



Windpower Planning
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Håcksta Wind Farm and the permission process



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Executive Summary

The wind farm at Håcksta ridge is now under erection and is planned to produce electricity from the beginning of 2009. It will be the second wind power plant in the province of Hälsingland and the first in the municipality Hudiksvall. Both are sited on land, but near to sea line, only 1-2 km from sea. The Håcksta plant is projected by RES Skandinavien AB and the owner Umeå Energi AB takes it over in mars 2009. The farm consists of five mills, each with 2 MW effect.

When the planning of the Håcksta plant started 2002 there was no municipality plans made for wind power, it was seriously discussed neither by politicians, public servants nor the general public. The wind power plans worried and frustrated neighbors and holiday cottage livings, and the applications should be maximally appealed during the permission process, trying to stop the exploitation. The projectors plans will yet in the end essentially be fulfilled as there were no legal hinders. However, the process was delayed because of all appealings, the permission process was 4 years long until the last appealing was answered. Totally the projecting time will be seven years from the first confer 2002 until the plant is put in service.

This report describes synoptically the Håcksta wind farms technical data, while the main emphasis is on the permission process. It is limited to describe the flow of correspondence between authorities, judicial instances and appellers, but it does not deal with it's contents and argumentations.

The wind power projectors have for a long time argued that there have been two main hinders for an increased development of wind power in Sweden. The first have been that the contribution for electricity has been too low, the second that the permission process has been complex and unpredictable.

Both these precautions have been changed in the last years with minimum quotas of "green" electricity and simplification of the permission process. The application is now treated by either the municipality or the region government, instead of two parallell treatings earlier. In addition to that Uppsala University 2007 presented a wind map over the entire country. After that the interest to build wind power in Sweden has literally boomed.

If the benefits of the simplified permission process fully shall be be taken advantage of, it is essential that the exploitation is planned and deeply rooted by inhabitants, and that the local interest is supplied.

Preface

Thanks to the archive department at Region Government in Gävleborg, the environmental and health office at Municipality of Hudiksvall, RES Skandinavien AB and last but not least the teachers at Gotland University.

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Chapter 1 – Introduction

Håcksta is the first wind farm in the county of Hudiksvall. The exploitation of wind power has been very slow in Sweden until now, depending on low contributions for electricity and a slow and unpredictable process to get building permit. On the other hand, now there is literally a boom with a hundred or more wind turbines underway in the municipality and thousands in the country.

This reports main purpose is to deal with the permission process in the certain wind power project Håcksta wind farm, which now is erected and will start produce electricity during winter 2008/2009. The report describes the deposits of applications to authorities, appeals to courts, and findings from authorities and courts. It does not deal with the argumentation in appeals or findings. The ambition is limited to illustrate the extent of confers, correspondence and office turn around time generated in the permission process, with main emphasis on the appeals. Out of that a discussion is performed about how to increase the local acceptance and hence reduce number of appeals and spent time on that. The report also gives as a short background with technical data for the Håcksta wind farm.

1.1 Håcksta and the municipalities approach to wind power

Håcksta Wind farm is located in the municipality of Hudiksvall, at the east coast of middle Sweden. Very little wind power has yet been built in this part of the country, and in the province of Hälsingland is until now only 4 wind turbines on a land area of about 14 000 km².

The municipality in Hudiksvall had not before designated the Håcksta area for special use or preservation, and no area at all for wind power. Wind power was not treated in the comprehensive planning. The general approach from the planning and political management in the municipality of Hudiksvall was negative to wind power. One opinion was that wind power could be built anywhere else, but not in Hudiksvall.

1.2 Wind conditions

1997 SMHI (Swedish Meteorology and Hydrology Institute) presented a wind map over south and middle Sweden. This map indicated a wind resource is the magnitude of 2 000 kWh/m² on 50 m height on the Håcksta ridge. The wind speed seemed to decrease quickly in over land, but it was estimated to be high enough for wind power establishment on the Håcksta ridge near the sea line.

The University of Uppsala presented 2007 a wind map (report MIUU) over the whole country which showed good winds even on hills in the forested inland. Based on this wind map, the Swedish Energy Agency in year 2007 pointed out around 400 areas in the country of national interest for wind power. Håcksta with an area of about 8 km² was one of these. Mean wind speed 72 m over zero plan bias (87 m over surface of land) according to MIUU is around 6,9 m/s where the turbines now are located.

