



Cahier des charges de l'appel d'offres portant sur  
la réalisation et l'exploitation  
d'Installations de production d'électricité à partir de l'énergie mécanique du  
vent, implantées à terre.

1/45

# Regulatory framework for wind energy in France : tendering procedure

Renewable Energy Office

French General Directorate for Energy and Climate Change

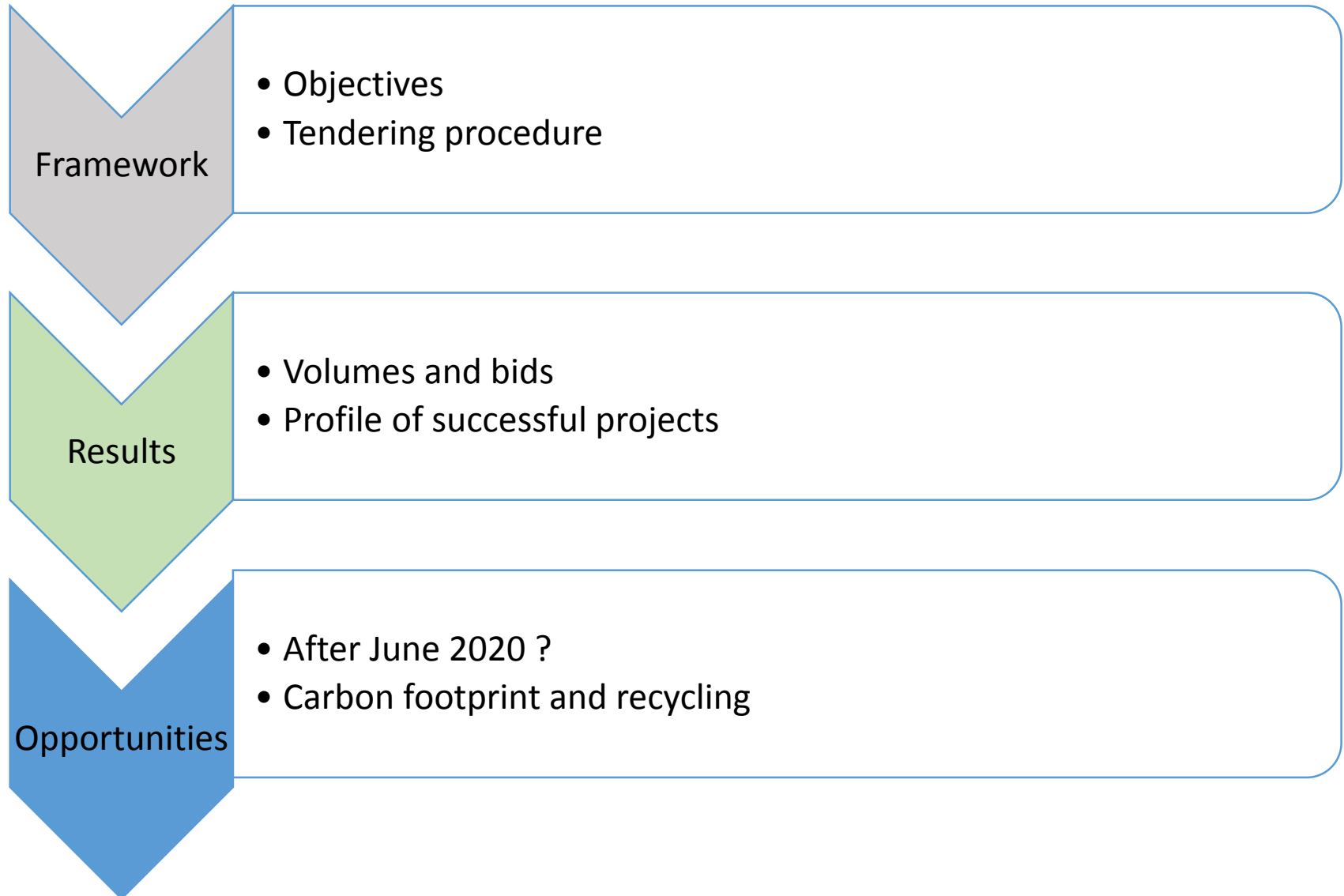
French Ministry for the Ecological and Inclusive Transition

