



**POWER**  
Low Carbon Economies



## WICO GUIDELINES PREVIEW

14th April 2011  
EUSEW  
Brussels





**POWER**  
Low Carbon Economies



wiico

WIND OF THE COAST



# WICO PROJECT

- **2.1 Theme: Renewable Energy**
- **2.2 Sub-theme: Large-scale deployment of renewable energy schemes:**
- **General objective: to favour the application of small wind systems**
  - along coastlines by working out specific guidelines as transferrable tool to allow both the sharing of technical information on ‘new generation’ systems and the knowledge required to ‘knock down’ barriers to wider use of this technology (policies, economic viability of applications, financial incentive systems, awareness, etc.).

# Partners

- **Province of Ravenna (LP) - IT:**
- local intermediate authority with coordination tasks on various policies including environment and energy. It is responsible for the definition of the Energy and Sustainable Development Action Plan which is under development and giving priority to renewable energy generation from different resources
- **Diputacion of Huelva - ES:**
- Has been investigating the possibilities for wind electricity within the province for several years. It is looking at how the public sector can act to facilitate the widespread uptake of renewable technologies along the coastline, in particular small wind
- **Marine South East (MSE) - UK:**
- is active in areas of renewable energy generation, coastal spatial planning, technological innovation and policy development. The key role of MSE is to address the needs of the marine business sector across the South East of England.

# Activities

- **WP1 Management & coordination:** establishment of a PC composed by a representative from each project partner, and of a TSC composed by experts appointed by each partner who will deal with the technical implementation of the activities planned (see WP2,3,4)
- **WP2 Analysis of the framework:** aimed at the identification of the barriers to the application of small wind systems and the definition of the potential development of wind energy in the area (the factors determining barriers in each partner area; the territorial characteristics)
- **WP3 exchange of experiences and best practices:** Nr. 3 workshops to exchange experience and best practices on policies, market development and technologies
- **WP4 drawing up of the Guide Lines (GL) for the deployment of renewable energy from small wind systems:** policy instrument to improve the take-up of renewable energy and allowing at the same time the influence of policies also at upper administrative level (regions, state).
- **WP5 dissemination and communication:** local thematic workshops; joint press conferences and press release; joint international final conference; joint paper free dissemination

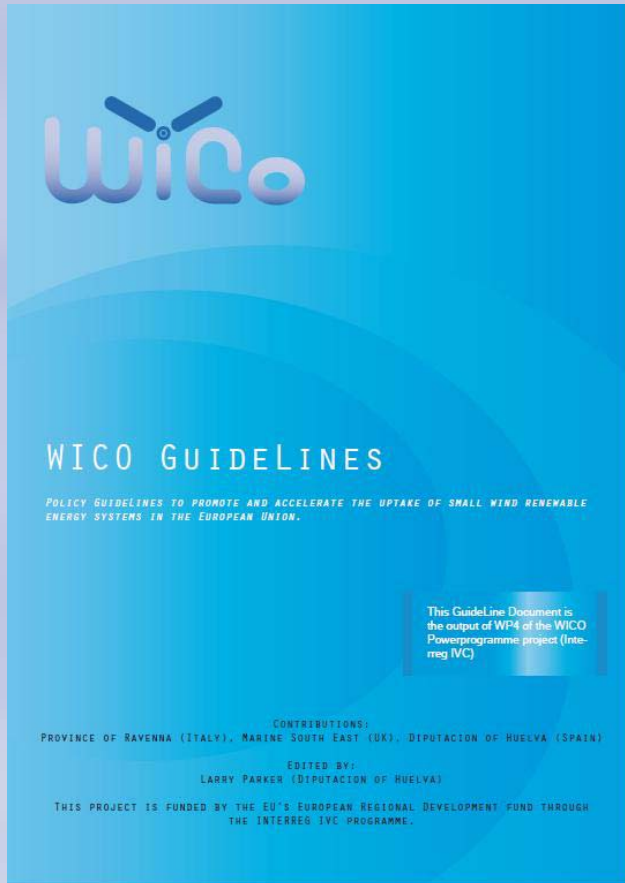
# Main Outputs & Results

- Guidelines for the production and a wider deployment of renewable energy from small wind systems
- 7 best practices transferred per partner
- 12 experts attending the interregional workshops, improving their knowledge
- 2 (per partner) policy influence or adopted at local level
- 1 (per partner) policy influence or adopted at regional level
- 90% paper free communication plan
- Increase of persons with increased knowledge of reducing CO2
- Reduction of CO2 emissions
- Concrete applications of small wind systems
- BUDGET: 224,200.00 euro (75% ERDF; 25% public co-financing)
- DURATION Start 01/07/2009 – End 30/09/2011

-ASSESS SITUATION AND POTENTIAL.

-IDENTIFY BARRIERS FOR IMPLEMENTATION.

