	98%	1817.49	1811.82	0.113%	0.113%	0.079%	0.079%
14.	Skuas (*)	*Stercorariidae*	95%	N/D	N/D	N/D	N/D	N/D	N/D
15.	Terns	*Sterninae*	99%	122.42	122.45	0.005%	0.005%	0.003%	0.003%
16.	Common crane*	*Grus grus*	83%*	3070.88	3067.34	**0.877%**	**0.877%**	0.876%	0.876%
17.	Waders and sandpipers	*Charadrii, Scolopaci*	98%	339.60	338.90	0.003%	0.003%	0.002%	0.002%
18.	Passerines	*Passeriformes*	98%	2144.73	2162.39	0.000%	0.000%	0.000%	0.000%
19.	Common swift	*Apus apus*	99%	756.95	761.82	0.002%	0.002%	0.001%	0.001%
Total:				14963.18	14997.34	-	-	--	-

Assessment of the FEW Baltic II cumulative impact: The modelling results for the risk of cumulative bird collisions with WTGs – spring and autumn migrations.

The FEW Baltic II OWF options (as of May 2024):

- *the Applicant's Proposed Option (APO 25 x WTG)*
- *the Rational Alternative Option (RAO 44 x WTG);*

The assessment scope of the cumulative impact of collisions – extended model surveys:

- *the FEW Baltic II Investment under assessment*
- *other OWFs included in the analysis: Bornholm Bassin Syd, 44.E.1, Bałtyk II, Baltica, Bałtyk III, Baltic Power, BC-Wind, Bornholm Bassin Ost, Baltic Edge, Baltic Offshore Beta, Baltica 2+ Sodra Victoria, Bałtyk I, Baltica 1, Njord, 14.E.1 14.E.2, 14.E.3, 14.E.4, 43.E.1, 46.E.1, 60.E.3, 60.E.4, Öland-Hoburg II, Blekinge, Kriegers Flak, Kriegers Flak 2, Kriegers Flak 2 – Nord, Kriegers Flak 2 – Syd, Bornholm I, Bornholm II, Aflandshage, Nordre Flint, Kadet Banke, Arkona (Germany), Wikinger, Windanker (O-1.3), O 2.2, Baltic Eagle, Arcadis Ost 1, Arkona (Sweden), Skane, Triton, Sydkustens Vind (Kustvind), Baltic 1, Baltic 2, Sjollen, and Lillgrund.*

The results of the bird collision risk modelling (the operation phase):

Collision risk – the number of collisions with WTGs during spring and autumn migrations – in total (indiv./year).

AI – avoidance index. PAI – preferred (recommended) avoidance index.

*Diurnal migrants: the common crane * – update: PAI change from 98% into 83%, according to the current state of knowledge.*

Details – following the methodology (Chapter 2.9.5).

(*) No data – N/D – no possibility of comprehensive assessment due to the lack of sufficient data on collisions for OWFs.

For the identified impacts on birds, mitigation measures have been introduced, which are specified in Table 18.1, Chapter 18.7 in Volume III of the EIA Report; below, they are updated as part of this supplement/reply to the writ:

Table 18.1. Proposed migratory bird monitoring in the FEW Baltic II Investment area

Monitoring module	**Migratory bird monitoring surveys – recommendations for the Investment operation phase**
Migratory bird monitoring	- the monitoring of migratory birds should be conducted using simultaneous visual and radar observations to identify flight trajectories (including altitude), response, and species, as well as acoustic surveys conducted at night; - as part of radar surveys of migratory birds, the flight trajectories of birds flying towards the OWF and their reaction to encountering a barrier in the form of the OWF should be determined and the intensity of migration in the OWF area and in its immediate vicinity should be assessed; - the migratory bird survey stations are to be located on a fixed platform (such as a substation) or an anchored vessel, which allows observation of the OWF from the direction from which birds are coming at a given stage of migration (in spring, the south-western edge of the OWF, and in autumn, the north-eastern edge of the OWF); - migratory bird monitoring should be carried out in two cycles during the year, due to the two periods of bird migration, i.e. from early March to late May and from early July to late November; - the timing of the monitoring: in the first and second year after the construction of the FEW Baltic II is completed; to collect data taking into account the migration corridor shared by the FEW Baltic II and the Bałtyk II OWF, the third year of the monitoring should be planned in the year after the Bałtyk II OWF is put into operation, or in the fifth year after the construction of FEW Baltic II, if the Bałtyk II OWF is not put into operation in 3 to 5 years from the construction of the FEW Baltic II; - in each of the bird migration seasons, completing no less than 20 days of observations in 2–5-day sessions, evenly distributed throughout the season.
Monitoring of bird flights through the FEW Baltic II area	Include in the design the need to implement a system of temporary shut-downs during bird migrations that allows: (a) temporary, remote shut-down/reduction of the speed of individual WTGs or the entire wind farm, with particular consideration given to weather conditions causing limited visibility during the period of the most intense migration of nocturnal migrants, i.e. from 15 March to 30 April and from 1 September to 31 October; (b) temporary, remote shut-down/reduction of the speed of individual WTGs when flying cranes are detected. Based on the OWF bird flight monitoring system, the system should ensure immediate shut-down/reduction of the speed of turbines along the route of the expected flight of nocturnal migrants and cranes, with an increased risk of collision for the migrants – by automatically detecting the movement of birds and automatically assigning information allowing for determining the size of flying birds and their flight parameters (altitude, speed, and the course of the flight route). The proposed system of temporary shut-down/reduction of the speed of FEW Baltic II WTGs should be optimised through the introduction of an automatic system for monitoring migrating bird collisions with the use of at least a radar system or any other system showing at least the same effectiveness of detection as the radar system, which will allow precise, real-time assessment of the necessity, scope and timing of its application, as well as the identification of specific WTGs the operation of which would require a short-term suspension of operation.
Monitoring of bird mortality	The monitoring aims to examine the actual level of mortality among migratory birds, with particular emphasis on the objects of protection in the Natura 2000 SPAs, during nocturnal and diurnal bird migrations. The monitoring should continue for 4 years, during seasonal spring migrations (from the beginning of March to the end of May) and autumn migrations (from the beginning of July to the end of November). The survey scope and methods should rely on the use of an automated system for recording bird collisions with WTGs, providing the possibility of conducting measurements both at night and during the day. As part of the monitoring, the automatic bird collision detection system should be installed on at least three WTGs within the FEW Baltic II area:

Monitoring module	Migratory bird monitoring surveys – recommendations for the Investment operation phase
	– in the eastern part of the FEW Baltic II area, on one of the extreme WTGs located in the immediate vicinity of the zone free of FEW Baltic II WTGs near the neighbouring Bałtyk II OWF; – on one of the WTGs located in the western part of the FEW Baltic II area; – on one of the WTGs located in the central part of the FEW Baltic II area. It is allowed to install the system in other locations if they are identified as optimal for the system to be installed by the system provider or based on the data obtained as a result of monitoring surveys and ornithologists' recommendations. Monitoring should also take into account the issue of transboundary impacts.

