



Département Énergie

Projet 2A n°10 : onshore vs offshore Wind Energy

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le 14 novembre 2022

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0 Context & Subject

For **land use plans reasons**,

in Europe it becomes **more and more difficult to create new onshore wind farms**

⇒ **Wind Industry** prefers **offshore wind farms**,

even in France who opened its **1st offshore wind farm**, **St Nazaire's wind farm**, in September 2022 !

⇒ is there impartially a real superiority of **offshore** vs **onshore wind farms** set in the same region ?

1 Aims & Methods

You are a member of a research department of a firm like **EDF Renewables** or **ENGIE Green**, your Head asks you to answer this question :

is there impartially a real superiority of offshore vs onshore wind farms set in the same region ?

For this, real high frequency 1 Hz measurement data from two close (in Northern Europe) met masts, **on-** and **off-shore**, from different heights, will be **cleaned** and **analyzed** ;



Met mast of Cabauw



Met mast of FINO1

Wind Turbine data will also be used



Remote methods

Microsoft Teams