



EISPC Energy Zones Mapping Tool: <http://eispctools.anl.gov>

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## EISPC Energy Zones Mapping Tool Newsletter

### December Webinar Demonstration

Thursday, December 12, at 3pm ET/2 pm CT/1 pm MT

Use the following link to attend the webinar: <http://anl.adobeconnect.com/eispc131212>

(Audio conference: 1-877-685-5350, participant code: 853223).

Time for questions will be provided during the session.

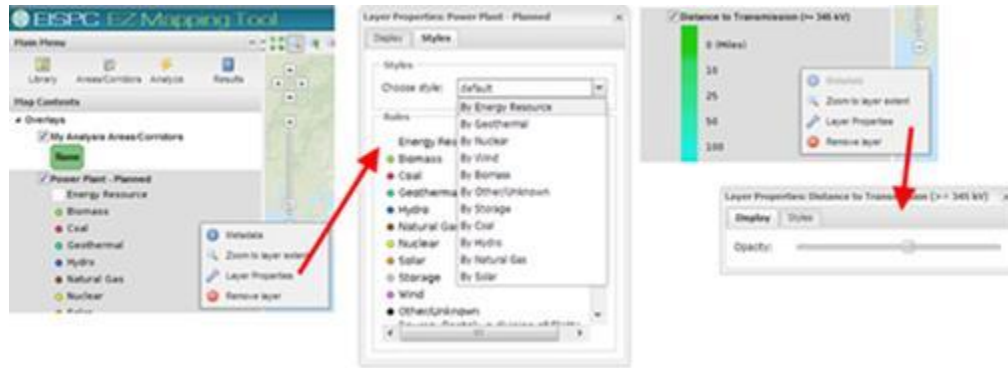
### Clean Energy Technology Spotlight: Wind Power

The tool includes many resources for understanding and analyzing Wind Power, including:

- [Technology Descriptions](#)
- Over 200 [policies related to Wind Power](#) (use more of the four options at the top of the page to filter further).
- Wind Energy Resource [mapping layers](#), including Wind Power Density, Mean Annual Wind Speed, and Wind Turbine Gross Capacity Factor for both 80m and 100m heights.
- Other Wind Power mapping layers such as Wind Turbine Sites and Atlantic OCS Wind Energy Areas, with downloadable GIS data accessible within the tool.
- [Metadata](#) for all mapping layers describing the data sources and other details.
- User-configurable suitability [models](#) for land-based and offshore wind technologies.
- Pre-made PDF maps, such as this map of [Wind Turbine Gross Capacity Factor at 100m Height](#).
- Links to other web-based wind resources, including the [Great Lakes Wind Atlas](#), and NREL's [Wind Prospector](#).



# December Mapping Tool Tips and Tricks



Right-click on layers in the Map Contents panel for additional options, including **Layer Properties**:

- Many layers can be displayed with multiple styles. In this example, different types of Planned Power Plants can be isolated on the map by choosing the desired type under the **Styles** tab.
- The **Display** tab allows the opacity (or transparency) of layers to be adjusted. This allows the base map or other layers to be seen underneath another one.
- Some of the layers with multiple style choices include:
  - Power Plant – Existing
  - Power Plant – Planned
  - Transmission Line
  - Protected Areas Database
  - Marine Protected Areas Database
  - Scenic Byway
  - Wave Energy Period
  - Wave Power Density
  - Significant Wave Height
- See the tool [Help Manual](#) or [Help Videos](#) for more details in using the tool. These are available at the top right of the [Home Page](#).

## Analysis Highlight: Investigating a Planned Transmission Line

As an example of the analysis capabilities in the tool, we added “Transmission Lines - Planned” to the map, zoomed in to a planned 500 kV line, used the Areas/Corridors tool to trace part of the route, and ran several reports. From the tool we gathered the following information:

- The name of the company planning the line, the rated voltage, number of circuits, and the names of the substations it connects.
- Counties, populated places, major roads, railroads, rivers, water bodies, transmission lines, substations, pipelines, military installations, and airports near, or crossing the route.
- A topographic profile and statistics about the steepest slopes along the route.
- Overall potential environmental sensitivity along the route, including Protected Lands, Habitat, and Imperiled Species.

### Habitat

From Milepost (mi)	To Milepost (mi)	Recommendation	Percent
10.0	12.0	No issues identified in data	3.85%
		Develop with caution	96.15%
12.0	14.0	No issues identified in data	37.04%
		Develop with caution	62.96%
14.0	16.0	Develop with caution	57.69%
		Develop with extreme caution	42.31%

- Specific Protected Lands and Habitat details along and near the route, including:
  - State Game Land
  - Two Scenic Byways
  - Several State-designated Core Habitat Areas
  - Two State-designated Landscape Conservation Areas
  - Eleven habitat mapping layers with data in the vicinity of the route
- Any of the above information can be displayed on the map for further analysis.
- Most of the GIS data used for the above information can be downloaded from the tool for further use.

## Whitepapers and Reports

The [Documents](#) section of the web site includes:

- Energy Zones Study: A Comprehensive Web-Based Mapping Tool to Identify and Analyze Clean Energy Zones in the Eastern Interconnection
- Assessment of Demand Side Resources within EISPC
- Market Structures and Transmission Planning Processes in the Eastern Interconnection
- State-by-State Existing and Potential Clean Energy Zones: Survey of Relevant State Laws, Rules, Regulations and Orders in the Eastern Interconnection
- The Economic Ramifications of Resource Adequacy White Paper
- An Overview of Potential Environmental, Cultural, and Socioeconomic Impacts and Mitigation Measures for Utility-Scale Solar Energy Development

## Recent EZ Mapping Tool Updates

- Updated State Summaries in [energy policy](#) results for states
- Added ability to open previously run Synergy Model and rerun with revised settings
- Added 14 raster layers to the exportable data layers in the Mapping Library
- Released updated mapping Data Layers:
  - Transmission Lines
  - Substations
  - Natural Gas Pipelines
  - Refined Product Pipelines
  - Crude Oil Pipelines
  - Existing Power Plants
  - Planned Power Plants
  - Existing Hydropower Dams (at least 50 MW)
  - Wind Turbine Sites
  - North American Saline Basin
  - National Conservation Easement Database
  - Important Bird Areas
  - Habitats of Particular Concern
  - Essential Fish Habitat
  - Navigational Aids
  - Submarine Cables
  - Anchorage Areas
  - Environmental Hazard Sites
  - Wilderness Areas