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Energy Zones Mapping Tool Newsletter

July Webinar Demo: Planning a Potential Energy Zone

Tuesday, July 28, at 3pm ET/2 pm CT/1 pm MT

Use the following link to attend the webinar: http://anl.adobeconnect.com/ezmt_demo
(Audio via the webinar or by phone: 1-877-685-5350, participant code: 853223).

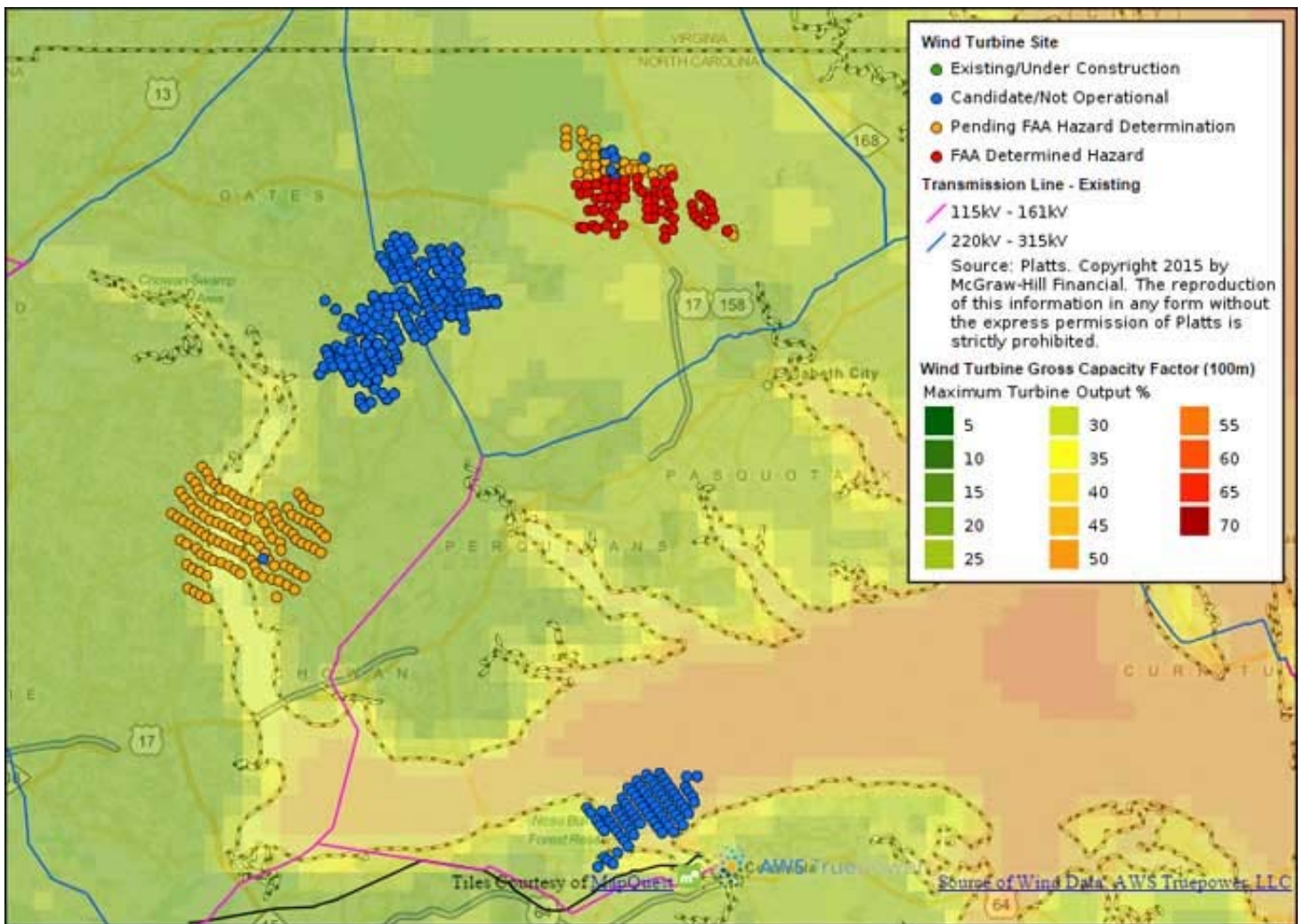
This demonstration will show how to use models to locate a potential energy zone suitable for several different technologies, study the location with the analysis tools, and generate potential corridor routes linking it to the transmission grid.

