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# Clean Air Act Section 111(d): Legal Foundations, Policy Issues, and How States are Preparing

Presentation and Discussion  
Arkansas Public Service Commission  
Arkansas Department of Environmental Quality

John Shenot, Ken Colburn, and David Farnsworth

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**The Regulatory Assistance Project**

50 State Street, Suite 3  
Montpelier, VT 05602

Phone: 802-223-8199  
[www.raponline.org](http://www.raponline.org)

# Major Issues



# Stringency of the Emissions Guideline



- What basis? Will EPA consider what's achievable...
  - Solely at each individual EGU?
  - By an aggregation of EGUs?
  - Through DSM programs?
- Will there be one target, or a ratcheting down over time?
- Form of target *might* matter

# Schedule for States to Produce Plans

- Timing in President's Climate Action Plan:
  - Final Rule: June 1, 2015
  - State Plans Due: June 30, 2016
- 13 months!!!
  - Longer than the default (9 months)
  - But not a statutory deadline; EPA has authority to extend
  - Little time for new State statutes/regulations



# Recognition for Early Actions?



- Some states/utilities have already acted to reduce power sector GHG emissions
- Will early reductions be credited toward achieving targets?

# Other (Major?) Issues

- How will EPA interpret its requirement to permit States to consider “the remaining useful life of the existing source”?
- Will EGU modifications to reduce GHG emissions trigger New Source Review (NSR) rules for other pollutants?

# The Certainty of Uncertainty

- Every EPA GHG rule has been litigated until all possible appeals were exhausted
- Supreme Court now considering timing and tailoring rules, 4 years after they were finalized





# Flexibility for States



## EPA's Gina McCarthy – 2013 testimony to U.S. Senate:

“These guidelines will provide guidance to **States, which have the primary role** in developing and implementing plans to address carbon pollution from the existing plants in their states. We recognize that existing power plants require a distinct approach, and this framework will allow us to **capitalize on state leadership and innovation while also accounting for regional diversity and providing flexibility.**”

# Ways to Reduce Power Plant Emissions

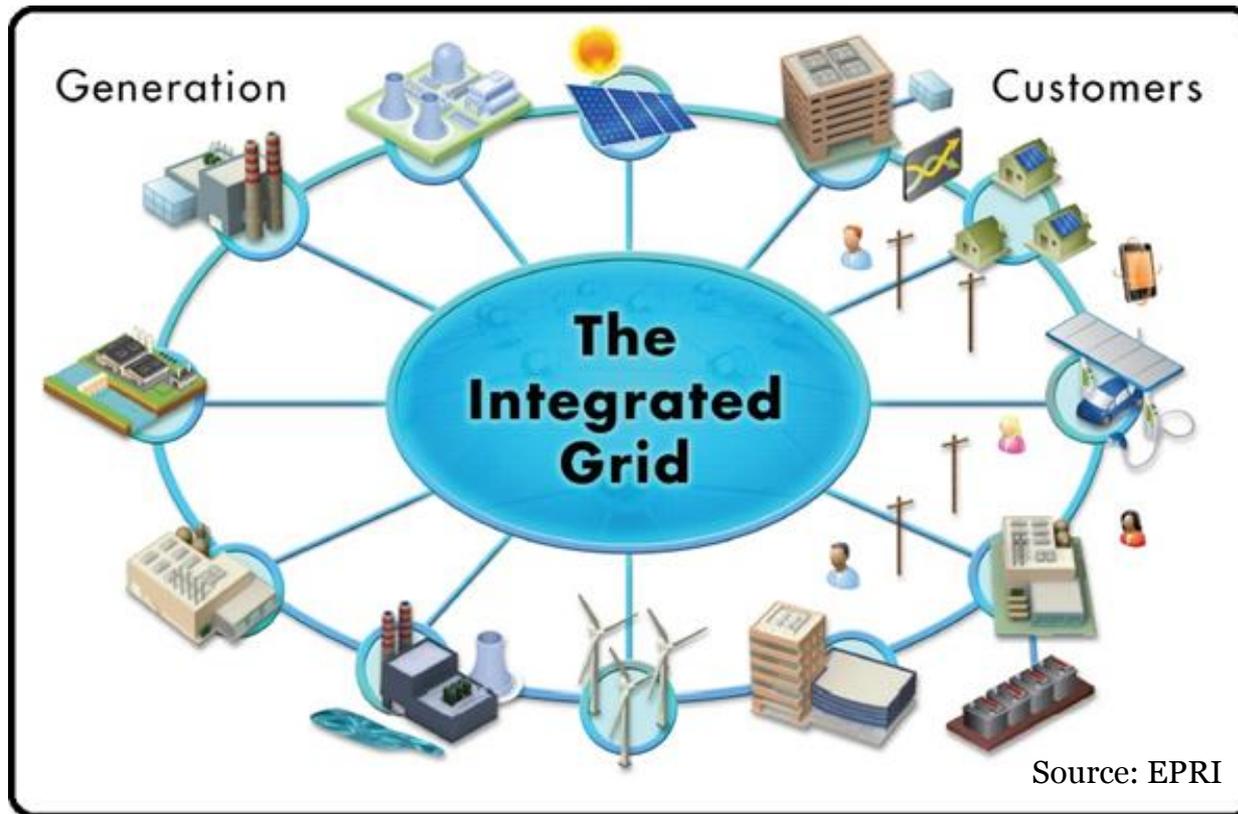
1. Reduce emissions rates (lb/MWh) of existing power plants to individually meet EPA guidelines



