



Community Wind Energy and Bioenergy in Île-de-France

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22 NOVEMBER 2023 | 10 Minutes | Location

Energy context in Île-de-France (IDF)

18% of the population on 2% of the territory (superficy: 12 012 km²) => 12.3 millions residents

- 2020 energy consumption : 180 TWh => covid year + fresh year
- 2019 energy consumption : 195 TWh
- 68% of the energy is consumed by residential and tertiary buildings
- 90% of the energy consumption is imported
- 63% of the energy is fossil
- Only 9% of the consumption is covered by local renewable energy



Wind energy

Current production and goal



Overview, questions

- Important density in IDF : minimum 500 meters from houses
- State services established cartography for good wind sites : 2 300 km² => 0,2% of the territory
- Potential :
 - ✓ for areas around existing sites : increased potential of the machines
 - ✓ around highways
- Biggest challenges:
 - Acceptability problems in France for wind energy => how to overcome oppositions?
 - ✓ Lengths of project development





Bioenergy (methanisation)

Current production and goal



Overview, questions

2023 : 61 working sites => 43 farms units, 9 units on wastewater treatment plant, 7 territorial units, 1 industrial unit and 1 treatment unit for the fermentable fraction of household waste => 646 GWh of production in 2022

0

< 10 000

- Minimum 100 to 200 meters from houses
- Biggest challenges:
 - ✓ Important investments
 - ✓ Acceptabilité: smell, traffic, spreading
 - ✓ Competition on the biomass uses
 - ✓ Continue to form locally elected
 - Encourage project holders to associate residents
 - ✓ Follow up on the existing sites to avoid opposition



Energie Partagée IDF, an association that helps citizens and local authorities to create renewables projets Cooperative projets in IDF in 2022

Wind projects

 1 wind project currently being operated by Energie Partagée Investment => public survey stage

Bioenergy (methanisation) project

• 0 project

Other types of projets

- Citizens sites are nearly all solar photovoltaic projets
- 1 geothermal citizen project

https://energie-partagee.org/monter-projet/se-faire-accompagner/les-reseaux-regionaux/energie-partagee-ile-de-france/

GrapAgri IDF Plaine Énergie Citoyenne **O** Région Île-de-France O'Watt citoyen Saint Denis, Plaine Commune (93) 3000 kWc (objectif) OC Cergy-Pontoise (95) 900 kWc (objectif) Fermes Solaires Enercitif Électrons Solaires du Mont-Valérien Paris Q Les Lilas, Est Ensemble (93) Q Rueil-Malmaison, Suresnes (92) 2000 kWc (objectif) 1000 kWc (objectif) 1000 kWc (objectif) La Solaire Francilienne Ateeva Seine et Marne (77) Ville d'Avray (92) i 1 300 kWc (objectif) 2000 kWc (objectif) Enercity 78 CEJR - Centrale Entre Q La Verrière (78) Juine et Renarde 100 kWc (objectif) Étréchy (91)
4700 kWc (objectif) Nos toits productifs - PNR Chevreuse Énergie de Saint-Vincent Ø Magny-les-Hameaux, PNR Haute Olichy (77) Vallée de Chevreuse (91 et 78) 18000 kWc (objectif) Sud Paris Soleil O Arcueil, Cachan (94) ■ 300 kWc (objectif) Solar photovoltaic Wind

Photovoltaic energy by the citizens

The citizen association **EnerCit'IF**

Mobilize the citizens to become actor in the energy transition

350 people in the association => 1 person = 1 vote

Mission : Finance, Install, Maintain solar power plants => Crowdfunding : 178 000 €

Their project for Paris

16* solar power plants since 2019 => Produce the equivalent of 300 households

Including 9 schools of the city of Paris



*The 16th solar power plant in the city of Rungis, south of Paris

Wind energy for Paris?

Inside his territory

No real potential identified :

- Dense urban area not compatible with wind farms
- Unfavorable geographical features

Outside his territory



Bioenergy in Paris

Bioenergy in the Parisian heating network

Biomass:

a limited development due to :

- Air quality issues in a dense urban area
- Necessary import of the raw materials => ecological balance

Biomethane : proportion will increase

Bio-waste

National law from 2015 => source separation of biowaste From 1st January 2024





Energy from bio-waste

A new methanizer for the Parisian metropolis

50 000 tons of bio-waste will be treated

Offer a local treatment solution

Develop a local and renewable energy pr => **30 000 MWh** of biogaz produced => consumption of **5 000 household**:

Using River transport

Commisioning in 2025







Time for questions

Thank you!

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