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AGENCE DE LA TRANSITION ÉCOLOGIQUE

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Tuesday, June 28th, 2022

WEBINAR

Wind energy and real estate prices: Presentation of a Study by the French Agency for Ecological Transition

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Soutenu par | Gefördert durch

Federal Ministry for Economic Affairs and Climate Action

on the basis of a decision by the German Bundestag

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Evolution of house prices in the vicinity of wind power plants

Method and main results

IAC PARTNERS

Context & objective

As onshore wind farms continue to expand, concerns are continuously raised regarding the effect on residential real estate prices and there is a lack of specific studies in France

Context:

- Concerns are continuously raised regarding the effect of onshore wind farms on residential real estate prices
- The existing studies often contain weaknesses:
    - **Qualitative** studies may **not reflect what happens on the market**
    - **Quantitative** studies tend to suffer a **lack of data**
    - Analysis are polluted by the **effect of other parameters**

Objective:

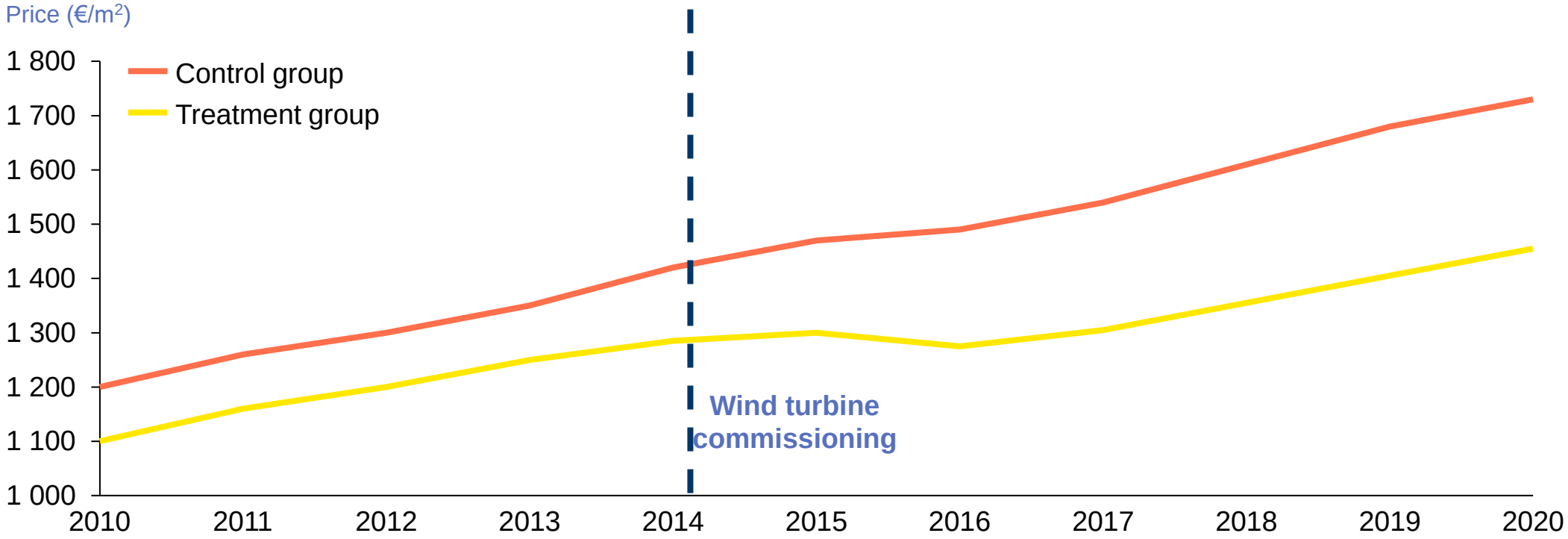
- Provide a valuable and robust analysis for the French market, including both a quantitative phase that produces measurable and repeatable results from reliable data, and a qualitative phase that provides perspective on, and limitations of, the quantitative phase

Method

The impact of wind turbines is measured qualitatively (bibliographical analysis, interviews, field survey) and quantitatively (data analysis)

