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# WIND ENERGY INTEGRATION IN THE URBAN ENVIRONMENT

## WINEUR

Suitable technologies and new initiatives at regional and local levels will be required to achieve the renewable energy targets. Recently, a number of manufacturers have introduced new small wind turbine products, especially designed for installation in urban surroundings. Similarly to PV, these 'urban' wind turbines (UWT's) can generate electricity on-site where it is needed, avoiding transport losses and contributing to CO<sub>2</sub> emission reductions in urban centres. However, awareness of the potential, and consequently the markets, for urban wind turbines is underdeveloped. Bringing together national and local government, R&D institutions, manufacturers and suppliers of UWTs, architects, town planners, energy suppliers, grid operators and home owners, WINEUR helps people who are drawn to the idea of exploiting wind-powered energy, to realise their goal. Having set up national, urban wind networks in the UK, France and the Netherlands, WINEUR is continuing the exchange of knowledge and best practice to facilitate the establishment of other networks throughout interested communities. Suggesting ways to remove economic and regulatory barriers to new networks, the project is floating a viable alternative for the generation of electricity.



## Results

- A comprehensive inventory, including classification and detailed descriptions of existing projects and technologies worldwide (data collected from North America; Australia, Japan, Switzerland);
- Assessment of the evolution of wind turbine prices, plus grid connection costs and constraints in different European countries;
- Comparative study of the legal and administrative situation in eight different European countries;
- Potential project identification – feasibility study and site identification;
- Building on best practices gleaned from the way in which large turbines have dealt with the problems of noise pollution and implications for wildlife.

## Lesson learned

- The project made it possible to attract a real and important interest on behalf of the local communities for this new renewable energy technology.
- The successful appliances on numerous urban locations show that this technology could become an important option in the future in the context of decentralized energy generation.
- However, before the market introduction of urban turbines can really start it is fundamental to define clear rules regarding the physical and electrical integration and the value of generated electricity. Last Updated: 04.06.2010

## Partners and coordinator

<a href="#">Axenne Sarl</a> [1]	France
<a href="#">Agence de l'Environnement et de la Maîtrise de l'Energie</a> [2]	France
<a href="#">HORISUN</a> [3]	Netherlands
<a href="#">IT Power Limited</a> [4]	United Kingdom
<a href="#">Energiebureau ARC, Dienst Milieu en Bouwtoezicht</a> [5]	Netherlands

## Contact

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### Contact point

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## Budget

Overall budget: 909.754,00 € (EU contribution: 50,00 %)

## Key documents

- [Publishable result-oriented report](#) [6]  
PDF 9.08 MB 
- [Summary Slides](#) [7]  
PDF 454.65 KB 
- [Grid Connection Report](#) [8]  
PDF 311.14 KB 
- [Planning and Administrative Issues Report](#) [9]  
PDF 687.97 KB 
- [Techno Economic Report](#) [10]  
PDF 665.91 KB 
- [Technology Inventory Report](#) [11]  
PDF 1.89 MB 

## In brief

Sector: Electricity production

Duration: 01/01/2005 to 28/02/2007

Contract number: EIALT/EIE/04/130/2004

Website: <http://www.urban-wind.org>

**Tags:**

wind

## Related projects

- [[WINDBARRIERS](#) <sup>[12]</sup>] Analysis of administrative and grid access barriers affecting wind energy...
- [[RES4LESS](#) <sup>[13]</sup>] Cost-efficient and sustainable deployment of renewable energy sources...
- [[SEANERGY 2020](#) <sup>[14]</sup>] Delivering offshore electricity to the EU: spatial planning of offshore...
- [[RESERVICES](#) <sup>[15]</sup>] Economic grid support from variable renewables
- [[ENERGIZAIR2](#) <sup>[16]</sup>] EnergizAIR2
- [[GPWIND](#) <sup>[17]</sup>] Good practice in reconciling onshore and offshore wind with environmental...
- [[NORTHSEAGRID](#) <sup>[18]</sup>] Offshore Electricity Grid Implementation in the North Sea: A regulatory-...
- [[RESPOND](#) <sup>[19]</sup>] Renewable Electricity Supply interactions with conventional Power...
- [[WINDSKILL](#) <sup>[20]</sup>] Skills network for European wind energy
- [[WINDSPEED](#) <sup>[21]</sup>] Spatial Deployment of offshore WIND Energy in Europe
- [[WINDFACTS](#) <sup>[22]</sup>] Wind Energy - The Facts
- [[TRADEWIND](#) <sup>[23]</sup>] Wind Power Integration and Exchange in the Trans-European Power Markets

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