REPORT ON
THE ENVIRONMENTAL IMPACT STUDY
FOR THE
„PESTERA WIND FARM”
Unincorporated area Pestera Commune, Constanta County

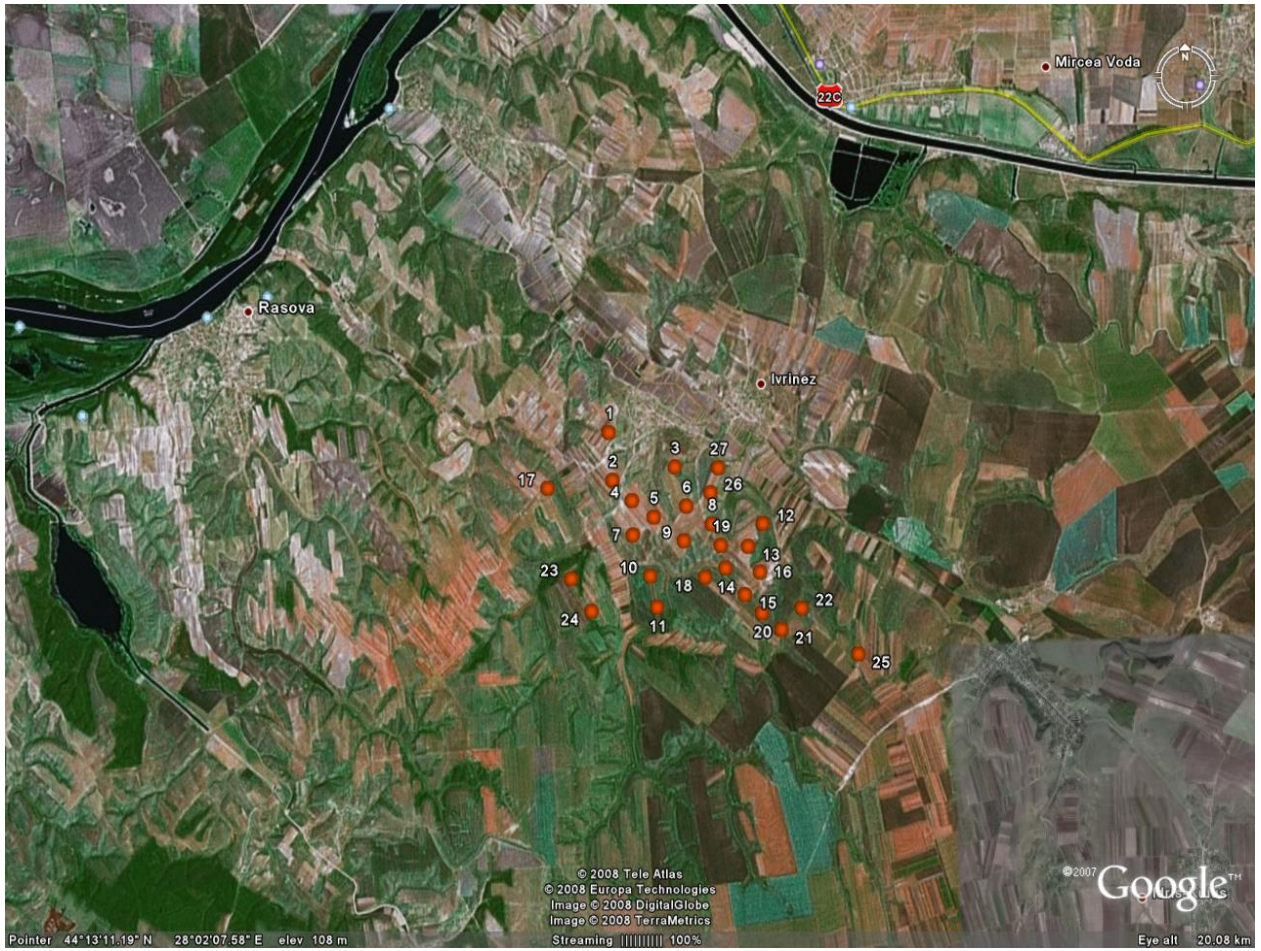
Beneficiary:
S.C. RENOVATIO POWER S.R.L.

