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The Association of Energy Services Professionals

September 17, 2015

Summary

Climate change is a threat in the U.S. -- We are already feeling the dangerous and costly effects of a changing climate – affecting people's lives, family budgets, and businesses' bottom lines

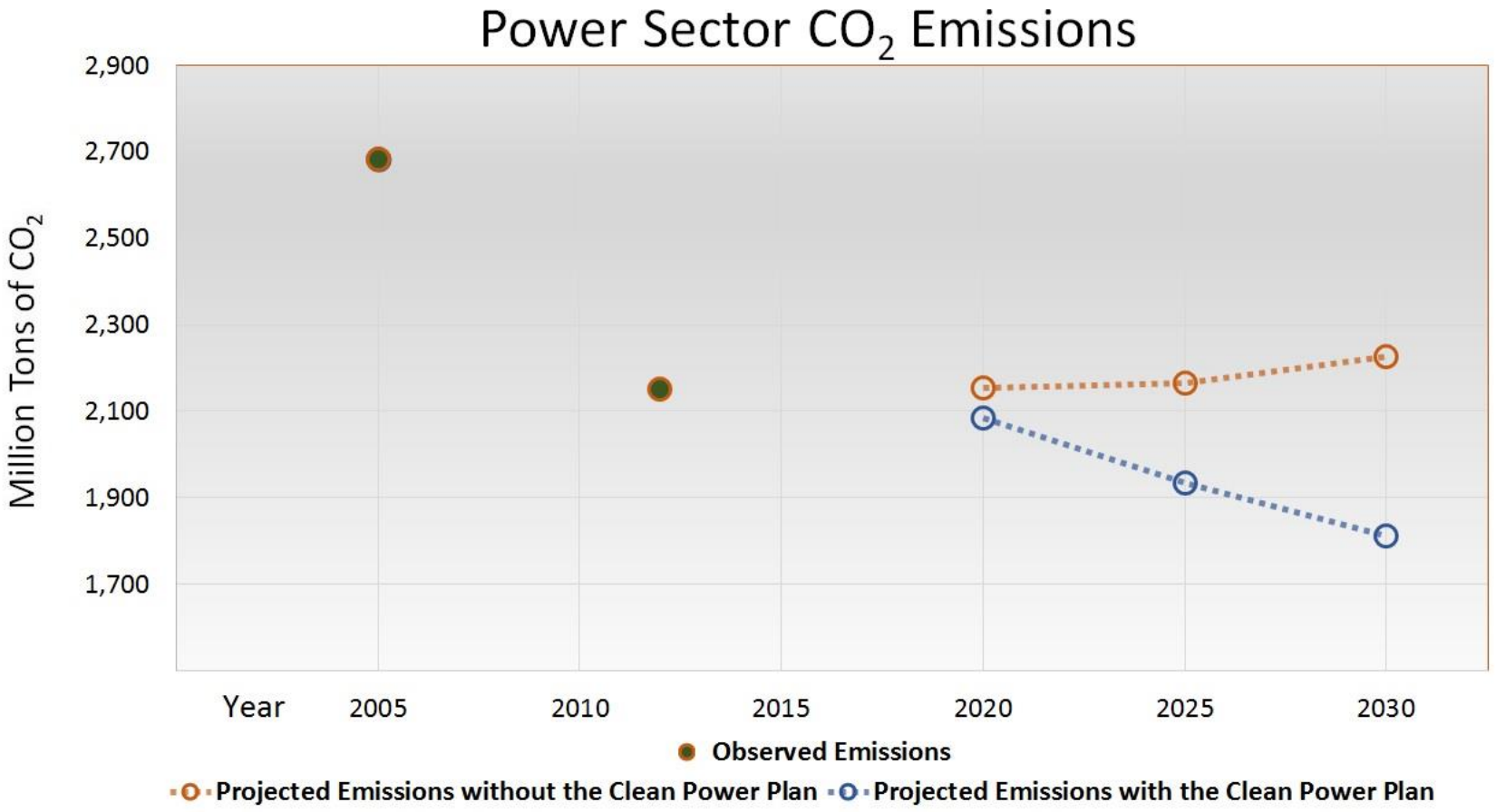
EPA is taking three actions that will significantly reduce carbon pollution from the power sector, the largest source of carbon pollution in the US

- Clean Power Plan (CPP) – existing sources
- Carbon Pollution Standards – new, modified and reconstructed sources
- Federal Plan proposal and model rule

EPA's actions

- Achieve significant pollution reductions
- Deliver an approach that gives states and utilities plenty of time to preserve ample, reliable and affordable power
- Spur increased investment in clean, renewable energy

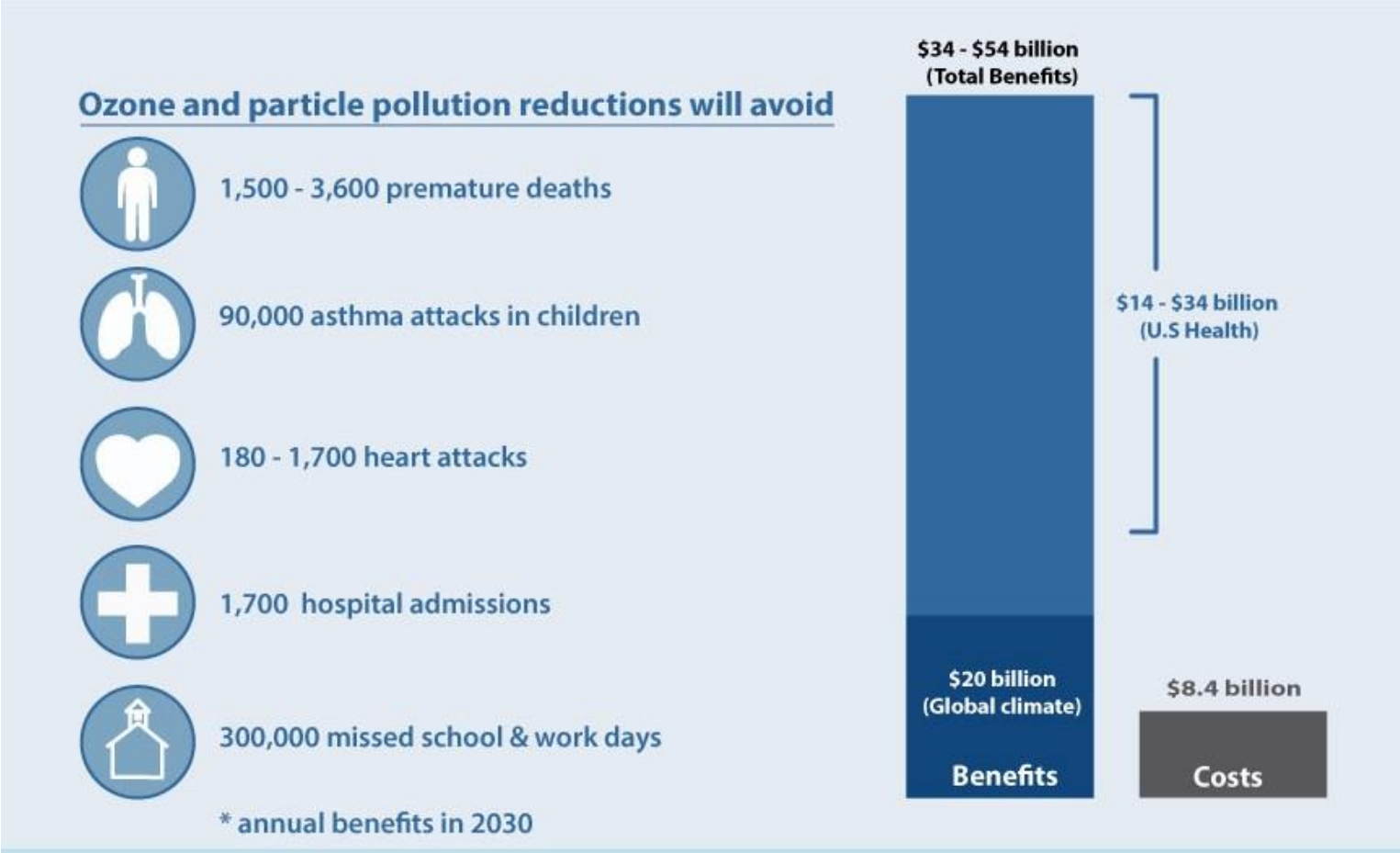
Transition to Clean Energy is Happening Faster than Anticipated



Carbon and air pollution are already decreasing, improving public health each and every year. The Clean Power Plan accelerates this momentum, putting us on pace to cut this dangerous pollution to historically low levels in the future. When the Clean Power Plan is fully in place in 2030, carbon pollution from the power sector will be 32 percent below 2005 levels, securing progress on and making sure it continues.