- GIVE SOLUTIONS (GUIDELINES).



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## SUMMARY OF POLICY INITIATIVES

Nº	Policy Initiative	Level
P1	Legislation that stipulates the difference between small-wind and large wind	National
P2	Introduce a reliable and sustainable system of Feed-in tariffs to promote small-scale wind turbines connected to the grid	National
P3	Accompany Feed-in-tariffs with time limits for competent authorities and obligations for connection	National
P4	Accompany all Feed-in-tariffs and other monetary incentives with restrictions on the size of the installation	National
P5	Allow the possibility of net metering	National
P6	Reduce tax burden on individual who wishes to install	All levels
A1	Develop local by-laws specifically geared for small-wind	Local/Regional
A2	Streamline of bureaucracy specially geared for small-wind	Local/Regional
A3	Fast-track of administrative procedures	Local
A4	Training of key administrative personnel	Local/Regional
A5	Provide consistency at all levels of policy and legislation	Local/Regional
A6	Minimize burden of administrative fee on installer or owner	Local
F1	Provide grants for small-wind turbine installations	Regional
F2	(as P2) Introduce a reliable and sustainable system of Feed-in tariffs to promote small scale wind turbines connected to the grid	National
F3	Accompany Feed-in tariffs with time limits for competent authorities and obligations for connection	National
F4	Promote innovative financing mechanisms, like Third Party Financing and Results Purchasing.	Local/Regional
S1	Provide information and awareness campaigns for the general public	Local
S2	Provide information campaigns for politicians and other key decision-makers	Local/Regional
S3	Consult with citizens within the local vicinity	Local
S4	Take preventative measures to avoid feeding misperception- provide clear guidelines	Regional
S5	Avoid large miniwind parks	Regional
S6	Install Educational small-wind installations	Local
D1	Provide basic training for municipal and regional officers in optimizing small-wind performance	Local/Regional
D2	Introduce accreditation schemes for turbines	National
D3	Require production predictions	Local/Regional
D4	Introduce accreditation scheme for installers	Regional
D5	Investigate public procurement options for small-wind turbines	Regional

Nº	Policy Initiative	Level
D6	Assist consumer-choice with a website with information on products etc	Regional
T1	Install innovative designs in municipalities	Local
T2	Invest in ideas- local innovation technology/ development programmes	Local/Regional
T3	Provide monitoring equipment for existing installations	Local/Regional
T4	National R&D Investment	National

## KEY

Letter	Type of Policy Initiative
P	Policy-making
A	Administrative
F	Financial
S	Social
D	Demand-side
T	Technology-based

# Aim & Objectives of Guidelines

- Provide a decision-making framework for administrators and politicians with direct influence on policy design.
- Target audience.
  - Regional politicians
  - Local politicians
  - Municipal technical officers
  - Local Planning Officers
  - Students, teachers, and all citizens that may wish to see a faster development of small-scale wind.

# Contents

- Executive Summary
- Detailed explanation of the current situation in which the small-wind turbine industry finds itself.
- The work has been split into three main lines of action:
  - Policies, Market, Technical.
  - Main issues to small-wind turbine applications and installations
  - Policy Initiatives – coded according to type (P,A,F,S,M,T)

# Contents

<b>KEY</b>			
<b>Letter</b>	<b>Type of Policy Initiative</b>	<b>Letter</b>	<b>Type of Policy Initiative</b>
P	Policy-making	S	Social
A	Administrative	D	Demand-side
F	Financial	T	Technology-based

# Policies

- P1 Legislation that stipulates the difference between small-wind and large wind- National
- P2 Introduce a reliable and sustainable system of Feed-in tariffs to promote small-scale wind turbines connected to the grid- National
- P3 Accompany Feed-in-tariffs with time limits for competent authorities and obligations for connection- National
- P4 Accompany all Feed-in tariffs and other monetary incentives with restrictions on the size of the installation- National
- P5 Allow the possibility of net metering- National
- P6 Reduce tax burden on individual who wishes to install- All levels

# Policies- Administrative

- A1 Develop local by-laws specifically geared for small-wind- Local/Regional
- A2 Streamline of bureaucracy specially geared for small-wind- Local/Regional
- A3 Fast-track administrative procedures- Local
- A4 Training of key administrative personnel- Local/Regional
- A5 Provide consistency at all levels of policy and legislation- Local/Regional
- A6 Minimize burden of administrative fee on installer or owner- Local

# Market- Financial

- F1 Provide grants for small-wind turbine installations- Regional
- F2 (as P2) Introduce a reliable and sustainable system of Feed-in tariffs to promote small scale wind turbines connected to the grid- National
- F3 Accompany Feed-in tariffs with time limits for competent authorities and obligations for connection- National
- F4 Promote innovative financing mechanisms, like Third Party Financing and Results Purchasing- Local/Regional