Clarifications as regards marine mammals and ichthyofauna

b) The justifiability of undertaking the mitigation measures for the impact of the piling procedure on marine mammals was identified at the stage of obtaining the DEC.

An assessment in this regard is included in Volume III of the Report, Chapter 3.2.

The noise propagation modelling analysis, which was conducted to change the Investment parameters, has shown that the piling procedure planned in the FEW Baltic II OWF area could lead to considerable ranges and associated impacts on harbour porpoises, seals, and fish with swim bladders. This is particularly true for the behavioural response of the harbour porpoise and fish with swim bladders, the maximum ranges of which with no mitigation measures being applied exceeded the model domain range of 150 km from the sound source. The TTS ranges during a cumulative exposure for the full piling sequence are also relatively broad. It should be highlighted that substantial uncertainty arises as regards the effects of cumulative sound exposure on the three taxa discussed, especially on the fish with swim bladders (see Hawkins et al., 2020). This leads to a relatively high degree of uncertainty in the findings obtained.

Analyses of simultaneous piling at two locations showed that the areas of noise impact were highest when the two sources were located within a distance of 20 km of each other.

However, the analysis further shows clearly that the use of mitigation measures in the form of hammer energy changes and the near-field and far-field mitigation systems will likely lead to a reduction in noise emitted during piling both from a single sound source and multiple sources (in the case of simultaneous piling at two locations).

It is also important to note that the noise levels at the boundary of the Natura 2000 sites *Ostoja Słowińska* and *Hoburgs bank och Midsjöbankarna*, which have been designated for the protection of the harbour porpoise, are below the thresholds indicated in the DEC after the application of the said mitigation measures. However, analyses of the maximum range of impact in the form of a temporary and permanent threshold shift after the application of mitigation measures showed that the noise levels indicated in the DEC will not be exceeded at a distance of 8 km from the sound source in the case of pinnipeds and the harbour porpoise.

The option taking account of the proposed changes assumes the installation of a smaller number of WTGs in comparison with the previous option, however, at the same time, it is assumed to conduct the drilling procedure during the monopile installation. Nevertheless, the associated underwater noise is non-impulsive, and, therefore, it causes less acoustic nuisance than the noise from piling as described in the methodological sub-chapter, the impact on the local ambient noise will be related to low-frequency noises to a large extent and will extend the local sound field, which is already dominated by noise generated by ships. Therefore, it

can be assumed that these two factors will not affect the final impact assessment. However, it should be highlighted that, in both variants, the Applicant assumes the option of installing the monopile foundations, which involves the highest levels of acoustic nuisance.

The analysis of the underwater noise impact conducted for the purposes of changing the Investment parameters further shows that the use of mitigation measures in the form of hammer energy changes and the near-field and far-field mitigation systems will lead to a reduction in noise emitted during piling both from a single sound source and multiple sources (in the case of simultaneous piling at two locations). Consequently, the proposed changes in the parameters will not deteriorate the parameters of disturbing the marine environment with underwater noise in comparison with the analysis conducted for the purposes of the valid DEC.

With further reference to the remarks submitted by the Swedish party, which may be of importance from the viewpoint of assessing the changes introduced in the project, the following remarks should be made:

a) The impact of noise from the project construction phase on ichthyofauna and marine mammals.

Similarly to the case of Denmark with ichthyofauna being taken into account.

b) The project impacts the condition of the waters.

With reference to this remark, it should be indicated that, as part of the environmental impact assessment conducted for the purposes of amending the decision on environmental conditions, analyses in this regard, including relevant assessment, are contained in Volume III of the Report, Chapter 3.4 for the construction phase, Chapter 4.3 for the operation phase, and Chapter 5.3 for the decommissioning phase. The conclusions drawn from the analyses in this regard show that the planned change to the Investment resulting from reducing the number of WTGs, reducing the disturbed and occupied seabed area, and reducing the amount of released substances causes a decrease in this type of impacts for the option covered by the application for decision amendment.

Summing up the remarks and the subject of interest of the Danish and Swedish parties, it should be indicated that these parties attach the greatest importance to the issue of the OWF's impact on birds, mammals and ichthyofauna.

The most critical impacts in the construction phase are those related to the piling procedure and the associated noise emissions. Being aware of the importance of this impact, the Investor has proposed the mitigation measures described above for the changed Investment.

The results of the assessment of the planned Investment's impact in the construction phase on ichthyofauna are presented in Chapter 3.7 of the Report, and the findings related to noise emissions and the impact on marine mammals in Chapter 3.2.

In the case of the impact on seabirds and migratory birds, the operation phase is the most important one and the assessment conducted for this phase is conducted and presented in Chapters 4.8 and 4.9 of the EIA Report.

Moreover, the impacts were analysed cumulatively with other offshore wind farms situated in the PSA (Chapter 6, Volume III of the EIA Report). On this basis, it was established that the area occupied by the FEW Baltic II OWF constitutes only around 6% of the total area of the five nearest OWFs (FEW Baltic II, Sharco Duo – 44.E.1, Bałtyk II, Bałtyk III, Baltica [2+3]), and the planned number of WTGs (25) accounts for almost 6% of the total number of WTGs planned to be installed (nearly 10% in the previous option – 44 WTGs). This shows

that the analysed Investment is a small project, and, therefore, the scale of cumulative impact intensification will also be relatively low. Moreover, the establishment of the migration corridor will allow for reducing the barrier effect, thus enabling birds to get to their rich feeding grounds on the Słupsk Bank.

The cumulative impact assessment focuses on impacts which may be of significance for seabirds, i.e. the establishment of a mechanical barrier, the exclusion of feeding grounds and collisions with WTGs.

