



Windenergyproject in Ukraine/ Crimea/ Region Siwasch

1. General data:

Location of the land plot	Ukraine, the Autonomous Republic of Crimea, Sovetskiy district, Sivash Gulf Coast, lands reserve of Dmitrovskiy village council
Overall power of the project	Up to 400 MW (Phased construction and commissioning)
Sale value of electric energy in Ukraine	Not less than 11.4 Eurocent net of VAT (price is adjusted according to the euro exchange rate)
Mean wind speed (m/sec)	9,35 (m/sec) - December 2009, 8,30 (m/sec) - January 2010 9,37 (m/sec) - February 2010 7,45 (m/sec) – March 2010 7,01 (m/sec) – April 2010 (Anemometer is located at the altitude of 81,5 m.)
Duration of right of land use for Project	After signing of a contract it will make 49 years

Status of the project

2. Land lease:

At present:

1. Materials on preliminary coordination of location of the land plot for the construction and maintenance of wind farm are already approved at the Soviet district state administration. (Order № 639-p dated by 30.10.2009. Pursuant to this order we have acquired the status of "the person in respect of who the decision on land transfer (grant) has been taken."
2. Allocation act for land plot № 42/09 has been approved.
3. Permission for designing the land-utilization project for allotment **of 2500ga** of land plot for construction and maintenance of wind farm has been received;
4. Permission for development of design and survey works on construction and maintenance of wind farm has been received.
5. At the moment we collect necessary baseline data to develop a land-utilization project for allotment of 2500ga of land plot for construction and maintenance of wind farm.



(performance of topographic survey of the land, development of urban planning conclusion, development of wind farm master plan scheme).

2.2. Connection to the power grids:

power grids availability

Due to the consultations conducted with the representatives of the “Crimean Electric Power System” of State Enterprise National Power Company and the “Ukrenergoproekt” planning and designing organization, Kharkiv, regarding connection of “Sovetskaya” wind farm to the power grid it was determined that the existing power grid can accept power which we are planning to produce in the amount of 400 MW.

To determine the technical conditions for wind farm connection to power grids it is necessary to carry out development of options for technical solutions on electric power output from wind farm to power grid (designer - "Ukrenergoproekt", Kharkov).

The developed options of technical solutions on electric power output from wind farm to power grid will be considered by the commission with the participation of the State Enterprise National Power Company “Ukrenergo” (NPC “Ukrenergo”). The technical conditions for wind farm connection to power grids will be elaborated and approved based on the finally selected version.

- Necessity of investments

According to preliminary estimates options of technical solutions on electric power output from wind farm to power grid can be as follows:

a) Construction of distributing substation 330 kV with a breakdown into the “Dzhankoy-Simferopol” overhead power transmission line 330 kV. Construction of overhead power transmission line 330 kV from wind farm to new distributing substation 330 kV with a length of approximately 42 km. Estimated cost of this option is around 20 million Euro (it is about 3% of the total cost of construction)

b) Construction of overhead power transmission line 330 kV from the wind farm to “Dzhankoy” substation 330 kV with a length of 55 km: reconstruction of "Dzhankoy" substation 330 kV to ensure the connection of overhead power transmission line 330 kV. Estimated cost of this option is about 18 million Euros (it is less than 3% of the total cost of construction);

Current status

At the moment the technical assignment (TA) for design is already agreed at NPC “Ukrenergo”. In addition the work on development of scheme options for electric power output from wind farm to existing power grid system has also begun.



2.3. Measurement of wind power:

We have concluded an agreement on conducting wind power measurements with the German company "Geo-Net" (Hanover). The meteo mast of 80 m height was already designed, manufactured and installed. A wind measuring campaign was launched at the beginning of December 2009. Reports for first 3 months from the "Geo-Net" company were already received. The wind measuring campaign will be finished in December 2010.

2.4. Ornithological researches:

Preliminary expert report regarding the ornithological situation in the area of supposed construction of wind farm in the north from the Dmytrivka village of the Soviet District of Autonomous republic of Crimea:

The backcasting (retrospective analysis) of ornithological situation in the area of supposed construction of "Sovetskaya" wind farm and adjacent territories in the north from the Dmytrivka village of the Soviet District of Autonomous republic of Crimea allowed making the following conclusions:

The land where the "Sovetskaya" wind farm is planned to be built does not have great importance for birds, so a partial utilization of the land for the construction of wind power units would not harm significantly the local bird fauna.

At the same time, the Sivash coast is a very critical place in the ornithological relation. Massive and regular birds' movements from land to Sivash and back are observed in this area in different periods of the annual birds' cycle. Birds are mostly exposed to great danger during spring and autumn migrations, especially hygrophilous species, especially those that are mass-fed in the land and rest and drink water at the reservoirs. Above all it is applied to geese, some species of ducks, gulls and terns. Thus, the preliminary estimate determines that there are no essential contraindications for the wind farm construction in the area of the Dmytrivka village even taking into consideration the potential danger for birds in migration and winter periods. However, the final conclusion on the possibility of wind farm construction in the mentioned territory requires special fundamental studies of the ornithological situation within all annual birds cycle."

As for now the implementation of the special fundamental studies of the ornithological situation in the area close to the Dmytrivka village of the Soviet District of Autonomous republic of Crimea within the annual cycle is already started.



Statement of Project financing

№	Name of Project stages	Source of finance		Check off	Note
		"New energy technologies" Ltd.	INVESTOR		
1.	Site selection for the wind farm construction	+	–	100%	
2.	Land allotment	+	–	40%	
3.	Obtaining technical conditions for power grid connection	+	–	30%	Advice from the investor
4.	Analysis of the wind power	+	–	40%	
5.	Studies of the ornithological situation	–	+	20%	Advice from the investor
6.	Environmental impact assessment	–	+		Advice from the investor
7.	Development of feasibility studies	–	+	10%	
8.	Designing the wind farm	–	+		
9.	Purchase of wind-power units	–	+		
10.	Delivery of the wind-power units	–	+		
11.	Construction of the wind farm	–	+		
12.	Construction of power transmission line for power grid connection	–	+		

