

The Clean Power Plan

DRAFT Preliminary Observations

PRESENTED TO

NATIONAL HYDROPOWER ASSOCIATION

PRESENTED BY

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THE **Brattle** GROUP

Initial Observations

Sweeping Changes in Final Proposal

- 3 BB instead of 4 (EE dumped, RE pumped up, Coal to Gas about the same, HR reduction eased)
- Impact across *interconnections* for BSER and compliance – reduces the incompatibility between state borders and electrical markets
- Less variation in final targets
- Compliance cliff largely dealt with (and costs, reliability impacts reduced)
- States given more direction in pathways (rate/mass, portfolio, trading)
- Less emphasis on multi-state plans, more on trading relationships among many
- Much more plausible for wide-area (national?) mass-based emission trading (very good for hydro, and all RE & Nuclear)

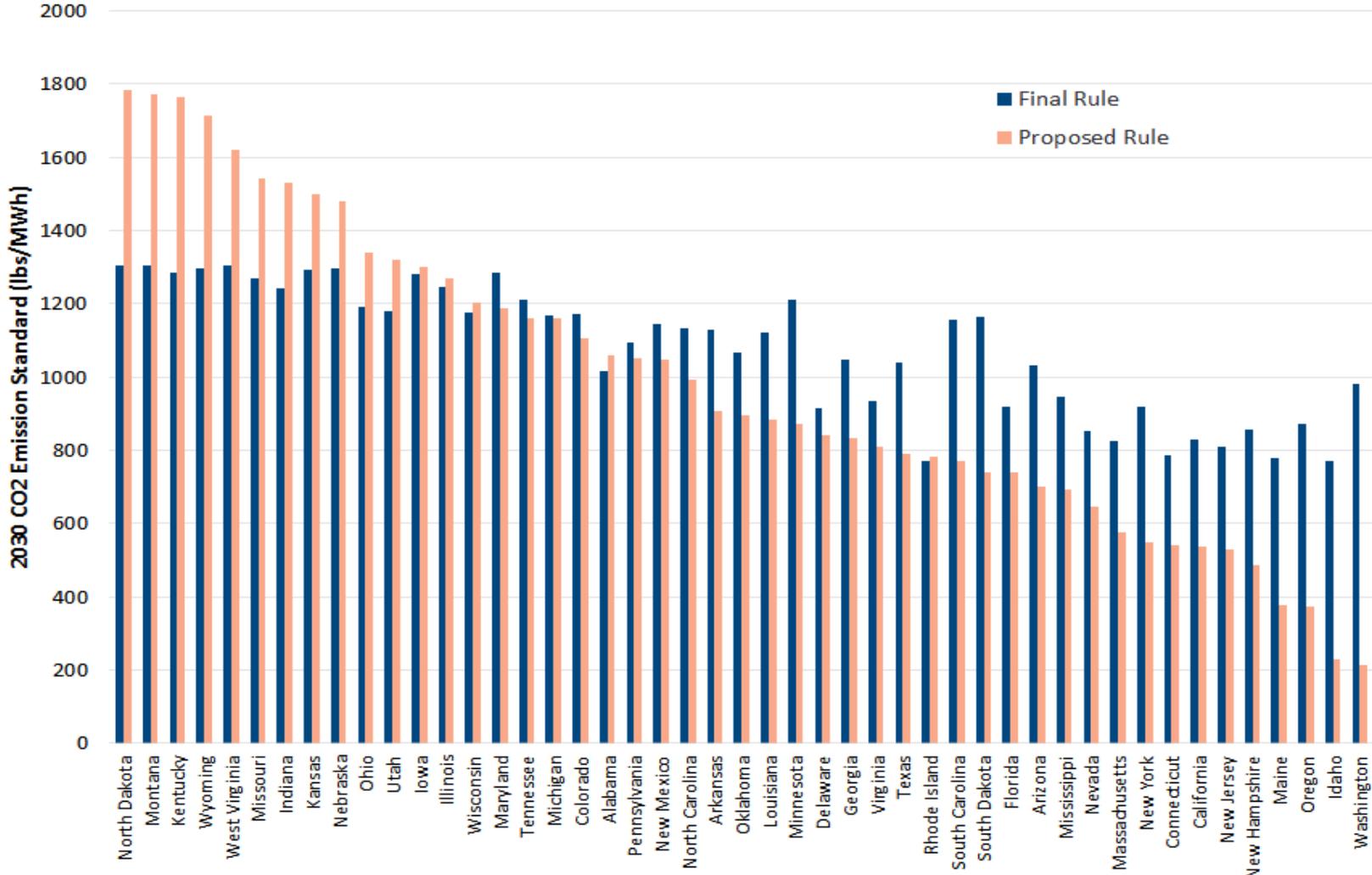
Initial Observations (2)

Some New Problems?

