EISPC Energy Zones Mapping Tool

http://eispctools.anl.gov

Project Overview:

- Web-based Energy Zones Mapping Tool to identify areas within the Eastern Interconnection conducive to clean energy resource development.

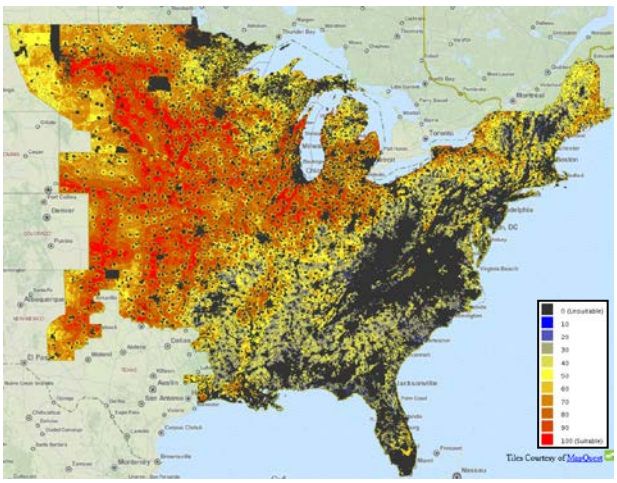
Highlights of Energy Zones Mapping Tool:

- Provides clean energy resource data, screening criteria, and policy information on one website.
- Produces user-customized maps of areas that fit specified screening factors and criteria.
- Assists with clean energy resource development and transmission corridor planning.

Nine Clean Energy Resource Categories:

- Biomass
- Clean Coal (with carbon capture and sequestration)
- Geothermal
- Natural Gas
- Nuclear
- Solar
- Storage
- Water
- Wind

EISPC Energy Zones Mapping Tool Home Page



Example Suitability Model Results for Land-Based Wind Resource

Modeling:

- Models determine suitability of Eastern Interconnection areas for developing clean energy technologies.
- Users customize model runs by adjusting screening parameters and weights.
- Models account for:
  - Clean energy resource availability
  - Land cover/landforms
  - Environmental factors
  - Population
  - Existing infrastructure
  - Other factors

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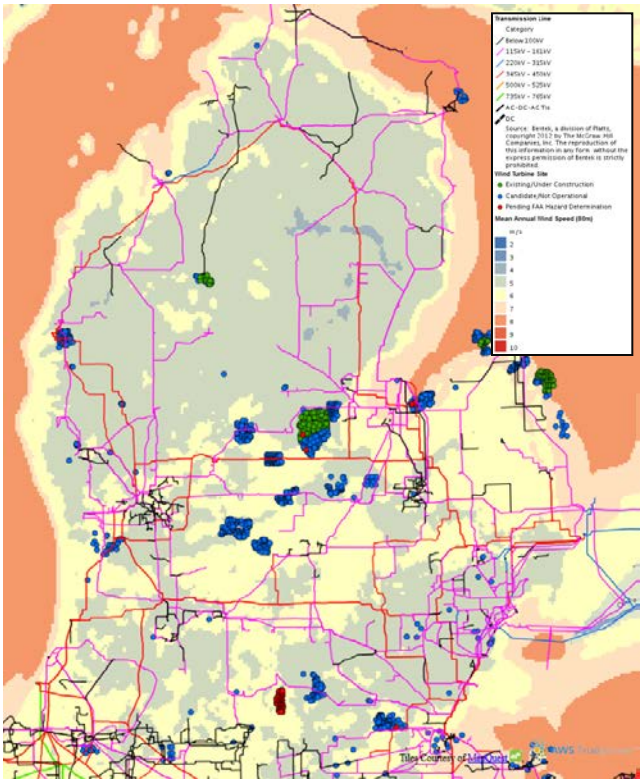
Data Catalog:

- About 250 GIS data layers, including:
  - Energy resource potential for nine clean energy resource categories
  - Environmental
  - Energy infrastructure
  - Transportation infrastructure
  - Geology
  - Hydrography
  - Land status
  - Demographics
  - Other categories
- Users have the ability to create and view detailed information about map features, and download most mapping layer data.



Example Map Content Showing Mean Annual Wind Speed and Turbine/Transmission Line Locations
(Source of transmission line data: Bentek, a division of Platts, copyright 2012 by the McGraw Hill Companies, Inc.)

EISPC EZ Mapping Tool

Generated by the EISPC Energy Zone Mapping Tool
https://eispctools.anl.gov
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Wave Energy Report

Location Analyzed: Maine

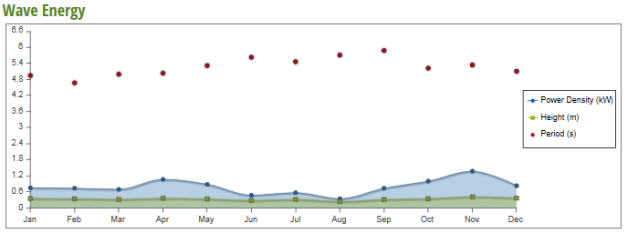
The area of interest is located at **45° 23' 21.874" N , 69° 14' 3.409" W .**
It covers some or all of **Androscoggin**, **Aroostook**, **Cumberland**, **Franklin**, **Hancock**, **Kennebec**, **Knox**, **Lincoln**, **Oxford**, **Penobscot**, **Piscataquis**, **Sagadahoc**, **Somerset**, **Waldo**, **Washington**, and **York** in **Maine** and **Carroll**, **Coos**, and **Strafford** in **New Hampshire**.
It has an area of **32161.176 square miles** with surrounding buffers of areas **55954.438** and **82077.749 square miles** .

Water Depth (m)

Minimum	Maximum	Mean
1.0	60.8	11.2

Source: National Renewable Energy Laboratory; et al (Wave Energy - Power Density).

Wave Energy



	Period[1] (sec)	Power Density[2] (kW)	Height[3] (m)	Hindcast Direction[4] (deg)
Annual	5.193	0.781	0.326	175.00
January	4.950	0.748	0.351	206.80
February	4.673	0.733	0.340	223.40
March	4.997	0.693	0.317	206.40
April	5.031	1.067	0.357	165.20
May	5.320	0.879	0.333	155.80
June	5.630	0.474	0.279	143.80
July	5.464	0.567	0.318	142.60
August	5.710	0.343	0.236	131.40
September	5.882	0.733	0.314	150.60
October	5.223	1.000	0.343	177.40
November	5.340	1.371	0.414	182.00
December	5.107	0.826	0.366	212.40

Sample Wave Energy Report (excerpt)

Reports:

- Reports can be run on a county, state, or specific analysis area or corridor drawn by the user.
- Report types:
  - Model results
  - Energy resources (10 reports)
  - Energy infrastructure (2 reports)
  - Corridors
  - Environmental (3 reports)

To register for the EISPC EZ Mapping Tool go to http://eispctools.anl.gov
Direct EZ Mapping Tool web site questions and comments to eispctools@anl.gov

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