Benefits of the Clean Power Plan

The transition to clean energy is happening faster than anticipated. This means carbon and air pollution are already decreasing, improving public health each and every year.



While this chart reflects health benefits in 2030, EPA's Regulatory Impact Analysis for the CPP estimates health benefits due to reduced emissions beginning in 2020.

The Clean Power Plan

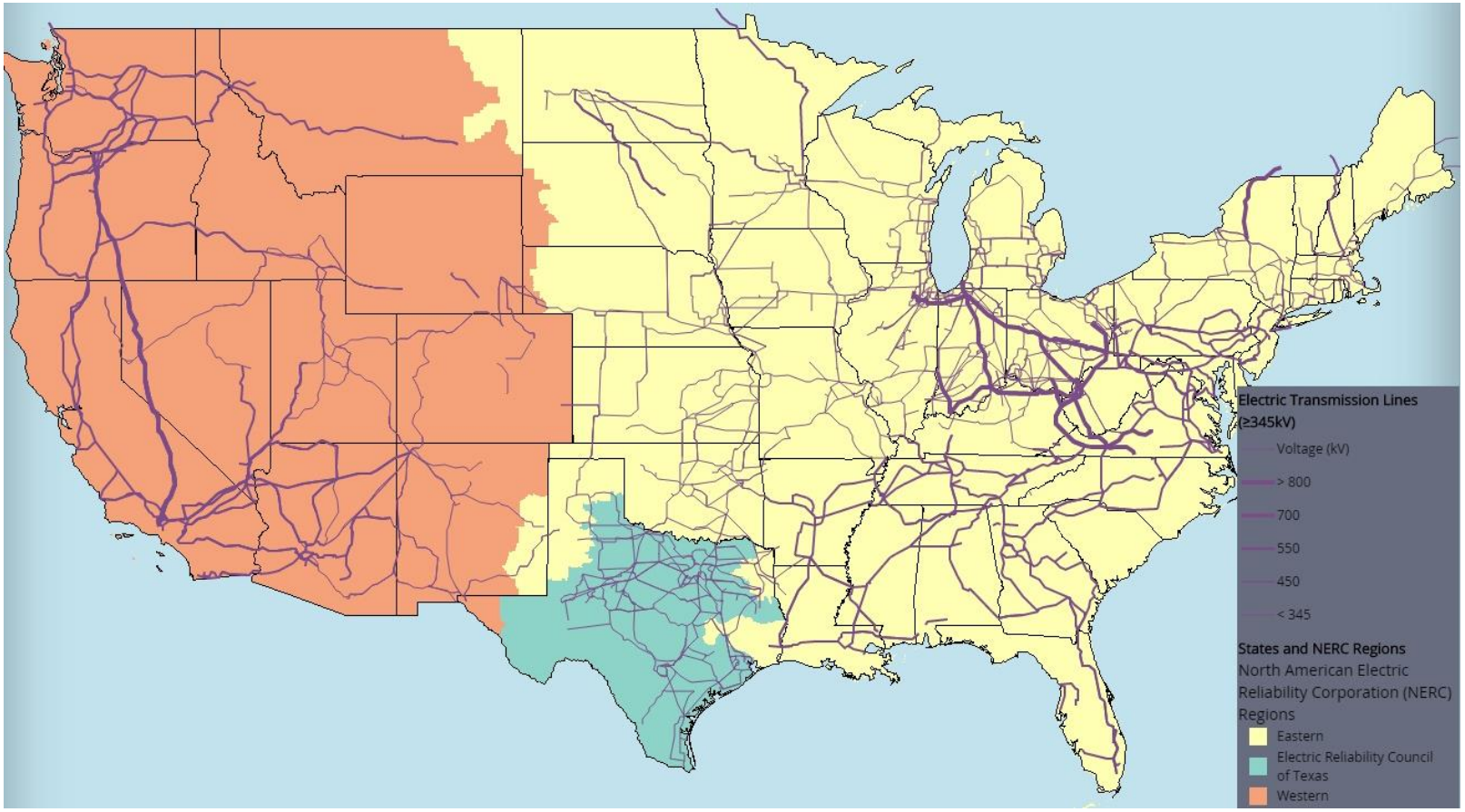
Overview

- Relies on a federal-state partnership to reduce carbon pollution from the biggest sources – power plants
- Carrying out EPA's obligations under section 111(d) of the Clean Air Act, the CPP sets carbon dioxide emissions performance rates for affected power plants that reflect the "best system of emission reduction" (BSER)
- EPA identified 3 "Building Blocks" as BSER and calculated performance rates for fossil-fueled EGUs and another for natural gas combined cycle units
- Then, EPA translated that information into a state goal – measured in mass and rate – based on each state's unique mix of power plants in 2012
- The states have the ability to develop their own plans for EGUs to achieve either the performance rates directly or the state goals, with guidelines for the development, submittal and implementation of those plans

Best System of Emission Reduction: Three Building Blocks

Building Block	Strategy EPA Used to Calculate the State Goal	Maximum Flexibility: Examples of State Compliance Measures
1. **Improved efficiency at power plants**	Increasing the operational efficiency of existing coal-fired steam EGUs on average by a specified percentage, depending upon the region	-Boiler chemical cleaning -Cleaning air preheater coils -Equipment and software upgrades
2. **Shifting generation from higher-emitting steam EGUS to lower-emitting natural gas power plants**	Substituting increased generation from existing natural gas units for reduced generation at existing steam EGUs in specified amounts	Increase generation at existing NGCC units
3. **Shifting generation to clean energy renewables**	Substituting increased generation from new zero-emitting generating technologies for reduced generation at existing fossil fuel-fired EGUs in specified amounts	Increased generation from new renewable generating capacity, e.g., solar, wind, nuclear, and combined heat & power

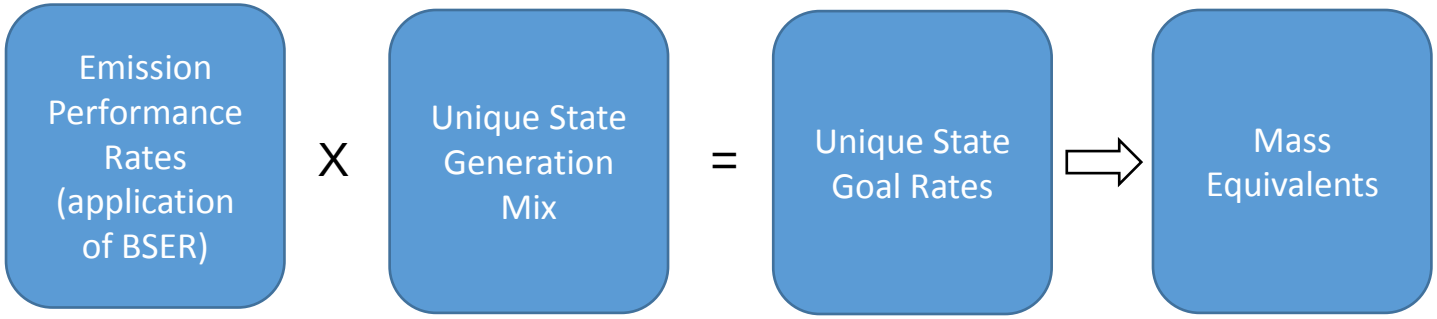
Grid Connects Sources to Deliver Energy



- This interconnection and diversity of generation offer cost-effective advantages and approaches that many states have already shown can provide power while emitting less CO_2
- In assessing the BSER, EPA recognized that power plants operate through broad interconnected grids that determine the generation and distribution of power. EPA's analysis is based on the three established regional electricity interconnects: Western, Eastern and the Electricity Reliability Council of Texas

Category-Specific Performance Rates

Power plants are subject to the same standards no matter where they are located.



