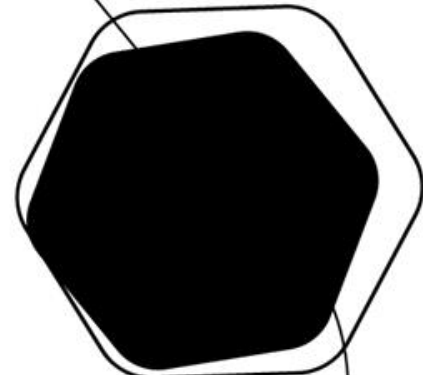




OFATE
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Repowering and dismantling of wind power plants in France



*Directorate general for risk prevention (DGPR)
Ministry for the ecological transition, France*

General information concerning the regulation of onshore wind power plants in France

- Classification of industrial installations for environmental protection

Onshore wind power plants : « **rubrique ICPE n°2980** »

2980	Installation terrestre de production d'électricité à partir de l'énergie mécanique du vent et regroupant un ou plusieurs aérogénérateurs :	A	
	1. Comprenant au moins un aérogénérateur dont la hauteur du mât et de la nacelle au-dessus du sol est supérieure ou égale à 50 m		
	2. Comprenant uniquement des aérogénérateurs dont la hauteur du mât et de la nacelle au-dessus du sol est inférieure à 50 m et au moins un aérogénérateur dont la hauteur du mât et de la nacelle au-dessus du sol est supérieure ou égale à 12 m, lorsque la puissance totale installée est :		
	a) Supérieure ou égale à 20 MW	A	
	b) Inférieure à 20 MW	D	

2 regulatory status : « **Autorisation** » (permit) and « **Déclaration** », depending on the installed power (MW) or the height of the mast /nacelle.

- Regulations : Environmental Law/ Ministerial ordres of 26/08/2011 amended on 22/06/2020 / Specific Prefectoral decree

Orientation

- Average operating life of onshore windpower plants : 20 to 30 years

At the end of the feed-in tariff period (15 years) :

→ Continued operation of existing installations

→ Renewal (repowering) and/or → Dismantling (total or partial)



Repowering is one of the solutions to achieve the objectives of the Multi-annual Energy Programming (PPE)

Orientation

Energy Transition Law :

- **2020** : **23%** of renewable energy consumption
- **2030** : **32%** of renewable energy consumption

Onshore windpower plants in France

Installed capacity at the end of 2020 :

17 616 MW

Objective at the end of 2023 (PPE) :

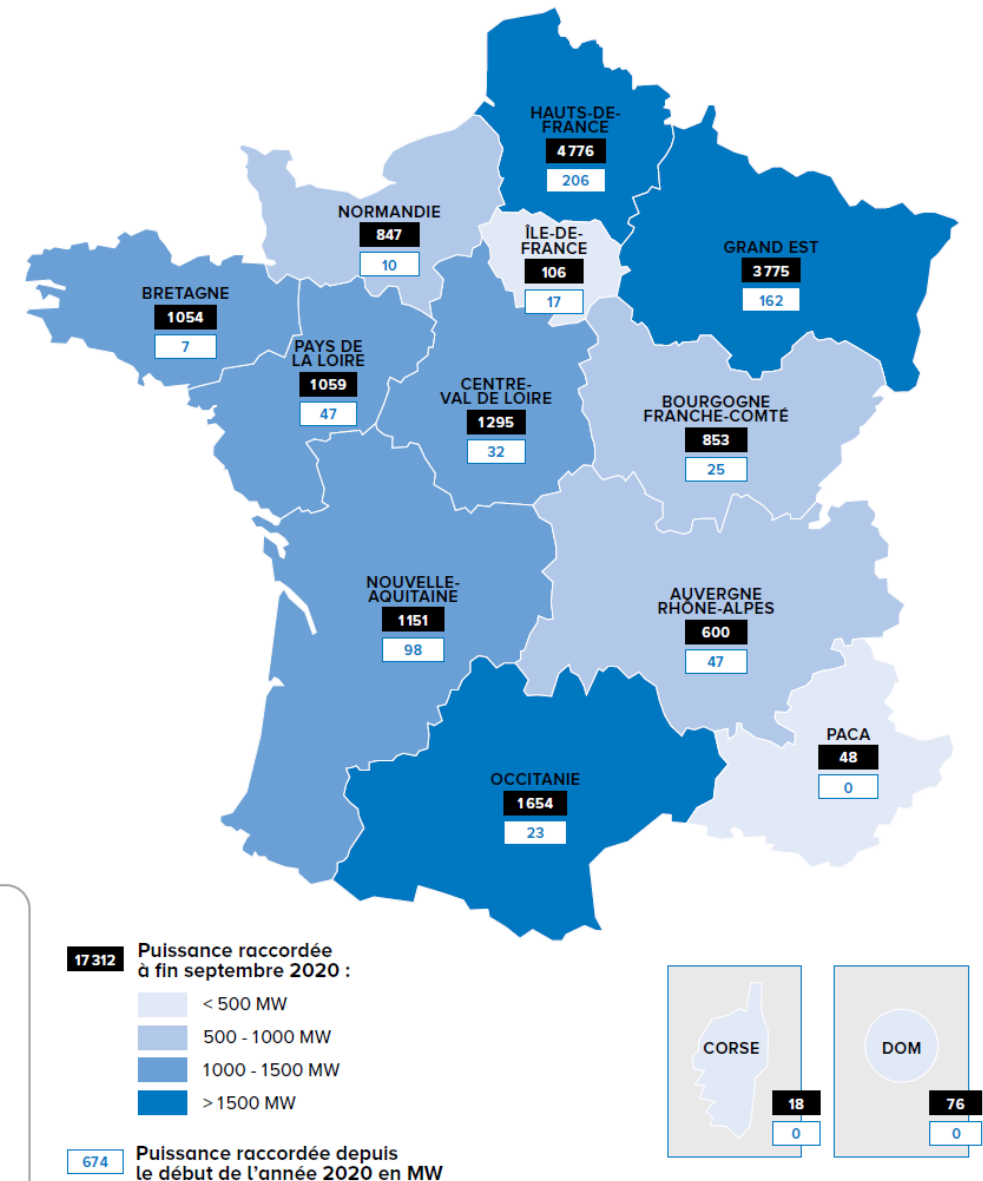
24,1 GW

Objective at the end of 2028 (PPE) :