November 12th 2019



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# Introduction



# Objectives : LTECV

## ENERGY TRANSITION FOR GREEN GROWTH ACT



Reduce greenhouse gas emissions by **40%** in 2030 compared with 1990



Reduce the use of fossil fuels by **30%** in 2030 compared with 2012



Increase the share of renewable energy sources to **32%** of total energy consumption by 2030 and to **40%** of electricity generation



Reduce total energy consumption by **50%** in 2050 compared with 2012



Reduce the amount of landfill waste by **50%** by 2025



Diversify electricity generation and reduce the share of nuclear to **50%** by 2025



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# Objectives : PPE



## FRENCH STRATEGY FOR ENERGY AND CLIMATE

### MULTI ANNUAL ENERGY PLAN

2019-2023

2024-2028

	Période de dépôt des offres		Puissance cumulée appelée (MW)
	Du :	Au : (Date limite de dépôt des offres)	
1 <sup>ère</sup> période	1 <sup>er</sup> novembre 2017	1 <sup>er</sup> décembre 2017	500
2 <sup>ème</sup> période	1 <sup>er</sup> mai 2018	1 <sup>er</sup> juin 2018	500
3 <sup>ème</sup> période	1 <sup>er</sup> mars 2019	1 <sup>er</sup> avril 2019	500
4 <sup>ème</sup> période	1 <sup>er</sup> juillet 2019	1 <sup>er</sup> août 2019	500
5 <sup>ème</sup> période	1 <sup>er</sup> décembre 2019	3 janvier 2020	630
6 <sup>ème</sup> période	1 <sup>er</sup> juin 2020	1 <sup>er</sup> juillet 2020	752

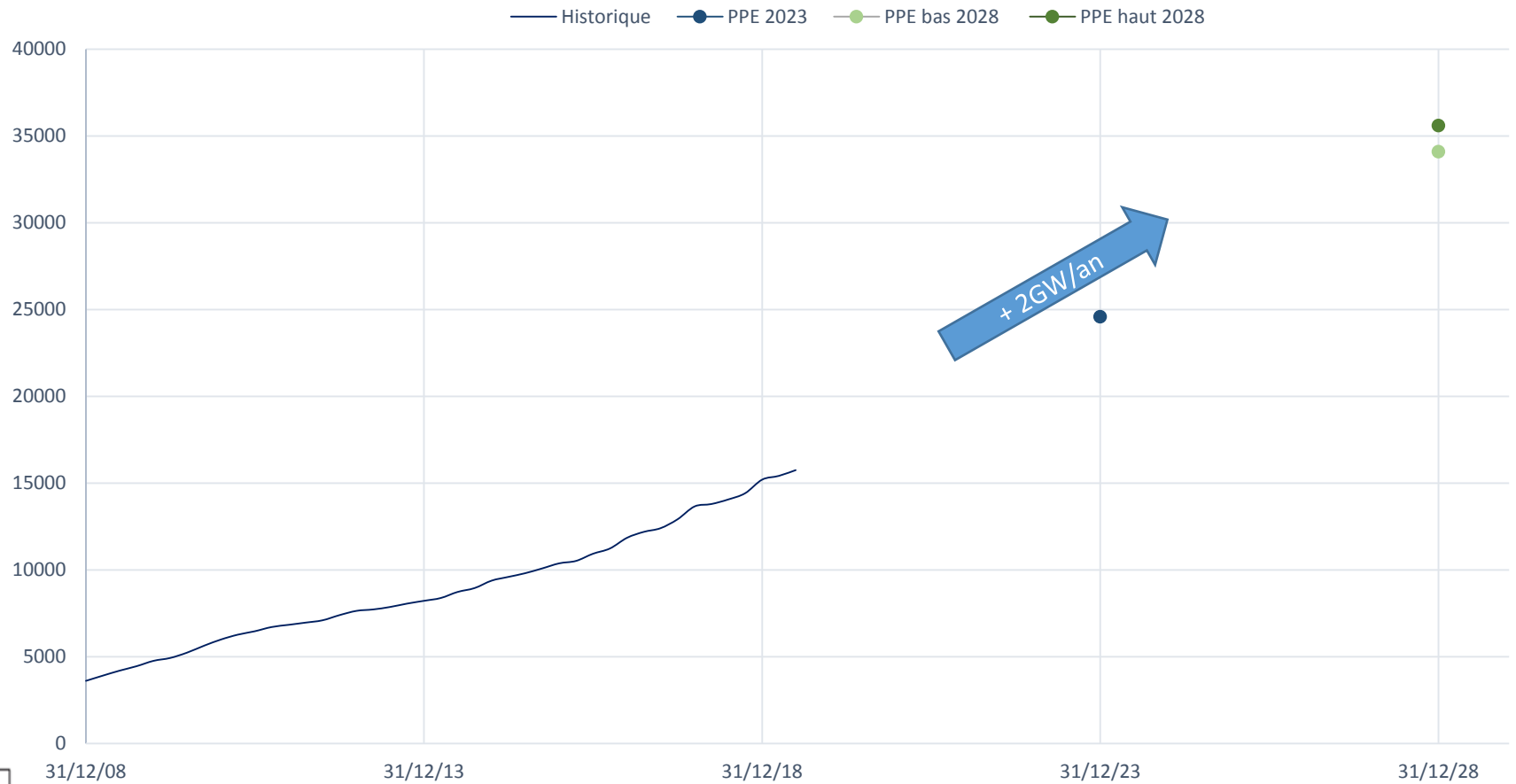
	2018	2023	2028
Onshore wind power	15,1 GW	24,6 GW	<b>34,1 - 35,6 GW</b>
Onshore wind power share	5,5 %		<b>~ 13%</b>
Photovoltaic	8,9 GW	20,6 GW	35,6 – 44,5 GW
Photovoltaic share	2%		<b>~ 8,5%</b>