In the News

Recent news helps illustrate how the Energy Zones Mapping Tool (EZMT) provides relevant data and analysis for current developments:

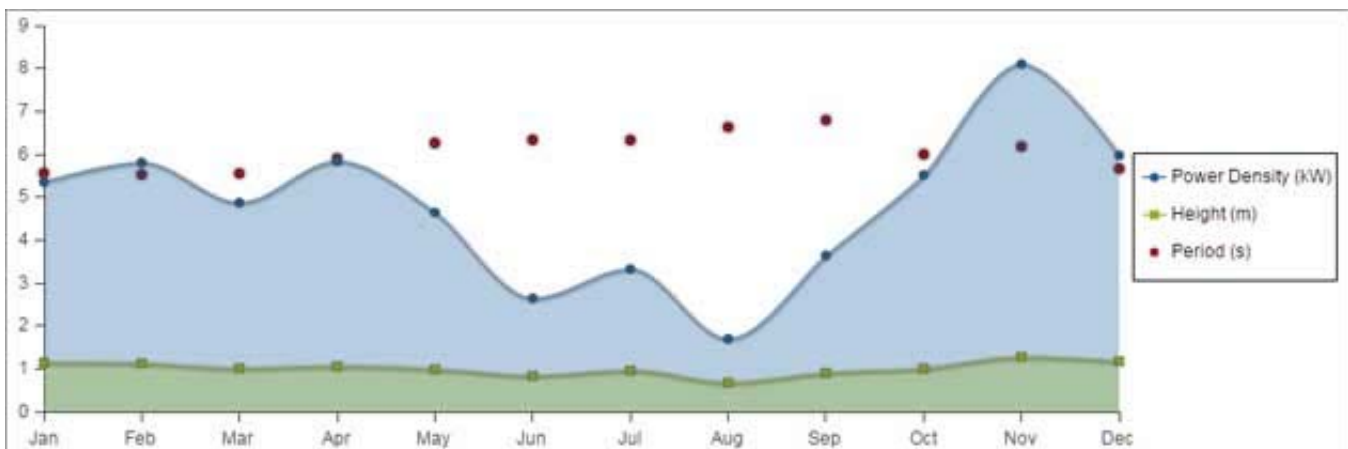
[Renewable Energy World](#) reports how Solar Energy Zones in the western U.S. have helped streamline permitting and reduce costs for solar energy projects. For the Eastern Interconnection, the EZMT provides data and tools specifically designed to help identify suitable regions for energy zones for a wide variety of low- and no- carbon energy resources.

Construction has begun on the first utility-scale wind farm in North Carolina and one of the first in the southeast (see [Associated Press](#), [Iberdrola Renewables Press Release](#)). The map below was made using the EZMT, showing locations with FAA permits in progress for wind turbines, capacity factor data for 100m hub heights, and local electrical infrastructure.



Map of the New Wind Farm Location Made in the EZMT, Showing Tower Permit Locations, Electrical Transmission Lines, and Capacity Factor Data.

