Perineya

60 MW Wind Farm project

Shabla, Bulgaria

Translation of File Note – Project summary

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# 1. Description

# Wind Farm Shabla - Perineya is located in the southwestern part of the Shabla municipality – on the territory of Shabla Gorichane, Gorun and Prolez as is consistent with the decision of the municipal council of Shabla for agreed wind farm development zone № ІХ.11.1.1./20.10.2005г. The terrain is flat.

# 2. Land Rights

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| The project was launched at the end of 2006. It consists of 20 wind sites, and for the purpose, preliminary agreements were signed and entered with the landowners have establishing the construction right over the land plots. Perineya uses six SPV companies for establishing land rights and entering the preliminary agreements. It is intended that all 6 SPV’s to be consolidated under Perineya Ltd. The right of construction will be set up after rezoning the land. Notary deeds are established for the right to construct wind turbines. When selecting the turbine sites, all all regulatory requirements were met (Regulation 14) between the wind turbines / at least 5 times the diameter of the rotor and in the direction of the prevailing wind - 7 times/. The location of the wind turbine sites are shown in the appended cadastral map (in DWG format). Exact GPS coordinates of the turbines are also part of this document. |

# 3. On-site Wind Measurements [[1]](#footnote-1)

A Wind measurement/meteorological mast of 50 m height has been installed in the area of the village of Prolez. Measurements have been taken for the period 13.10.2006 to 19.11.2007. There is a preliminary agreement with DEWI to produce a site-related wind analysis and energy yield assessment report. Further wind measurement data to verify the analyisis can be purchased from 19.11.2007 to date.

The mean results of wind speed are 6.2 meters per second at a height of 50 meters.

4. Administrative procedures.

Administrative procedures for rezoning the land in the municipality of Shabla pass through amending the territorial spatial plan. At present, 14 applications have been filed with the municipal committee to rezone the land and 6 applications filed for construction permits (Current Status - one month after the initial 14 applications). All turbine sites are approved with the relevant authorities - the municipality, Environmental Inspectorate - Varna and the Ministry of Health. Ten applications for turbine sites are filed for turbines with 80 metre diameter and ten sites – for turbines with up to 90 meters diameter.

Perineya’s team has started the permitting procedure to amend all applications for turbines up to 90 metre diameter and turbine capacity up to 3 MW. Thus the total wind power generation capacity of the project can be increased to 60 MW. Following land rezoning, the construction right contracts will be signed with the land owners.

The projected schedule deadline for completing the procedures is September-October 2009.

5. Grid Connection

Preliminary grid connection statements have been received by Eon. Various grid connection options were developed through NEC; an SPV called "Perineya – Connect Ltd” has been set up for this purpose.

6. Finalising the construction permitting procedures

Following signing of the preliminary Grid Connection contract (PPA) with NEC, the technical designs and the detailed regulated plans are to be approved before the construction permits are received. A substation site has been identified, however, this will be confirmed and finalised following siging and receipt of the NEC grid connection agreement.

Possible grid connection sites:

* Substation of Shabla - 7 kms from the Perineya project substation
* The 110kV line - of 0.87 klm from the substation site

Appendices

Appendix 1:

Wind Measurement Report

Appendix 2:

Turbine Site GPS Coordinates[[2]](#footnote-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site No.** | **Company** | **Turbine type** | **North** | **East** |
| **1** | Almayuk Ltd | VESTAS V80, tower 105m | 43032`27.59``N | 028029`08.04``E |
| **2** | Almayuk Ltd | VESTAS V80, tower 105m | 43031`56.66``N | 028028`37.93``E |
| **3** | Sarameshe Ltd | VESTAS V80, tower 105m | 43031`46.44``N | 028028`19.63``E |
| **4** | Sarameshe Ltd | VESTAS V80, tower 105m | 43030`59.66``N | 028028`08.65``E |
| **5** | Karamanyuk Ltd | VESTAS V80, tower 105m | 43031`25.09``N | 028028`04.78``E |
| **6** | Karamanyuk Ltd | VESTAS V80, tower 105m | 43031`29.79``N | 028028`22.65``E |
| **7** | Perineia Ltd | VESTAS V80, tower 105m | 43032`03.77``N | 028029`42.09``E |
| **8** | Perineia Ltd | VESTAS V80, tower 105m | 43032`03.80``N | 028029`23.76``E |
| **9** | Balchishki Pat Ltd | VESTAS V80, tower 105m | 43030`45.99``N | 028028`25.57``E |
| **10** | Balchishki Pat Ltd | VESTAS V80, tower 105m | 43030`29.04``N | 028028`37.25``E |
| **11** | Prolez Ltd | VESTAS V90 – 3MW, tower 105m | 43033`36.37``N | 028028`09.41``E |
| **12** | Prolez Ltd | VESTAS V90 – 3MW, tower 105m | 43033`40.91``N | 028027`02.89``E |
| **13** | Komarevo Ltd | VESTAS V90 – 3MW, tower 105m | 43033`56.62``N | 028025`37.98``E |
| **14** | Komarevo Ltd | VESTAS V90 – 3MW, tower 105m | 43034`05.36``N | 028026`41.80``E |
| **15** | Vidno Ltd | VESTAS V90 – 3MW, tower 105m | 43034`47.64``N | 028025`44.80``E |
| **16** | Vidno Ltd | VESTAS V90 – 3MW, tower 105m | 43033`42.92``N | 028027`26.86``E |
| **17** | Gorichanski Pat Ltd | VESTAS V90 – 3MW, tower 105m | 43030`17.11``N | 028028`52.94``E |
| **18** | Gorichanski Pat Ltd | VESTAS V90 – 3MW, tower 105m | 43031`18.21``N | 028027`39.91``E |
| **19** | Gorichane Ltd | VESTAS V90 – 3MW, tower 105m | 43030`57.58``N | 028026`00.87``E |
| **20** | Gorichane Ltd | VESTAS V90 – 3MW, tower 105m | 43031`16.77``N | 028025`30.85``E |

Appendix 3:

Project development status

1. See Appendix 1 [↑](#footnote-ref-1)
2. KZ Notes: NB! Some minor differences in the site GPS coordinates may have occurred due to the Conversion from a different system. Plamen Georgiev to provide the updated turbine site location list by August 17th [↑](#footnote-ref-2)