# Market- Social

- S1 Provide information and awareness campaigns for the general public- Local
- S2 Provide information campaigns for politicians and other key decision-makers- Local/Regional
- S3 Consult with citizens within the local vicinity- Local
- S4 Take preventative measures to avoid feeding misperception- provide clear guidelines- Regional
- S5 Avoid large miniwind parks- Regional
- S6 Install Educational small-wind installations- Local

# Technology- Demand-side

- D1 Provide basic training for municipal and regional officers in optimizing small-wind performance- Local/Regional
- D2 Introduce accreditation schemes for turbines- National
- D3 Require production predictions- Local/Regional
- D4 Introduce accreditation scheme for installers- Regional
- D5 Investigate public procurement options for small-wind turbines- Regional
- D6 Assist consumer-choice with a website with information on products etc- Regional

# Technology- Technical

- T1 Install innovative designs in municipalities- Local
- T2 Invest in ideas- local innovation technology development programmes- Local/Regional
- T3 Provide monitoring equipment for existing installations- Local/Regional
- T4 National R&D Investment- National

# Good Practices

- PROSOL scheme in Andalusia

- *The PROSOL Project has been extremely successful, in 2008 grants were awarded to over 500kW of installed PV, 24kW of mixed PV-wind installations. Since its inception, PROSOL has overseen more than 8650 installations in Andalusia, representing an investment of 80 million euros, with 27 million euros of grants delivered, most of which has benefited individual citizens directly.*
- *Make sure that correct protocols are adhered to and that the grants are correctly and intelligently distributed. Supported installations must be carried out by accredited installers of the PROSOL scheme, of which there are currently 1214. To make sure the installations are eligible for the grants, the accredited installers must be able to guarantee correct functioning of the system and a 3 year maintenance guarantee with no extra cost to the customer. The accredited installers are also enabled to inform and process the application for installations on behalf of customers thereby saving them unwanted paperwork.*

# Good Practices

- FiT- Italy and UK

- *In Italy, FIT have been the choice stimulation for the small-wind industry. Wind installations whose maximum output power is lower than 200 kW get a Feed-in tariff according to Ministry Decree dated 18th December 2008, (DM n. 244, art.3, comma 2, ed art. 17 commi 1 e 2 called “tariffa omnicomprensiva”) that gives 0.30 € for each kWh. Wind installations whose maximum output power is higher than 200 kW can get the green certificates.*
- *In April 2010, the UK government created a FIT system which have displaced ROCs (Renewables Obligation Certificates) as the choice reward for various competing forms of microgeneration including small-wind ranging between 23 and 34.5 p/kWh depending on turbine size. FIT offer the best financial arrangement for small-wind turbines, and well-sited installations should see a return of 8% on capital excluding land cost.*
- *In the UK, VAT (Value Added Tax) is reduced to 5% for small wind turbines. Additionally residential sale to the grid through the Feed-in tariff scheme is also tax free.*
- *In Italy, there is a reduced VAT rate from 20% to 10% for components and power systems that produce energy from PV panels and/or wind turbines.*

# Good Practices

- Accreditation Scheme:
  - *The UK's Microgeneration Certification Scheme (MCS) is a third party certification scheme for microgeneration products. The scheme has been developed to build consumer confidence by ensuring quality and reliability. It has a wide scope of services covering accreditation for wind turbine manufacturers, products, and installers, and includes general assistance and information for potential customers.*
  - *Only those products and installers certified under MCS are eligible for the UK's Feed-in tariffs. The aim is that certification will be widely used by manufacturers and installers to ensure customers can obtain financial support to buy their products and services.*
  - *Inter alia the standard for the MCS is based on: BS EN 61400*

# Good Practices

- Training- European IEE project RuralRES
  - *The RuralRES project has developed a training package in small wind power. It includes a good practices guide, a main training unit document, and a web-based package with small wind information aimed to provide crucial information for municipal officers and technicians, future experts, installers, students and all actors in renewable energy.*
  - *The Good Practice Guide contains The Guide contains examples of 15 Good Practices from across the EU27 demonstrating a mixture of commercially viable and replicable installations, innovative applications and financing methods, commercially successful operations, farm-scale operations, roof-mounted and ground mounted turbines, off and on-grid systems and professional and DIY systems.*



*The Main Training Unit Document contains information on: Background; Current Situation Of Small Wind Energy; Perspectives; Wind Energy Resource And Its Potential; Regulatory Framework; State Of The Art; Advantages And Drawbacks; Types Of Wind Turbines; Wind Turbine Components; Other Components Of A Wind Energy System; Energy Produced; Economic Aspects; Installations And Applications Of Small Wind Energy Systems ;Wind Energy In Urban Areas; How To Undertake A Pre-Feasibility Study*

*These documents and the other supporting files and tools are all available at the following link:*

<http://ruralres.diphuelva.es/formacion.php>

# Thank you for your attention !

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