



Increasing efficiency of wind power plants for the production of energy - Wingy Pro -

With current generator technologies a further significant growth in power generation becomes a difficult task to achieve due to the enormous weight and size of the generators.

In order to overcome the limitations of currently used generators in wind turbines the Lloyd Dynamowerke (LDW) and Bremer Centrum für Mechatronik (BCM) from Bremen (Germany) have successfully developed and built the first time ever 50 kW (8.7 kNm Transverse Flux Generator) TFG prototype.

The main advantages of using Transverse Flux Machines are:

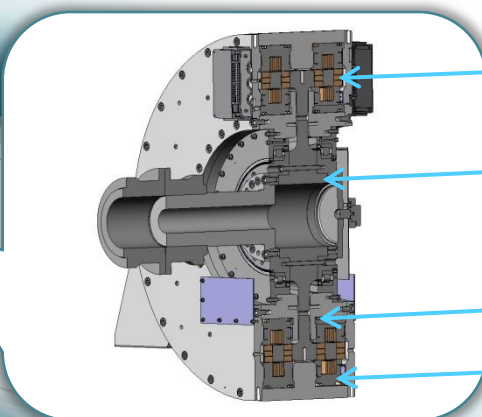
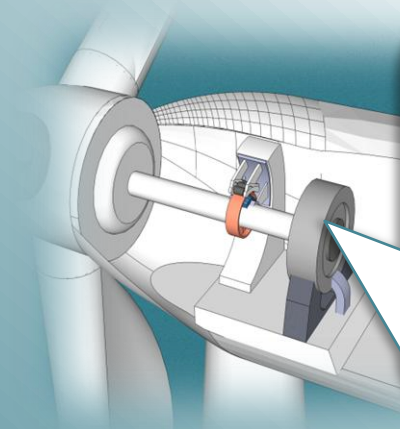
High torque
Generator size and weight strongly reduced
No gear box needed (reduced maintenance)
Specialised converter for grid connection
Increased reliability and efficiency
Reduction of copper

The aim of the Wingy Pro project is to make a scale up of the 8.7 kNm (50 kW) TFG to 54 kNm (250 kW), get it validated and installed into a medium size wind turbine for further testing and demonstration.

The new generator will be ready for demonstration at the beginning of 2012 at LDW facilities.

Are you interested in TFGs and do you want to take part in a demonstration event?

If the answer to this question is yes, than **please contact the coordinator** of the project.



Permanent magnets

Rotor

Water cooled

Stator





Cresterea eficientei turbinelor eoliene pentru producerea energiei - Wingy Pro -

Cu tehnologia utilizata in prezent cresterea semnificativa a puterii generate devine o cerinta foarte dificila de atins datorita greutatii si a dimensiunii enorme a generatoarelor.

Pentru a depasi limitarile generatoarelor utilizate in prezent in turbinele eoliene Lloyd Dynamowerke (LDW) si Centrul pentru Mecatronica din Bremen (BCM) au realizat si construit cu succes pentru prima data un prototip al unui generator cu flux transversal de 50 kW (8.7 kNm TFG).

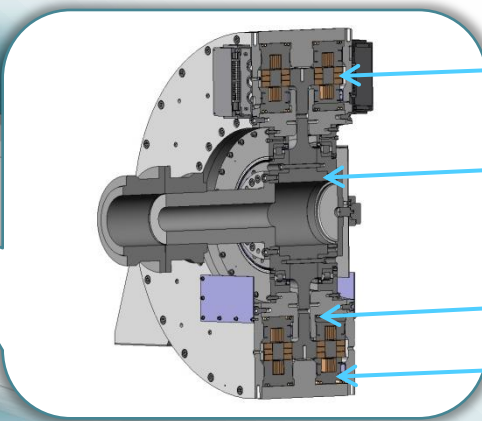
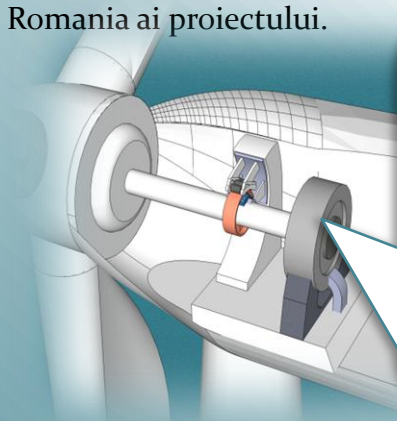
Avantajele principale ale utilizarii generatoarelor cu flux transversal (TFG) sunt:

Cuplu mare
Dimensiunile generatorului sunt reduse foarte mult
Cutia de viteze nu este necesara (mentenanta redusa)
Convertor special pentru conectarea la retea
Siguranta si eficienta in exploatare
Cantitatea de cupru necesara este redusa

Scopul proiectului este de redimensionare a generatorului de la 8.7 kNm (50kW) pana la 54kNm (250kW), a-l valida si instala intr-o turbina de dimensiuni medii pentru viitoare teste si activitati demonstrative.

Noul generator va fi gata pentru demonstrare la inceputul anului 2012 la compania LDW.

Sunteti interesat in tehnologia TFG si doriti sa luati parte intr-un eveniment demonstrativ? Daca raspunsul la aceasta intrebare este DA, atunci **va rugam sa contactati** reprezentantii din Romania ai proiectului.



Magneti
permanenti

Rotor

Racire
cu apa

Stator