# Some Options for Reducing the Emissions Rate of an Individual Power Plant

- Fuel switching or co-firing with biomass
- Steam turbine efficiency improvements, combustion control optimization, etc.
- Cooling system/flue gas heat loss recovery
- Combined heat and power
- Carbon capture/utilization/storage (CCUS)
  - EPA will NOT require this

# Sector Approaches to Compliance



**More options = cheaper compliance**

# Ways to Reduce Power Sector Emissions

2. Get equivalent results by reducing the average emissions rate (lb/MWh) or mass of emissions (e.g., lb/yr) from an aggregation of covered power plants

# Some Options for Reducing Emissions from an Aggregation of Power Plants

- Dispatch lower emitting resources relatively more often and higher emitting resources relatively less often
  - Change dispatch order
  - Add lower emitting resources to the system
  - Retire higher emitting power plants
- Reduce aggregate generation through end-use efficiency or reduced line losses

# Some Policy Options with Examples

Type of Enabling Policy	Examples
Renewable Portfolio Standard (RPS)	MO, OK, TX, KS, IL, WV, VA
Integrated Resource Planning (IRP)	AR, LA, OK, MO, KY, GA, SC, IL
Energy Efficiency Resource Standards, Building Codes, Appliance Standards, etc.	MO, TX, IL, FL

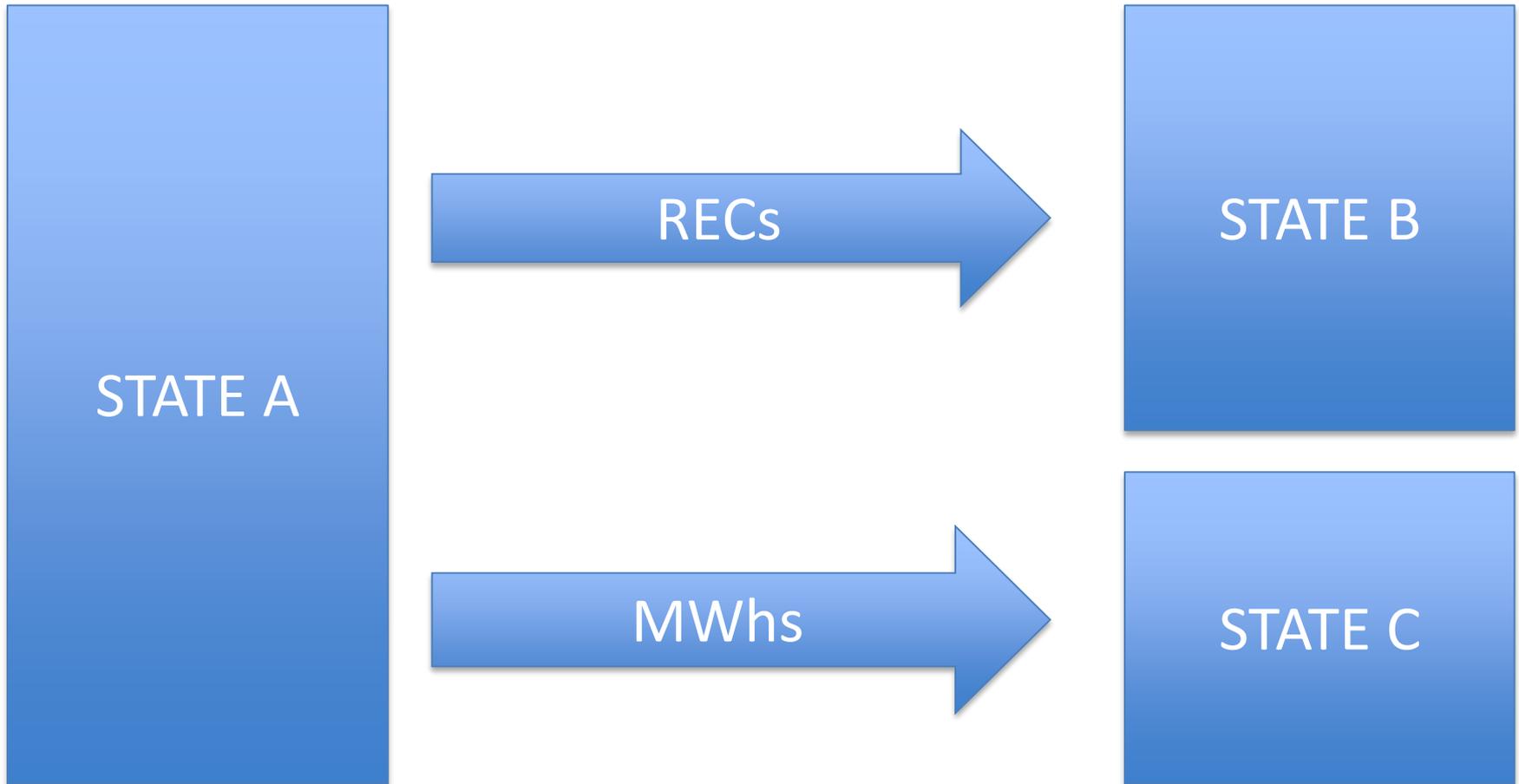
# Individual State Actions will Affect Neighbors