In the case of impacts on seabirds, it was concluded that the two major factors related to working OWFs that may have an adverse impact on birds are the deterring effect, which results in the exclusion of some of the feeding grounds and the collision risk with WTGs. These factors are interconnected, as species with a higher degree of skittishness will not approach the area occupied by WTGs, which translates into a lower probability of a collision with the rotors. On the other hand, in the case of birds which are not skittish, and which stay in the immediate vicinity of OWFs, the collision risk shows a clear increase. Due to the interdependence of both of these factors, they were analysed in the assessment together.

From among the eight species under consideration, the significance of the impact of the FEW Baltic II OWF in the operation phase, consisting of increased vessel traffic and establishment of the barrier effect was assessed as low for seven species. This primarily results from the high conservation priority of these species and high or medium vulnerability to deterring. For the European herring gull, the impact was assessed to have negligible significance.

On the seabed in the OWF area and underwater sections of WTGs, zoobenthic communities will develop. Moreover, in this area, there will be a decline in the traffic of vessels not related to WTG operation, including fishing boats. However, the deterring impact of working WTGs will cause birds not to use this feeding ground and the sea area occupied by the OWF. The significance of this impact was, therefore, assessed as moderate for the velvet scoter and the long-tailed duck (mainly due to the high conservation status of these species) or low (the common scoter), and in the case of species not feeding on benthos no actual impact of this factor will occur (Table 4.14).

Table 4.14. The significance of the planned OWF's impact in the operation phase

Species	Vessel traffic	Barrier	Rich benthic communities	Closed area
Black-throated diver	Low	Low	No change	No change
Red-throated diver	Low	Low	No change	No change
Velvet scoter	Low	Low	Moderate	Moderate
Long-tailed duck	Low	Low	Moderate	Moderate
Common scoter	Low	Low	Low	Low
Common guillemot	Low	Low	No change	No change
Razorbill	Low	Low	No change	No change
European herring gull	Negligible	Negligible	No change	No change

In the case of migratory birds, in the operation phase of the FEW Baltic II OWF, which is particularly important in terms of considering potential adverse impacts on this group, and according to the basic assessment results, no "high" or "very high" adverse impact was identified. Based on the assumption of optimal operation of the Investment, i.e. full-scale operation of all WTGs in the long-term, an adverse impact of "low relevance" for migratory birds is expected to occur in the FEW Baltic II operation phase.

The cumulative assessment for each of the analysed variants indicated an insignificant adverse impact. The significance of the impacts (the collision risk and the barrier effect) was assessed analogously (in the same

categories). The model surveys proved no deviations from the obtained values that could determine different (e.g. increased) adverse impacts, which were taken into account. Finally, the impact of each of the variants was recognised to be significant.

The detailed assessment (of the model surveys) indicated a similar expected level of impact from the considered variants. The scale of the barrier effect was identical (the same OWF area, and a similar number of WTGs). Relatively small differences referred to the number of collisions in the collision zone (the project assumptions for WTGs).

The detailed assessment of the modelling compared the FEW Baltic II variants (the cumulative assessment: the same range of assessment categories) – the results of the model surveys of the collision rates allowed for indicating a more favourable variant (regarding the comparison of the collision rates and based on the determination of the lowest number of collisions).

These actions also took account of the aspect of accumulation with other investments, and this issue is discussed in Chapter 6.1 of the EIA Report.

Re 4. Contents of the Writ: *"Reference to the comments and applications submitted by authorities co-participating in the proceedings, i.e. the Director of the Maritime Office in Szczecin in a letter of 31 July 2024, ref. no. WŚ.52011.5.24.AZ(10), and the Regional Director for Environmental Protection in Gdańsk in resolution of 1 August 2024, ref. no. RDOŚ-Gd-WOO.4221.70.20244.KB.1 (received on 7 August 2024)."*

Clarifications as regards the following letters:

- letter of the Regional Director for Environmental Protection in Gdańsk of 1 August 2024, ref. no. RDOŚ-Gd-WOO.4221.70.20244.KB.1 (received on 7 August 2024);
- letter of the Director of the Maritime Office in Szczecin of 31 July 2024, ref. no. WŚ.52011.5.24.AZ(10).

Detailed explanations as regards the letter of the Regional Director for Environmental Protection in Gdańsk, ref. no. RDOŚ-Gd-WOO.4221.70.20244.KB.1

The bird flight altitudes recorded by an ornithological radar, which are presented in the migratory bird inventory survey report, range from 10 m a.s.l. to 2000 m a.s.l., and the data obtained based on visual observations are complemented by the observer's (ornithologist's) estimates and the altitudes range from 1 m a.s.l. to 500 m a.s.l., which is the highest level observed. In this document, the data on the flight altitude in a graphical form are presented with a division into classes (e.g. with an accuracy of 20 m for visual observations), which illustrate the flight altitudes for individual species or species groups for individual phenological seasons. Next, as part of the impact assessment procedure, the precise and current WTG height parameters were compared to the bird flight altitudes recorded both by an ornithological radar and as part of visual observations, thus calculating the collision risk. This analysis covered all the bird flights within the rotor range for the options for which a decision amendment was applied for.

The conducted and described migratory bird inventory surveys presented in the inventory survey report fully allowed for new modelling of the collision risk for the newly defined options of the Investment. There is no need for re-valuation of the area, as the findings and the results of data analyses will be identical. The changes only covered the analyses conducted in Volume III and referred to the collision risk and the barrier effect and re-assessment for WTGs with a number and parameters subject to amendment.

The differences concerning the height levels in individual options and the percentage share of flights at individual altitudes for the species in the inventory survey report were corrected and are presented below in Table 4.15 in the form of an errata to the documents. The inventory survey document refers to the survey results and customarily no reference is made to the Investment options in this document. The impact on migratory birds in each of the analysed Investment options is assessed in Volume III of the EIA Report.

