

# EISPC Energy Zones Study

## Laboratory Teams Progress Overview

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**Presented by:**

**Stan Hadley, ORNL**

**Jim Kuiper, Argonne**

**Tom Schneider, NREL**



# Overview

- **EISPC Energy Zones Study**
- **Natural Gas Resource Focus Team**
- **Environmental Focus Group**
- **Stakeholder Outreach**
- **Corridor Screening**
- **Questions and Comments**
- **Demonstration – New Models and Reports**

# Clean Energy Technologies

## Biomass

- Forest biomass and wood waste
- Agricultural biomass and waste resources
- Dedicated energy crops
- Methane from landfills
- Methane from wastewater treatment
- Methane 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 systems
- Geopressured geothermal

## Natural Gas

- 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 dams
- New output from existing non-powered dams
- In-stream hydrokinetic energy
- Tidal hydrokinetic energy
- Wave energy

## Wind

- Onshore wind turbines
- Offshore wind turbines

Planned suitability models

Planned reports based on inventory, or basic resource



Completed suitability models and reports - available on web site

# ***Natural Gas Resource Focus Team***

## **Resource Focus Team (RFT) Progress:**

- **Defined resource technologies in/out of scope**
- **Identified data and information sources**
- **Developing resource screening parameters and criteria**
- **Developing methodology and screening factors for Natural Gas Suitability Model**
- **Natural Gas RFT Timeline:**
  - ✓ **Collect resource data (Oct-Dec 2012)**
  - **Develop methodology and screening factors (Dec-Mar 2013)**
  - **Develop and implement Natural Gas Suitability Models in mapping tool (Apr-Jun 2013)**

# *Environmental Focus Group*

## **Environmental Focus Group Progress:**

- **Reviewed draft composite habitat and protected lands screening layers**
- **Reviewed additional environmental data layer recommendations from Wilderness Society**
- **Recommended data layers incorporated into composite habitat/protected lands screening layers for models or added to catalog**
- **Procured NatureServe imperiled species dataset**
- **Added protected lands report to system**

# Stakeholder Outreach

## Outreach activity progress/plans:

- **EZ Mapping Tool demos: both webinars and in-person**
  - ***State Commission staff – December 2012 webinar***
  - ***NARUC Committee Meetings – February 2013 demo***
- **Training: webinars, in-person, and recorded website videos**
- **Press releases and announcements: EZ Mapping Tool release and training**
- **Technical papers to disseminate information**

# ***Stakeholder Outreach***

## **Beta Testing Group:**

- **Reviewing and testing of Draft EZ Mapping Tool during development period**
- **Members represent various stakeholder groups**
- **Tasks Progress:**
  - **Tested tool functionality**
  - **Reviewed data, report, and modeling content**
  - **Provided suggestions for making the tool more effective for energy zone analysis**
  - **Continued to provide feedback**

# ***Corridor Screening***

## **Additional EZ Mapping Tool Capability:**

- **EISPC proposed development of corridor screening capability for new transmission lines and gas pipelines**
- **Argonne providing funding for this task**
- **Approach will provide high-level screening capability of potential corridors, not a detailed siting analysis**
- **Capability added to EZ Mapping Tool by end of June 2013**



# *Questions and Comments*