- Economically more rational, legally less defensible?
- Too different from proposed to avoid comment?
- Still not enough clarity on BB2 mechanics?
- Need to dive into the RIA analysis to fully diagnose some economic issues (e.g., coal plant retirements in basecase 2016)

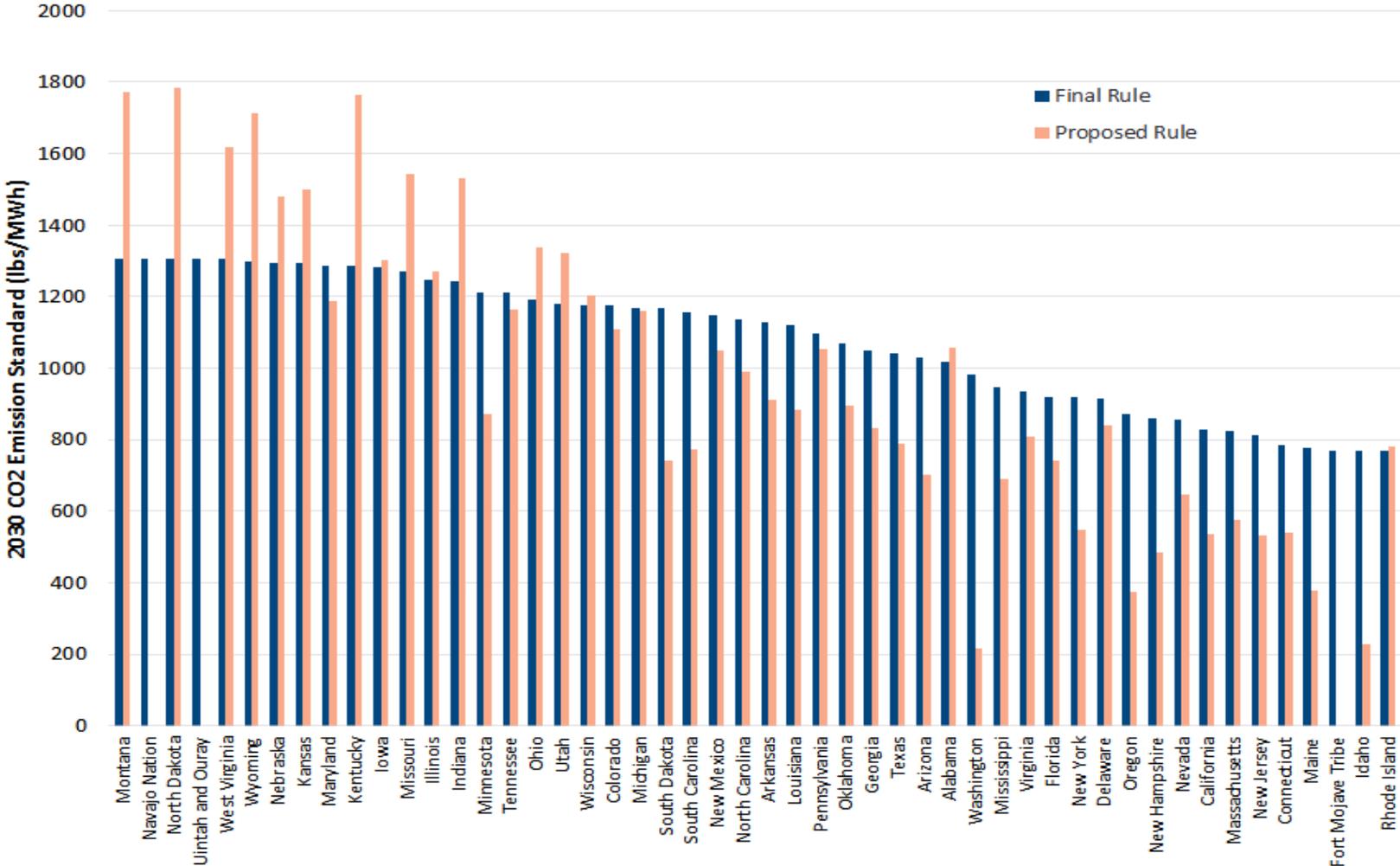
Overall a Big Step Forward for Hydropower

