MEEA
Midwest Energy Efficiency Alliance

# EPA's Final Clean Power Plan

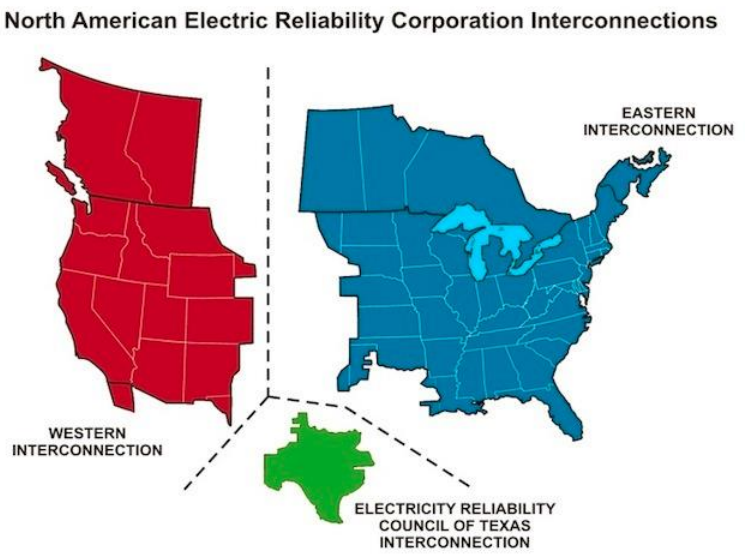
Presentation to the Illinois Energy Efficiency Stakeholder Advisory Group