References to the species and flight altitudes:

a) The long-tailed duck, migratory ducks – the inventory survey report quotes the data describing the duck flight altitudes at night coming from the available literature, which refers to a broader phenomenon, i.e. migrations of wetland birds. On the other hand, the radar data about the recorded flight routes at night for this OWF area indicate very low bird activity at collision altitudes, due to which there is no need to refer to these species in the environmental impact assessment.
b) The common crane – as a result of analysing the risk of this species colliding with WTGs, taking account of the flight altitudes recorded for common cranes during the fieldwork, a mitigation recommendation was introduced, i.e. a WTG shut-down system in the case of detecting common crane flight routes at collision altitudes (Volume III, Chapter 17.3 – I.3.7, I.38).

c) Small nocturnal migrants – the highest number of flights was recorded at an altitude of 0–20 m, and the highest flight intensity was also recorded at collision altitudes. Therefore, the proposed mitigation measures include a system for monitoring nocturnal mass bird migrations, which would shut WTGs down in dangerous situations. This is thoroughly described in Volume III: I.3.8. The OWF should be provided with a bird flight monitoring system and a shut-down/speed reduction system for individual WTGs along the flight paths, which will be started up when the flights of the common crane or nocturnal migrants are detected. Individual WTGs should be temporarily shut down or have their speed reduced, and if this cannot be done, the entire OWF should be shut down.

Table 4.15. Specification of amendments to Appendix 9 Inventory surveys of migratory birds to the EIA Report for the FEW Baltic II

Page no.	Sub-chapter no.	Original text	Amended text	Justification
194	4.6.1.	In the spring migration period, during the day, the vast majority of bird species flew at low altitudes of less than 20 m. These were the flight altitudes of 95.72% of migrating divers, all long-tailed ducks, 95.66% of common scoters, 95.16% of velvet scoters, 99.19% of ducks of Melanitta sp. (unidentified to species), 91.64% of other ducks (Anatidae), all swans, 99.64% of razorbills, 90.58% of great cormorants, 94.76% of little gulls, 97.78% of black-headed gulls, 96.33% of large gulls, all skuas, all terns, 93.49% of passerines and 89.58% of common swifts. At flight altitudes reaching the WTG rotor heights in the first Investment option (22–272 m) and in the second Investment option (20–184 m), a dominant share of common cranes (80.00%), a substantial share of geese (33.65%) and quite a high share of little gulls (5.24%) were recorded (Table 2). The appearances of the Accipitriformes and owls were very occasional, and, therefore, the quite high share of these birds at rotor operating altitudes was negligible in statistical terms. The same referred to the occasional appearances of pigeons at low altitudes. At altitudes above the rotor operating height, only geese were recorded (17.31%).	In the spring migration period, during the day, the vast majority of bird species flew at low altitudes of less than 20 m. These were the flight altitudes of 95.72% of migrating divers, all long-tailed ducks, 95.66% of common scoters, 95.16% of velvet scoters, 99.19% of ducks of Melanitta sp. (unidentified to species), 91.64% of other ducks (Anatidae), all swans, 99.64% of razorbills, 90.58% of great cormorants, 94.76% of little gulls, 97.78% of black-headed gulls, 96.33% of large gulls, all skuas, all terns, 93.49% of passerines and 89.58% of common swifts. At flight altitudes of more than 21 m, the highest share of all common cranes, i.e. 71.42%, was observed at altitudes of 81–120 m. The highest share of all geese, i.e. 30.06%, was observed at altitudes of 21–120 m, and at altitudes of more than 321 m, 14.01% of all geese were observed. The highest share of all little gulls, i.e. 5.23%, was observed at altitudes of 61–80 m (Table 35). The appearances of the Accipitriformes and owls were very occasional, the same referred to the occasional appearances of pigeons at low altitudes.	The contents of Appendix 9 refer to the results of the inventory surveys and customarily no reference is made to the Investment options in this document. The impact on migratory birds in each of the analysed Investment options is assessed in Volume III of the EIA Report.
195	4.6.2.	In the autumn migration period, during the day, the vast majority of bird species flew at low altitudes of less than 20 m. These were the flight altitudes of 92.39% migrating divers, all long-tailed ducks, 95.03% of common scoters, 97.67% of velvet scoters, 66.10% of ducks of Melanitta sp. (unidentified to species), 74.78% of other ducks (Anatidae), all swans, all razorbills, 90.94% of great cormorants, all little gulls, 97.87% of black-headed gulls, 98.33% of large gulls, all skuas, 97.89% of terns, all common cranes, 77.78% of waders, all pigeons, 85.00% of passerines and 88.24% of the Accipitriformes and owls. The flights of geese were characterised by a flight preference for quite a wide range of altitudes, where approx. 90% of flights were recorded within a range from 0 to 200 m above sea level, with a share of 33.47% at an altitude of less than 40 m. Common swifts showed a preference for low flight altitudes of 0–20 m with a share of 51.88% in the group. At flight altitudes reaching	In the autumn migration period, during the day, the vast majority of bird species flew at low altitudes of less than 20 m. These were the flight altitudes of 92.39% migrating divers, all long-tailed ducks, 95.03% of common scoters, 97.67% of velvet scoters, 66.10% of ducks of Melanitta sp. (unidentified to species), 74.78% of other ducks (Anatidae), all swans, all razorbills, 90.94% of great cormorants, all little gulls, 97.87% of black-headed gulls, 98.33% of large gulls, all skuas, 97.89% of terns, all common cranes, 77.78% of waders, all pigeons, 85.00% of passerines and 88.24% of the Accipitriformes and owls, and 17% of geese and 33.53% of common swifts. At flight altitudes of more than 21 m, the highest share of geese, i.e. 48.47%, was observed at altitudes of 21–80 m, at altitudes of 81–200 m, 23.6% of all geese were observed, and above an altitude of 241 m, 19.94% of geese were observed. The highest	The contents of Appendix 9 refer to the results of the inventory surveys and customarily no reference is made to the Investment options in this document. The impact on migratory birds in each of the analysed Investment options is assessed in Volume III of the EIA Report.

Page no.	Sub-chapter no.	Original text	Amended text	Justification
		the WTG rotor height in the first Investment option (22–272 m), a dominant share of geese (75.93%), a substantial share of common swifts (67.61%) and quite a high share of great cormorants (9.06%), waders (22.20%) and passerines (15.00%), and a negligible share of terns (2.11%) and common scoters (4.59%) were recorded. At flight altitudes reaching the WTG rotor height in the second Investment option (20-184 m), a dominant share of geese (72.07%), a substantial share of common swifts (64.78%) and quite a high share of great cormorants (9.06%), waders (22.20%) and passerines (15.00%), and a negligible share of terns (2.11%) and common scoters (4.59%) were recorded. At altitudes above the rotor operating height, only geese were observed with a 7.08% share in the first option and a 10.94% share in the second option.	share of common swifts, i.e. 64.52%, was observed at altitudes of up to 160 m. At flight altitudes of more than 21 m, 9.06% of all great cormorants recorded during the day were observed at altitudes of up to 80 m, 22.22% of all waders recorded during the day were observed at altitudes of up to 80 m, and 15% of all passerines recorded during the day were observed at altitudes of up to 60 m. The share of terns and common scoters was negligible.	