Comparison of 2030 State Rate Goals: Sorted by Proposed Rule Rates



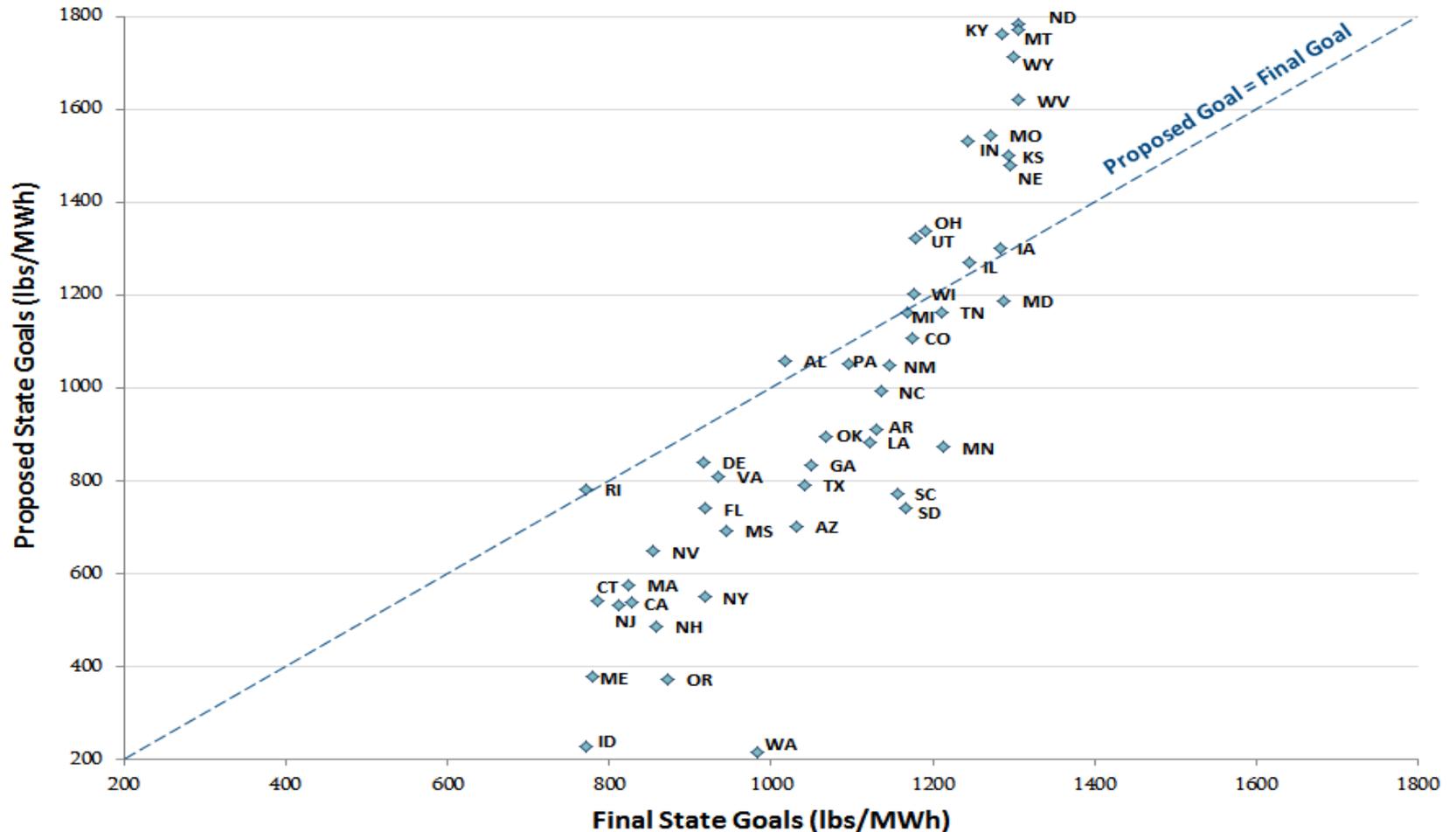
Source: Technical Support Data Files for both Proposed and Final Rule