33,2 – 34,7 GW

Cartographie de la filière éolienne en France

Source : Sdes 2020



Main regulatory texts

The main regulatory texts applicable to onshore wind power plants are:

- Ministerial order of 26/08/2011 amended, relating to **Authorized** onshore windpower plants [under section 2980](#).
- Ministerial order of 26/08/2011 amended, relating to **Declared** onshore windpower plants [under section 2980](#).
- Ministerial order of 26/08/2011 relating to dismantlement, land restoration and financial warranties.



Repowering project

- The repowering projects are recent. On french territory, there are sixty repowering projects finalized or in progress.

According to the importance of the repowering projects and the impacts :

→ « Significant modification »

→ « Substantial modification » : new permit

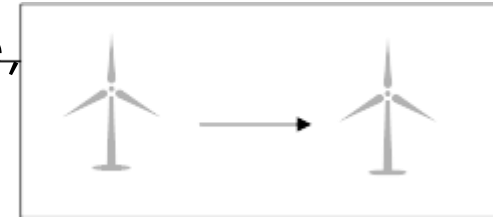
- The definition of these modifications are specified in a technical instruction : [Government instruction of 11/07/2018](#) relating to the assessment of repowering projects.



Regulation of repowering projects

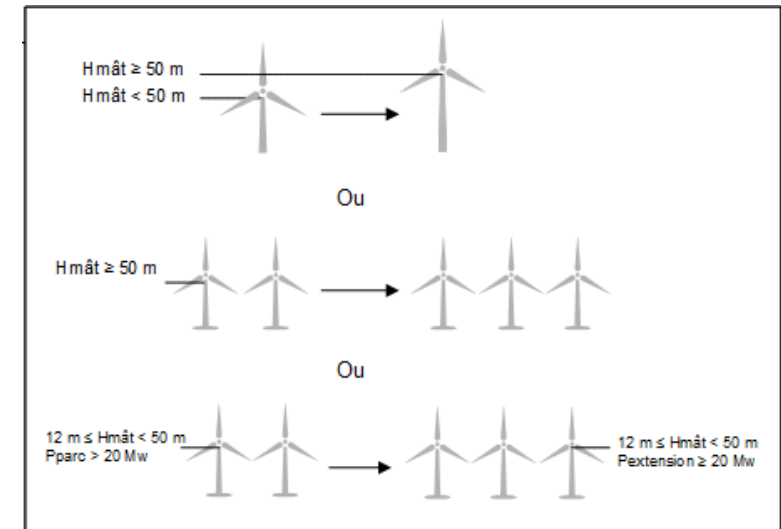
- Types of repowering projects (Government instruction 11/07/2018):

- Identical replacement with another model, same size,
Same location



→ **significant modification, not substantial**

- Exceeding levels of n°2980 and/or addition of one or several masts → **substantial modification**



Regulation of repowering projects

- Different types of repowering : identical repowering, increase number of masts, power increase, increase rotor diameter, ...
- According to types of projects → significant modification or substantial modification

Regulation of ministerial order of 26/08/2011 becomes applicable to repowering projects



Regulation of dismantling

- **Environmental Law- article R. 515-106**

Defines the scope of intervention :

- 1° Dismantling of production facilities ;
- 2° Excavation of foundations ;
- 3° Land restoration ;
- 4° Waste treatment (recycling, reuse, ...)

- **Ministerial orders for dismantlement, land restoration and financial warranties of 26/08/2011**

Regulatory obligation since 01/07/2021 :

- Dismantling and land restoration
- Waste treatment (recycling, reuse, ...)



Regulation of dismantling

- Dismantling and land restoration

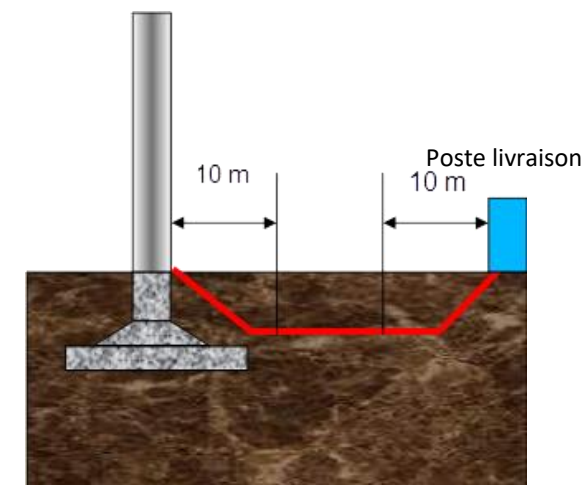
- Wind turbines, cables, ... : **dismantling within a 10 m radius**

- Foundations : **total excavation of the foundation**

possible exemption if unfavorable carbon footprint

- Restoration of paths for cranes and access roads

- Strengthening of recycling



Projects of wind power plants : 95% of total mass must be

reused or recycled from 2024 (and 55 % of rotor mass from 2025)

Existing wind power plants, from 1^{er}/07/2022 : > 90% of total mass must be

reused or recycled, if total excavation. And > 35% of rotor mass must be

reused or recycled.

Thanks