EPA is establishing carbon dioxide **emission performance rates** for two subcategories of existing fossil fuel-fired electric generating units (EGUs):

1. Fossil fuel-fired electric generating units (generally, coal-fired power plants)
2. Natural gas combined cycle units

Emission performance rates have been translated into equivalent state goals. In order to maximize the range of choices available to states, EPA is providing state goals in three forms:

- rate-based goal measured in pounds per megawatt hour (lb/MWh);
- mass-based goal measured in short tons of CO_2
- mass-based goal with a new source complement (for states that choose to include new sources) measured in short tons of CO_2

Clean Power Plan Timeline

Summer 2015	• August 3, 2015 - Final Clean Power Plan
1 Year	• September 6, 2016 – States make initial submittal with extension request or submit Final Plan
3 Years	• September 6, 2018 - States with extensions submit Final Plan
7 Years	• January 1, 2022 - Compliance period begins
15 Years	• January 1, 2030 - CO_2 Emission Goals met

Many CO_2 Reduction Opportunities

- Heat rate improvements
- Fuel switching to a lower carbon content fuel
- Integration of renewable energy into EGU operations
- Combined heat and power
- Qualified biomass co-firing and repowering
- Renewable energy (new & capacity uprates)
  - Wind, solar, hydro
- Nuclear generation (new & capacity uprates)
- Demand-side energy efficiency programs and policies
- Demand-side management measures
- Electricity transmission and distribution improvements
- Carbon capture and utilization for existing sources
- Carbon capture and sequestration for existing sources

Incentives for Early Investments

- EPA is providing the Clean Energy Incentive Program (CEIP) to incentivize early investments that generate wind and solar power or reduce end-use energy demand during 2020 and 2021
- The CEIP is an optional, "matching fund" program states may choose to use to incentivize early investments in wind or solar power, as well as demand-side energy efficiency measures that are implemented in low-income communities
- EPA will provide matching allowances or Emission Rate Credits (ERCs) to states that participate in the CEIP, up to an amount equal to the equivalent of 300 million short tons of CO_2 emissions. The match is larger for low-income EE projects, targeted at removing historic barriers to deployment of these measures. Also, states with more challenging emissions reduction targets will have access to a proportionately larger share of the match
- The CEIP will help ensure that momentum to no-carbon energy continues and give states a jumpstart on their compliance programs
- EPA will engage with stakeholders in the coming months to discuss the CEIP and gather feedback on specific elements of the program

Design Preserves Reliability

- The Clean Power Plan includes features that reflect EPA's commitment to ensuring that compliance with the final rule does not interfere with the industry's ability to maintain the reliability of the nation's electricity supply:
  - long compliance period starting in 2022 with sufficient time to maintain system reliability
  - design that allows states and affected EGUs flexibility to include a large variety of approaches and measures to achieve the environmental goals in a way that is tailored to each state's and utility's energy resources and policies, including trading within and between states, and other multi-state approaches
  - requirement that each state demonstrate in its final plan that it has considered reliability issues in developing its plan, including consultation with an appropriate reliability or planning agency
  - mechanism for a state to seek a revision to its plan in case unanticipated and significant reliability challenges arise
  - reliability safety valve to address situations where, due to an unanticipated event or other extraordinary circumstances, there is a conflict between the requirements imposed on an affected power plant and maintaining reliability

- EPA, Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC) are coordinating efforts to monitor the implementation of the final rule to help preserve continued reliable electricity generation and transmission

Proposed Federal Plan

Overview

- The federal plan and model trading rules provide a readily available path forward for Clean Power Plan implementation and present flexible, affordable implementation options for states
- The model rules provide a cost-effective pathway to adopt a trading system supported by EPA and make it easy for states and power plants to use emissions trading
- Both the proposed federal plan and model rules:
  - Contain the same elements that state plans are required to contain, including:
    - Performance standards
    - Monitoring and reporting requirements
    - Compliance schedules that include milestones for progress
  - Ensure the CO_2 reductions required in the final CPP are achieved
  - Preserve reliability
- Co-proposing two different approaches to a federal plan— a rate-based trading plan type and a mass-based trading plan type
  - Both proposed plan types would require affected EGUs to meet emission standards set in the Clean Power Plan

Proposed Federal Plan

How does it work?

- Will be finalized only for those affected states with affected EGUs that EPA determines have failed to submit an approvable Clean Air Act 111(d) state plan by the relevant deadlines set in the emission guidelines
  - Even where a federal plan is put in place, a state will still be able to submit a plan, which if approved , will allow the state and its sources to exit the federal plan
- EPA currently intends to finalize a single approach (i.e., either the mass-based or rate-based approach) for every state in which it finalizes a federal plan
- Affected states may administer administrative aspects of the federal plan and become the primary implementers
  - May also submit partial state plans and implement a portion of a federal plan
- Affected states operating under a federal plan may also adopt complementary measures outside of that plan to facilitate compliance and lower costs to the benefit of power generators and consumers
- Proposes a finding that it is necessary or appropriate to implement a section 111(d) federal plan for the affected EGUs located in Indian country. CO_2 emission performance rates for these facilities were finalized in the Clean Power Plan

Information and Resources

How can I learn more?

After two years of unprecedented outreach, the EPA remains committed to engaging with all stakeholders as states implement the final Clean Power Plan.

- For more information and to access a copy of the rule, visit the **Clean Power Plan website**: http://www2.epa.gov/carbon-pollution-standards
- Through graphics and interactive maps, the **Story Map** presents key information about the final Clean Power Plan. See: http://www2.epa.gov/cleanpowerplan
- For community-specific information and engagement opportunities, see the **Community** Portal: http://www2.epa.gov/cleanpowerplan/clean-power-plan-community-page
- For additional resources to help states develop plans, visit the **CPP Toolbox for States**: http://www2.epa.gov/cleanpowerplantoolbox
- For a graphical and detailed walk through of the EGU category-specific CO_2 emission performance rate and state goals, see **State Goal Visualizer**: http://www2.epa.gov/cleanpowerplantoolbox
- EPA provides **webinars** and **training** on CPP related topics at the air pollution control learning website. See: http://www.apti-learn.net/lms/cpp/plan/

ACEEE
American Council for an Energy-Efficient Economy

Energy Efficiency in the Clean Power Plan

Sara Hayes
Senior Manager and Researcher
American Council for an Energy-Efficient Economy

The American Council for an Energy-Efficient Economy (ACEEE)

- ACEEE is a 501(c)(3) nonprofit that acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors
- 50+ staff; headquarters in Washington, D.C.
- Focus on end-use efficiency in industry, buildings, & transportation
- Other research in economic analysis; behavior; energy efficiency programs; & national, state, & local policy
- Funding:
  - Foundation Grants (52%)
  - Contract Work & Gov't. Grants (20%)
  - Conferences & Publications (20%)
  - Contributions & Other (8%)

www.aceee.org/@ACEEEdc

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American Council for an Energy-Efficient Economy

