

# EISPC Energy Zones Mapping Tool

National Association of State Energy Officials  
Webinar: New Online Tools for Energy Data Analysis

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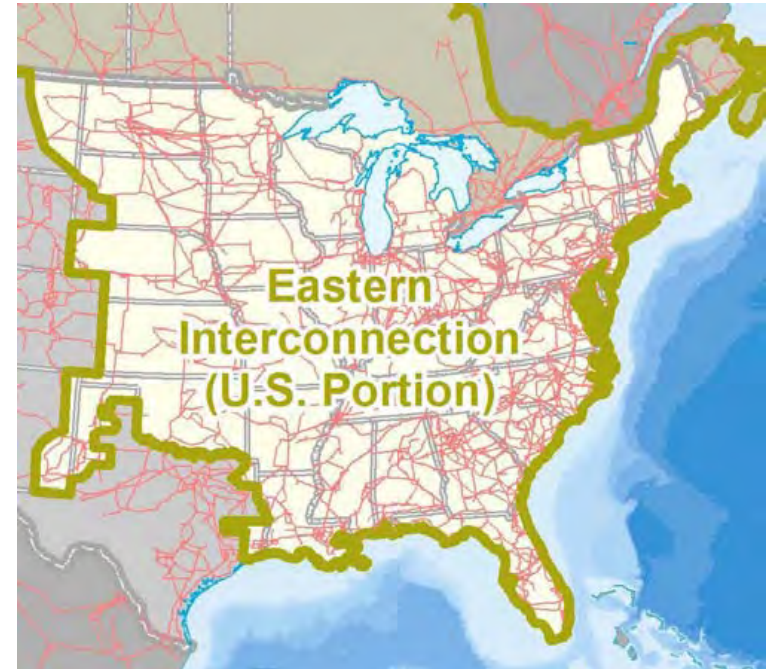
# Eastern Interconnection States Planning Council (EISPC)

- EISPC represents 39 states, District of Columbia, City of New Orleans and 8 Canadian Provinces located within the Eastern Interconnect (EI)
- EISPC is comprised of public utility commissions, Governor's offices, state energy offices, and other key government agencies and representatives



# *EISPC Energy Zones Study Is a Collaborative Effort*

- **EISPC is collaborating with three DOE Laboratories:**
  - Argonne National Laboratory
  - Oak Ridge National Laboratory
  - National Renewable Energy Laboratory



- **Coordinated by EISPC Energy Zones Working Group**
- **Supported by DOE Office of Electricity Delivery and Energy Reliability (DOE/OE) based on funding and directives of the American Recovery and Reinvestment Act**

# *EISPC Energy Zones Study*

## *Objectives:*

- **Compile clean energy (low or no carbon) resource data for 9 clean energy resource categories**
- **Develop web-based GIS mapping tool that utilizes clean energy resource availability and flexible screening factors**
- **Provide policy and law information that encourages or inhibits potential clean energy resource development**
- **Enable States to collaborate on long-term regional transmission planning**

# Energy Resource Categories



**Wind**



**Biomass**



**Clean Coal** (with  
carbon capture and storage)



**Water**

## *Nine Clean Energy Resource Categories*



**Geothermal**



**Storage**



**Solar**



**Nuclear**



**Natural Gas**

# Clean Energy Technologies

## Biomass

- New biomass-fired plant with traditional combustion
- Biomass co-fire with existing coal plant
- Landfill gas extraction and plant inventory
- Methane extraction from wastewater treatment
- Methane extraction from animal manure processing

## Clean Coal

- New clean pulverized coal technology
- New integrated gasification combined cycle
- New coal fluidized bed
- Retrofitted pulverized coal

## Geothermal

- Enhanced geothermal system
- Geopressured geothermal

## Natural Gas (planned for June 2013)

- Combined cycle
- Underground natural gas storage
- Above-ground natural gas storage

## Nuclear

- Large light-water reactor
- Small modular reactor, integral pressurized-water reactor
- High-temperature gas cooled reactor/  
Very high temperature gas-cooled reactor

## Solar

- Concentrating solar power
- Utility-scale photovoltaic
- Rooftop photovoltaic solar

## Storage

- Hydroelectric pumped storage
- Compressed air energy storage

## Water

- Added output from existing hydropower dam
- New output from existing non-powered dam
- In-stream hydrokinetic energy
- Tidal hydrokinetic energy
- Wave energy

## Wind

- Land-based wind turbine
- Offshore wind turbine

 Suitability model

 Report based on inventory or energy resource availability

# EZ Mapping Tool – Users and Capabilities

## Intended for:

Regulators and policy makers

Industry

NGOs

Grid operators

Consumer unions

Experts/Researchers

## Provides:

A large repository of energy resource data

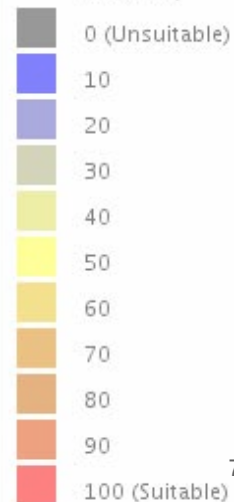
Flexible modeling approach

Custom mapping capabilities

Reports

Searchable policy and incentives database

Suitability



# EISPC EZ Mapping Tool Is Public!

**March 29, 2013:  
EZ Mapping Tool  
released for public  
viewing and  
registration**

- **Users can browse public pages of the website, must register to use the tool**
- **Terms and conditions of End User Agreement must be accepted before running the tool**

The screenshot shows the homepage of the EISPC EZ Mapping Tool. At the top, there is a navigation bar with links for 'About the Study', 'Energy Resources', 'Data', 'Policies & Regs', 'Maps', 'Documents', and 'Links', along with a 'Launch Tool' button. The main header features a map of the Eastern United States with a green overlay, and the text 'EISPC EZ Mapping Tool' and 'A map-based tool for identifying areas within the eastern United States that may be suitable for clean power generation.' Below this, there are three columns: 'About the Tool' (describing the tool as a free online mapping tool), 'Features' (listing eight energy resources and flexible analysis options), and 'Getting Started' (providing instructions on how to use the tool). A 'News' sidebar on the right contains two entries: 'May 14, 2013 Webcast Demonstration Thursday, May 23, 11:00 Central' and 'April 30, 2013 Webcast Demonstration Wednesday, May 15, 2:00 Central'. At the bottom, there is a 'Partners and Sponsors' section with logos for EISPC, Argonne National Laboratory, NREL, Oak Ridge National Laboratory, and the U.S. Department of Energy.

<http://eispctools.anl.gov>

EISPC EZ Mapping Tool

**Terms and Conditions:**

**Effective: March 06, 2013**

END USER AGREEMENT

(User agrees to the terms of use outlined below.)



# EISPC Energy Zones Mapping Tool

## Analysis Process

**Review supporting information**

- Technology descriptions
- Metadata
- Policy
- Maps
- Documents
- Links



**Visualize map**  
**Superimpose information**  
**Query locations**



**Specify locations to analyze**



**Run and revise models**  
**Run reports**





# ***EZ Mapping Tool Demonstration***

- Register for the tool here:  
<http://eispctools.anl.gov>
- Questions/comments at any time to:  
[eispctools@anl.gov](mailto:eispctools@anl.gov)