Elaborated by:
ENVIRONMENTAL EXPERT OFFICE
TRAIAN PETRESCU

PROJECT DESCRIPTION

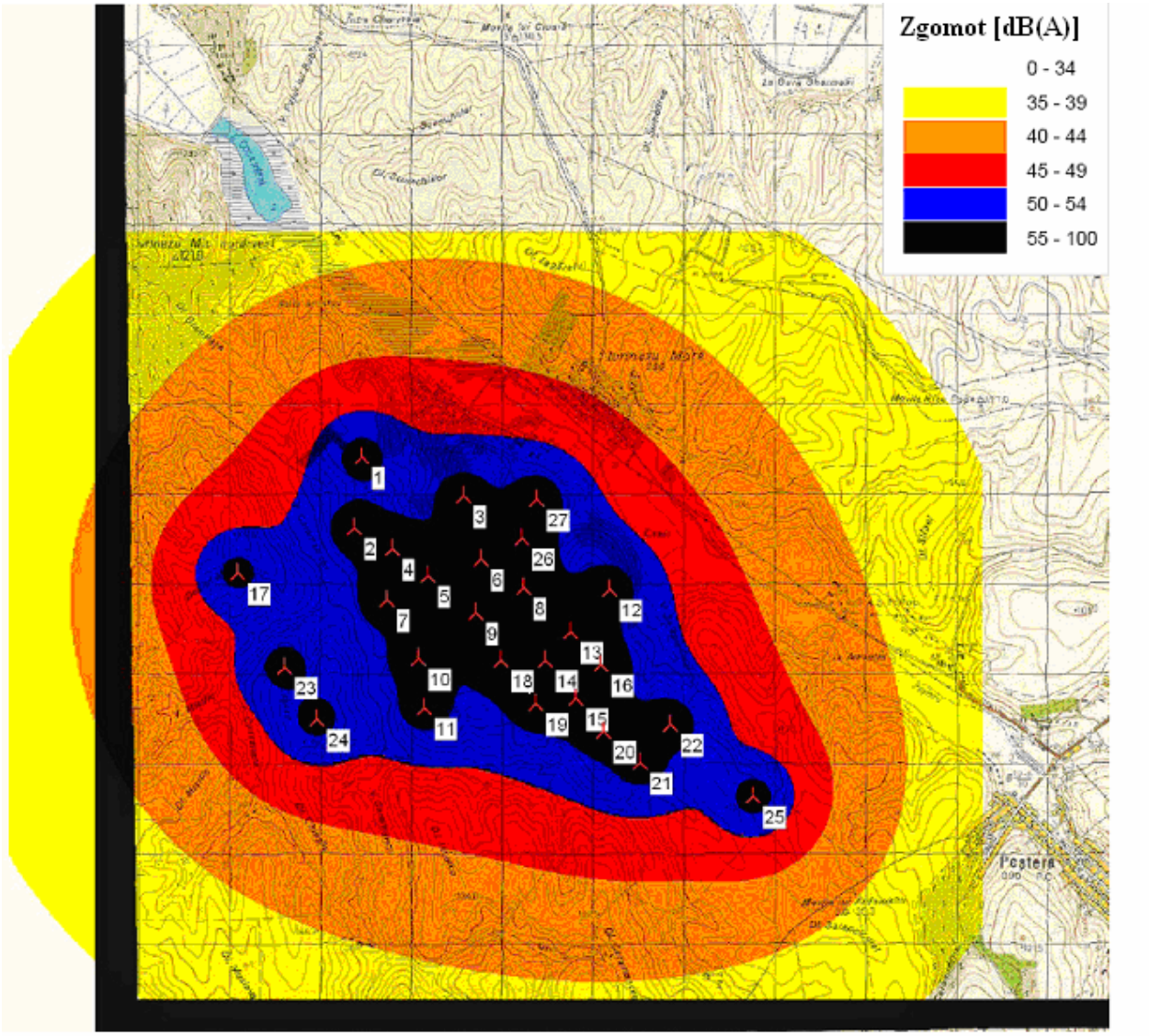
The proposal is for a wind farm assembly which produces non conventional energy. The complex includes 27 VESTAS V90 Aeolian type, 3 MW each, with a total output of 81 MW, including the necessary auxiliary installations.

The entire installation is located in an unincorporated area of Pestera Commune, Constanta County, on a field with the surface of 1.200 ha, 1.92ha of which will be withdrawn from the agricultural use.