- Clean Air Act requires *state air pollution regulators* to develop compliance plans
- Their choices may affect:
  - Utilities and merchant generators
  - Balancing authorities and wholesale power markets
  - Retail electricity customers
  - PPA customers
  - Energy regulators
- **Impacts across state lines are likely**

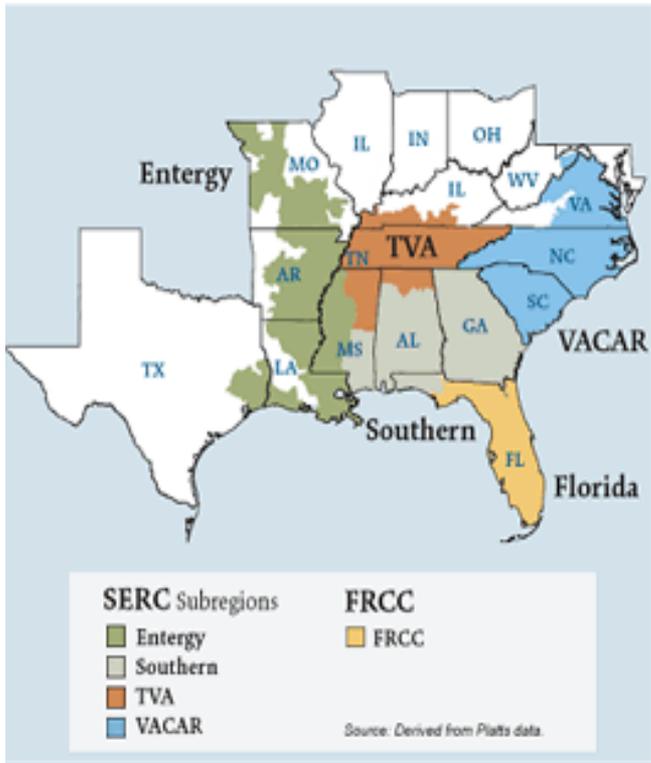
# Example: Energy Efficiency (EE)

- Which state/utility gets “credit” for emissions reductions from EE programs?
- Arkansas utilities operate in two different regional electricity markets (MISO, SPP)
- For example, energy savings in SWEPCO’s AR territory could affect dispatch and emissions of:
  - SWEPCO plants in AR
  - SWEPCO plants in other SPP states
  - AECC plants in AR
  - Other companies’ plants in other SPP states

# Example: Renewable Electricity



# Multi-State Strategies



- Aggregating across States allows more options than State-by-State
- ISO/RTO Council: “... compliance approaches in one SIP can create a regional reliability issue affecting another state.”
- EPA officials have expressed a desire for regional strategies

# Conclusions

- States will have flexibility in designing 111(d) compliance strategies
- States are likely to have options that focus on individual power plants and options for aggregations of power plants
- Communications are essential:
  - Between air regulators and energy regulators
  - Possibly even across state lines or regionally

# The Division of Authority Concerning EE and 111(d):

Why energy and environmental agencies  
need to collaborate on 111(d)

	<b>Authority to Adopt Emission Reduction Requirements?</b>	<b>Authority to Adopt EE Programs and to Recover Costs?</b>
<b>DEPs/DEQs</b>	<b>Yes</b>	<b>No</b>
<b>PUCs/PSCs</b>	<b>No</b>	<b>Yes</b>

# Start Now: No Need to Wait for Final Rule or Legal Certainty

- Initiate interagency dialogue
- Engage in interstate discussions
  - Consider regional collaboration, if it makes sense
- Consider multi-pollutant compliance strategies



## About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at [www.raponline.org](http://www.raponline.org)

Ken Colburn: [kcolburn@raponline.org](mailto:kcolburn@raponline.org)

David Farnsworth: [dfarnsworth@raponline.org](mailto:dfarnsworth@raponline.org)

John Shenot: [jshenot@raponline.org](mailto:jshenot@raponline.org)



### The Regulatory Assistance Project

Beijing, China • Berlin, Germany • Brussels, Belgium • **Montpelier, Vermont USA** • New Delhi, India  
50 State Street, Suite 3 • Montpelier, VT 05602 • phone: +1 802-223-8199 • fax: +1 802-223-8172

[www.raponline.org](http://www.raponline.org)