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Flexible regulatory frameworks for state plans under Section 111(d)

Design considerations beyond flexibility

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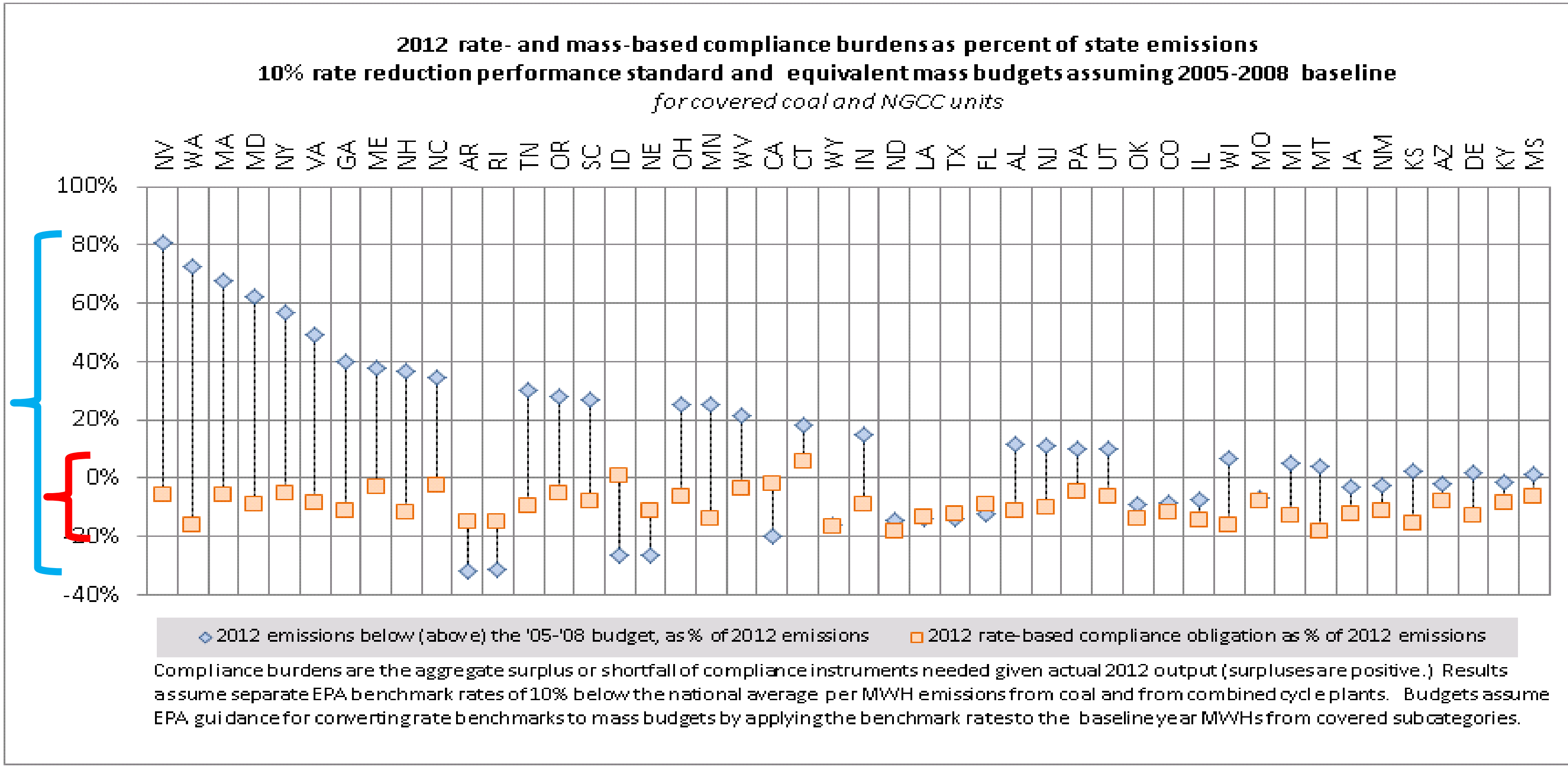
Our basic recommendations for EPA's guidance to the states

- National emission rate reduction guidance, by subcategories, based on "behind the fence" measures available at moderate cost, for major subcategories of fuel and technology types
- Guidance as a "menu" on the following:
  - Methodologies for states to use if they voluntarily decide to credit emissions avoided by new "beyond the fence" energy efficiency and renewable energy initiatives and fossil plant retirement / repowering
  - Inter-state averaging, banking and trading
  - A "safety valve" Alternative Compliance Payment, collected by the states, to ensure trading and compliance prices are reasonable
  - Equivalence guidance for non-rate-based programs –
    - Rate – to – mass translation for cap-and-trade
    - IRP or other planning-based programs
    - Other approaches (tax-based ?)
  - BSER can be revised in the future to set more aggressive standards as technologies on both sides of the fence improve.

