



## GH WINDFARMER PRICE LIST

GHWindFarmer offers unrivalled wind farm design capabilities and comes in a modular format in order to meet the specific requirements of each client.

### Base Module: maximise your yield

Price: € 2,000

Wind farm design and energy production assessment with advanced wake models. Layout optimisation, considers noise, boundaries, exclusions and setbacks. Load all major map formats and projections, allows projection conversion, image rectification and on-screen digitising. Uncertainty analysis, multiple project capability, mixed turbine types, wind rose, wind speed, height, ground slope, contour and noise maps, noise propagation models, data exchange, simple KML export (e.g for use in Google Earth) and extensive reporting capabilities.

### Visualisation Module: minimise your impact

Price: € 2,000

Full wire frame and rendered landscape visualisations with lighting and haze effects; photomontage, curvature of the earth, turbine animation, 360° panning and fly-through; and advanced zone of visual influence mapping. Use visibility constraints in the layout optimisation. Avoid or minimise impact on radar stations. Export animated 3D view of turbines to KML format for Google Earth.

### Turbulence Intensity Module: get down to the details

Price: € 2,000

Use your measured ambient turbulence intensity as a function of wind speed and direction in the wake models of your energy production assessment. Derive modification of the ambient turbulence due to terrain and other turbines. Obtain key parameters at each turbine for every wind speed and direction and calculate estimated design equivalent turbulence levels enabling manufacturers' warranted turbulence levels to be met.

### Financial Module: increase your revenue

Price: € 2,000

Link your financial or wind farm cost spreadsheet directly and dynamically to the Base Module. A template for the financial analysis of a wind farm is provided. Use the financial target function to optimise the wind farm layout.

### Electrical Module: plan your electrical infrastructure

Price: € 2,000

Model the wind farm electrical network from the grid connection to the turbines. Integrate cables, transformers and power factor compensation devices into the wind farm design; calculate losses and reactive power, and check for overloaded components.

### Shadow Flicker Module: good planning avoids conflict

Price: € 2,000

Calculate the occurrence of shadow flicker at specific receptors or in the form of a map for a given layout and topography. Identify the turbines causing shadow flicker and the time intervals of the occurrence.

### MCP+ Module: process your measured data

Price: € 2,000

Create a long-term wind regime at the wind farm using your measured data and interactively exclude unwanted data, adjust calibrations, display the wind rose, perform the MCP (Measure-Relate-Predict) analysis. Output frequency distribution files in WAsP \*.TAB format.

### WAsP: model the impact of terrain and roughness

Price: € 3,300 (may change, price set by Risø)

We recommend that you order the current version of WAsP to use with GHWindFarmer. WAsP is the industry standard flow model which is developed and supported by Risø.

All prices are exclusive of VAT and are subject to our standard terms and conditions  
October 2009





## Documentation

The software is supplied complete with comprehensive documentation consisting of on-line help, user manual, theory manual, validation report and tutorials.

## Languages (no extra charge)

The software and the user manual are supplied in Chinese, English, French, German, Greek, Italian, Japanese, Spanish, Portuguese and Turkish.

## Discounts

### Additional copies:

If you have a valid technical support agreement, you can order additional copies of GHWindFarmer modules at:

- 50% of the list price for copies 2 and 3
- 25% of the list price for copies 4 to 7
- 12.5% of the list price for additional copies

### Rental option

You can rent the full software package for 1 year at 40% of the list price. At the end of the rental period you can return the software, extend the rental period or purchase it at 75% of the list price.

### Educational discounts:

Discounts are available for educational organisations. Please ask us for more information.

### Important:

A combination of discounts is not possible. Extent and availability of the above offers may be subject to change without notice. Please contact us for advice on which offer is currently the most advantageous for you.

## Delivery (no extra charge)

The software is delivered to you free of charges for transportation, packaging and insurance. Any taxes or fees that may be levied by your government for the import of the software have to be paid by you or your import agent. Any taxes or fees levied by the government of the United Kingdom on the export of the software will be paid by us.

## Training, Support and Upgrades

Full training in GHWindFarmer is available and can be tailored to meet the needs of your staff. Training courses that are open to all are also available.

Users benefit from expert technical support, available 24 hours a day, through specialists in our worldwide offices. Initial purchases of GHWindFarmer include on-line technical support for the first 12 months. Further technical support is available for an annual fee of 15% of the list price, with a minimum charge of 1000 Euro.

During the technical support period any upgrades of the relevant modules will be made available to the user free of charge.

Please visit [www.garradhassan.com/support/ghwindfarmer](http://www.garradhassan.com/support/ghwindfarmer) for current contact details.

Please use the enclosed Order Form to secure your purchase

# GH WINDFARMER ORDER FORM

Please send your completed order form by email, fax, or post to the address below. Orders will be processed on receipt of payment and a signed software Licence Form.

Garrad Hassan and Partners Ltd  
 St Vincent's Works  
 Silverthorne Lane  
 Bristol BS2 0QD, United Kingdom

Tel: +44 (0) 117 972 9900  
 Fax: +44 (0) 117 972 9901  
 Email: windfarmer@garradhassan.com  
 Internet: www.garradhassan.com

Product / Module	Cost per copy in Euro*	Number of copies*	Cost
GH WindFarmer Base*	€2,000		
GH WindFarmer Visualisation#	€ 2,000		
GH WindFarmer Turbulence Intensity#	€ 2,000		
GH WindFarmer Financial#	€ 2,000		
GH WindFarmer Electrical#	€ 2,000		
GH WindFarmer Shadow Flicker#	€ 2,000		
GH WindFarmer MCP#	€ 2,000		
WAsP wind flow software	€ 3,300 ★		
# Requires the Base Module * See section on discounts ★ May change, price set by Risø ** VAT applies to all UK orders. Applies to other EU orders except if company is VAT registered. Does not apply to companies outside EU.			Sub-total:
			VAT if applicable **
			<b>TOTAL COST:</b>

October 2009

We recommend payment by bank transfer. Payments must be made to our UK bank account only.

**Bank:** HSBC, 2 Cannon Street, Bedminster, Bristol BS3 1BW, UK. **Account name:** Garrad Hassan and Partners Ltd.  
**Sort code:** 40-05-15 **Account number:** 35452796 **Swift code:** MIDLGB22 **IBAN:** GB92 MIDL 4005 1535 4527 96

We also accept payment in Euro with your order by cheque, made payable to Garrad Hassan and Partners Ltd.

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