Explanations as regards the comparison of the options, and assessment as regards changes in the parameters and emissions

The Investment options, including the option taking account of the proposed changes and the option feasible under the valid DEC, are in detail characterised and compared in Chapter 4, Volume I of the EIA Report.

Based on the above-mentioned options, a detailed analysis of the projected emissions was conducted, and the emissions are described in Chapter 5, Volume I of the EIA Report.

The environmental impact assessment of the Investment is in detail described in Volume III of the EIA Report. The assessment was conducted for both of the options, i.e. the current option taking account of the proposed changes (APO) and the previous option (covered by the permit), i.e. RAO, with particular attention paid to the influence of the proposed changes on the impacts presented in the Report, based on which the applicable DEC was issued.

Detailed explanations as regards the letter of the Director of the Maritime Office in Szczecin, ref. no. WŚ.52011.5.24.AZ(10)

Re 1. The collision risk

Contents of the Writ: *"With reference to increasing the maximum total height of offshore WTGs, including the rotor (from 300 m to 327 m), and increasing the maximum rotor diameter (from 250 m to 305 m), I hereby point out that these changes in the parameters seem to be of importance for migratory birds. It should be emphasized that under adverse weather conditions (e.g. fog, rainfall, low clouds), birds migrate at night at lower altitudes and, therefore, the probability of them colliding with a given object increases. Thus, such considerable changes in the Investment technical parameters influence the probability of increased collision risk and mortality, which may constitute a threat to birds wintering in the Polish zone of the Baltic Sea, e.g. ducks (long-tailed ducks and common scoters)."*

The assessment of the FEW Baltic II OWF impact on migratory birds, taking account of the changes, is included in Chapter 2.9, Volume III of the EIA Report. The impact assessment was based on the conducted model surveys of bird collisions and the barrier effect, the detailed results of which are presented in Chapter 4.9.1 (detailed assessment) of the said volume. Moreover, as part of the detailed assessment, i.e. the model surveys of the collision risk, the results obtained for the current variant taking account of the changed parameters were compared with the previous option, which is described in Chapter 4.9.1.2.3 (collisions: comparison of the options).

As a result of the collision risk modelling, the option taking account of the said changes was recognised as slightly more favourable in comparison with the previous option.

Due to the continuous technological progress in relation to the parameters of offshore WTGs, primarily the market availability of WTGs with increasingly higher capacity and, consequently, larger sizes, the Investor decided to update the Investment parameters by increasing the maximum total height of the WTGs and the rotor diameter. It should be noted here that although the parameters of a single WTG have been increased, their use allows for a significant reduction in the total number of structures (from 44 WTGs in the previous APO variant to 25 WTGs in the APO after the changes) and a reduction in the total sweep area of the rotors, and consequently, a reduction in the generated adverse impacts.

The above-mentioned change in WTG parameters was taken into account in the collision risk model surveys conducted for the purposes of the EIA Report, the results of which are presented in Volume III (Chapter

4.9.1.2), and, in particular, for significant species, i.e. the long-tailed duck and the common scoter. Next, the FEW Baltic II OWF's impact on migratory birds was re-assessed, taking into account the new Investment parameters.

Based on the results of the conducted modelling of the collision risk, the option after changing the parameters was recognised as slightly more favourable in comparison with the previous option, taking account of both the general consideration of the cumulative migratory bird resources and the indicator subjects of assessment.

Table 4.23. The summary of the differences between the FEW Baltic II Investment options in detailed assessment – general compilation

FEW Baltic II options – summary of the comparison:		**APO**	**RAO**
Comparative assessment of the FEW Baltic II options for aggregate values of the collision rate Subjects of assessment in individual flight analysis modules		**APO 25 x WTG**	**RAO 44 x WTG**
Diurnal migrations in spring and autumn	Number of all subjects of assessment	22	22
	Number of subjects of assessment with the collision rate of "0"	5	5
	Number of subjects of assessment with collision occurrence (excluding the rate value of "0")	17	17
	Total value of the collision rate for all subjects of assessment	39.39	52.21
Nocturnal migrations in spring and autumn	Number of all subjects of assessment	3	3
	Number of subjects of assessment with the collision rate of "0"	0	0
	Number of subjects of assessment with collision occurrence (excluding the rate value of "0")	3	3
	Total value of the collision rate for all subjects of assessment	117.59	170.13

Table 4.24. The summary of the differences between the FEW Baltic II Investment options in detailed assessment – for the indicator subjects of assessment

FEW Baltic II options – summary of the comparison:		**APO**	**RAO**
Assessment of the FEW Baltic II options for the distinguished indicator subjects of comparative assessment		**APO 25 x WTG**	**RAO 44 x WTG**
Diurnal migrations in spring and autumn/indicator species, including 1 group)	Long-tailed duck	0.00	0.00
	Common scoter	0.68	0.77
	Razorbill	0.00	0.00
	Little gull	0.12	1.35
	Geese	16.35	21.17
	Divers	0.17	0.26
	Common crane	3.99	5.34
	in total:	Σ 21.31	Σ 28.89
Nocturnal migrations in spring and autumn/indicator group	Small nocturnal migrants	92.20	132.45

The comparison of the results obtained (the expected number of collisions) did not show sufficiently significant differences to assign different degrees of impact assessment to the different options. Therefore, in the cumulative assessment for each variant, the collision risk was assessed with the same categories of negative significance.

Moreover, the detailed assessment ultimately allowed for indicating a more favourable option (according to the lowest number of expected collisions), however, marked as "slightly" more favourable according to the above-mentioned prerequisites. As a result of comparing the detailed assessment of the considered options of the FEW Baltic II Investment implementation and based on the obtained results of the model surveys of the expected collision rate, the option taking account of the proposed changes was indicated as slightly more favourable in comparison with the previous option.

