



TREN/07/FP6EN/S07.70442/038514 SEMS

SEMS

Sustainable Energy Management Systems

Instrument: **Integrated Project**

Thematic Priority: **No. 6: "Sustainable development, global change and ecosystems (including energy and transport research)"**

D 5.05.1 Installation site defined

Due date of deliverable: **M37**

Actual submission date: **M37**

Start date of project: **1st June 2007**

Duration: **5 years**

Organisations name of lead contractor for this deliverable: **RSP**

Revision **01**

Project co-financed by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	PU
PP	Restricted to other programme participants (including services)	
RE	Restricted to a group specified by the Commission (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Deliverable D 5.05.1
Installation site defined
WP 5.05 WIND ENERGY SŁUBICE

Within the EU-Project “Sustainable Energy Management Systems”
Contractor: European Commission within the Concerto II Initiative in the 6 Framework
Research Program

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Introduction

As a result of long-lasting preparatory works carried out by STARKE WIND sp z o.o. in 2002-2010 in connection with building a wind park in community Słubice an area of about 400 ha belonging to Rolnicza Spółdzielnia Produkcyjna Golice (Agricultural Production Cooperative in Golice) was designated. Applicable regulations, the necessity of keeping laborious procedures, meeting environmental protection requirements and requirements in connection with feeding in the wind park into the grid, reaching grid access contract-all these things have caused that the investment got building permission in 2008.

An investor entitled to build Golice Wind Farm is a spanish concern ACCIONA that has formed a subsidiary company ACCIONA ENERGY POLSKA S.A in Warsaw which next has formed the company Golice Wind Farm sp. z o.o.

GOLICE WIND FARM SP. Z O.O. belongs to the capital group ACCIONA which is active on the global market for renewable energy. Head office is Madrid (Spain).

ACCIONA Energy is a global leader in preparing wind farm projects, in building and exploiting wind farms. Acciona energy has an experience of more than 15 years in this field. Acciona is one of the most leading residential construction company and an owner of wind farms on the global market for renewable energy.

Membership in the capital group ACCIONA is a guarantee for an access to experience and competence needed for project realization.



Before the location for Golice Wind Farm was chosen, a number of researches on windiness have been carried out; Research results from the Institute of Meteorology and Water Management in Warsaw have been taken into consideration. Słubice has the first and second category of windiness which means that the location is good for building a wind farm.



Project's Location

Place: Golice

Administrative district: Słubice

Voivodeship: Lubuskie



Rys.1 Computer simulation for placing wind turbines



Project scope

Within the project “Golice Wind Farm” 19 wind turbines will be installed (2,0 MW each turbine). Total power of the Golice Wind Farm is 38,0 MW. The investment area is 400 ha.

Moreover, within the project following infrastructure was planned:

- installation of medium voltage cables connecting the turbines and the transformer station,
- building the transformer station,
- Installation of energetic cables connecting the transformer station and a high-voltage overhead line (110kV),
- building fibre-glass telecommunication network,
- interior roads,

Qualified expenses: **PLN 195,544,700.00**

(total costs of the investment **238,575,969.06 PLN**).

Crucial characteristics of the project:

1. The project will increase the share of renewable energy in Poland which will next result in replacing the traditional production technology (that rely mainly on coal). This is part of domestic energy strategy and EU energy policy.
2. **According to international regulations Poland has committed itself to reducing greenhouse gas emissions and to reaching a 15% share of energy from renewable energy sources in the domestic energy consumption by 2020.**
3. The wind energy has the highest growth potential and that is why ambitious goals are being set at EU level for this technology. The main premise for the project realization was the demand for renewable energy sources on the market and an existing shortage in this field.
4. The undertaking will be described as an investment producing „green energy” from renewable sources. It will enable to reduce the level of emissions released into the environment from the conventional energy sources and thanks to it contribute to the reduction of natural source consumption.



Schedule of building works

	Start	End
Construction	2010-06-30	2011-12-31
1. Contractor's choice/signing the contract „turnkey ready“	2010-06-30	2010-12-17
2. Construction – energetic elements	2010-12-17	2011-09-30
3. Construction part	2010-12-17	2011-11-30
a) interior roads	2010-12-17	2011-09-16
b) foundations	2011-02-15	2011-09-16
d) Installation of wind turbines	2011-03-17	2011-11-15
e) Feeding in into electricity grid	2011-09-30	2011-11-30
f) Activation of wind turbines	2011-09-30	2011-11-30
4. Usage permit	2011-11-30	2011-12-31
EXPLOITATION	2011-12-31	2036



Advancement of the project

The rules of the regional development plan for Golice and Lisów are in force for the area on which wind turbines have to be located. This regional development plan was approved on 28th March 2007 by the town council of Słubice and by this way it designates the area for building the wind park.

Administrative proceedings in the area of environmental impact assessment (OOŚ) were carried out in accordance with environmental-protection law (from 2001) that regulates this issue of OOŚ until the 15th November 2008.

The mayor of Słubice issued on 20th March 2008 an administrative decision on environmental conditions.

On 13th November 2008 a building permission no. 393/2008 was issued for an investment including building 19 wind turbines, road re-building, building grid network (cables), building a high-voltage overhead line (110kV) and including shifting of an electric pole.

All documents needed for the beginning of the investment have been acquired.

The project is being executed in accordance with schedule of building works.



Project's results

Main result: production of electric energy using renewable energy sources (wind turbines).

Other results:

- Influence on diversification of electric energy sources in Poland,
- Increase of capacity in lubuskie province,
- Increase of the use of wind technology in lubuskie province. The estimated production a year is **80.000MWh (40 000 households can be provided with electrical energy)**,
- Reduction of CO₂ emissions. The estimated reduced emission a year: **77 625 t/a**,
- New workplaces – indirectly through subcontractors during building and project exploitation,
- Activation of local entrepreneurs mostly during the period of building and during exploitation as well (commercial services, accommodation, catering services, etc.),
- Development of technical infrastructure (roads, modernization of energetic lines, etc.),
- Revenues for local authorities (taxes).



Annex I

Example photos for various stages of construction





