### Clean Power Plan Update

(EW-2012-0065)

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### Clean Power Plan Update

- Brief overview of the rule
- Empire's generation resources
- EDE comments to rule
- Current projected cost of compliance
- State goals and compliance efforts

#### Rule Overview

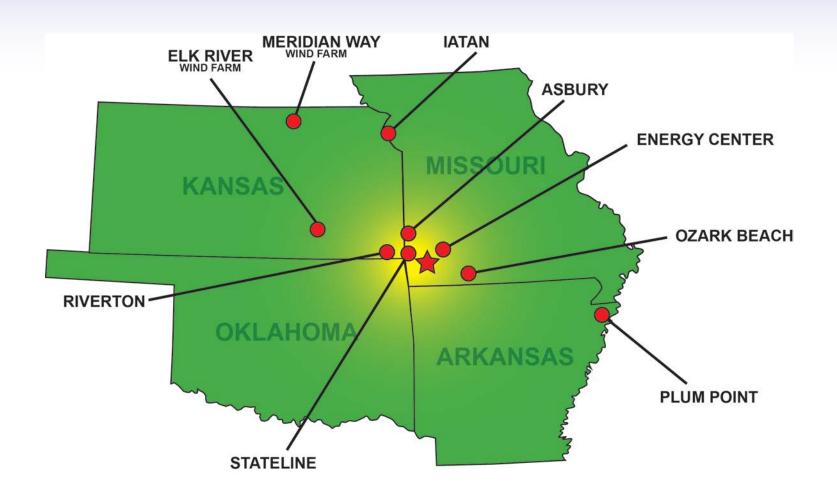
#### GHG NSPS for Existing Units (Clean Power Plan)

- Current Timeline
  - Rule published in Federal Register June 18, 2014
  - Comments due October 16, 2014
  - Final rules June 2015
  - State Compliance Plans due June 2016 2018
- ► Nationwide 30% CO2 reduction from 2005 levels
- ► Best System of Emission Reductions (BSER)
  - Unit-specific efficiency improvements (Building Block 1)
  - Re-dispatch from coal-based to natural gas-based units (Building Block 2)
  - Expanded use of low- and zero-carbon generating capacity (Building Block 3)
  - Expanded use of demand-side energy efficiency (Building Block 4)

#### ► State Plans

- States to decide how to achieve goals (can partner with other states)
- State-specific, output-weighted-average CO2 pounds per net MWh
- Initial state meetings took place in late June and early July

## Empire's Generation Resources



#### **EDE Comments to Rule**

#### Potential Comment Topics (not all-inclusive list)

- ► Timeline for state's to submit Compliance Plans
- ► Timeline to meet interim and final goals
- ▶ Difficulties for utility's that operate in multiple states
- Building Block 1: Incremental efficiency gains at existing units
- Building Block 2: Re-dispatch of coal/natural gas combined cycles
- ► Building Block 3: Renewable energy applicability
- ► Building Block 4: Demand-side efficiency measures
- Compliance demonstration mechanics (rate-based vs. massbased approaches)
- ► Pre-2012 activities and compliance
- ► NSR implications
- Accountability in multi-state approaches

### Current Projected Cost of Compliance

- Do not know at this time
- Rule is not final
  - ► Will KS wind count for MO compliance?
  - ► Will MO partner with any other states?
  - Do we have the infrastructure/ability to re-dispatch to 70% capacity factor on natural gas combined cycles?
  - ► Will final rule assume MO increases EE by 20-fold?
  - ► Will EPA allow efficiency gains prior to 2012?
  - Many more questions to be answered
- We will know a lot more when MO has an approved Compliance Plan

# State Goals and Compliance Efforts

Empire's state goals (lbs/MWh)

	Current	Interim Goal	Final Goal	Total Reduction
Missouri	1,963	1,621	1,544	21%
Kansas	1,940	1,578	1,499	23%
Arkansas	1,634	968	910	44%

- \*Empire generation fleet averages (2013 lbs/MWh)
  - MO 1,800
  - KS 100
  - AR 2,300
  - Overall 1,530
- Empire compliance efforts
  - Push for multi-state approach
  - Ability to utilize Kansas wind generation a "must" for compliance in all states
  - Empire's existing diverse energy portfolio is a positive

<sup>\*</sup>Emission rates will fluctuate with actual operation of units

#### **Questions?**

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