EISPC Energy Zones Mapping Tool: http://eispctools.anl.gov **E-mail:** eispctools@anl.gov

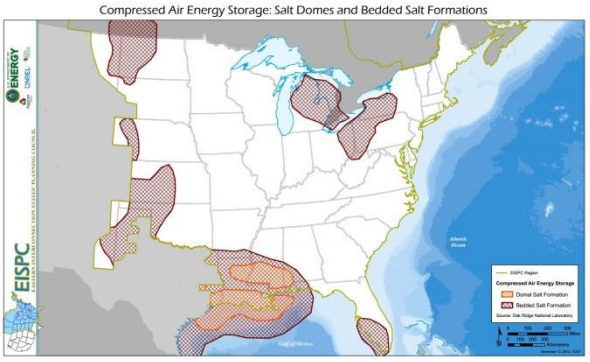
EISPC Energy Zones Mapping Tool Newsletter

June Webinar Demonstration:

Tuesday, June 24, at 3pm ET/2 pm CT/1 pm MT
Use the following link to attend the webinar: http://anl.adobeconnect.com/eispc_tool_demo/
(Audio via the webinar or by phone: **1-877-685-5350**, participant code: **853223**).
This one-hour demonstration will highlight the capabilities of the policies and regulations database, and also feature recently added Platts mapping layers, including:

- *Electric Investor Owned Utility (IOU) Service Territory*,
- *Electric Non-Investor Owned Utility (NonIOU) Service Territory*,
- *Electric Planning Areas*,
- *Independent System Operator (ISO) Zone*,
- *Liquefied Natural Gas (LNG) Terminal, and*
- *Natural Gas Storage Facility*.

Clean Energy Technology Spotlight: Storage

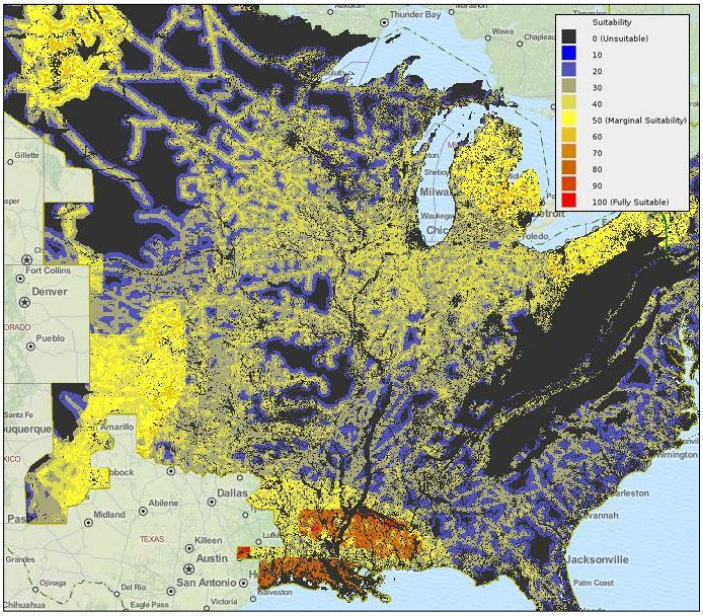


The tool includes many capabilities for understanding and analyzing storage energy resources and technologies, including:

- Technology Descriptions of the two primary categories: pumped storage hydroelectric (PSH) facilities and compressed air energy storage (CAES).
- Over 200 policies related to Storage such as these policies in Michigan.
- Pre-made PDF maps, such as this map of Compressed Air Energy Storage: Salt Domes and Bedded Salt Formations.
- Storage mapping layers, with access to downloadable GIS data, including:
    - Pumped Storage Issued Preliminary Permit
    - Pumped Storage Pending Preliminary Permit
    - Pumped Storage Site
    - Bedded Salt Formation
    - Domal Salt Formation

- Metadata for all mapping layers describing the data sources and other details.
- User-run Pumped Storage report.
- User-configurable suitability CAES model.