Comparison of 2030 State Rate Goals: Sorted by Final Rule Rates



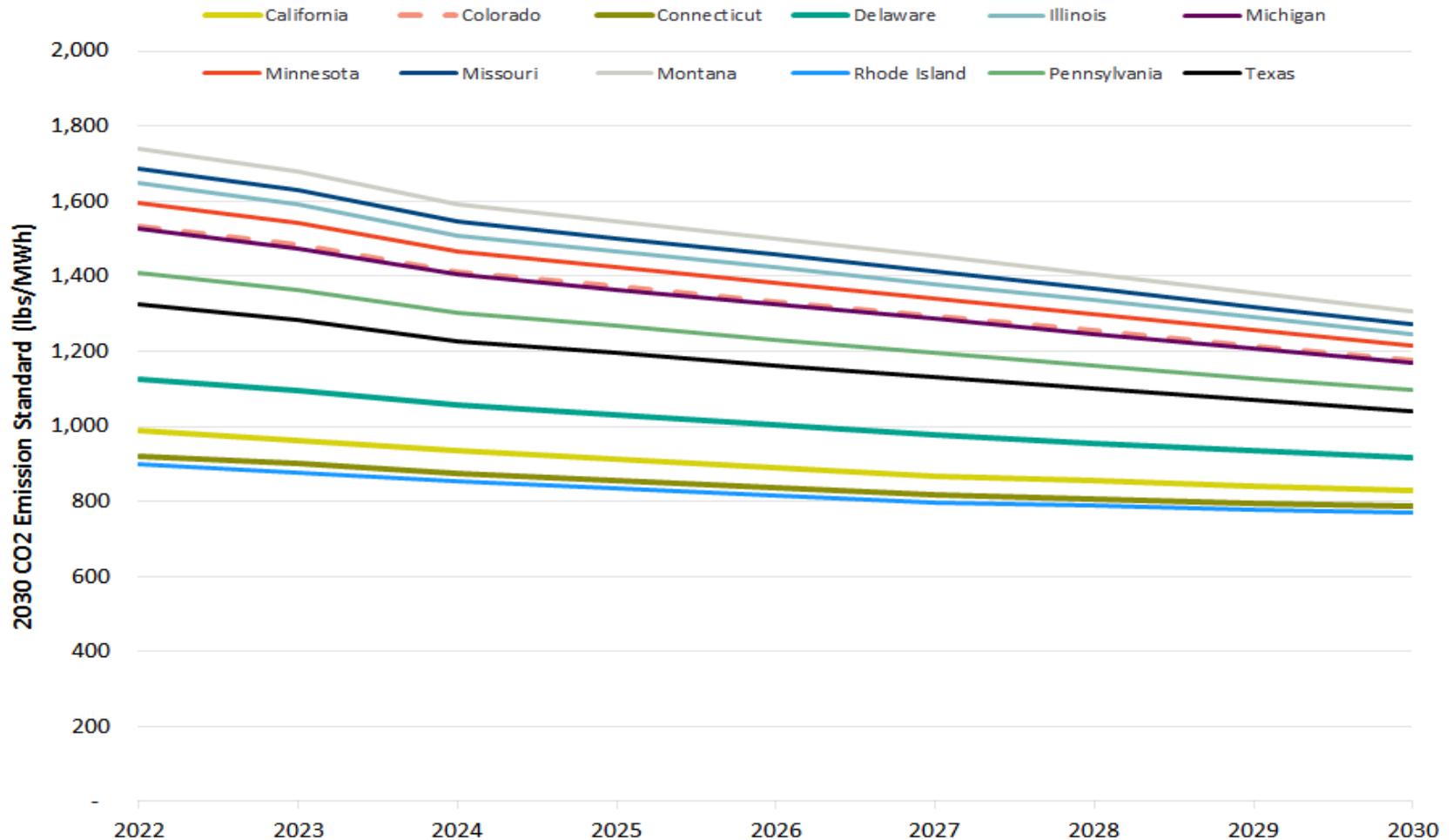
Source: Technical Support Data Files for both Proposed and Final Rule

Comparison of 2030 Rates: Increased and Decreased Rates by State



Source: Technical Support Data Files for both Proposed and Final Rule

“Glide Paths” rather than “Cliffs”



Source: Technical Support Data Files for both Proposed and Final Rule

Hydropower in the Clean Power Plan

Hydropower (including wave & tidal power) is recognized as a Renewable Energy source under the Clean Power Plan. (p. 1232)

EPA recognized comments encouraging the use of Hydropower including Canadian hydropower (p.1231)

EPA recognized hydropower as both a baseload resource and complement to variable RE generation (p.1231)

Not eligible for Clean Energy Incentive Program (CEIP) matching (p. 868)

- Short term, interim program focused on Wind/Solar and low-income EE

Adjustment to BSER Calculation with recognition that hydropower plays a unique role in several states and 2012 was an exceptional year (p.794)

- States adjusted include: Idaho, Maine, Montana, Oregon, South Dakota and Washington
- Levels were adjusted to recognize average hydropower output 1990-2012

Hydropower and Rate-Based Plans

New and incremental uprates to existing hydropower are eligible to create ERCs (Emission Rate Credits) under rate-based plans (p.1232,1233)

- New construction must occur after 2012
- Uprates to existing hydropower after 2012

International Hydropower may also be Eligible to Create ERCs (p.1230-1233)

- Must have an electrical connection to the U.S.
- Must have a power purchase or delivery contract in place
- “For example, a new transmission interconnection to existing RE in Canada would not be considered incremental, but a **new interconnection to RE where the RE was built after 2012 would be considered incremental.**” (p.1230 emphasis added)

Under Mass-Based Plans, Hydropower is implicitly included (p.1171)

About Brattle

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