

## Delivery 2, task 1b

# Recommendations on faster and more risk-based permitting in the Netherlands for wind turbines and hydrogen use within the context of the new Omgevingswet

---

### 1. Introduction

In this short report on ideas to accelerate more risk-based permitting in the Netherlands for wind turbines and hydrogen we differentiate between ‘technical safety’ vs ‘safety assessment in the spatial planning process’ within the framework of existing regulation, that is the new Omgevingswet. In another deliverable 1a we have described a ‘green field regulatory approach’.

We look into easy fixes. ‘Easy’ means without changing the permitting system, so without changing the need for a permit as such. ‘Easy’ may be difficult thus in terms of development. In the green field approach changes in the law are advocated for that remove need the permit. The green field approach will take time and political courage because of the present political believe in permits.

Before we start with the recommendations, some well-known facts:

At present the ‘mood’ in Dutch politics is not in favor of more wind turbines. i.e. when the neighboring residents will complain during a permitting procedure they have a very good chance of getting political support from the municipal council. The direct implication is that a successful participation process might be more important than the ‘technical aspects’ of the permitting process.

The electrical grid in the Netherlands is ‘full’ that is, new electrical energy sources like wind turbines only can be realized till at least 2030 when the electrical output can be used locally. This is why the use of small electrolyzers in combination with wind turbines is so important and thus also means to transport and use the hydrogen.

There is a safety angle in the problem of network congestion on land and at sea: many resources are spent on occupational health without any integral assessment. On land we see that many resources for example are spent on new electrical safety measures (cf NEN 3410) for personnel working on existing transformers to further mitigate a risk that no one died from the last two decades. At sea we see for example that many resources (up to 2035 half a billion euro's by TenneT) are spent to further mitigate the theoretical risk of an UXO exploding while laying cables to wind turbines at sea.

This safety angle in itself has nothing to do with the process of permitting for the energy transition, however the resources spent are not available for the energy transition that as a result turns out to be much more costly. The delay of the energy transition is a safety issue that costs many DALY's, much more than are prevented by the occupational health policies implemented. However, occupational health is the policy domain of the ministry of Social Affairs and Labor (SWZ) that does not care about energy transition. So as always, there is a need for a much more risk-based, integral and balanced approach of safety that calls for much better collaboration between the ministries.

A central line of reasoning in this report is that as public administration scientists we know that integral decision making is almost impossible on the level of the national government. So, even with the problems mentioned below, the best way to improve integral decision making that favors the energy transition is to empower municipal authorities.

Furthermore, in our opinion the system of the new Environmental act (Omgevingswet) in principle contains almost all the tools that municipalities need when they want to come up with balanced integral decision making. The 'in principle' does not work out at present 'in practice' because local authorities are obliged to mandate most permitting to the regional environmental services (Omgevingsdiensten) and are obliged to ask the safety regions (veiligheidsregio's, more or less the regional fire service) for advice. Mandate is no delegation so municipalities keep their responsibility for the ultimate decision on permits, however they normally follow the 'decision' of the regional environmental services. This construction hinders integral decision making because of one-sided and anxious experts that prevent local authorities from making an informed and balanced decision. So, a general recommendation is to change the way the 'mandate' of the regional environmental services is executed to empower aldermen by, for example, letting the aldermen sign the permit themselves on base of an advice.

## 2. Easy fixes for technical safety

*Wind turbines:* For individual wind turbines, there actually is no 'instrumental' safety check in the form of a permit by the government which delays permitting.

For the larger wind turbines that are regulated by the Besluit activiteiten leefomgeving (Bal) there is the general obligation to use BAT (BBT in Dutch). This obligation has a meaning for the liability of the owner that will make the owner attentive to the

technology used. Government may inspect (though this never happens in practice) the wind turbines when constructed to check whether BAL is used.

An environmental permit is needed when 3 or more wind turbines are combined in a wind parc. At this point the regional environmental service has to give an opinion on the technique used. This check does cost time and money while, of course, the actual added value of the regional environmental services is limited.

An easy to argument for fix is to remove the obligation to get an environmental permit for wind parcs; clearly there is no essential difference between one or more wind turbines from the point of view of technical safety. This removal of permit strategy normally is a green field approach, however because in practice regional environmental services don't really look into the technical safety it seems quite feasible.

*Hydrogen:* For hydrogen use several links in the H<sub>2</sub>-chain are already free of technical permits: transport by road and by pipe. However, elektrolyzers, storage tanks, tank stations and pump stations have to be permitted.

An easy fix would be to introduce a national certification system for hydrogen installations. When applying for the permit the certificate has to be shown

### 3. Easy fixes for spatial planning

We look into two relevant aspects: external safety and noise.

For all activities that cause an **external risk** (also called third party risk, 'externe veiligheid' in Dutch) such as at present both wind turbine parks (more than 2 wind turbines together) and H<sub>2</sub>-use in the spatial planning process there are two steps:

- The individual risk contour of 10<sup>-6</sup> or 10<sup>-5</sup> depending on the 'vulnerability' of buildings (IR 10<sup>-6</sup>, 'plaatsgebonden risico' in Dutch), that is the contour within you have a modelled chance of dying of greater than once in a million years assuming you are there without protection and 24-hours a day.  
For wind turbines this distance is in general 'tip height, i.e. height including rotor' resp 'length of rotor'.<sup>1</sup> There is actually not an easy fix for this because the IR-contour is a sound basis for Dutch safety policies.  
For hydrogen this has to be computed. So, an easy fix to prevent time consuming discussions would be just use the LPG-safety contour (that is actually a bit to large)
- The 'attention zone' is the zone around the safety contour for which the local authority must make a conscious decision whether the rest-risk is acceptable or whether extra measures are reasonable. In general, advising bodies such as the safety region come up with a series of possible (costly) measures. Municipalities have to make a balanced decision that is up to appeal so the reasoning has to be sound.  
Wind turbines and wind parcs are except from this step.

---

<sup>1</sup> Handboek Risicozonering Windturbines.

For electrolyzers this is a necessary step for which a national instrument for a cost-benefit analysis could provide as an easy fix the rationale for faster approval by municipalities.

For **noise** there are already general rules in the Besluit kwaliteit leefomgeving (Bkl) that ideally, and this is an easy fix, should directly apply for wind turbines: the noise contour for housing is 50 dB(A) on the outside. When measures are taken (paid for by those who cause the noise) so that inside the noise is below 35 dB(A) the noise at the outside may be 55 dB(A) for new houses and 60 dB(A) for existing houses.

The administrative high court has ruled that for all activities a specific calculation has to be made that takes into account local parameters in order to come up with an integral decision, that is a decision that has taken into account all relevant safety perspectives. An easy fix for spatial planning is the development of an easy-to-use national instrument that presents the safety balance. The BOVEN risk panel is at present the only example of such an instrument.

At present the political problem is that for some reason or another our parliament wants a fixed noise contour of two times the tip height of the wind turbine that will make the placement of wind turbines more difficult.