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# Objectives : PPE

## Raccordements éolien : objectifs PPE



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# Two-parts framework

Direct contracting (cumulative conditions)	Tendering process (projects that can't meet the direct contracting conditions)
Max, 6 wind turbines	7 wind turbines and more
$P_{\text{turbine}} < 3\text{MW}$	Any windfarm with a $P_{\text{turbine}} > 3\text{MW}$
A distance rule between farms must be respected	Any windfarm that doesn't meet the distance rule
Environmental permit required	Environmental permit required



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# Technical specifications

- General Framework :

- **6 application periods** over 3 years for 3GWs ending in June 2020
- Tender framework for the next 5 years is being discussed with the EC
- **Specifications are updated** for each round for non substantive modifications
- A **questioning period** is open for few weeks before each round
- Submission and processing of bids managed by French Energy Regulatory Commission (CRE)
- Single criterion for selection : price (€/MWh)

- Commissioning :

- Winners have to provide a guarantee of 30k€/MW until commissioning
- They should build the project within 3 years, otherwise the duration of the contract is reduced
- Can be extended in case of dispute or in case of grid connection delays

# Technical specifications

- Contracts :

- Winners of the tender get feed-in premium contracts, tariff for each winner is fixed by his individual tender offer.
- Contract length : 20 years

- Crowdfunding bonus :

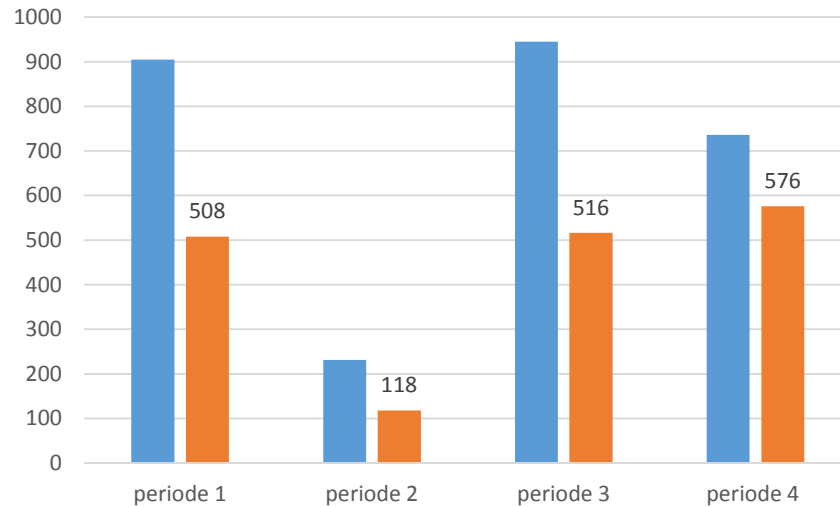
- Crowdfunding bonus conditions have changed over the past rounds
- Today candidates meeting certain financing requirement shall be awarded a bonus of :
  - 1€/MWh for projects with at least 10 % of the whole financing held by 20 citizens or by one or several local authorities (financement participatif)
  - 3€/MWh for projects with at least 40 % of its capital held by 20 citizens or by one or several local authorities (investissement participatif)