In the context of the issue raised, the proposed change to the project results in reducing the number of WTGs and increasing their height (from 300 m to 327 m) and the diameter of each single rotor (from 250 m and an area of 49 087 m^2 to 305 m and an area of 73 062 m^2). However, the project implementation will result in reducing the maximum area of all the rotors installed within the offshore wind farm area from 2 159 828 m^2 to 1 826 550 m^2. This last parameter is of particular importance as it translates into the barrier effect and the collision risk.

Taking into account the impact assessment of the proposed changes to the parameters: maximum WTG height and rotor diameter, there is no basis to claim that these alterations negatively affect the probability of increased collision and mortality rates, and therefore they do not require a new transboundary impact assessment for the Investment.

Re 2. Radar systems

Contents of the Writ: *"With reference to the proposed change of the radar system into other monitoring and shut-down systems with the aim of continuous recording of bird flights through the OWF area, I hereby point out that admitting systems other than radar ones for detecting bird flights do not raise objections, however, it is not recommended to completely give up using these systems as they allow for effective detection of small birds and this type of systems is recommended for bird protection on offshore wind farms. When monitoring bird flights, it should be remembered to continuously record birds flying through the OWF area. Therefore, the system used should enable detecting and identifying the flights of all bird species, and it should respond by way of temporarily stopping rotor operation or reducing the rotor speed. Hence, the devices to be ultimately used for detecting and warning birds within the entire OWF area should be presented by way of providing a detailed description, including the option of shutting WTGs down in the event of a bird/birds approaching, along with indicating the flight altitudes in the case of which WTGs are to be shut down."*

The proposed changes are aimed at defining the character of the monitoring system through function, i.e. applying solutions which will automatically detect the flight paths and automatically assign information making it possible to define the sizes of the flying birds and flight parameters, i.e. the altitude, speed and course of the flight paths. The system should allow for detecting and identifying the flights of the common crane and nocturnal migrants. This provision allows for the admission of bird flight detection systems other than radar systems and will allow for the selection of the best available technological solution.

At the current stage, it is planned to use a radar system which will allow for detecting flying objects, determining their sizes as well as the flight direction and speed, and using a camera system. Nevertheless, once the Investment is implemented, other and potentially better systems may be available.

It should also be noted here that the amendments to the provisions regarding monitoring proposed in clauses **B.IV.3.2.e)** and **B.IV.3.2.f)** concern post-investment monitoring conducted during the operation stage in the OWF area from aboard vessels. Moreover, the provisions included in clauses **B.I.3.7**, **B.I.3.8** and **B.II.7** refer to the detection system which will be installed on WTGs and connected to the shut-down system, and which will be started in the case of detecting common crane and nocturnal migrant flights.

The Investor declared the operation of the detection system associated with the power plant shut-down system for the common crane due to the fact it was the species with the highest predicted number of collisions, not only among the identified species assessed individually but also as regards the species groups assessed. This species was also distinguished as regards the forecast (number of cumulative collisions) of the percentage share in the estimated abundance of the biogeographical population (approx. 350,000 individuals), which is close to 1% (approx. 0.87%). If the analysis conducted shows that, as a result of the project implementation, a number of affected birds constitutes 1% or more of the total biogeographical population of a given species, the impact caused is a relevant one. This suggests that the population is at a substantial risk, and it is necessary to undertake mitigation measures. On the other hand, it was decided to cover nocturnal migrants with no species composition identified with the shut-down system following the precautionary approach and bearing in mind the possibility of protected species occurrence.

It should be highlighted that, in the context of mitigation measures, protective measures should refer to those species which require protection due to adverse impacts identified. Therefore, this is no justification for the application of mitigation measures for all bird species if adverse impacts are not of substantial significance for them. Attention should be also paid to the fact that in the case of other offshore wind farms constructed in the PSA, the DEC provisions regarding detection and shut-down systems refer most often to common cranes only (Baltic Power, BC-Wind, Baltica 1) or such systems are not assumed to be applied (Baltica [2+3]). Similarly, in the EIA report prepared for the Bałtyk I OWF investment, the Investor did not take account of this mitigation measure. In this context, it is also worth emphasizing that the above-mentioned OWFs occupy larger areas and involve the construction of a higher number of WTGs than the FEW Baltic II (25 WTGs, 440 MW). For comparison: Baltic Power (131 km^2, 76 WTGs), BC-Wind (86 km^2, up to 41 WTGs), Baltica [2+3] (270 km^2, up to 209 WTGs), Bałtyk 1 (129 km^2, up to 104 WTGs).

In response to the needs of the Authority, the following wording is proposed for clause **B.I.3.7**:

Bird flights across the OWF area should be continuously recorded using a flight intensity monitoring system employing at least a radar system or another system characterised by detection efficiency no worse than that of a radar system, which automatically detects the flight paths and assigns information making it possible to define the sizes of birds flying in the area and their flight parameters, i.e. the altitude, speed, and course of the flight paths. The system should allow for detecting and identifying the flights of the common crane and nocturnal migrants.

and clause **B.II.7**:

Include in the design the need to implement a system of temporary shut-downs during bird migrations that allows:

a) temporary, remote shut-down/reduction of the speed of individual WTGs or the entire wind farm, with particular consideration given to weather conditions causing limited visibility during the period of the most intense migration of nocturnal migrants, i.e. from 15 March to 30 April and from 1 September to 31 October;

b) *temporary, remote shut-down/reduction of the speed of individual WTGs when flying cranes are detected.*

Based on the OWF bird flight monitoring system, the system should ensure immediate shut-down/reduction of the speed of WTGs along the route of the expected flight of nocturnal migrants and cranes, with an increased risk of collision for the migrants – by automatically detecting the movement of birds and automatically assigning information allowing for determining the size of flying birds and their flight parameters (altitude, speed, and the course of the flight route). The proposed system of temporary shut-down/reduction of the speed of FEW Baltic II WTGs should be optimised through the introduction of an automatic system for monitoring migrating bird collisions with the use of at least a radar system or any other system showing at least the same effectiveness of detection as the radar system, which will allow precise, real-time assessment of the necessity, scope and timing of its application, as well as the identification of specific WTGs the operation of which would require a short-term suspension of operation.