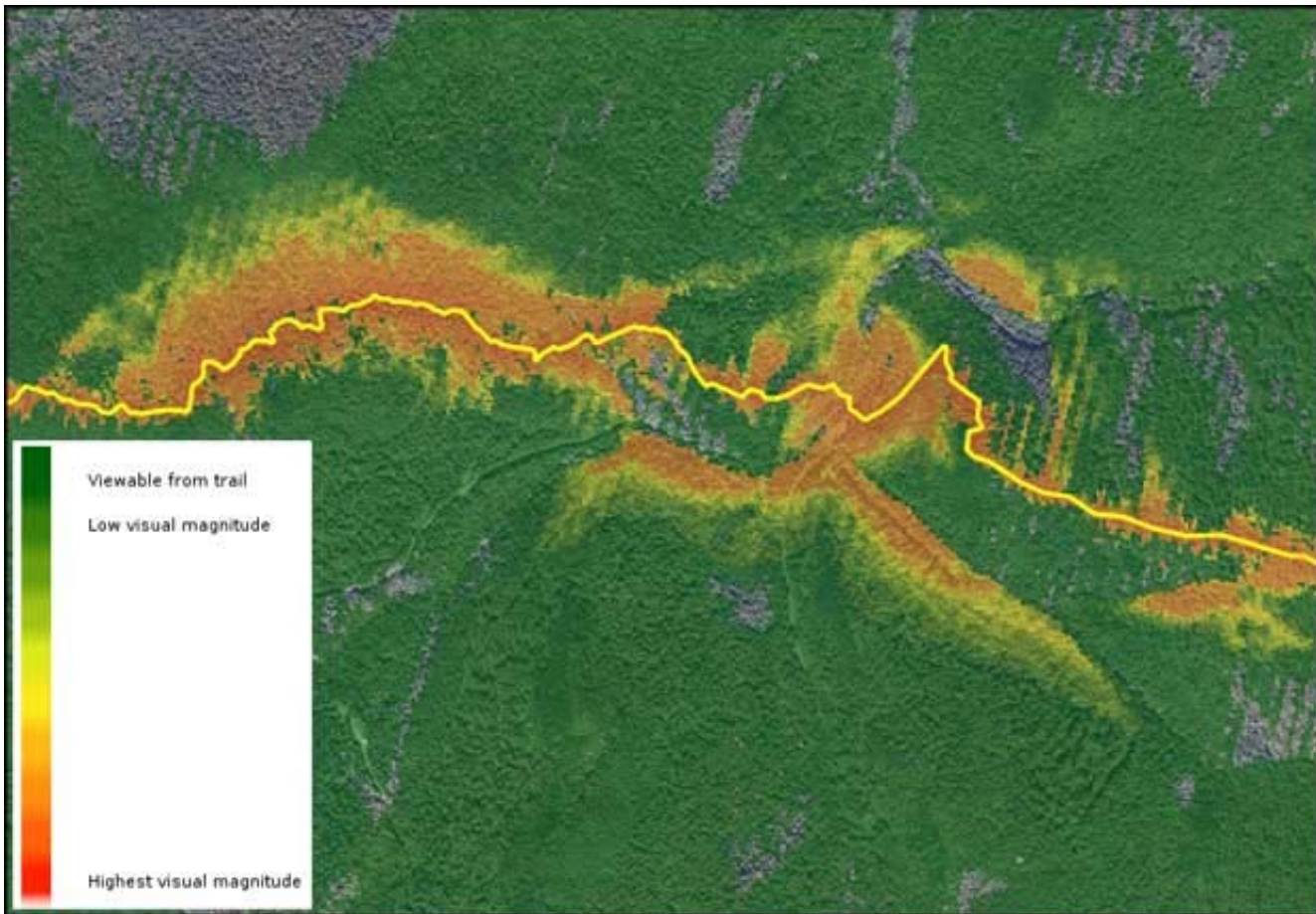
A recent [Energy.gov article](#) highlights a new prototype wave energy device being tested in Kaneohe Bay, off the island of Oahu, Hawaii. The EZMT includes several wave energy resource layers, including wave power density, significant wave height, and wave period. Each layer includes monthly and annual averages. Below is a sample graph from the Wave Energy Report run for an area off the coast of Maine. The tool has many other offshore layers related to renewable energy resources and siting factors, and models for marine hydrokinetic and offshore wind turbines.



Example Graph from the EZMT Wave Energy Report for an Area Off the Coast of Maine

Sample Appalachian Trail Viewshed

To demonstrate an approach to study scenic resource issues, a sample viewshed was computed for a portion of the Appalachian National Scenic Trail using an algorithm developed by Brent Chamberlain of Kansas State University. As in traditional viewshed computations, the algorithm determines visibility based on line-of-sight on the elevation surface, but it also weights observations based on proximity and angle of view, thereby accounting for more dominant terrain features. The **Viewshed Sample: Appalachian Trail** layer was added to the mapping library at full (10m) resolution for viewing. It was also added to the modeling library to illustrate how viewsheds can be used to generate corridor routes that could help minimize potential impacts to sensitive scenic resources.



A Sample Viewshed for a Portion of the Appalachian National Scenic Trail

Recent Energy Zones Mapping Tool Updates

- The following mapping layers were added or updated:
 - Aqueduct Water Risk
 - Aqueduct Water Stress Projections
 - Artificial Reef
 - Coastal Barrier Resources System
 - Environmental Hazard Site
 - Indian Reservation
 - Navigational Aid

- River Temperature Model (NE)
- Viewshed Sample: Appalachian Trail
- Wind Turbine Site
- The following **modeling** layers were added or updated:
 - Viewshed Sample: Appalachian Trail

This message is being sent to registered users of the Energy Zones Mapping Tool (<http://eispctools.anl.gov>) who indicated in their profile they are interested in e-mail updates. If you are no longer interested you can log in and change this preference by using the Profile option under the My Account menu at the top right of the home page, or e-mail eispctools@anl.gov with a request to unsubscribe to the updates.