Monday, September 28th, 2015

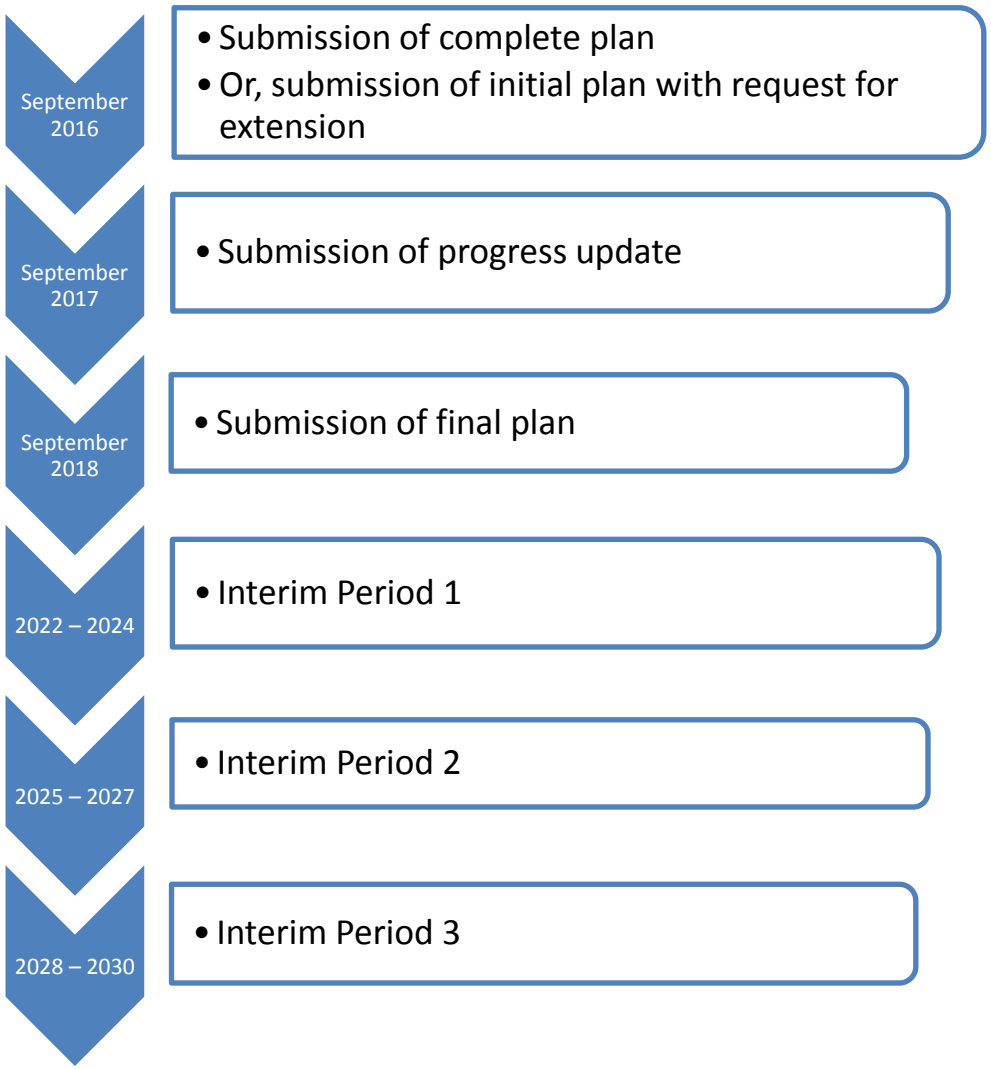
# Establishing State Goals

- Final Rule: 32% CO2 emissions reductions below 2005 levels by 2030 with compliance beginning in 2022
- Draft Rule: 30% CO2 emissions reductions below 2005 levels by 2030 with compliance beginning in 2020

- 2012 Baseline Adjusted
- Kept building blocks 1, 2, and 3 (dropped 4)
- First applied heat rate improvement
- Then applied renewable energy building block
- Then applied increased natural gas utilization building block (75% peak summer CF, not 70% nameplate CF)
- After applying BSER, determined emission rates for NGCC and fossil steam plants in each interconnection and selected the least stringent of the three (Eastern Interconnection)
  - NGCC: 771 lbs CO2/MWh
  - Fossil Steam: 1305 lbs CO2/MWh
- Applied the two uniform rates to each state to set state goal