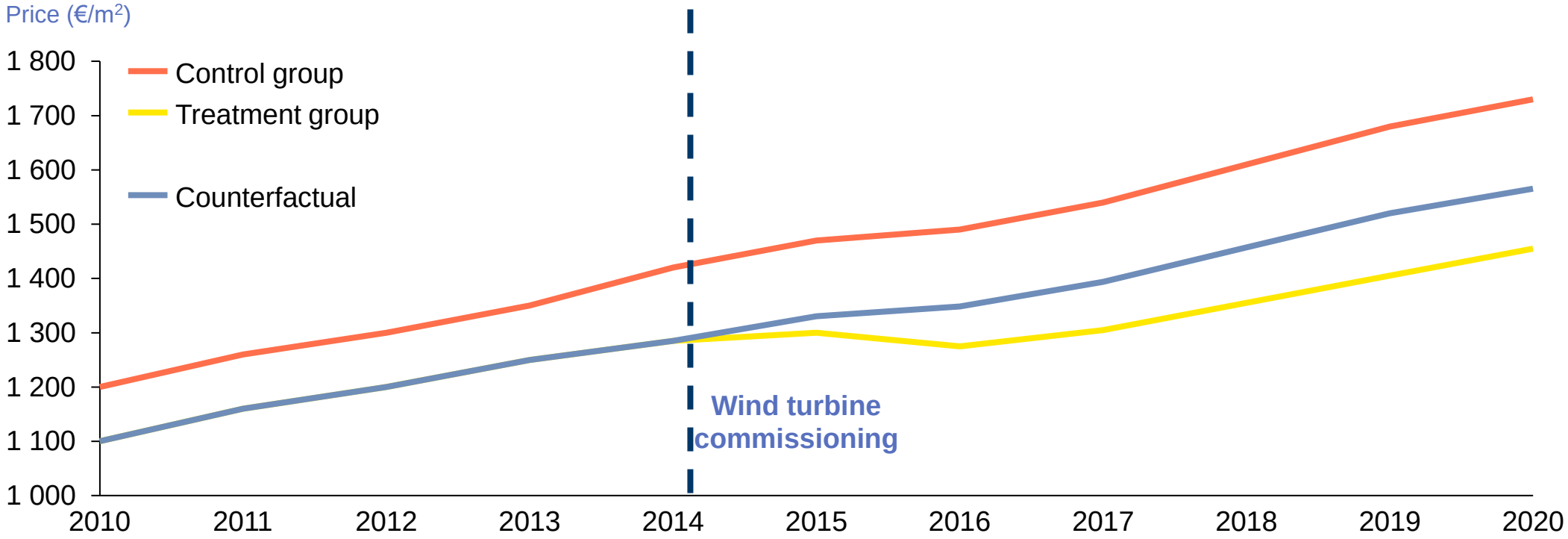
		Activities and method
Qualitative	**Bibliographical analysis**	• 79 pieces identified: studies on the impact of wind farms on real estate prices, studies on the impact of other industrial infrastructures on real estate prices, methodological papers, papers on wind energy in general
	Interviews	• 25 interviews conducted: real estate agents, head of inquiry for wind projects, mayors, project developers, associations of opponents to wind energy, SAFER, CGEDD, RTE, lawyer. Heritage associations contacted for an interview did not answer our requests
	Questionnaire to real estate agencies	• Questionnaire spread through FNAIM, CITYA, FONCIA : 16 generic feedbacks + 3 feedbacks on wind energy – Lack of factual feedback, no workable outcome
	Field survey	• 20 cities visited. 124 feedbacks from residents obtained
Quantitative	**Descriptive statistics**	• Cartography of mainland France and analysis of the real estate price dependencies
	Difference-in-Difference	• Analysis performed by IAC Partners based on DVF (Open-Data) over the period 2015-2020, combined to an ADEME database gathering wind turbines installed in France until the end of 2020.

Focus on the Difference-in-Difference model (1/2)



- The DiD method consists in assuming that the treatment group would have followed the same trend as the control group if no wind turbine had been installed.

Focus on the Difference-in-Difference model (2/2)



- The DiD method consists in assuming that the treatment group would have followed the same trend as the control group if no wind turbine had been installed.

In a simplified way, this is how the effect due to wind turbines is measured :

  - The « Control group» curve is « copied » on the « Treatment group » curve at the time when the wind turbine in commissioned. This new curve is called « counterfactual ».
  - Since we do not exactly know when the effect will take place, we used several starting points for the counterfactual and integrated these trials in our analysis.

Q&R

On the context and method

Results (1/3)

The impact of wind turbines on houses prices is -1,5% (from 0 to 5 km of a turbine) and 0 after 5 km. Particular cases can exist (castles…)

		Main results
Qualitative	**Bibliographical analysis**	• The impact is **of a few percents**, decreases with the distance to the turbine and becomes zero after circa 10 km. Results greatly vary from a study to another depending on the **country,** the **method** used, and probably of the local **perception** of wind energy.
	Interviews	• For very specific and very few cases (ex. exceptional properties or very close to wind turbines), wind turbines could have a significant impact on the **price (of about -20%)** and the easiness to **sell** a good.
	Questionnaire to real estate agencies	• No workable outcome
	Field surveys	• Wind turbines are **not a significant factor** driving the real estate prices down **for a vast majority of residents.** Their **negative impacts** are expressed in more **concrete terms** than positive impacts.
Quantitative	**Descriptive statistics**	• The 3 main drivers that explain the cost of houses are: the level of rurality **of the city** (distance to the closest 20 000 inhabitants city, rate of vacant property), **standard of living**, proximity to a **touristic site.**
	Difference-in-Difference	• **> 5 km : no impact** ; **< 5 km : -1,5%** on the price per m^2 (equivalent to **10 % of the houses in mainland France**). No impact measured on the number of transactions.