"Prix Fixe, a la carte, or brown bag"

A “natural experiment” to see how different state programs would co-exist



- Mass-based programs are more volatile and prone to extremes of surplus or deeply binding budgets
  - More likely to have significant price swings from very low (or zero) to very high
  - More likely to produce widely different results outside of large regional markets
- Rate-based programs are more stable over time and consistent across states
  - More likely to produce moderate but stable and consistent compliance burdens

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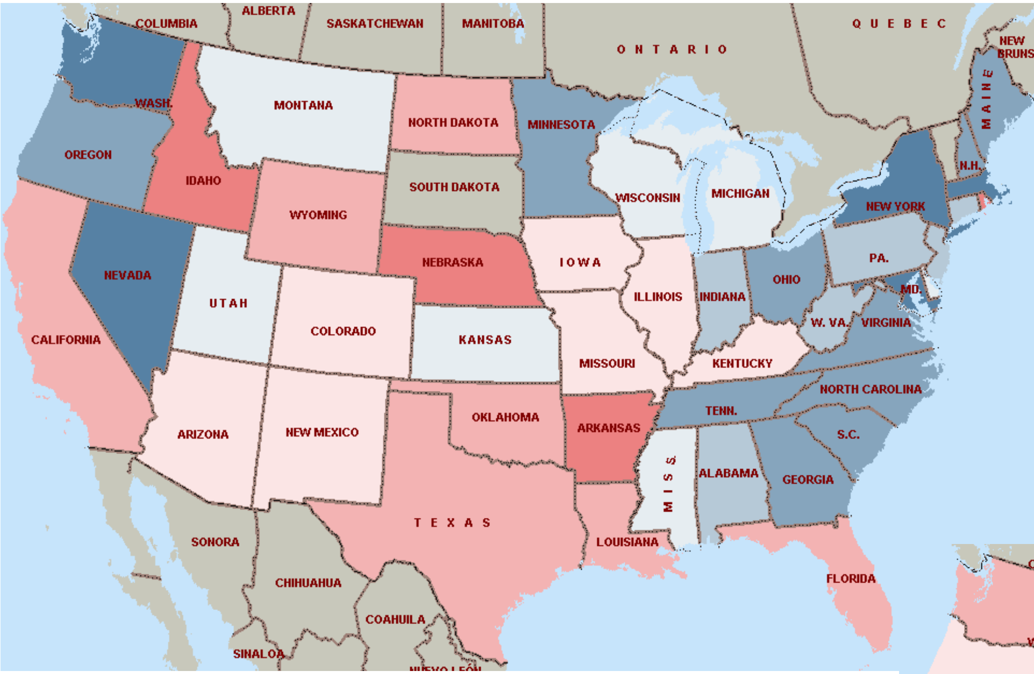
A patchwork of volatile vs. stable regimes?



Mass-based outcomes

Blue states have budget surplus in 2012 relative to 2005 – 2008 baseline (emissions down)

Red states are budget-constrained in 2012 relative to ‘05 –’08 baseline (emissions up)

“What goes down is likely to come back up” so surplus budgets could quickly become constrained (e.g., with more nuclear plant closures)

Rate-based outcomes

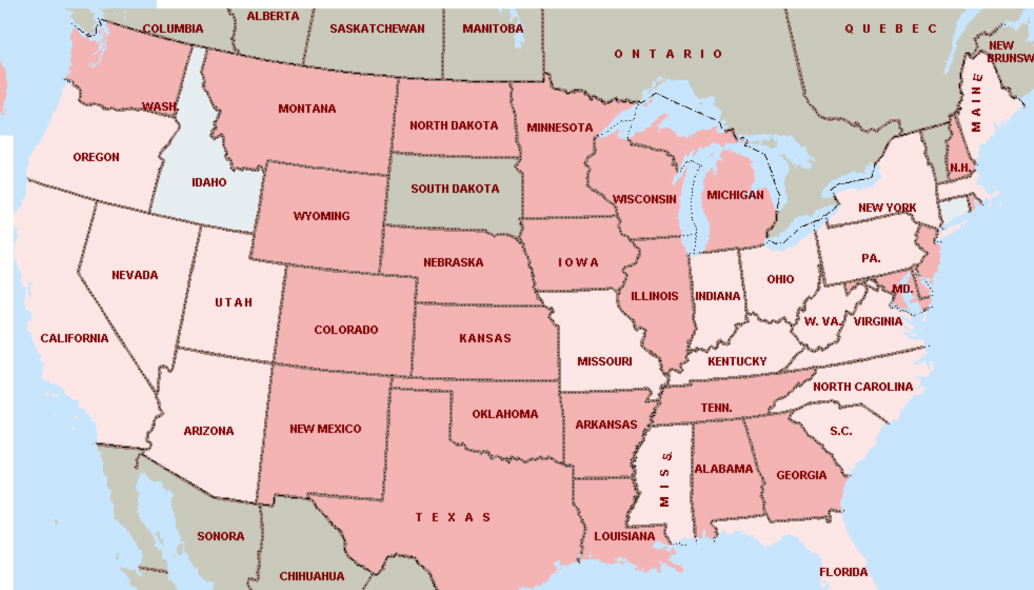
Two very mild budget surpluses

No extreme budget constraints (min. - 20%)

Stable through the great recession and the shale gale

Percentage change:

- -100% to -50%
- -49% to -%10
- -9% to -1%
- 0% to 9%
- 10% to 24%
- 25% to 49%
- 50% to 100%



Volatile leakage, dispatch, and price signals between multiple states ?

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Key insights for avoiding interstate "seams" problems

1. EPA should make broader, more stable, highly comparable regimes more attractive to states
   - Strong encouragement for comparability, common building blocks and interstate trading
   - A model rule that makes it easy for states to adopt and implement comparable rate-based regimes

2. Recognition of early reductions (RER) should be independent of regime choice
   - Base RER on economic and intentional reductions after a baseline period, but make the compliance baseline as late as possible
   - RER for states could consist of "presumptive equivalence" and a delayed due date for plan
   - Entities who achieved intentional reductions should be awarded credits useable for compliance in multiple states

3. States should not reject all rate-based regimes out-of-hand just because the first one they saw may have been highly aggressive