Agenda

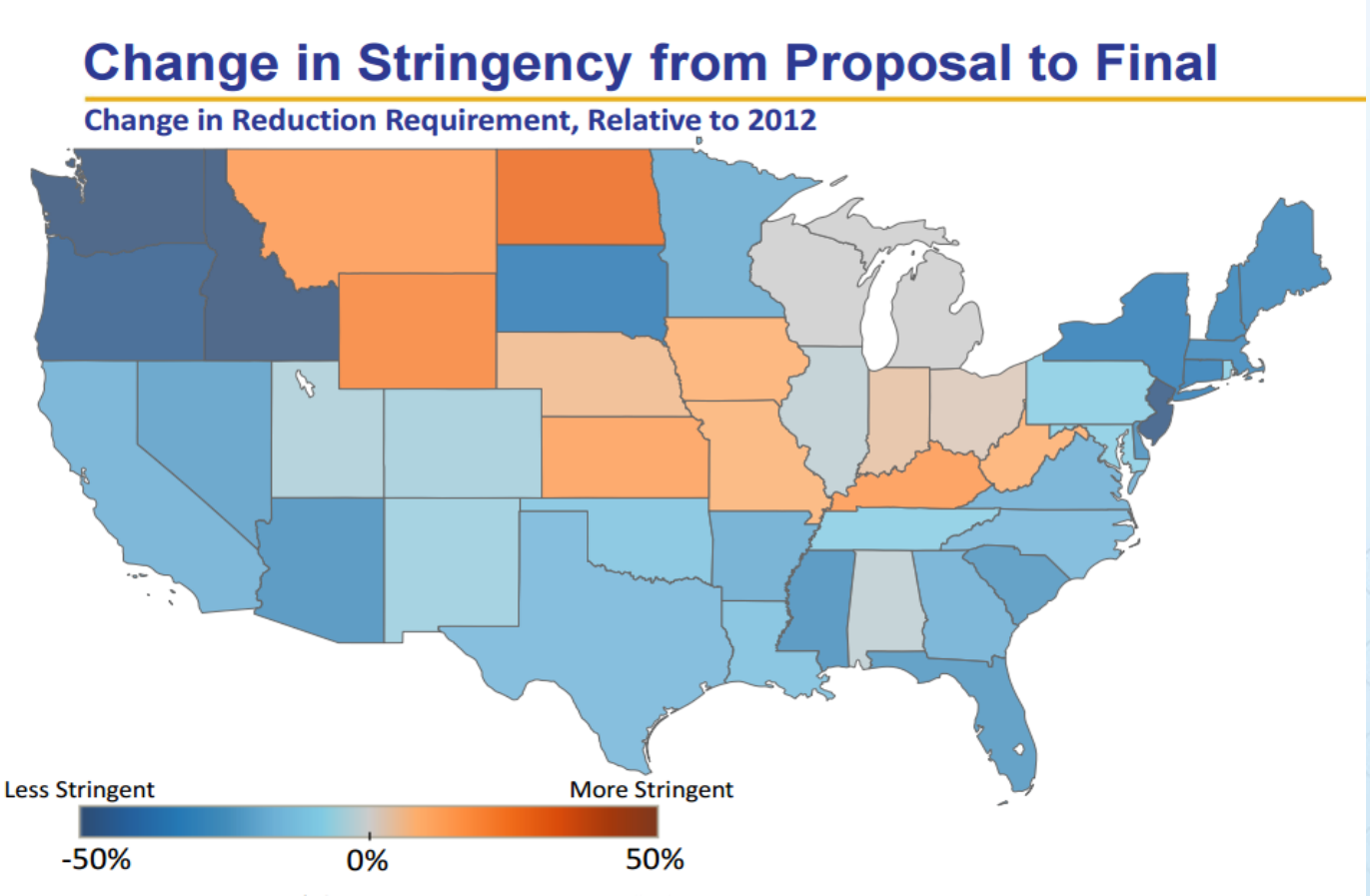
- State targets - Are there winners and losers?
- Timeline – What now?!
- Opportunities - How can energy efficiency help?
- Clean Power Plan resources

Setting the Final Targets

1. EPA set national emission performance rates for:
   - Fossil steam – 1,305 lbs/MWh
   - Combustion turbines – 771 lbs/MWh

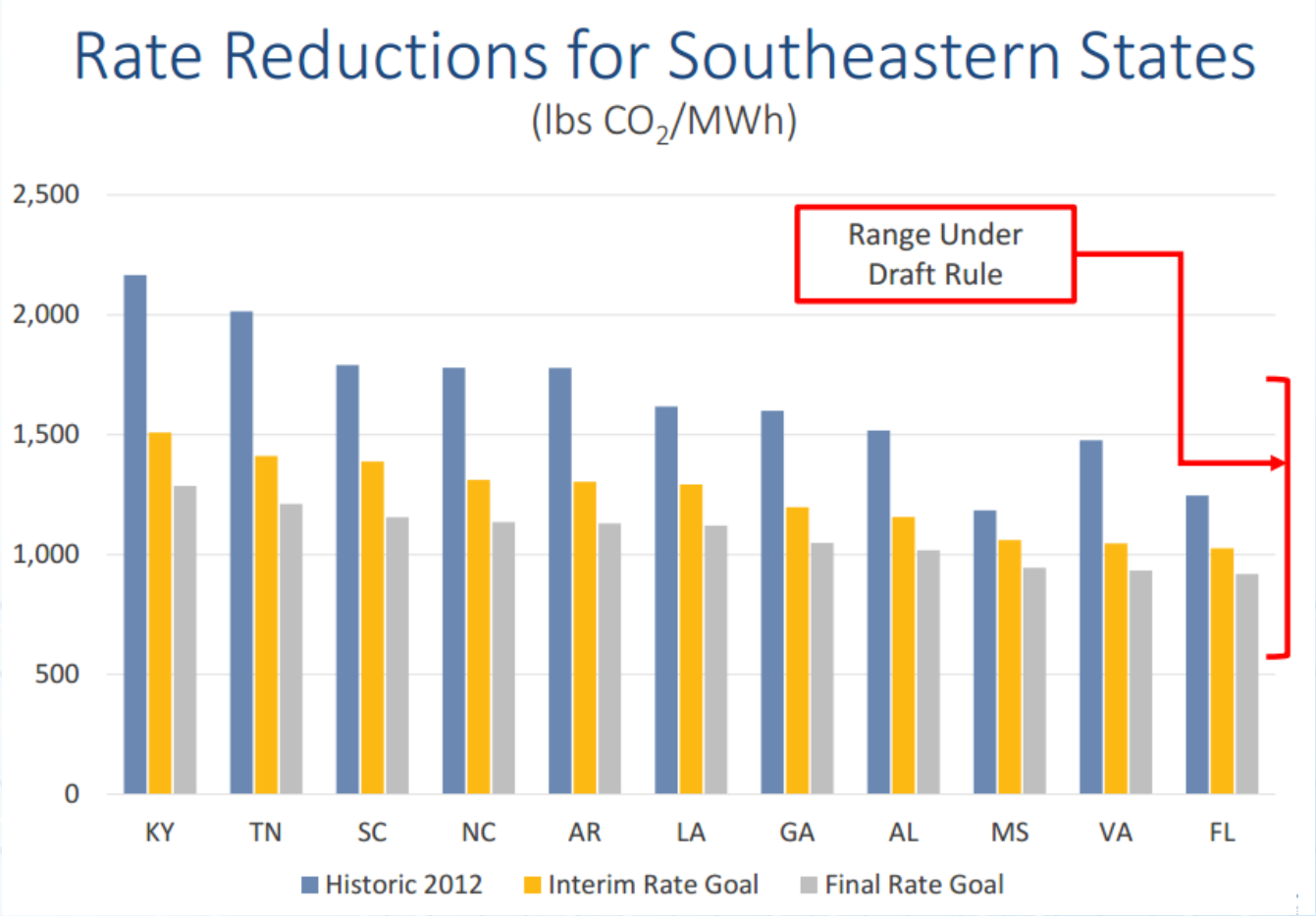
2. Emission performance rates then translated into state goals:
   - Rate-based goal (lb/MWh)
   - Mass-based goal (tons of CO2)
   - Mass-based goal with new source complement (tons of CO2)