Results (2/3)

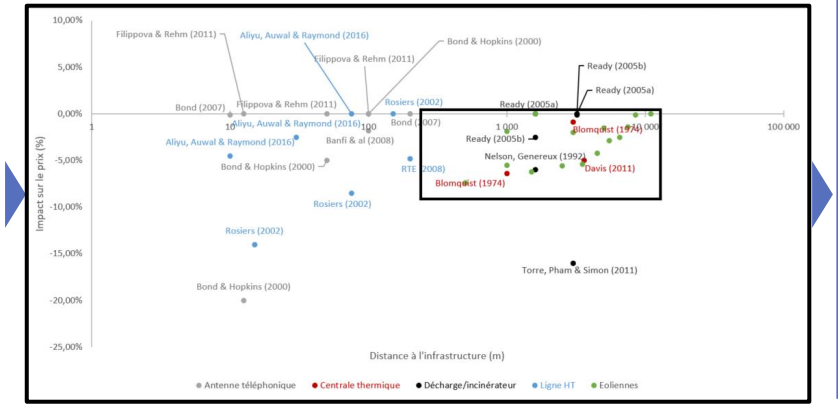
The effect of wind turbines is similar to that of other infrastructure projects, ~10 times lower than appreciation rates of rural properties

Contextualisation of the effect of wind turbines:

- The impact of wind turbines is **low compared to appreciation rates of rural properties (10-20%)**
- The image linked to an infrastructure can evolve over time

Comparison of the effet of wind turbines and the effet of other infrastructures:

Impact of several infrastructures on the price of a good, depending on the distance betwwen the infrastructure and the good (bibliographical study: Europe, USA, Australia)