Chapter 2 – Wind farm Håcksta

2.1 History

In the very beginning there was an association with about 50 persons from the local population, Hålsinge Vindkraft, that made an attempt 1998 together with the landowner to exploit the place for wind power. They had early confers with neighbors, but they felt a massive opinion from people in the holiday cottage by the sea.

Instead the company Bore Vind AB should be interested in the place some years later. Bore Vind is a Swedish public limited company working with renewable energy. It first started with projecting wind sites around 1990. Bore Vind started up the project, but a short time after that Bore Vind AB made a cooperation agreement with RES Skandinavien AB, where RES took over the Håcksta project.

RES Skandinavien AB was founded 2002 and it should work with wind power projecting in Sweden and Norway. It is a wholly-owned underlying company to the consulting company RES Ltd, which in its place is owned by the Sir Robert McAlpine-group, which is a large building- and consulting concern with base in the UK. The “RES”-group has projected and built around 2 000 MW of wind power around the world since it was started 1981. (“RES” = Renewable Energy Systems).

2.2 Description

The Håcksta Wind farm is located 12 km northeast from city Hudiksvall and consists of five wind turbines, each with 2 MW effect. The place is a ridge 2 km from the sea line at the Gulf of Botnia. The ridge is 70 m high and covered with 20 m high, sparse, pine forest. There is a group of 100 houses, mainly holiday cottages, located as close as 1,3 km to the wind farm.

Håcksta wind farm is projected by the company RES Skandinavien AB. It is planned to be handed over turnkey to the buyer Umeå Energi AB in mars 2009. Then seven years have passed from start of permission process 2002. Four years passed from first confer until permit was left.