# Results of first rounds

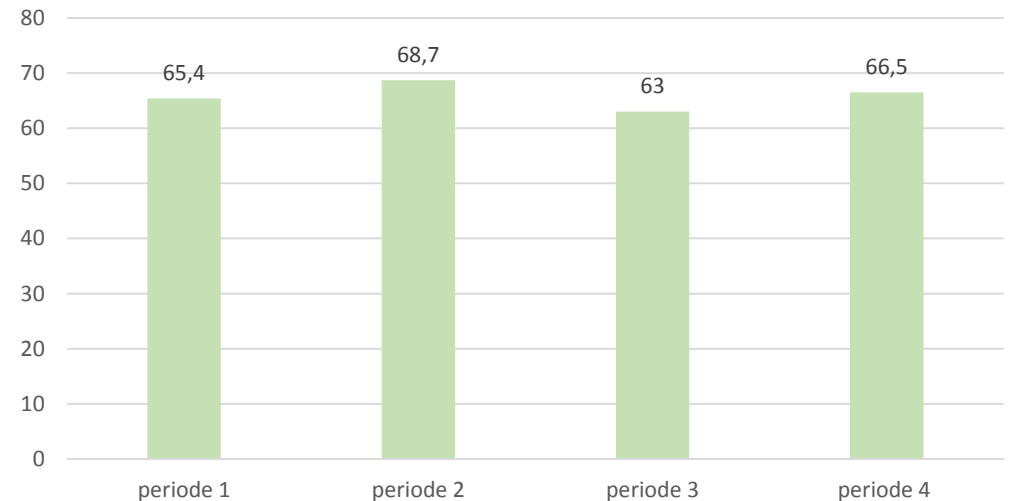
Volumes AO (MW)



## Plant size :

- Average : 7,7 turbines / 25MW
- Minimum : 1 turbine / 3,6 MW
- Maximum : 30 turbines / 111MW

Average bid price (€/MWh)



## Crowdfunding :

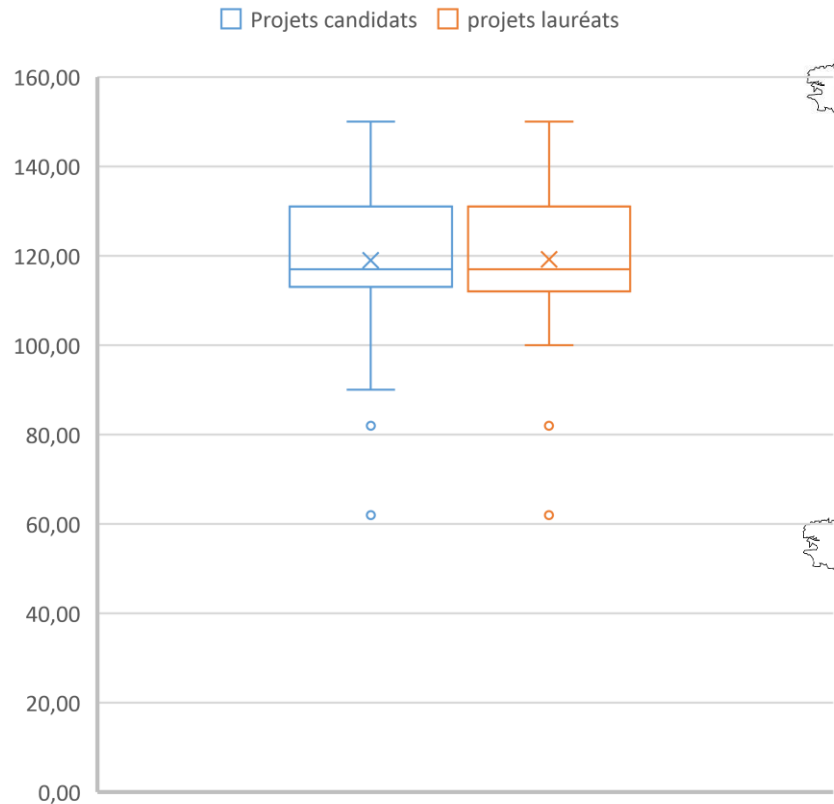
- 9 projects committed to participative investment (first round : 7 projects)
- 0 to crowdfunding