Re 3. Noise mitigation measures

Contents of the Writ: *"With reference to the proposed changes related to the measures mitigating the impact on marine mammals, it should be highlighted that a failure to indicate specific underwater noise reduction measures and using the phrase 'for example', i.e. the only proposed provision was 'to design and apply an underwater noise reduction system (for example, in the form of a bubble curtain or other mitigation measures of this kind)", in the Authority's opinion, does not fully secure these animals against the adverse effects of the Investment's impact. Moreover, the presented underwater noise propagation modelling was conducted for the winter season only, and, at the stage of the decision on environmental conditions issuance, the modelling covered all the seasons of the year, taking account of specific mitigation measures and the sound exposure level, which may raise doubts if it becomes necessary to modify this provision referring to mitigation measures."*

Making change proposals, the Investor declares to meet all the noise-related conditions agreed on at the stage of the previous assessment, keep the SEL_{ss}, SEL_{cum} levels, and what is more, the behavioural response levels. Moreover, it should be highlighted here that, taking account of the current technological progress as regards noise mitigation, it is counterproductive to indicate any specific solutions at the DEC stage. The Investor declares to choose such solutions which will allow for maintaining the declared impact levels and will not cause in any way a decrease in the protection of any of the animal groups affected by the Investment's impact.

As shown by the results of the modelling conducted for the purposes of the 2019 EIA Report, the farthest-reaching propagation of noise occurs in winter (Table 2).

Table 2. The areas with noise levels above the TTS threshold value for the harbour porpoise by season based on the results of the underwater noise propagation modelling conducted in the FEW Baltic II OWF area in 2019

Season	Area with noise levels above the TTS threshold value [km^2]
Summer	1072
Autumn	4258
Winter	10799

This is related to the characteristic water mass system causing acoustic rays to become curved towards the surface (positive refraction). Thus, in the winter season, the farthest-reaching ranges of the impacts of

individual effects (i.e. behavioural response, TTS, PTS) can be expected in the marine organisms analysed. The modelling results for the noise generated in any other season will always indicate smaller ranges than those obtained for the winter season, which, in this specific case, is the worst-case scenario as regards underwater noise propagation. Therefore, it is needless to model noise propagation and related impacts for seasons other than the winter season, as the scale of impacts will be lower than in the winter season,

Detailed results of the noise propagation modelling are presented in Appendix 2 to Volume III of the EIA Report, and Chapter 4.1.3 of the above-mentioned appendix presents the results of the propagation modelling for the piling procedure in a single location with the application of mitigation measures.

Moreover, as it was concluded in the marine mammal monitoring report: *"Passive acoustic monitoring of porpoises showed their sparse presence in the survey area. This result is consistent with the results of the SAMBAH project (SAMBAH, 2016), which indicate a small number of porpoises (with population density ranging from 0 to 0.0001 indiv. per km^2) and a very low probability of detecting porpoise echolocation signals in the survey area and the neighbouring sea basins".* Moreover, the said report stated that *"due to the low number of positive detections (DPD=6 in total), seasonal tendencies are difficult to determine".* Therefore, there are no substantive grounds for conducting the modelling in any specific season, as none of them is characterised by substantially increased porpoise activity in the survey area, which would potentially affect the assessment results for the porpoise. Thus, the Investor decided to conduct noise modelling in the winter season, as the farthest-reaching noise propagation occurs in this specific season.

Re 4. Chemical monitoring

Contents of the Writ: *"With reference to the proposed changes regarding the water and seabed sediment monitoring, the Investor defined the timing of the monitoring for the winter season preceding the commencement of the construction works. The timing of the monitoring is a factor that influences the obtained results, which is the consequence of at least water temperature and the ability to dissolve and/or occur in water of various substance concentrations or the results of individual parameters, e.g. the carbon dioxide content affecting the pH parameter value. The amendment also refers to a substantial reduction in the amount of work related to measuring hydrochemical parameters of water. This monitoring should be characterised by a frequency of works higher than once every five years."*

The monitoring of seawater, seabed sediments and suspended solids is described in Volume III, Chapter 18.2.

The first monitoring surveys are aimed at determining the initial conditions in the Investment area. Conducting the surveys in winter is optimal in this case, as it allows for reducing the impact of biotic factors, such as algal blooms which may affect the chemical parameters of water. Continuous monitoring has been abandoned because, by design, the FEW Baltic II is not expected to pollute water and sediments. Therefore, it will be sufficient if such a state of water and sediments is confirmed five years and ten years after the start of the OWF operation. If the area is found to be polluted, further monitoring will be agreed on with the administration. Since there are no known studies suggesting that any OWF causes water and sediment pollution, no pollution is assumed in this case and the multiple annual tests have been replaced with tests that are less frequent but cover more stations, which will allow better detection of pollutants.

Re 5. Removal of inconsistencies/obvious repetitions of legal regulations

Contents of the Writ: *"We take the position that the conditions for the implementation of the above-mentioned investment presented in the decision of the Director of the Maritime Office in Szczecin of 18 October 2021, ref. no. OW.52011.4.21.AZ(50), should not be removed in relation to the ongoing proceedings related to amending decision no. 14/202 on environmental conditions issued by the Regional*

Director for Environmental Protection in Szczecin on 30 November 2021, ref. no. WONS-OŚ.420.20.2020.KK.30, as regards changing the Investment parameters and some of the conditions of its implementation.

Because of the character of the planned investment, it is justifiable to indicate and clarify selected conditions for its implementation, which, in the applicant's opinion, are unnecessary as they repeat the requirements imposed directly under generally applicable regulations. The presentation of exemplary conditions in the approving decision of the Director of the Maritime Office in Szczecin was aimed at highlighting the essence and importance of these conditions for the proper implementation of the Investment. These conditions refer to a specific investment project and their specification resulted from an analysis of the Investment scope and their importance for such a large-scale investment.

Moreover, we believe that in the case of providing general information that the Investment should be implemented in compliance with the applicable provisions of law, there will be obvious difficulties with subsequent enforcement of proper implementation of the Investment by the controlling authority based on the provisions formulated in this way. When specifying the selected conditions, the formulating authority will in the first place verify the correctness of the Investment implementation based on their satisfaction, recognising these conditions as obligatory for the implementation and subsequent operation of the Investment. The Investor's obligation to implement the Investment in a general way, in compliance with the applicable provisions of law only, may result in a failure to satisfy all the requirements provided for in these provisions.

Therefore, we deem it quite controversial to accept the proposed removal of provisions referring to detailed conditions of the Investment implementation with the exception of updating the provisions amended in the course of time, and the statement that these conditions result from the generally applicable provisions of law is not convincing."