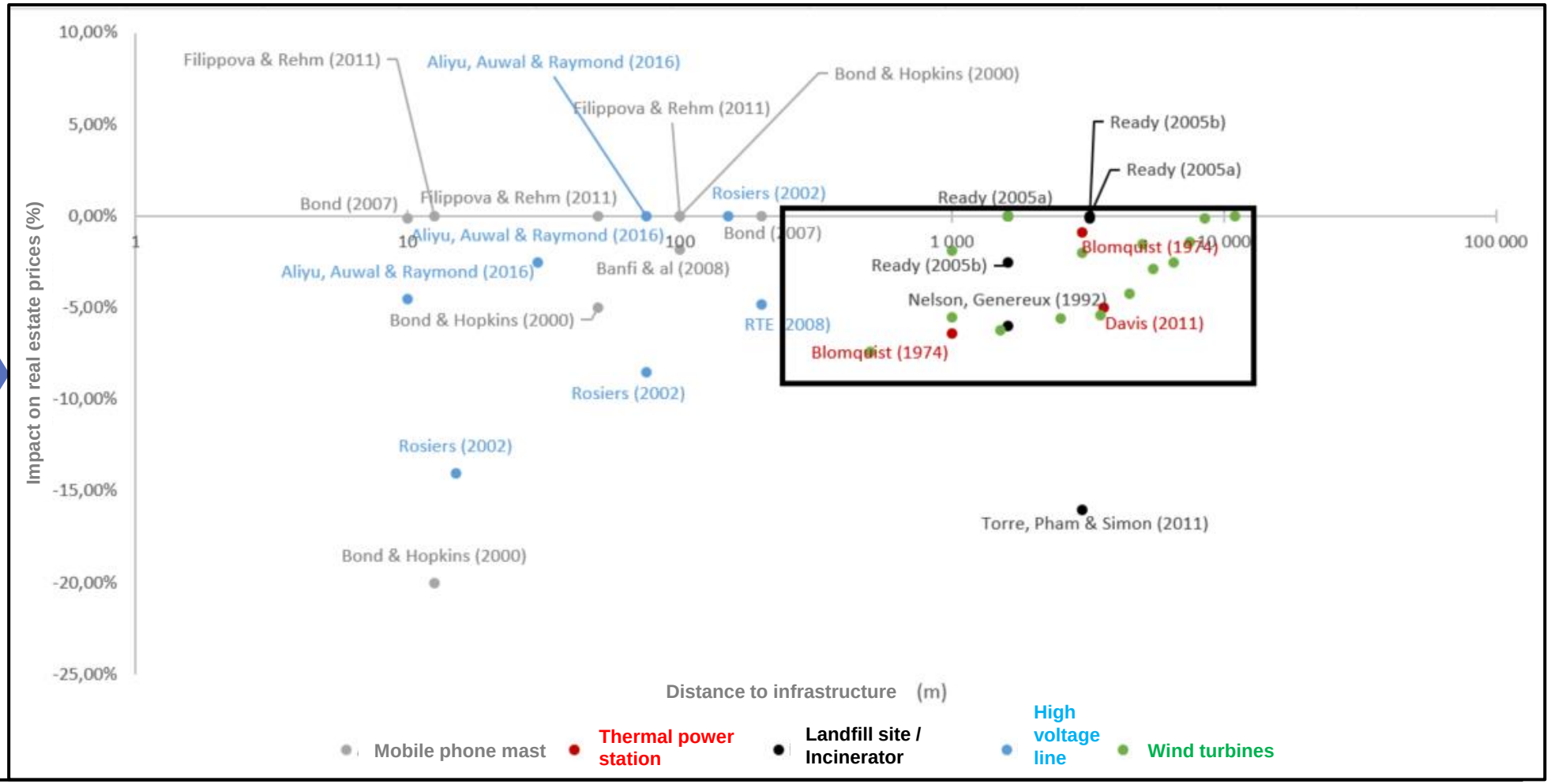


Most studies show that infrastructures of the panel have an impact lower than 10% on real estate prices, decreasing with the distance.
Above 10 km, none of the identified infrastructures seem to have an impact on real estate prices.

Depending on studies, variation of the impact can vary a lot.

Results (3/3)

Impact of several infrastructures on the price of a good, depending on the distance from the infrastructure and the good (bibliographical study Europe, USA, Australia)

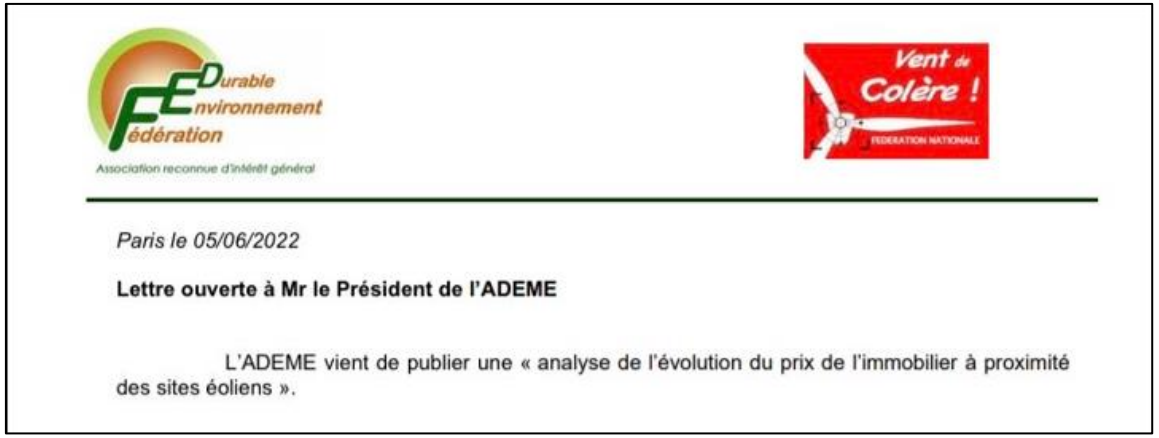


Reactions

Study published during the European Conference on Energy Transition in Geneva, 1/6/22.

Within 2 weeks, around 10 medias (including 5 mainstream) had disseminated the results

The associations Vent de Colère and Fédération Environnement Durable have addressed an open letter to ADEME



Paris le 05/06/2022

Lettre ouverte à Mr le Président de l'ADEME

L'ADEME vient de publier une « analyse de l'évolution du prix de l'immobilier à proximité des sites éoliens ».

The following items were critized on this letter:

- Follow-up Committee
- Available data and samples of data
- Analysis of the number of transactions close to wind turbines

What’s next?

What are the perspectives for this study?

The main limit is the <u>lack of available data give conclusions on particular segments</u>:

- The quantitative analysis **is not regionalised**
- The impact of wind turbines located **very close to houses** (500 m-2000 m) cannot be quantified
- The impact of wind turbines on **premium goods** is suggested by the qualitatve analysis but has not been confirmed by the quantitative analysis

In-depth sociological study :

- Field survey within a distance lower than 2 km to wind turbines
- Methods and questions T

Q&R

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Questions?

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Coming up next...

September 20th | Conference
Energy efficiency services in France and Germany: standards, markets, potential

September 28th | Side Event
Wind Energy and the Electrical Network: Challenges and Opportunities

October 6th | Online-conference
Biomethane in France and Germany: regulatory framework, potential and challenges

- Registration now open on ofate.eu/dfbew.eu
- Make sure you are on our mailing list!

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Thank you for participating!

Franco-German Office for the Energy Transition
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