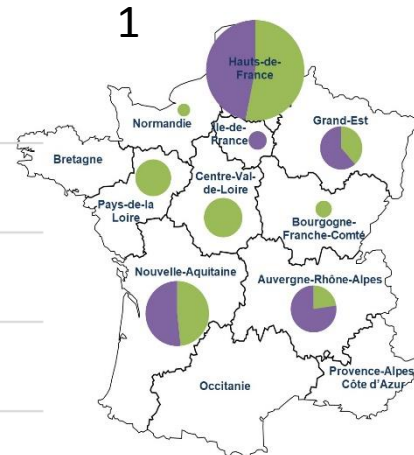
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# First rounds results

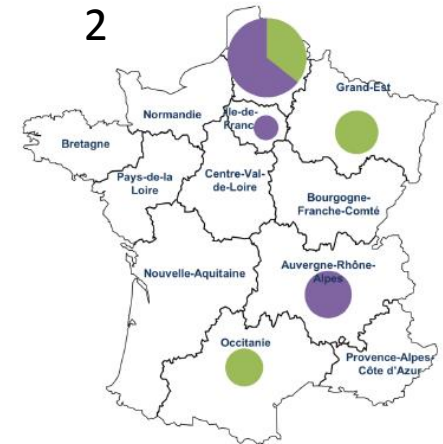
## DIAMÈTRE ROTOR (M)



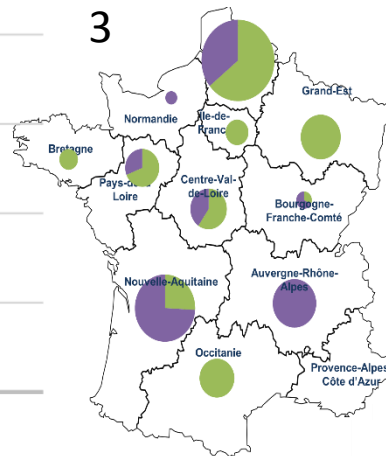
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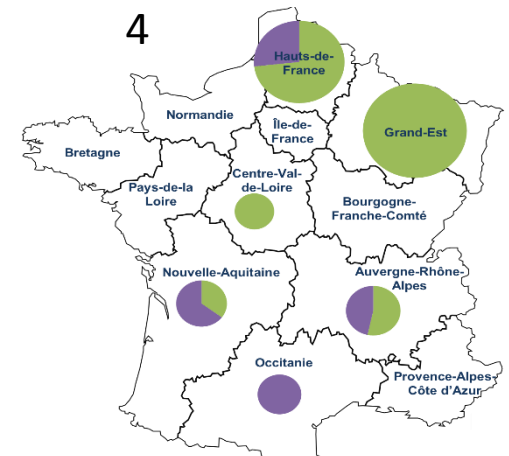
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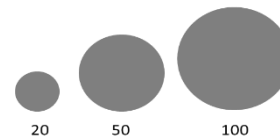
2



3



4



Puissance cumulée par région (MW)

Puissance cumulée des dossiers que la CRE propose de retenir



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# Opportunities

- Tendering procedure will be extended to most projects in 2020 (<6 turbines)
- Next volumes will be set accordingly
- Crowdfunding conditions will have to be modified
- According to a recent law modification, wind power plants' **carbon footprint** will have to be introduced as a criterion or as a condition in the tendering procedure