# Timeline

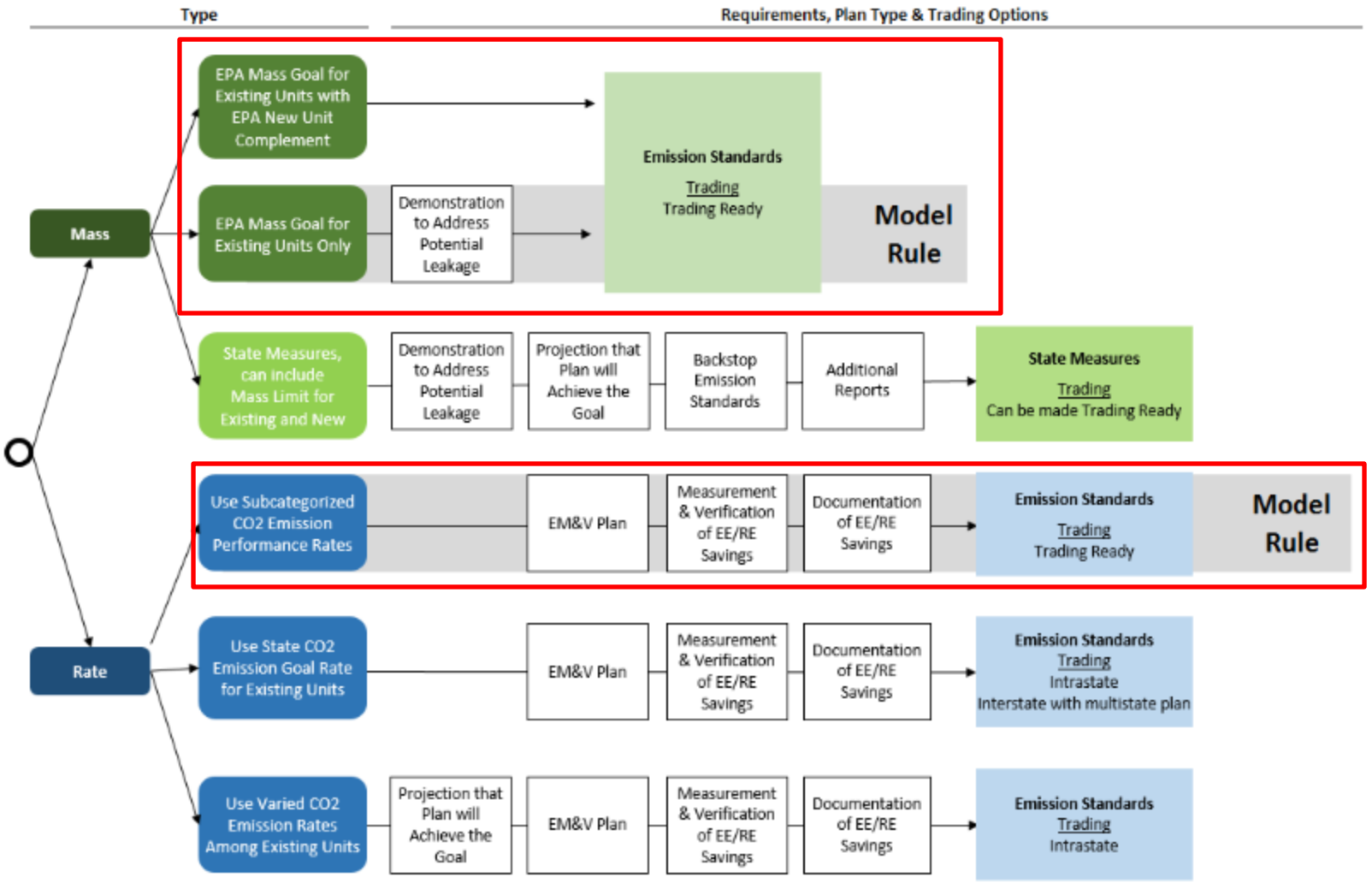

September 2016
• Submission of complete plan
• Or, submission of initial plan with request for extension
September 2017
• Submission of progress update
September 2018
• Submission of final plan
2022 – 2024
• Interim Period 1
2025 – 2027
• Interim Period 2
2028 – 2030
• Interim Period 3

# Impact

| Illinois Goals in the Final Rule | | |
|---|---|---|
| | Emissions Rate (lbs CO2/MWh) | Emissions (short tons CO2) |
| 2012 Historic Emissions | 2208 | 96,106,169 tons |
| 2022 Interim Goal | 1456 | 74,800,876 |
| 2030 Final Goal | 1245 | 66,477,157 |

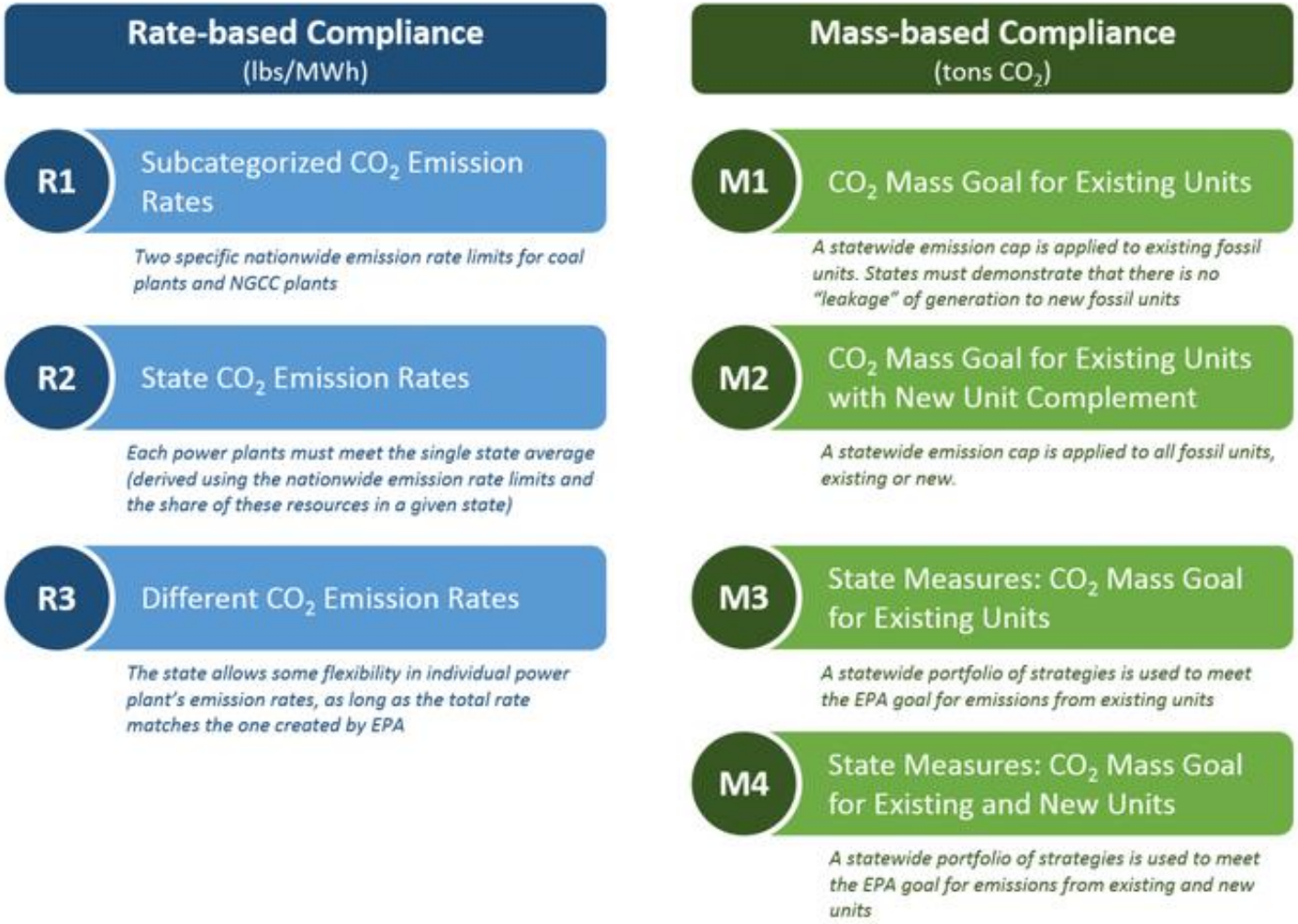
| Stringency of State Emissions Targets in the Final Rule Relative to the Draft Rule | | |
|---|---|---|
| **State** | **Stringency of the Final Goal** | **Stringency of the Interim Goal** |
| Illinois | More | Less |
| Indiana | More | More |
| Iowa | More | Less |
| Kansas | More | More |
| Kentucky | More | More |
| Michigan | Less | Less |
| Minnesota | Less | Less |
| Missouri | More | More |
| Nebraska | More | More |
| North Dakota | More | More |
| Ohio | More | More |
| South Dakota | Less | Less |
| Wisconsin | More | Less |