Setting the Final Targets



Synapse Energy Economics, Inc., August 2015

Setting the Final Targets



Southeast Energy Efficiency Alliance, August 2015

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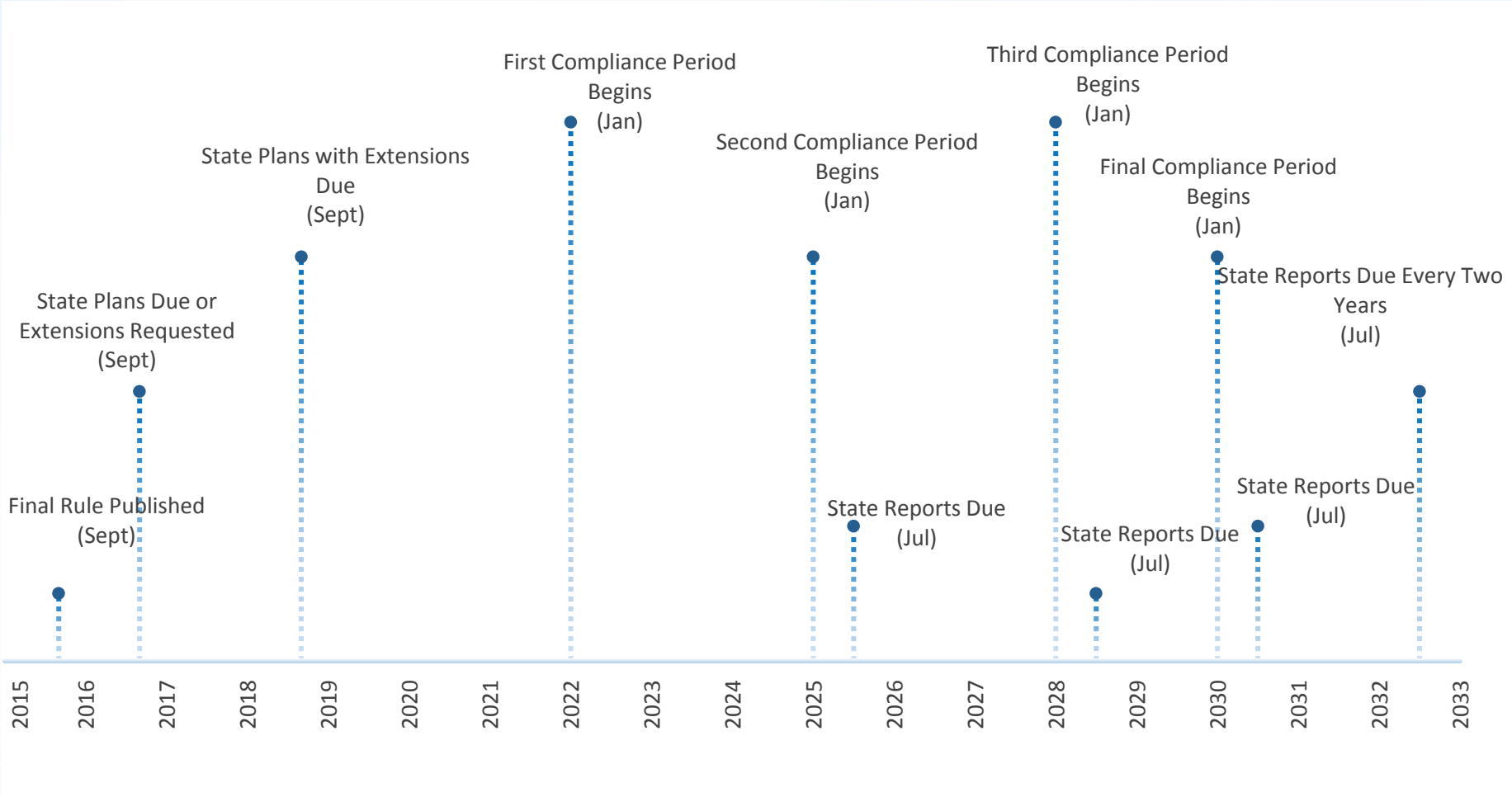
Timeline for State Plans and Compliance



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What's Going on Now

Final rule and proposed model rules have been sent to the Federal Register

- Publication expected in October
- Comment period is 90 days following publication
- Lots of areas for comment
- Can also comment on EM&V guidance

States have begun the plan development process

- Some have scheduled stakeholder meetings
- Some have formed special planning groups
- Some are suing

State Plans

Rate-based – goal is in lbs/MWh

- Can be single or multi-state
- EE "credits" can be awarded for activities that meet specific criteria
- Can have trading or no trading
- Responsibility for achieving rates can be assigned to individual units based on technology or weighted for a statewide average

Mass-based – goal is in tons

- Can be single or multi-state
- "Allowances" can be awarded for EE
- Less detail in the model rule

State Measures - goal is in tons

- Includes measures that are state enforceable
- Federally enforceable backstop for power plants

State Plans

Including Energy Efficiency in State Plans:

Rate-based Plans	Mass-based Plans
EE measures installed after January 1, 2013 that are still saving energy in 2022 are eligible	EE savings achieved in a compliance year automatically "count" toward compliance
EM&V plan required for inclusion in state plan	EM&V not required for inclusion in state plan
EE MWh savings generate tradeable Emission Rate Credits (ERCs)	States can further incentivize EE through: allowance allocation, using proceeds from allowance auction for EE

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Evaluation, Measurement and Verification (EM&V)

Rate-based approach

- Detailed guidance is provided for most types of EE
- Emission rate credits or “ERCs” are awarded for EE that meets EM&V criteria
- States can develop their own approaches

Mass-based approach

- EPA doesn’t require a showing of EM&V because compliance is measured via tons emitted at the plant
- Very little guidance for states
- States must develop their own methods to ensure EE plays a role

Early Action

Clean Energy Incentive Program

- Voluntary early action program for 2020-2021
- States create a set-aside from their budgets
- State set-aside can be “matched” from a pool of federal allowances/credits equal to 300 million tons of CO2 emissions
- Wind and solar energy and energy efficiency implemented in low-income communities

States can award early action credits from their own budgets for other actions

EPA is requesting comment on these approaches

Resources

- EPA's Clean Power Plan Homepage: http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants
- EPA's CPP Toolbox: http://www2.epa.gov/cleanpowerplantoolbox
- NASEO/ACEEE Joint 111(d) Hub for states: http://111d.naseo.org/
- ACEEE's 111(d) webpage: http://aceee.org/topics/section-111d-clean-air-act
- ACEEE State and Local Policy Database: http://database.aceee.org/state/south-carolina

Questions?

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American Council for an Energy-Efficient Economy

National Association of State Energy Officials

NASEO Perspective on the CPP

Rodney Sobin

AESP Brown Bag: EPA's CPP What You Need to Know

September 17, 2015

About NASEO and State Energy Offices

- **NASEO represents the 56 governor-designated energy offices from each state and territory. *State Energy Directors*:**
  - Advise governors, legislatures, and regulators
  - Advance practical energy policies and support energy technology research, demonstration, and deployment
  - Partner with the private sector to accelerate energy-related economic development and enhance environmental quality
  - Engage in the development of state energy policies and the oversight of billions of dollars in state-based energy funding
  - Lead state energy policy planning in most states

NASEO's Affiliates

A robust and engaged network of +60 private-sector partners, including representatives from business, trade associations, nonprofit organizations, educational institutions, laboratories, and government.

CPP Challenge

- New frontier for Clean Air Act
  - Modest CAA §111(d) experience; little CO_2 regulatory experience
- Complexity of electricity system
  - Interstate flows, changing technologies, reliability and affordability, environmental rules, varied utility regulation and governance (IOUs, co-ops, public power; integrated and deregulated)
- Multi-agency/jurisdiction relevance and responsibilities
  - State Energy Offices, Air Quality Agencies, Public Utility Commissions…and others
  - Relative unfamiliarity with each others' jobs and challenges
- Complexity of the rule
  - Just plain complex!
  - Flexibility and multiple state pathways good but comes with uncertainty
- …did I mention a bit of political contention?