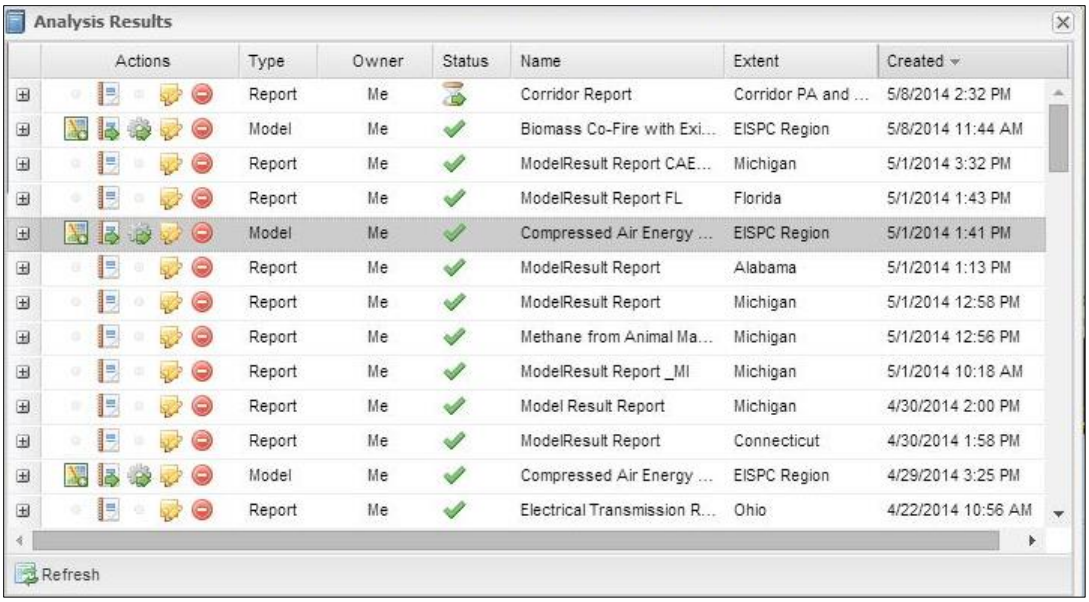
Sample results of the CAES suitability model are displayed in the map below. The areas with highest suitability for implementing new CAES technologies are shown in orange and yellow.



May Mapping Tool Tips and Tricks

Users view their list of running and completed models and reports in the **Analysis Results** window by clicking on the results icon 

in the Main Menu. The Action icons in the **Analysis Results** window allow the user to conduct various important functions for model and report results. The **Analysis Results** window also provides useful information including the name, date, and applicable state or region, for each model and report.



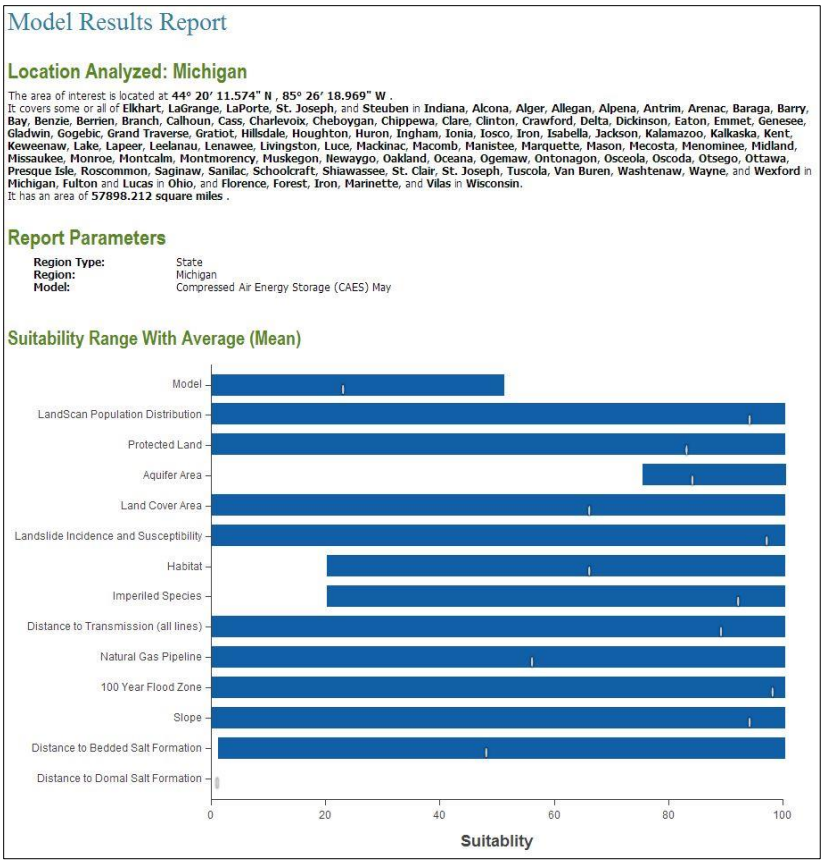
When the **Analysis Results** window is open, the hour glass icon in the **Status** column indicates that the model or report is running, and a checkmark icon indicates it is complete. Hovering the cursor over the **Actions** icons will reveal **tool tips** about their functions, and clicking on the **Actions** icons will run them. The icons include:

- The add results icon allows the user to display modeling results on the map immediately.
- The report icon allows the user to run a **Model Results Report** for a completed model.
- The modify icon allows the user to modify the settings of a previously run model and run the modified model.
- The edit icon allows the user to edit the name of and any notes for the model or report.
- The delete icon allows the user to delete any previous model run or report results.

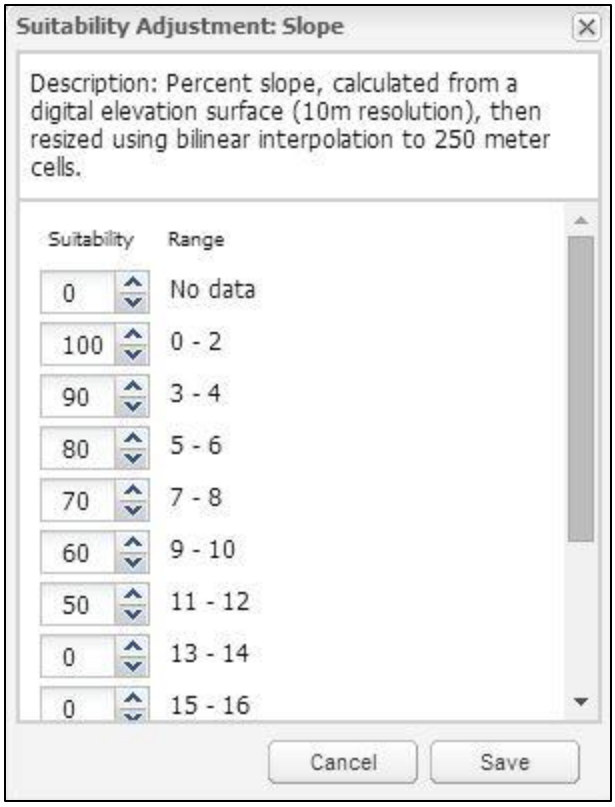
Contents in **Analysis Results** can be sorted by clicking any column header, and filters can be applied to the Status, Name, and Created columns by placing the cursor over the right side of the column header and using the menu.

After running a **Model Results Report** and the report is shown as complete in the **Analysis Results** window, the generated report can be displayed in a new window or tab. (*Make sure popups are enabled in the browser to allow the report to be displayed*).

For example, clicking on the **Run Model Results Report** Action icon for a user-generated CAES model and specifying a state such as Michigan, generates a report that includes information on the suitability range for each model layer. The report provides graphs that display both the mean suitability ranges and individual layer suitabilities as percent of layer's total coverage. This is important for analyzing the model results and determining what factors are influencing the suitability.



The report also provides for each model layer: a detailed description, its weight in the model, and the suitability settings assigned for each range of values within the map layer. For example, within the Slope model layer used to generate the default CAES model, areas with 0 to 2 percent slope have a suitability value of 100 because the area is relatively flat. However, areas with 13 percent or greater slope have a suitability value of 0. The suitability values provided in the default models can be adjusted by the user when creating a custom model.



See the tool Help Manual or help videos such as Running a Model for more details on managing model and report results through the **Actions** icon functions. These are available at the top right of the Home Page.

