



LPA-CGR avocats

Regulatory framework for decommissioning wind turbines in France and Germany



Obligation to dismantle and to restore the site

- ▶ In France as in Germany, the operator, in order to obtain the initial construction permit for his project, must undertake to completely dismantle the wind turbine installation and to restore the site to the state at the end of the operating period.

- ▶ In France, the operator must inform :
 - The prefect at least one month before, indicating the measures taken or planned to ensure the dismantling operations
 - The minister of Ecological and Transition Solidarity if the power of his installation exceeds 50 MW.
 - The owner of the land on which the installation is located.
 - The mayor or, where appropriate, the president of the public inter-communal cooperation establishment responsible for the project.

Obligation to create financial guarantees

► The commissioning of a wind turbine is subject to the provision of financial guarantees.

These will be implemented only in the event of the operator's failure:

- In the event of non-performance by the operator of the dismantling operations
- In the event of the bankruptcy of the operator
- In case of legal disappearance of the operator

How much is the amount of the guarantees ?

In France, the amount of financial guarantees is set at € 50,000 per wind turbine.

The operator must update this amount every five years.

In Germany, the calculation of the amount differs from one Länder to another.

Obligation to create financial guarantees

▶ In Brandenburg :

The guarantee represents one-tenth of the gross-work costs, which in turn are set at 40% of the manufacturing costs. This ultimately represents 4% of manufacturing costs.

▶ In North Rhine-Westphalia :

The guarantee must represent 6.5% of all investment costs. This corresponds to a provision of 715 k€ for a machine such as the Enercon E 126, whose construction cost is € 11 million.

▶ In Schleswig-Holstein :

The amount of the guarantee is calculated from 10% of structural costs or 4% of manufacturing costs.

▶ In Hesse :

The amount of the guarantee is obtained by multiplying the height of the wind turbine hub by 1,000.

Obligation to create financial guarantees

► The modalities of constitution of the financial guarantees :

In France the financial guarantees required result, at the choice of the operator:

- A bank security
- Deposit in the hands of the Caisse des Depots et Consignations.

The management is totally free. The sums are remunerated during the deposit according to the rate fixed by the General Manager of Caisse des Dépôts. In October 2017, it was 0.75%.

- A private guarantee fund proposed by a representative organization of operators of classified installations having a similar activity. This fund must be managed by a company authorized to carry out insurance operations or by a financial company.
- A bond by the person who owns the capital majority of the operator, or who controls the operator. The guarantor must itself be the beneficiary of one of the three guarantees asked to the operator.

In Germany financial guarantees are authorized in the form of :

- ❖ Bond and instruments with fixed income
- ❖ Deposit accounts
- ❖ Collateral and pledge

Decommissioning and rehabilitation operations

▶ In Germany the notion of dismantling is defined as the complete demolition of all the works, which were used for the project, in order to avoid soil sealing.

▶ In France the legislator has specified all these operations, which include :

- **The dismantling of production facilities** (including delivery stations and cables within 10 meters around wind turbines and delivery stations).

- **Restoration of land**, unless the owner wishes to maintain it in the state, it consists of :

The excavation of foundations and the replacement by land of comparable characteristics to the lands in place, near the facility to a minimum depth of :

- 30 centimetres when the land is not used for agricultural purposes and the presence of massive rock does not allow for greater excavation,
- 2 meters in forest land,
- 1 meter in other cases.

Rehabilitation also includes the disbursement of crane areas and access roads to a depth of 40 centimetres.

- **Demolition and dismantling waste are recovered or eliminated** in the duly authorized sectors.

Evaluation of the cost of dismantling and restoration operations

Others costs should be determined according to the size of wind turbines, technology used and tower materials :

- **Removal of the wind turbines** (two methods):

The crane operation : This method seems the most feasible solution for environmental reasons, local acceptance as well as economic. It's not possible for a concrete tower.

Blasting :

This method is rarely used because of the environmental disturbances it causes.

It applies primarily to concrete towers.

Evaluation of the cost of dismantling and restoration operations

- The revaluation of metals and metal alloys:

Prices of steel and copper are very fluctuating, which makes it difficult to estimate such a valuation.

➤ **Steel:**

For wind turbines whose tower are entirely made of steel.

gain related to the resale of steel from components of the wind turbine other than the tower

The copper: costs of separating and recovering copper and transport.

The revaluation of copper is based on the technology used.

Evaluation of the cost of dismantling and restoration operations

How to reduce the costs of dismantling :

- An easily accessible site with existing roads and platforms would reduce the costs of mobilization and demobilization included in the cost of crane and additional work.
- The presence of local construction sites would allow easy evacuation of materials. The cost of restoration of craning areas would be lower.
- The rise in the price of metals and metal alloys made it possible to increase the revaluation gains.
- Developing the market for the sale of wind turbines or their parts would make big savings.

Thank you for your attention