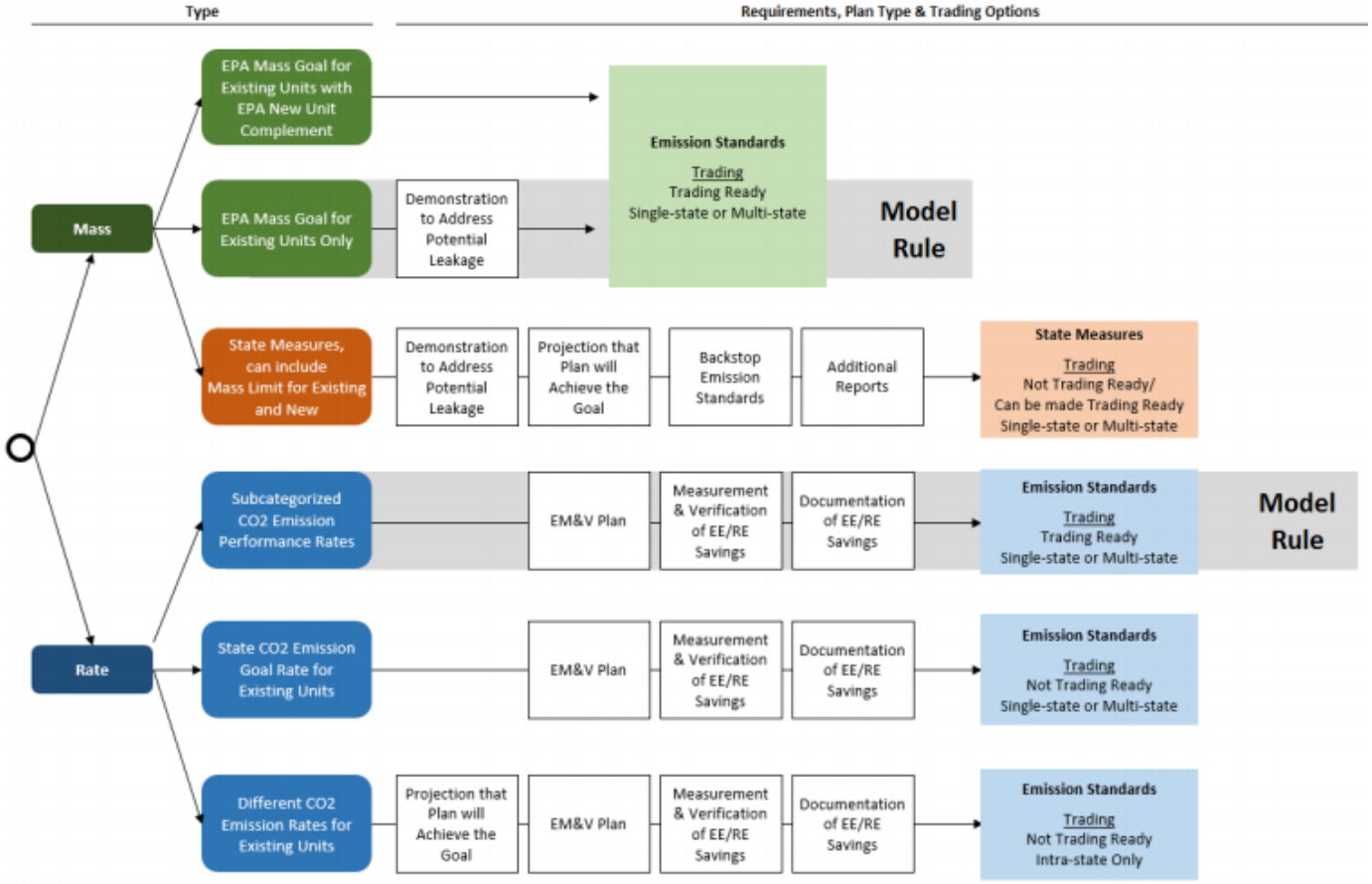
CPP Challenge

- States will need to make basic compliance pathway decisions
  - Rate-based v. mass-based targets
  - EGU-only v. state measures
  - Single-state compliance, multi-state trading of credits or allowances, or multistate plans
- Implications for compliance plan development
  - Who will have compliance obligations?
  - Federal v. state enforceability
  - Role of evaluation, measurement & verification (EM&V)
  - Tracking and trading of credits or allowances—intra-, inter-state
  - State policies—energy efficiency resource standards (EERS), renewable portfolio standards (RPS), trading or allocation of credits/allowances, rate design, energy planning, energy codes, etc.
  - What happens in case of underperformance?
- Many states have many questions

CPP State Pathway Options

State Plans: More State Options, Lower Costs

- This chart shows some of the compliance pathways available to states under the final Clean Power Plan. Ultimately, it is up to the states to choose how they will meet the requirements of the rule.
- EPA's illustrative analysis shows that nationwide, in 2030, a **mass-based approach is less-expensive** than a rate-based approach ($5.1 billion versus $8.4 billion).
- Under a mass-based plan, states that anticipate continuing or expanding investments in energy efficiency have unlimited flexibility to leverage those investments to meet their CPP targets. EE programs and projects do not need to be approved as part of a mass-based state plan, and EM&V will not be required.
- For states currently implementing mass-based trading programs, the "state measures" approach offers a ready path forward.
- Demand-side energy efficiency is an important, proven strategy that states are already widely using and that can substantially and cost-effectively lower CO_2 emissions from the power sector.



NASEO CPP Approach

- NASEO has not taken a position on the CPP
  - Diverse views among states
- Support inter- and intra-state discussion
  - State Energy Offices, Air Quality Agencies, Public Utility Commissions
  - …and wider stakeholder engagement
- As CPP proceeds NASEO seeks:
  - electricity system reliability and affordability
  - compliance flexibility for states
  - least-cost and “no regrets” compliance opportunities
    - energy efficiency (supply and demand sides), distributed resources, voluntary actions
    - EE multiple benefits ($, emissions, reliability, jobs) but challenges (awareness, rate structures, split incentives, first cost, quantification)

NASEO's Key CPP Takeaways

- Recognize the electricity system is changing rapidly and faces multiple challenges (technology disruption, environmental, economic), and must also deliver reliable, affordable power to support state economic goals
- Advance options that allow states to leverage existing demand- and supply-side energy efficiency and distributed energy investments to ensure a true least cost approach that supports system reliability, generation fuel diversity, and affordability
- Ensure that efficiency program EM&V requirements are as streamlined as possible (i.e., don't let perfect be the enemy of the good) while providing environmental agencies verifiable emissions reductions
- Assist states to work with the private sector to accelerate "no-regrets" efficiency actions (ESPC, codes, EE financing)
- Continue State Energy Office, State Air Agency, and State Utility Commission collaboration through inter-state, multi-state, and the 3Ns. Energy and air issues are complex and need all of our ideas, efforts, and solutions

Energy Efficiency Opportunities

- Electric utility ratepayer programs
  - Investor-owned, public power, and cooperative utilities
  - Avg. 4.6¢/kWh (LBNL)
  - ~$7B per year (portion of project/measure cost) (CEE)

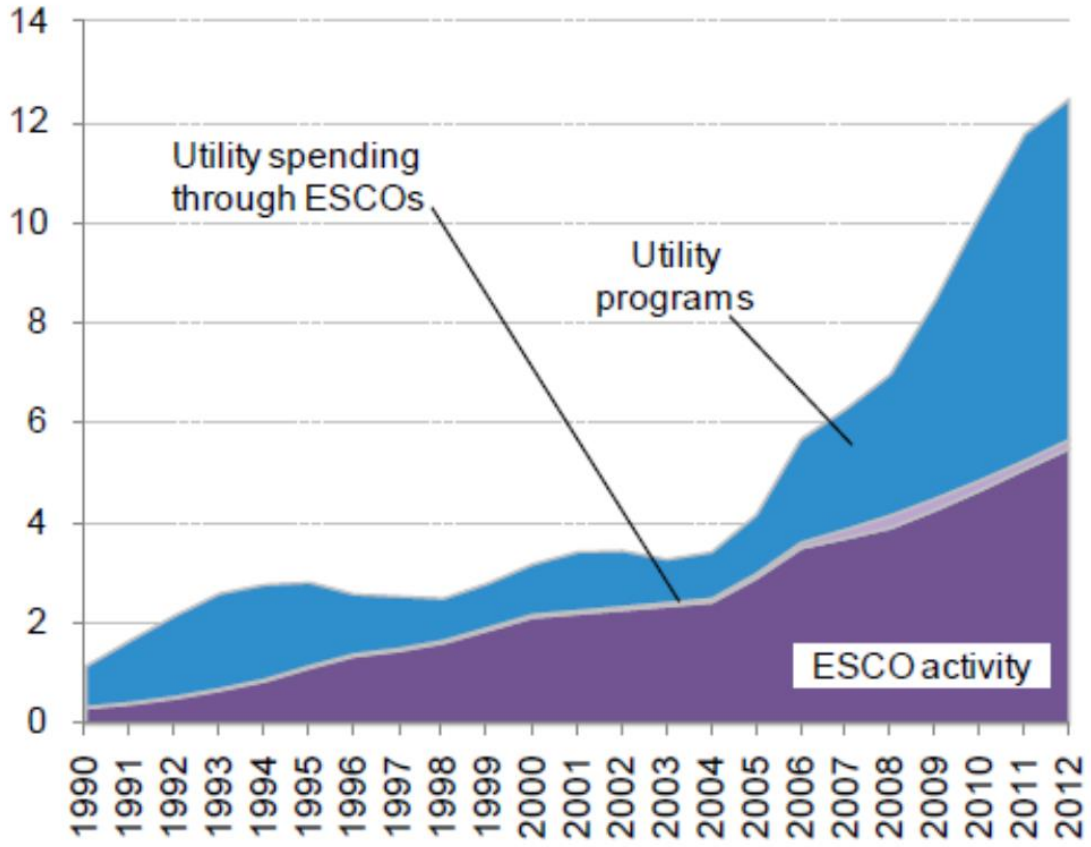
- Non-ratepayer policies and programs, including voluntary measures—state, local, private, NGO
  - Energy Savings Performance Contracts (ESPC)
    - About $6B of private investment annually (total project cost) (LBNL)
    - NASEO developed multi-state (VA, GA, KY) ESPC EM&V, tracking project; leverage broad energy, economic, environmental benefits
  - Building energy codes
    - In 2012 saved $5B, 500T Btu, 40B kWh, 36M metric t CO_2 (DOE)
    - NASEO manages TX codes compliance project, partner SPEER