NOISE PRODUCED BY THE AEOLIANS

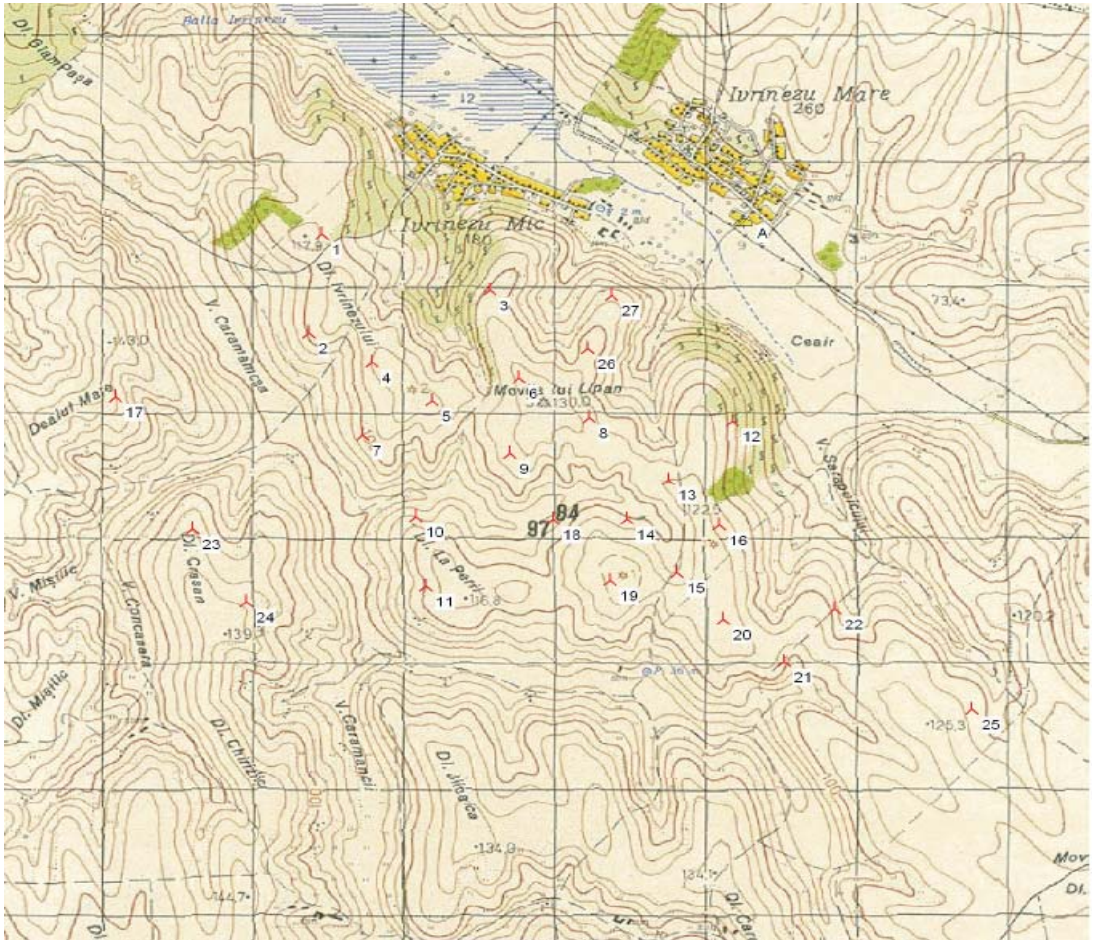
Using a simulation program, a diagram was created showing the noise emissions of the entire wind farm which will consist of 27 wind mills.



Due to the fact that the wind farm is located at about 550m distance from the Ivrinezul Mic village, the noise level will be under 45 dB(A) in the village, which is within the permissible limits. The minimum distance on which an Aeolian can be installed is 500m from a residential area, in order to respect the admissible noise level.