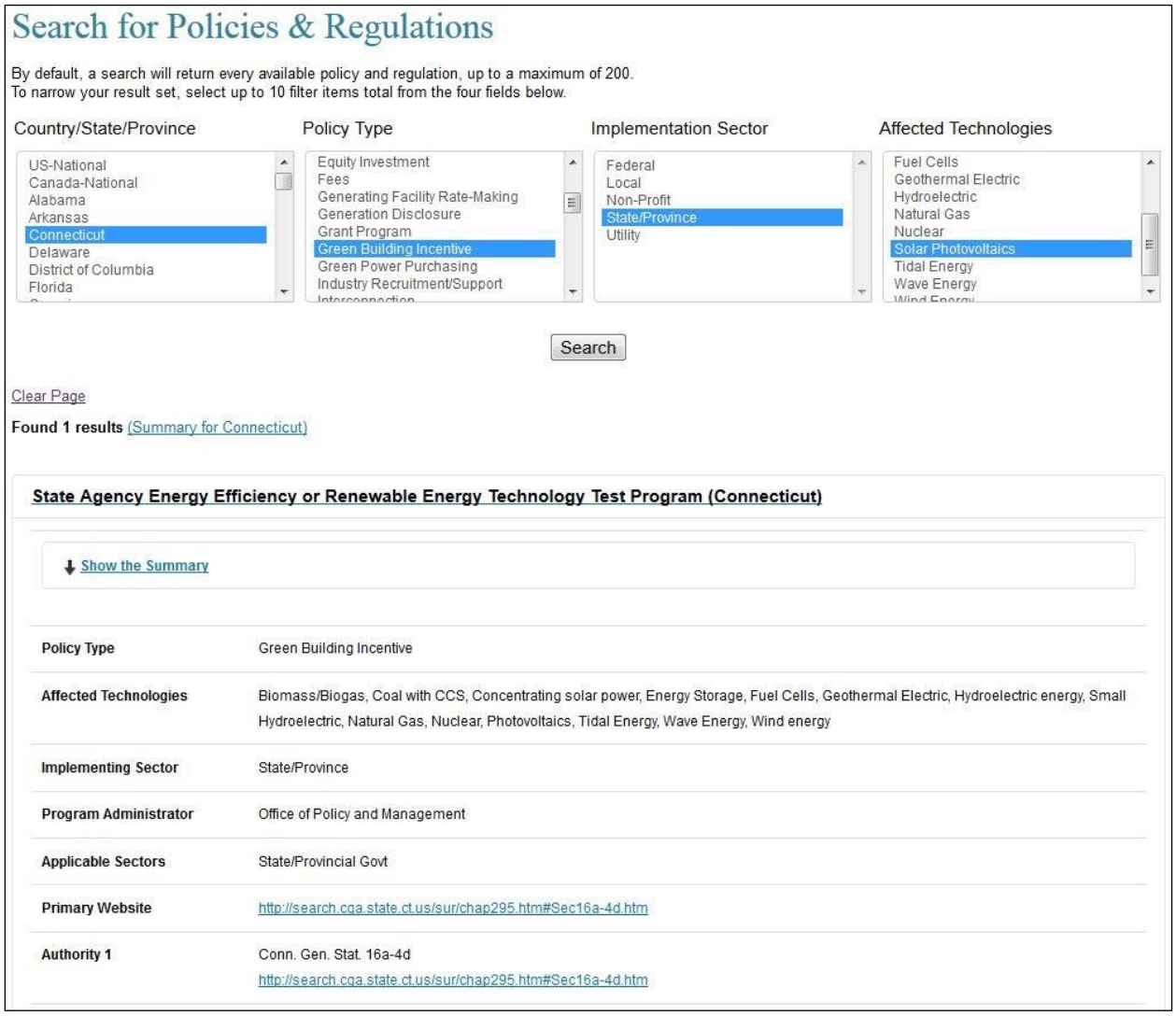
Analysis Highlight: Policy and Regulations Search Capability

The EZ Mapping Tool includes a searchable Policies and Regulations Database that includes all of the clean energy laws, regulations, incentives and other policies in all of the EISPC states, plus Canadian provinces, related to clean energy electricity generation. Clean Energy States Alliance (CESA) developed this Policies and Regulations inventory for the EZ Mapping Tool, starting with the Database of State Incentives for Renewables and Efficiency (DSIRE), then adding a wide range of policy types and technologies not included or not covered comprehensively by DSIRE.

In the tool, policies and regulations can be searched by:

- **Country/State/Province**
- **Policy type** (35 types, including environmental regulations, tax incentives, fees, siting and permitting, renewable portfolio standard, and workforce development)
- **Implementation sector** (Federal, local, non-profit, state/province, utility)
- **Affected technologies** (Biomass/biogas, coal with CSS, CSP, energy storage, fuel cells, geothermal electric, hydroelectric, natural gas, nuclear, solar PV, tidal energy, wave energy, wind energy)

The following is an example of search results for policies and regulations related to the green building incentive program offered by the state of Connecticut for numerous clean energy technologies.



