



Wind Site Assessor Training

Lesson 3.2 What do you “see” at a site?

Introduction

You’ve learned the theory about wind quantity and quality, and now it’s time to apply these principles to actual sites. Almost. But first, you will need to know how to “read” a landscape.

This lesson will review several valuable tools that wind site assessors use when qualifying wind sites, tools similar to those used by wind farm prospectors when scouting sites for wind farms. Among other things, these tools include aerial photographs and topographic maps.

Learning Objectives

Upon completion of this lesson, you should be able to:

1. Explain the concept of wind shear and how to estimate it for a site.
2. Use the wind speed calculator to estimate wind speeds given various alphas
3. Download, interpret, and manipulate aerial photographs from the web.
4. Download, interpret, and manipulate topographic maps from the web.
5. Given the specifics of a location (or during a site visit), determine the wind shear for that site.
6. Given the specifics of a location (or during a site visit), determine if displacement height should be applied to the wind profile
7. List the things you need to know in order to size and site a wind tower at any given location.

Assignments

1. Re-read the wind site assessments provided in **Overview** for where and how wind shear, aerials photographs, topographic maps, and displacement height are incorporated into the report.
2. Access USGS topographic maps at <http://topomaps.usgs.gov/>

Exercises: field work

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