Energy Efficiency Opportunities

- Industrial efficiency (Superior Energy Performance) and combined heat and power (CHP)
  - CHP 12% U.S. generation; saves 1.8Q Btu, 241M metric t CO_2
- Energy financing programs (e.g., WHEEL, C-PACE)
  - States oversee >$5B in EE and RE financing programs)
- Weatherization
- Above-code construction, renovation, retrofit
- Benchmarking, disclosure, retrocommissioning (…)
- Statewide comprehensive energy planning
  - supports, for example, evolving utility business model policies, distributed generation, storage, micro-grids

Privately-Delivered Energy Efficiency

Investment in Energy Efficiency Through ESPC 1993-2012
($ billion)



- ESPC doesn't rely on taxpayer or ratepayer investment
- ~$6B+ U.S. market investment annually
- Projected to grow to $10-15 billion by 2020
  - Scalable for CPP compliance

Slide Source: RAP; Bloomberg New Energy Finance

NASEO CPP Activities and Next Steps

- The 3Ns:
  - NASEO, National Association of Clean Air Agencies (NACAA), National Association of Regulatory Utility Commissioners (NARUC) cooperation
  - Discussions among SEOs, air regulators, PUCs
  - Wider engagement with public, private, and NGO stakeholders
  - 3N consensus Energy Efficiency Principles: http://www.naseo.org/Data/Sites/1/principles_3n_2014.pdf

    (e.g., reliability, national energy efficiency registry, early action)
  - 3N Efficiency Case Studies and Plan Language Meetings
- Collateral and related products and efforts:
  - NASEO EE Strategies for CPP Compliance Report, example plan language
  - CHP, ESCO/ESPC, Industrial EE papers and templates
  - Energy Efficient Codes Coalition *CPP Energy Code Emissions Calculator*
  - ACEEE templates and calculator

NASEO CPP Activities and Next Steps

- Continued 3N collaboration and events
- Broader ongoing engagement with states, utilities, energy industry, NGOs, federal agencies on reliability, cost, and EE compliance including
- NASEO-EPA National Call (August 2015)
- NASEO Annual Meeting and CPP Workshop (Sept 2015)
- CPP Resource Hub: www.111d.naseo.org/
- Planned coordination calls, FAQ, Q&A for SEOs and other state officials
- Collaboration with The Climate Registry, E4TheFuture, states and others on EE registry
- Participation in others' workshops, events
- Comments and engagement on EPA proposed federal plan, EM&V guidance, Clean Energy Incentive Program

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RAP Energy solutions for a changing world

EPA's Clean Power Plan (CPP): What You Need to Know

Association of Energy Services Professionals
"Brown Bag" Webinar
September 17, 2015

Presented by Ken Colburn, Principal

The Regulatory Assistance Project
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www.raponline.org

Introduction

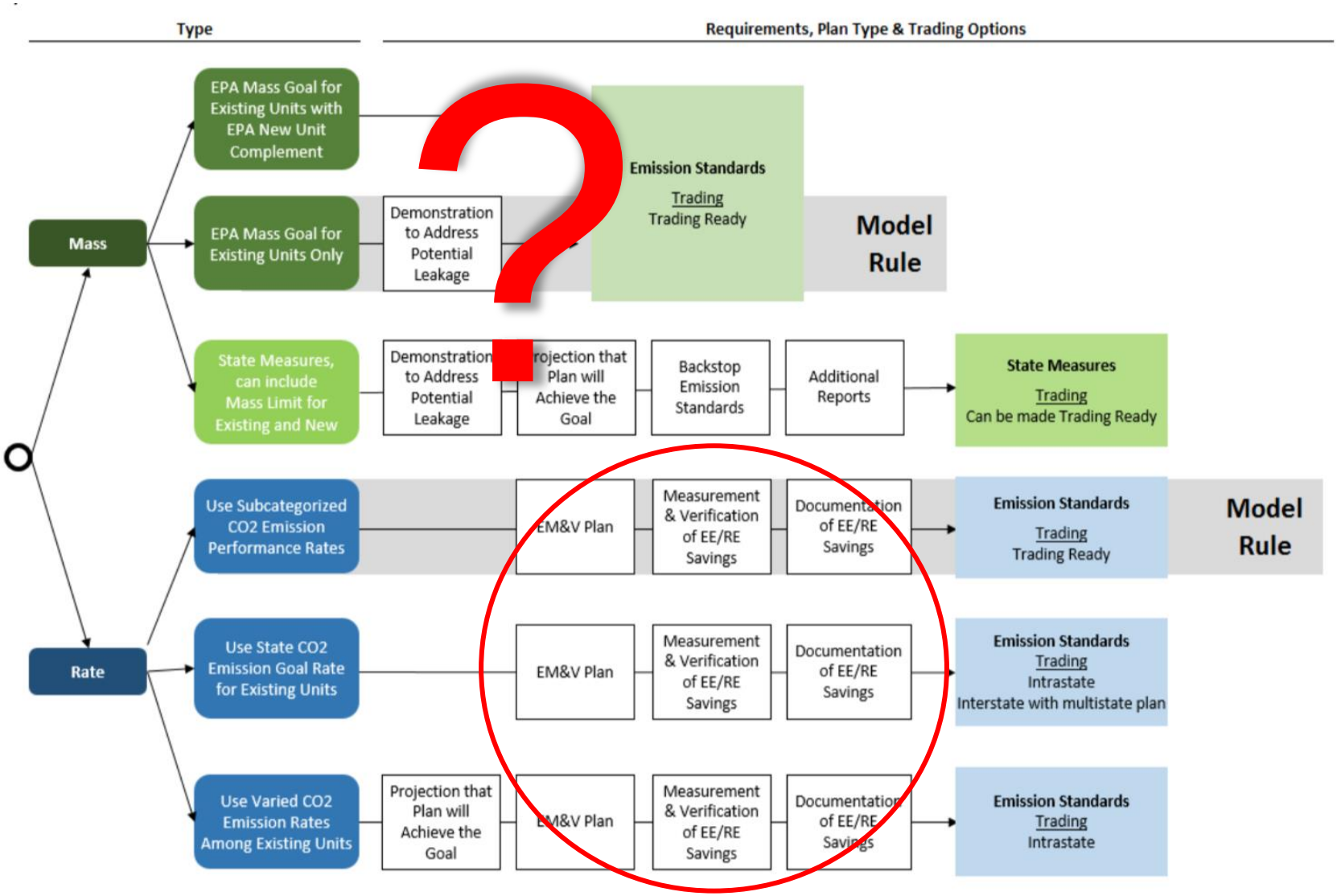
- The Regulatory Assistance Project (RAP) is a global, non-profit team of energy experts, mostly veteran regulators, advising current regulators on the long-term economic and environmental sustainability of the power and natural gas sectors. (www.raponline.org)
  - *Foundation-funded; some contracts*
  - *Non-advocacy; no interventions*

- Ken Colburn is a Principal at RAP. His experience as an air quality regulator came as Air Director for the State of New Hampshire and as Executive Director of NESCAUM.

