

Project Fact Sheet

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Wind Energy Integration in the Urban Environment (WINEUR)

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| Programme area: | <i>Altener ,RES Electricity</i> |
| Status: | Finished |
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| Partners: | <i>IT Power, United Kingdom Horisun, The Netherlands City of Amsterdam, Environmental & Building Department, The Netherlands Ademe, France</i> |
| Website: | <i>http://www.urbanwind.org</i> |
| Objective: | <i>Promoting and raising awareness about urban wind turbine technologies and suggesting solutions for removing economic and regulatory barriers</i> |
| Benefits: | <i>Emissions reductions, lower fossil fuel use, local renewable energy generation, new RES market and jobs creation</i> |
| Keywords: | <i>Decentralised generation, renewable energy policy, sustainable communities</i> |
| Duration: | <i>01/01/2005 – 28/02/2007</i> |
| Budget: | <i>€ 909 704 (EU contribution: 50%)</i> |
| Contract number: | <i>EIE/04/130/S07.38591</i> |



Short description

Urban wind turbines (UWTs) are a fairly new product. The market for UWTs is underdeveloped and there is apparent lack of knowledge with these products. The main objective of the WINEUR project is to identify the conditions necessary for the greater integration of small wind turbines in the urban environment and to promote the emergence of this technology as a real option for electricity supply in towns and cities across Europe.

WINEUR activities raised awareness amongst key decision makers, mainly local authorities, in order to familiarise them with this new renewable energy technology and encourage project development and policy change in favour of UWTs. The main stakeholders involved in WINEUR in the 3 country partner countries, the UK, the Netherlands and France were national and local government, R&D institutions, manufacturers and suppliers of UWTs, architects and town planners, energy suppliers and grid operators and home owners who wanted to install UWTs.

WINEUR collected, analysed and distributed to stakeholders a wide range of information related to the existing technologies, the costs and economics, the regulations, procedures and guidelines specifically related to UWTs. WINEUR also created partnerships with cities in the UK, France and the Netherlands and carried out feasibility studies for UWT implementation. Throughout the project there was close consultation with key stakeholders throughout workshops, seminars and community consultation.

Finally, WINEUR created national urban wind networks in the UK, France and the Netherlands and a European Urban Wind Turbine Network to continue the exchange of knowledge, experiences and ideas in the future.

Achieved results

WINEUR achieved many results, some of which are listed below and the rest can be downloaded from the project website at <http://www.urbanwind.org>.

- A comprehensive catalogue of small wind turbines for the urban environment;
- Identification of technical barriers: clarifying the conditions of connection to the network, identifying specific standards and safety checks needed (e.g. product certification and installer accreditation);
- Identification of the principal regulatory barriers: defining specific town planning rules dedicated to these new technologies, clearer guidelines for project management and adequate legal framework;
- Identification of the principal economic barriers: investigating real costs; calculating payback period; identifying the need for financial incentives from the national government to support the development of the market;
- Increased popularity and raised awareness of UWTs at the local level: carrying out feasibility studies and workshops with local authorities, creating national networks and establishing a European "Urban wind turbine network".

Lessons learnt

- The successful installation of UWTs at a number of urban locations show that this technology could become an important option in the future in the context of decentralised energy generation;
- There is a potential for development of a UWT market, as shown by the increasing popularity of UWTs in all the project target countries and the great interest observed for the establishment of the European "Urban wind turbine network". This potential must be consolidated by concrete measures from European national governments, using mainly financial incentives but also by making planning permission easier to obtain;
- Despite the immaturity of some UWT technologies and the difficulties to obtain permission to install, the key stakeholders still want to investigate this option and need more information. The stakeholders are interested in installing UWTs if they have assurances that they are safe, durable and financially feasible;
- There is an urgent need for product standards and performance checks, safety checks, certification and installer accreditation – alongside clearer procedures and guidelines for obtaining planning permission and grid connection.