MAXIMUM SHADING EFFECT

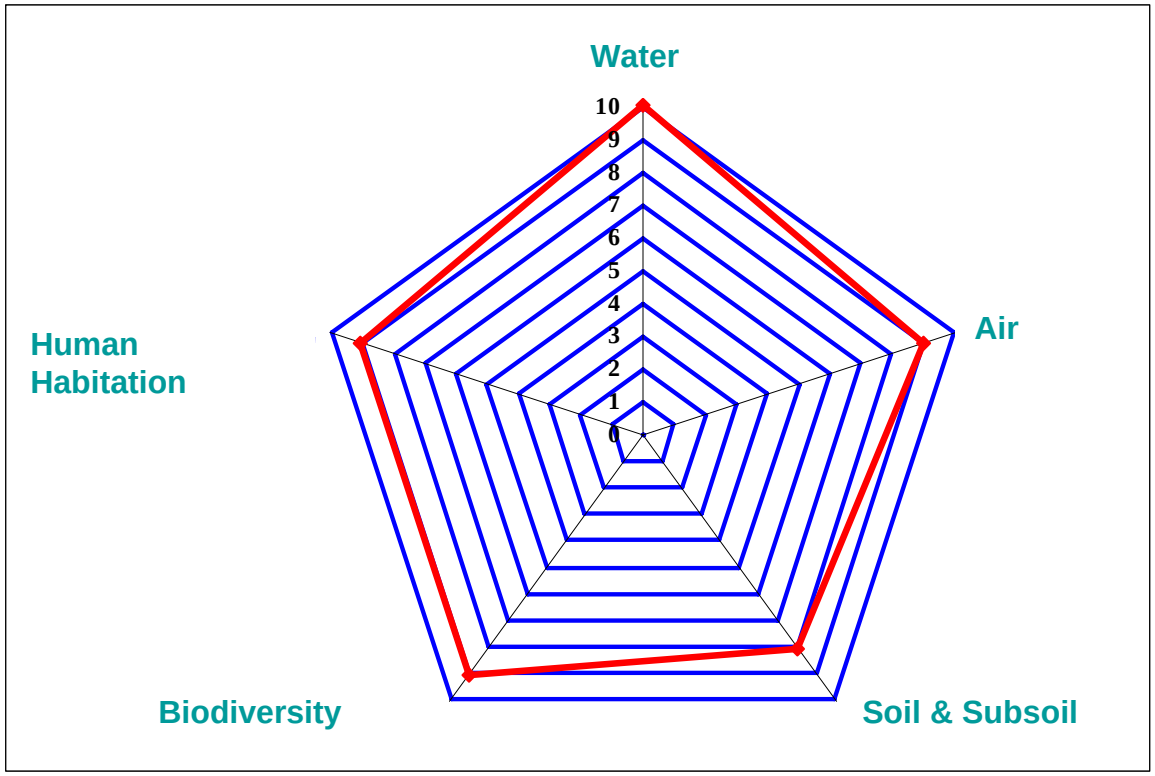
The following diagram shows the shading effect produced by the wind farm ensemble - composed of 27 wind mills, in conformity with a simulation program:



New Turbine Shading

Because the piece of land is located on an unincorporated area, without any population, the shading effect on persons living nearby does not have to be taken into consideration.

FORCASTED IMPACT ON THE ENVIRONMENT



Calculation to establish „The global pollution coefficient" - IPG establishes to the following value: **IPG = 1,23.**

Acting in accordance with the "Quality index" for IPG = 1,23 the result is that by the projected objective's accomplishment, the environment governs the admissible limits to the human activity.

RECOMMENDATIONS

In order to prevent impact of birds, the tops of the blades of the Aeolians will be painted in fluorescent colours.
The towers will be signalled with a red intermittent light, having a pause between two flashes.
Excesses of waste waters resulting from construction activities may not be emitted into the ground. For the workers ecological toilets will be used.
In case of possible accidents with spillage of waste water, oil or fuel from the machinery used in the construction, the collaboration with companies specialized in de-pollution is recommended.
Storage of materials or driving of vehicles on the grass plots is prohibited, except for those designated to the organisation of the construction area.
Affected areas have to be recutlivated with fertile soil, starting from 0,5 m distance from the tower base, so that, besides the designated land of the project, the entire area will be reintegrated into the agricultural circuit.
The Aeolians will be constructed in such a way that the site contour limit, noise levels and vibrations will be inside the imposed limits by the current standards.
Fire prevention activities should be sustained with adequate measures, in conformity with active legislation and manufacturers recommendations.

FINAL CONSIDERATIONS

After the execution of the study, consultation of imposing bibliography and statistic data, the following conclusions were drawn:

The benefit of electricity production through non polluting methods cannot be denied, because this practice provides energy production without polluting emissions specific to other procedures.

During their operation, the Aeolians do not produce any kind of pollution on the environmental factors, due to the fact that Aeolian energy is clean (green) energy.

Being located outside of the protected areas (parks, reservations, etc.), the wind farm at the proposed site will not affect flora and fauna.

Aeolian installations in proximity to human agglomerations is recommended in the technical literature because migratory birds usually avoid these areas; their nesting and feeding areas are picked outside these inhabited areas.

The Aeolians have a positive impact on the landscape and they will contribute to the local economical development.

The study elaborator recommends the issuance of an environmental agreement by the environment protection authority for the objective *„Construction works for new electricity production installation - 27 wind mills, construction works, extension of distribution networks, build up, modification, repair, modernization and rehabilitation for the communications – access”* , *located in the unincorporated area of Pestera commune, Constanta county*. The impact on the environment due to construction and operation of the analysed objective is well within admissible limits.