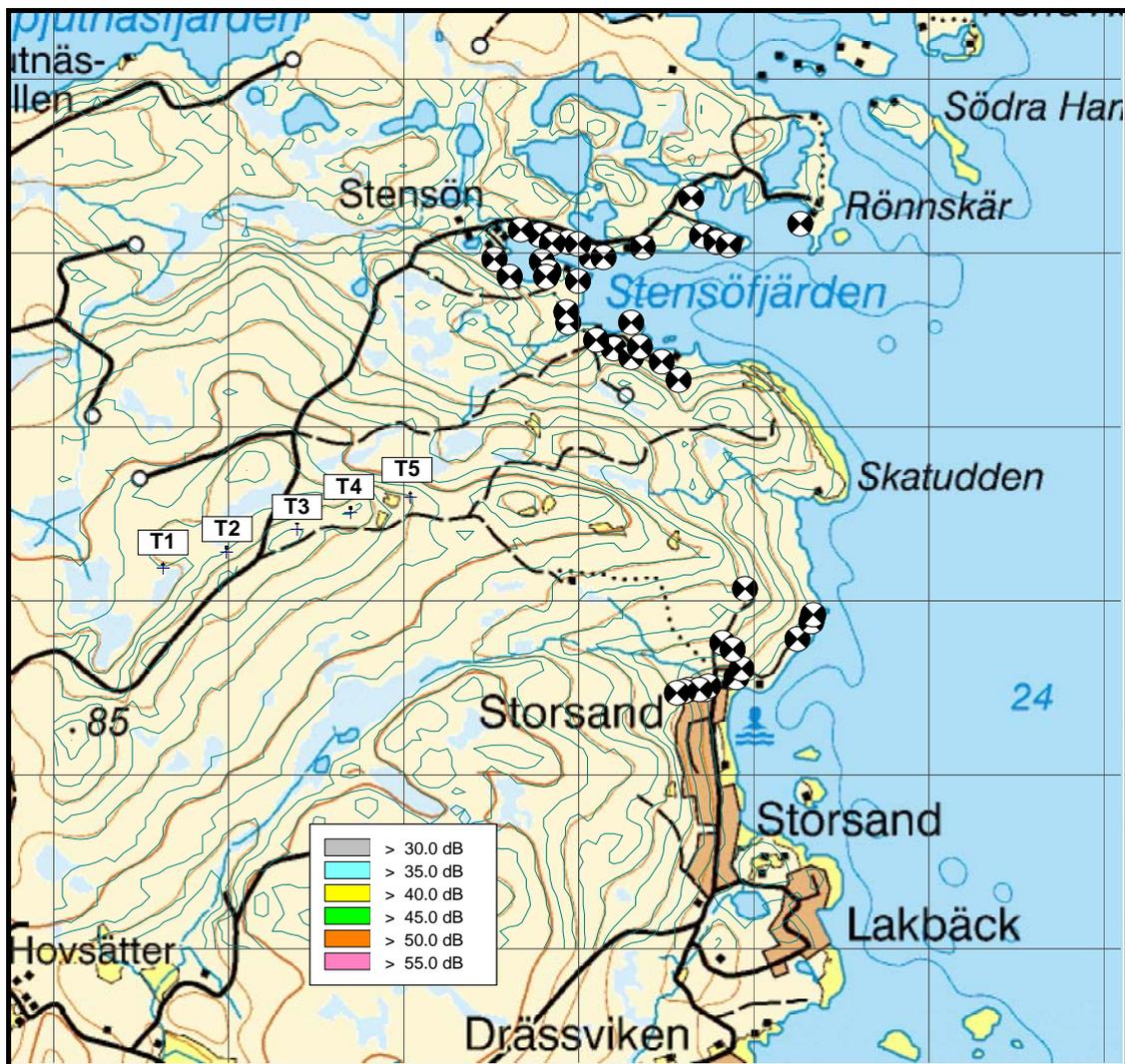


Figure 1
Håcksta Wind farm with nearby holiday cottages and estimated noise distribution.
Boxes 1x1 km

To the site goes an old cartway which is strengthened on a number of places in order to the long and heavy transports will come forward. Between the towers have been erected new road. The distance between the towers is 350-500 metres and they are placed in a weak arc.

2.3 Technical data

Vind turbines, type	Vestas V90
Effect/turbine	2 MW
Number of turbines	5
Total estimated production	25 GWh
Tower height	90 m
Turbine diameter	90 m
Primary voltage from the generators	690 VAC
Primary transformer at site	690 V to 20 KVAC
Power line to the region net	6 km landline
Secondary transformer at Fortums distribution station in Rogsta	20 kVAC to 40 KVAC

Table 1. Plant dates, Source verbal and official written information

The foundations are of type gravitationsfundaments with diam 15,5 m. Each foundation comprizes approximately 270 m³ concrete. On top of the foundations are approximately 200 m³ landfill. The ground is moraine or rock with good draining capacity and strength.

In each mill is a primary transformer that increases is the voltage from the asynchronous generator's 690 V to 20 kV. The electricity cables are linked together in a common link station at the site, from where a landline along the road leads the power to the region net in Fortums distribution station in Rogsta, approximately 6 km southwest, where a secondary transformer increases the voltage to 40 kV.

Chapter 3 – The permission process

3.1 Introduction

The permission process was at this time (2002) divided into two separate processes; The Region Government (länsstyrelsen) had to decide according to the Environmental Code, while the municipality had to decide according to the Law of Planning and Building.

The application according the Environmental Code need as a supplement an Environmental Impact Assessment, EIA. The EIA consists of a process and a document. The process is dialogues with local inhabitants, authorities and other parts that will be affected by the project make up process. The document describes this public consultations as well as the impact on the environment of the project.

Below is listed events in the permission processes. During the process several decisions resulted in appeals from people who was against the idea to build wind power in their neighborhood.

27 februari 2002: Bore Vind AB has an early confer with the concerned authorities, that is Hudiksvalls Municipality and Region Government.

27 april 2002: Bore Vind AB has an early confer with neighbors and the nearest property owners.

8 jan, 12 mars, 8 april 2003: Informal meetings with information to persons concerned.

4 april - 9 maj with general meeting 16 April 2003: Enlarged consultaion at the community center of Håcksta, with 75 attending neighbors, property owners, representatives from region government, municipality works department et al. The opinion that had declined after the first attempts by Hålsinge Vindkraft, wakened up and has since then held on, chiefly by holiday cottage people in the nearby Storsand och Lakbäck.

19 juni 2003: RES deposit application to Hudiksvalls municipality and region government, about permission to build a wind power plant at Håcksta ridge, according to the Law of Planning and Building (Plan och Bygglagen, PBL) and Environmental Code (Miljöbalken, MB). The municipality handle the application according to Law of Planning and Building, whilst the Region Government deal with the Environmental Code.

3.2 Region Government, according to the Environmental Code

Juli 2003: Response on referral from Storsands and Laktbäcks common land to the Region Government.

26 sept 2003: Proclamation from Region Government in the daily paper Hudiksvalls tidning that RES has deposited its application.

13 okt 2003: Referral from Region Government to Storsands and Laktbäcks common lands association.

