



## Wind Resource Assessment Campaign with Lidars and Met Mast in Large and Complex Sites

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Wind farm development in complex sites raise a long list of challenges to keep the cost of produced power as low as possible. Among these challenges is the ability to accurately assess the wind resource. Because wind flow is more difficult to predict at hub height and over the entire site, and because met mast can be difficult to erect on such complex sites, technologies like lidar remote sensors can be an advantageous wind measurement alternative.

In this presentation, we propose to show the carry out of a wind resource assessment on a complex area. Lidar uncertainty on this specific site is analyzed as well as its impact on the global assessment of the energy resource for the wind farm project. We show how lidar measurements are combined with mast measurement to reduce the uncertainty of wind resource assessment.

Based on the results of this concrete business case, we conclude on the relevance of including lidar remote sensors in a traditional wind resource assessment campaign in a complex site.