Search for Policies & Regulations

By default, a search will return every available policy and regulation, up to a maximum of 200.
To narrow your result set, select up to 10 filter items total from the four fields below.

Country/State/Province: US-National, Canada-National, Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Florida

Policy Type: Equity Investment, Fees, Generating Facility Rate-Making, Generation Disclosure, Grant Program, Green Building Incentive, Green Power Purchasing, Industry Recruitment/Support

Implementation Sector: Federal, Local, Non-Profit, State/Province, Utility

Affected Technologies: Fuel Cells, Geothermal Electric, Hydroelectric, Natural Gas, Nuclear, Solar Photovoltaics, Tidal Energy, Wave Energy

Search

Clear Page

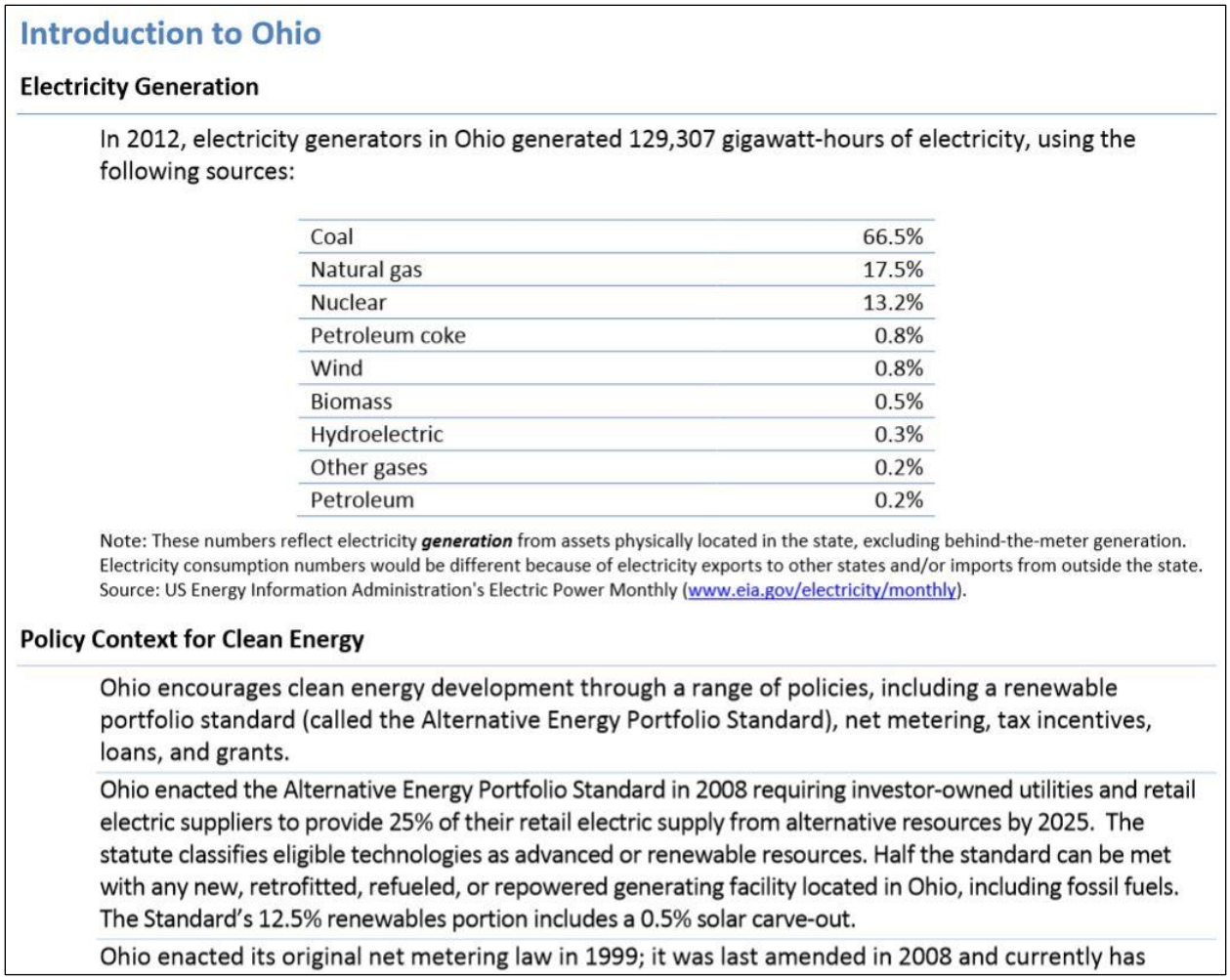
Found 1 results (Summary for Connecticut)