With reference to the provisions which were indicated in the original decision with the position of the Maritime Office in Szczecin, it should be pointed out that including them in the repeal application results from the fact that they de facto duplicate the obligations imposed directly under the generally applicable provisions of law, which prevail over the provisions of administrative decisions constituting pieces of legislation of individual nature. Therefore, public administration authorities do not need to introduce any obligations in relation to issues regulated by international agreements, laws, or regulations, as these obligations, irrespective of the issuance of decisions in specific situations, are based on the provisions of law. It has been claimed in judicial decisions and law-making practice that it is inappropriate to repeat in legal documents, including individual ones (decisions), legal obligations already established under other regulations. The Applicant understands and respects the position of the Maritime Office in Szczecin that referring to certain obligations in its standpoint was aimed at facilitating subsequent work of controlling authorities, but from the Investor's point of view, maintaining such provisions in the conclusion of the decision may have an effect opposite to the one assumed by the Authority.

When assessing from the sidelines the activities of an authority issuing a decision based on copying the applicable legal standard and the obligations imposed thereunder, it is impossible not to raise an objection that the Authority acting in this way is not authorised to decide within the scope covered by specific regulations and its activity denotes exceeding its competence. Moreover, it should be pointed out that in the event of a change in the obligations copied from other legal acts, discord may occur between the provisions of the decision issued and newly formulated legal regulations.

The Investor understands the Authority's concern for law and order, but it is legally doubtful that copying statutory obligations in the conclusion of the decision is the right solution. The objective of the Authority assessing or issuing a decision with reference to specific legal obligations can be achieved by way of instructing the Investor about these obligations, e.g. by way of including relevant provisions in the justification of the decision and not in its conclusion. Such a solution could point out or remind the Investor or, for example, controlling authorities about the existence of applicable legal acts and obligations imposed thereunder. Including such provisions in the conclusion is a definite overregulation and contradicts the assumption of professionalism and the knowledge of the law by public authorities.

When submitting an application in this regard, the Investor primarily aimed to protect itself from being accused of having the decision issued with infringement of law in the event of an inspection. The basic objection that can be raised is exceeding its competence by an authority copying the provisions from specific laws. Moreover, the Investor was guided by caution and the need to avoid situations in which, as a result of amending or repealing the provisions of law copied as the provisions of the decision, interpretation doubts could arise as regards the Investor's rights or obligations.

To sum up the reference to the issue discussed herein, it should be pointed out that, irrespective of the issues addressed as part of the environmental impact assessment, it should be remembered that issues related to the Investor's activities and obligations are not confined to the conclusions drawn based on the provisions of the decision on environmental conditions. The Investor's activity and undertaking further actions related to the implementation of the planned Investment entails the need to develop a number of additional expert studies and analyses, the findings of which will refer to technical issues and issues related to the broadly defined safety. These analyses will result, *inter alia*, in identifying obligations on legal grounds, the enforcement of which may turn out to be essential irrespective of the findings made and included in the positions of authorities responsible for environmental impact assessments. These activities will be the consequence of legal obligations and not the findings of the above-mentioned authorities. The following can serve as examples of expert analyses required by law:

- the Technical Expert Opinion for the Assessment of the Impact of the OWF and its Set of Devices on the National Maritime Security System (NMSS);
- the Technical Expert Opinion for the Assessment of the Impact of the OWF and its Set of Devices on the National Defence Systems;
- the Technical Expert Opinion for the Assessment of the Impact of the OWF and its Set of Devices on Polish Sea Areas A1 and A2 of the Maritime Search and Rescue Operational Communication System;
- the Navigational Impact Analysis for the Assessment of the Impact of the OWF and its Set of Devices on the Safety and Efficiency of Vessel Navigation in the Polish Sea Areas;
- the Technical Expert Opinion for the Assessment of the Impact of the OWF and its Set of Devices on the Systems of Radar Imaging for Technical Observation and Maritime Radio Communication of the Border Guard;
- the Rescue Plan;
- the Pollution Response Plan.

It should be noted that the Investor has already prepared the above-mentioned expert opinions for the FEW Baltic II investment and obtained their approval by the relevant authorities, including, in most cases, the Maritime Office in Szczecin.

Re 6. Need for a new DEC

Contents of the Writ: *"It should be noted that the far-reaching changes requested by the Investor in the current decision on environmental conditions may undermine the sense of the proceedings, the final effect of which is the issuance of the decision. The changes introduced are so significant that it should first be considered whether it is possible to do this at all by changing the previous decision, which may result in the Investor's reapplying for a new environmental decision. The increase in parameters alone means that this is a new investment, and a change in the decision can be said to occur when the parameters from the environmental decision are reduced, and not increased. In terms of environmental issues, the proposed changes may result in a reassessment of transboundary impacts of the Investment."*

The issues related to the potential change in the nature of the Investment and the change in its foundation technology have been explained in detail, along with the justification for the lack of the need to conduct a reassessment, in response to point 1 of the Writ from the Regional Director for Environmental Protection in Szczecin.

References

Bojadżijewa I., Siwiński P., Rączka J., Orzechowski K. 2024. Niespokojny Bałtyk. Polskie rybołówstwo a morskie farmy wiatrowe *["The Rough Baltic Sea. The Polish Fisheries vs. Offshore Wind Farms]* Instrat Policy Paper 01/2024.

Hawkins A.D., Johnson C., Popper A.N. 2020. How to set sound exposure criteria for fishes. J. Acoust. Soc. Am. 147: 1762–1777.

Hodos W. 2003. Minimization of Motion Smear: Reducing Avian Collisions with Wind Turbines; Period of Performance: July 12,1999 – August 31, 2002; NREL/SR-500-33249.

Lippert S., Rehbein N., Keuchel S. 2023. Prediction of the underwater noise emission during construction of the FEW Baltic II.

Smith P.E., Richardson S.L. 1977. Standard techniques for pelagic fish egg and larva surveys. FAO Fisheries Technical Paper No. 175, Rome.

Appendices

1. Application for DEC amendment (consolidated text in connection with the response to the Writ)
2. List of requested changes to the DEC
3. Summary of changes to the DEC along with justification in tabular form
4. Summary for the potentially affected states
5. Answer to RDEP writ compiled in English
6. Application for DEC amendment in English (consolidated text in connection with the response to the Writ)
7. List of requested changes to the DEC in English
8. Summary for the potentially affected states in English