

WSP Group is a global design, engineering and management consultancy, specializing in projects for the property, transport, environment and energy sectors. 10,000 employees in 35 countries work for the benefit of our clients. WSP Sweden is a nationwide consultancy with a staff of 2,000, working in the business areas of WSP Analysis & Strategy, WSP Civils, WSP Construction Design, WSP Environmental, WSP Fire and Risk, WSP International Sweden, WSP Management and WSP Systems.

Wind power is one of our specialist services.

www.wspgroup.se



Wind power



Wind power

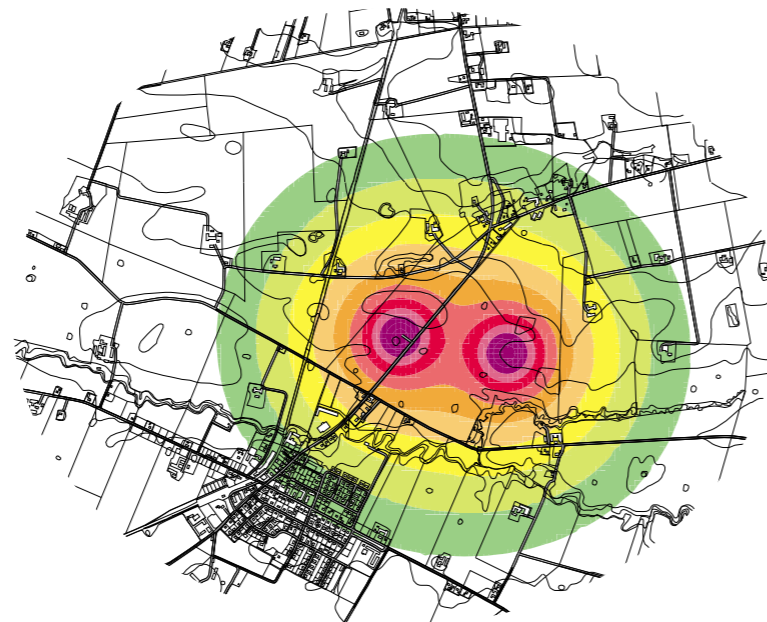
On the basis of man's need for a well-functioning society, WSP develops and manages technical projects connected with infrastructure, communication, housing and trade & industry. As wind power is a natural part of energy production in a sustainable society, WSP works on successful wind-power projects for our customers and our environment.

WSP has unique joint expertise in large-scale energy and infrastructure projects and in the field of the environment. Breadth and expertise are gathered within the company, and are used together for implementation of complex and everyday assignments, whilst maintaining an overall approach.

WSP is very experienced in overall projects in the field of wind power. We have expertise in every aspect of wind-power projects, and offer specialist services in the fields of planning, micro and macro-siting, the permit process, construction and commissioning. We can also contribute experienced project managers, who will hold all the sub areas together.

WSP plans and optimises wind-farm layouts for the maximum possible energy production and the minimum possible effect on the surroundings. The tools we use are tried and tested applications and methods that have been approved by the wind-power industry.

We have very long and sound experience of carrying out permit processes on behalf of our customers and preparing



Noise calculation regarding wind turbine (Laholm)

EIA's. We also place great emphasis on a pedagogic approach to our accounts and consultation, so as to facilitate a positive dialogue with the general public and the authorities.

What are perhaps wind power's biggest effects on the environment are its visual effect and the noise it creates. With the aid of our Virtual Reality group we can prepare realistic visualisations of the way the landscape is affected by wind turbines, e.g. 3D models, photo montage, illustrations and films.

WSP also has great expertise in the field of noise, WSP Acoustics being one of the country's biggest players in this field.

During the planning phase we can contribute planning of foundation-laying, electrical networks and the infrastructure that is always needed for wind turbines.

We can also assume responsibility for construction management, preparation of enquiry data etc.

WSP offers a multidisciplinary organisation in which local and central resources are adapted to the client's organisation and the project requirements. Our approach to our customers and projects is characterised by the key values trust, support and sharing, pride and passion, sustainability and innovation. A highly stable local base, WSP's global networks and close relations with customers and collaborating partners are our strengths.

WSP is certified by Det Norske Veritas in accordance with the quality standard ISO 9001 and the environmental management standard ISO 14001. The environmental work is a natural part of our quality work, and forms a part of project implementation.

Some references

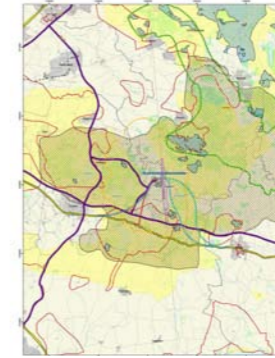
Vattenfall Vindkraft AB 2008: WSP is commissioned with taking an overall approach regarding establishment of wind power: project management, WindPRO, the permit process, geotechnology and planning of electrical networks and roads.

Stena Renewable AB 2008: WSP is assigned with handling the permit process regarding establishment of wind power, including EIA.

Municipal Wind-Power Policies 2007, 2008: WSP draws up wind-power policies together with the municipalities of Falköping, Karlskrona/Torsås, Oskarshamn and Varberg.

Investigation for the Swedish Energy Agency, 2004: Examination of problem factors regarding expansion of wind power and bioenergy. The examination included the planning process, technical development and accessibility. A number of existing wind farms in Europe were also studied in detail as part of the project.

Kriegers Flak, 2002: Description of environmental consequences. EIA for a 128-turbine ocean-based wind farm with a capacity of 5 MW per turbine.



Example of map presentation of various national interests (Sturupspendeln)

WSP Analysis & Strategy is one of the Nordic countries' foremost providers of expert analyses, investigations and decision-making data, focusing on social development and transportation. The business area includes a unique combination of skills in fields such as demography, economics, development, transportation, the environment and social conditions. Our consultants are highly trained, and we have a large number of employees with licentiate degrees and PhDs. Development of our methods is based on close links with the research community.

WSP Civils covers a wide field spanning the entire social construction sector, ranging from roads, railways, ports and pipelines to housing, offices and industry, involving every phase, e.g. investigation, planning, construction and administration, utilising major resources and featuring broad geographical dissemination. In addition to technology, values such as ethics, humanism and ecology are important to use.

WSP Construction Design provides services in the fields of construction design and construction technology, and has experience of many major and complex design assignments. We collaborate with players in the fields of IT and logistics, with the aim of optimising customers' projects at an early stage. Our employees are trained in new planning methods such as object-related 3D planning – a field in which we are one of the country's leading operators. The 3D model is based on IT applications in networks using a common database, and acts as a platform for all parties in a project.

WSP Environmental focuses on specialised services in the fields of land and water, environmental management, building physics, property development, energy and acoustics. For example, we have established a strong position in the field of environmental evaluations for company and property transfers, descriptions of environmental consequences and land-contamination issues.

WSP Management offers private and public customers advanced project management services both within and outside the traditional construction sector. Our collected experience covers a wide range of customer categories, including assignments in the fields of offices, trade, teaching, healthcare, housing, infrastructure, communication, industry and projects completely outside the construction sector.

WSP Systems works in all types of industrial, infrastructure and property projects at all stages of the assignment in question. We combine a broad general perspective with detailed knowledge. The business area's operations include Electrical Engineering, Building Services Technology, IT-Com and Automation.