State Agency Energy Efficiency or Renewable Energy Technology Test Program (Connecticut)

Show the Summary

Policy Type	Green Building Incentive
Affected Technologies	Biomass/Biogas, Coal with CCS, Concentrating solar power, Energy Storage, Fuel Cells, Geothermal Electric, Hydroelectric energy, Small Hydroelectric, Natural Gas, Nuclear, Photovoltaics, Tidal Energy, Wave Energy, Wind energy
Implementing Sector	State/Province
Program Administrator	Office of Policy and Management
Applicable Sectors	State/Provincial Govt
Primary Website	http://search.cga.state.ct.us/sur/chap295.htm#Sec16a-4d.htm
Authority 1	Conn. Gen. Stat. 16a-4d http://search.cga.state.ct.us/sur/chap295.htm#Sec16a-4d.htm

When a search includes selection of a state, an overview of electricity generation and energy policy for each state is provided. A portion of the policy overview for Ohio is shown in this example.



Introduction to Ohio

Electricity Generation

In 2012, electricity generators in Ohio generated 129,307 gigawatt-hours of electricity, using the following sources:

Coal	66.5%
Natural gas	17.5%
Nuclear	13.2%
Petroleum coke	0.8%
Wind	0.8%
Biomass	0.5%
Hydroelectric	0.3%
Other gases	0.2%
Petroleum	0.2%

Note: These numbers reflect electricity ***generation*** from assets physically located in the state, excluding behind-the-meter generation. Electricity consumption numbers would be different because of electricity exports to other states and/or imports from outside the state. Source: US Energy Information Administration's Electric Power Monthly (www.eia.gov/electricity/monthly).

Policy Context for Clean Energy

Ohio encourages clean energy development through a range of policies, including a renewable portfolio standard (called the Alternative Energy Portfolio Standard), net metering, tax incentives, loans, and grants.

Ohio enacted the Alternative Energy Portfolio Standard in 2008 requiring investor-owned utilities and retail electric suppliers to provide 25% of their retail electric supply from alternative resources by 2025. The statute classifies eligible technologies as advanced or renewable resources. Half the standard can be met with any new, retrofitted, refueled, or repowered generating facility located in Ohio, including fossil fuels. The Standard's 12.5% renewables portion includes a 0.5% solar carve-out.

Ohio enacted its original net metering law in 1999; it was last amended in 2008 and currently has

The policy inventory is compiled on the Open Energy Information (OpenEI) website. To help expand the data and increase accuracy of the inventory, users can register with OpenEI and submit edits and updates to policies, and suggest additional policies that should be included. Database administrators review all submissions before accepting the updates, and the entire database is reviewed and updated annually. In compiling these policies, an effort has been made to identify and include policies that have been and will likely be particularly significant in leading to clean energy development.

The final report is posted on the EZ Mapping Tool's Documents page (State-by-State Existing and Potential Clean Energy Zones: Survey of Relevant State Laws, Rules, Regulations and Orders in the Eastern Interconnection) and contains further information about the process CESA used in carrying out research, data collection, and preparation of the inventory of energy policies and regulations.

Recent EZ Mapping Tool Updates

Added/updated the following data layers:

- Conservation Opportunity Area (MO)
- Electric Investor Owned Utility (IOU) Service Territory

- Electric Non-Investor Owned Utility (NonIOU) Service Territory
- Electric Planning Areas
- Focus Area of Ecological Significance (ME)
- Important Bird Area
- Independent System Operator (ISO) Zone
- Landscape Permeability Flow Model
- Liquefied Natural Gas (LNG) Terminal
- National Land Cover Database (2011 Edition)
- National Register of Historic Places (Point)
- National Register of Historic Places (Polygon)
- Natural Gas Storage Facility
- Natural Heritage Area (NC)
- WindFarm - USGS Energy Resource Program