# EPA's Pathways for Compliance




Source: U.S. EPA. http://www2.epa.gov/sites/production/files/2015-08/documents/flow_chart_v6_aug5.pdf, highlights my own

# Less Decision Tree, More Explanation




Source: Synapse Energy Economics, http://www.synapse-energy.com/about-us/news/eight-things-you-need-know-about-clean-power-plan

# Rate-based Model Rule

- Every plant measures its emissions and reports CO2 emissions and generation (MWh) and meet prescribed emission rate at the end of every compliance period

- Emissions Rate Credit – measured in MWh, unlimited
  - 1 ERC = 1 MWh

- ERCs must be generated:
  - By plants that lower their emission rate below EPA's performance emission rates for NGCC and fossil steam
  - EE, T&D upgrades, CHP/WHP, biomass, etc.

- As proposed, Federal Plan does not include ERCs generated from EE

# Mass-based Trading

- Covered units report CO2 emissions at end of compliance period and must have allowances to cover all emissions

- Cover new units or not?
  - If yes, receive additional allowances ("new source complement")
  - If no, state plan must show how leakage to new units is addressed

- Trading
  - Emissions budget limiting number of tons that can be emitted
  - 1 allowance = 1 ton of CO2
  - Ways to support clean energy:
    - auction allowances with proceeds going to RE and EE
    - direct distribution of allowances to clean energy providers
    - or set-aside of allowances for clean energy projects

# Treatment of Energy Efficiency

- As the least cost energy resource, EPA encourages use of EE in compliance plans.
- Can claim savings from measures installed after 2012 with effective useful lives through 2022
- EE is not included as a compliance mechanism in the Federal Plan.
- EM&V Guidance poses some issues for the Midwest
  - Use of measuring savings relative to a common practice baseline may be different from net-to-gross practices of states
  - Report lifetime annual savings, not just first year
- Clean Energy Incentive Program (CEIP)
  - Early action, double credit for wind, solar, and EE in low-income communities
  - Need a standard definition of low-income
  - Applies to projects installed after Sept 2018 or after submission of final state plan, whichever is first

# Opportunities to Comment

- Federal Plan and Proposed Model Trading Rules.
  - 90 days following the publication of the proposed model rule in the Federal Register to comment.
  - Comments submitted through Federal Rulemaking Portal www.regulations.gov or
  - Email: a-and-r-Docketa@epa.gov, Attention Docket ID No. EPA-HQ-OAR-2015-0199
- Draft EM&V Guidance
  - 90 days following the publication of the proposed model rule in the Federal Register to comment.
  - Comments should be submitted to: emvinput@epa.gov.
- Clean Energy Incentive Program
  - EPA will be seeking input
- States must seek input from vulnerable communities
  - 1 year, prior to initial plan submission

# MEEA's Clean Power Plan Resources and Activities

- Outreach to state air regulatory offices in each of the 13 states in our footprint
- Clean Power Plan Working Group
- Considering joint comments to the EPA on Federal Plan, Draft EM&V Guidance, and CEIP
- All resources available on MEEA's Clean Power Plan Webpage: www.mwalliance.org/policy/clean-power-plan

# Thank you!

For further information, please contact:

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