Okt-nov 2003: Referral to Region Government from 8 persons with affiliation to Storsand and Laktbäck, referral also from chairman in Storsands and Laktbäcks common lands association.

21 jan 2004: Region Government find to give RES permission according to MB, the permit is announced in Hudiksvalls Tidning.

45 appeals of somewhat the same content, and request on inhibition of building permit, comes from private persons with affiliation to Storsand och Laktbäck. Appeals and acts are sent to District Court in Östersund, which also is the Environmental Court.

30 sept 2004: Environmental Court in Östersund answers that none of the appealing is concerned of the decision so they should be entitled to appeal. The appeals are refused.

7 mars 2005: The Environmental Extraordinary Court of Appeal (Miljööverdomsstolen, MÖD, Svea Hovrätt) informs that it leaves right to appeal.

22 april 2005: Four memorials to MÖD concerning right of appeal.

1 juli 2005: Decision from MÖD. Re-deportation of the case to Environmental Court in Östersund for continued handling.

30 nov 2005: Decision from Environmental Court, without acclaim.

3.3 Municipality, according to the Law of Planning and Building

16 mars 2004: The executive board of Hudiksvalls municipality decides, according to PBL, to give permit for building 3-5 wind turbines according to the application.

The decision is appealed from “2 associations” + 19 private persons.

8 okt 2004: The Region Government gives okey to the municipalities permit to build from **16 mars 2004**.

The decision is appealed to the County Administrative Court in city of Gävle (Länsrätten) from 12 private persons and Storsands common lands association.

Lars Lööv claim furthermore inhibition of the building permit.

13 dec 2004: The County Administrative Court decides to refuse the claim from Lööv about inhibition of building permit.

Lööv appeals the decision to the Administrative Court of Appeal (Kammarrätten), and claim inhibition of the building permit.

4 jan 2005: The Administrative Court of Appeal refuses the leave to appeal concerning inhibition of building permit. The County Administrative Courts (Länsrättens) finding of **13 dec 2004** stands.

Lars Lööv appeals to the Supreme Administrative Court (Regeringsrätten).

10 mars 2005: The Supreme Administrative Court tells that Lars Lööv do not get leave to appeal in the matter of inhibition av building permit.

8 juni 2005: The County Administrative Courts dome regarding appealed decision of building permit at Region Government **8 okt 2004**.

The County Administrative Court refuses the appealing right to bother. Some of the appealers are refused as not concerned, the others arguments to appeal are refused.

The decision is appealed to the Administrative Court of Appeal in the city of Sundsvall of 19 private persons and Storsands common lands association. Some of the appealers claim that the municipalities comprehensive plan and och detailed plan shall be restored.

29 maj 2006: The Administrative Court of Appeal refuses the appeals from **8 juni 2005** from those who not are concerned. The concernds arguments are also refused. The Administrative Court of Appeal gives no leave to appeal (prövningstillstånd) to the Supreme Administrative Court.

Chapter 4 – Conclusions

The municipalities general approach has been restrictive principally, with motivation that the coastal area is vulnerable and should rather be excluded from all wind power exploitation by reason of holiday habitation. The municipality has however not been able to deny building permit with respect to the Law of Planning and Building. The municipality had not introduced wind power in the comprehensive plan. Instead they had chosen to handle applications when they came.

The opinion from neighbors, and first at all holiday cottage livings, was extensive and driven the formal/legal way as long as possible.

Everything is of course not alright when there are so much bad feelings. Either it depends on a poor performed process or it depends on that the project really is not good.

The permission process was delayed because of the many appealingings. Mainly however BoreVinds/RES original plans have been realized. The only difference is that the turbines have been moved 1 km to the west, which means the shortest distance to habitants in Storsand/Lakbäck holiday cottage is now 2 km instead of 1 km.

It is known by experiences from other wind power projects that the local acceptance is better if wind power has been discussed and communicated in a dialogue with the people in good time before exploitation plans will be realized in ones local area. In a comprehensive plan areas more and less suitable to windpower could already have been discussed and communicated. Elsewise the NIMBY effect (Not In My Back Yard) will easily be there.

If the comprehensive plan had included wind power, and if a sense of participation had existed, time as well as some affected and bad feelings likely could have been avoided.

Offering participation through joint ownership is also a way to create local acceptance. That was also offered from the first moment when Hälsinge Vindkraft made the first attempt, but many people did not in that time believe in wind power.

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