Key Changes – Proposed to Final CPP

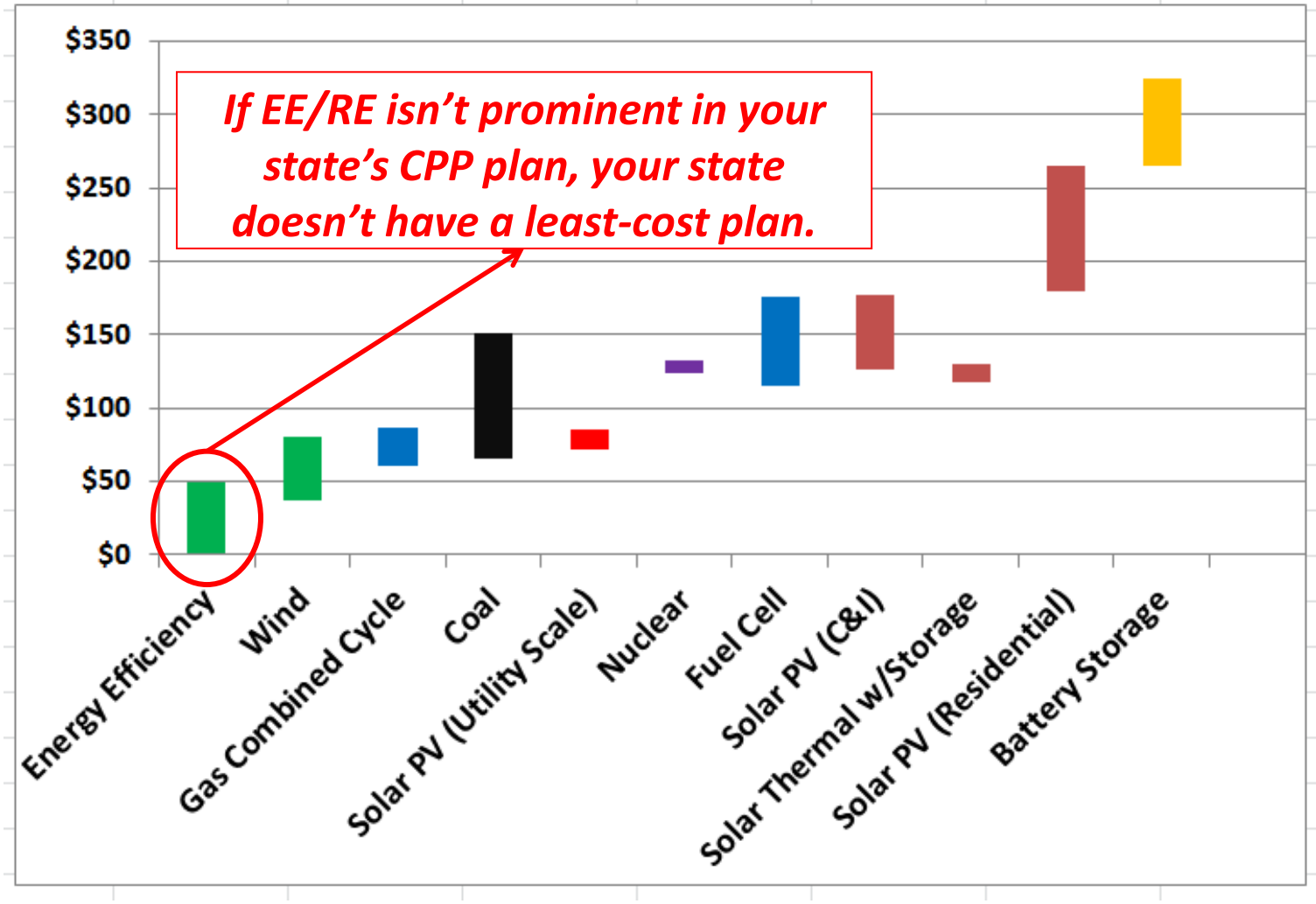
- Overall slightly less stringent (mass)
  - 32% reduction from 2005, off higher baseline
  - Some states already comply with what's on-the-books
- Far greater legal defensibility
  - Actions done "by" vs. "at" EGUs
- Much easier implementation
  - 2022, glide path, trading-ready, safety valve, etc.
- *But*, EE may find it harder to play
  - EE won't "happen automatically"
- And EE EM&V remains unnecessarily complex

CPP's Relative Clarity on Rate-Based, ERCs



EE = Least-Cost Approach

(Levelized Cost of Energy ($/MWh), Lazard, Version 8, 2014)



What You Need to Know (1)

- EPA analysis indicates mass-based is ~40% less expensive than rate-based
  - $5.1 billion versus $8.4 billion in 2030
- How to promote EE in mass-based states?
- *Stop thinking like an energy professional!*
  - Try to put yourself in air regulators' shoes…
- Why?
  - Consider: "Who, What, When, Where, & How"

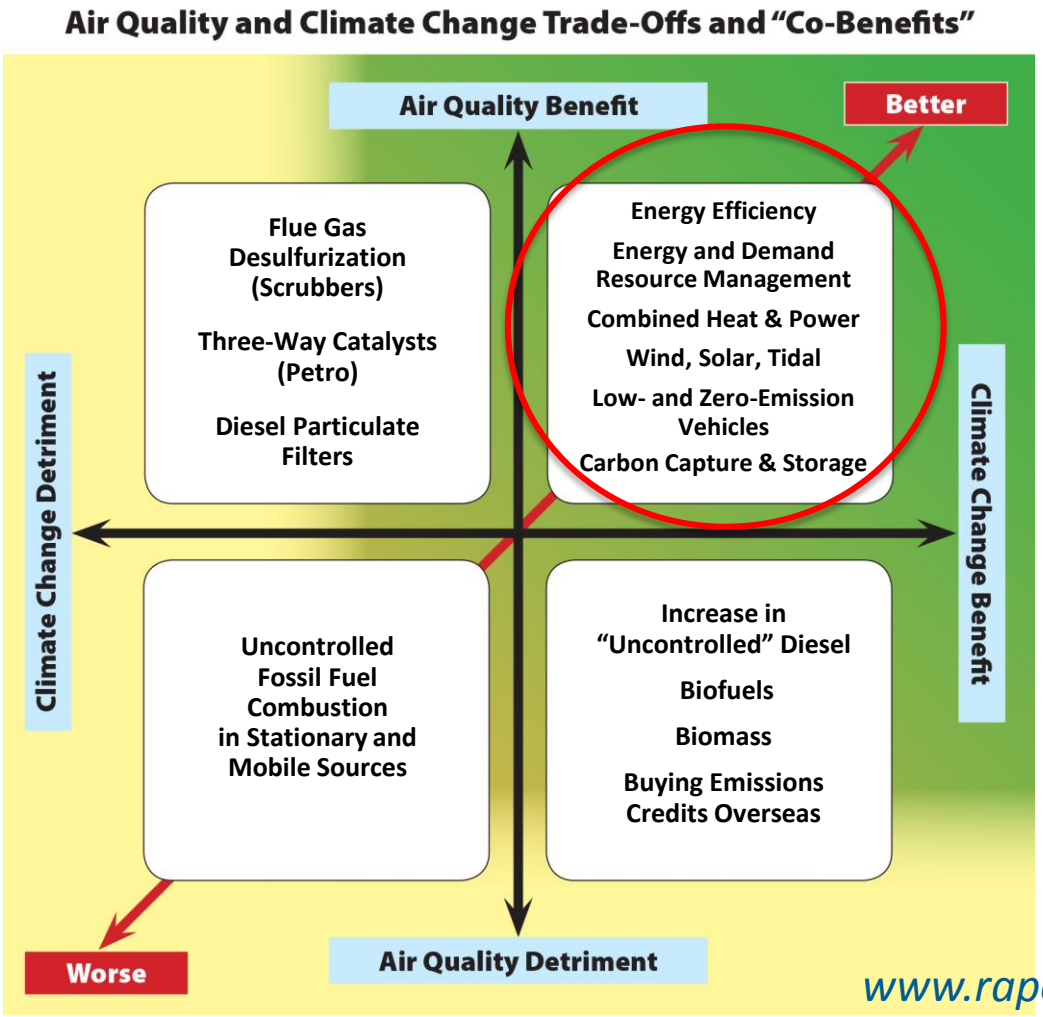
What You Need to Know (2)

- Who:
  - Focus on air regulators, not just PUCs, SEOs, stakeholders
    - They will be the ones filing the state plans
  - Air regulators will need help a lot of help due to:
    - History of facing prescriptive requirements; they will look for "instructions" (i.e., the clearest, most enforceable options)
    - No significant history of applying EE in prior emissions reduction programs
    - EPA EM&V guidance is foreign to air regulators (Result: Dash to gas? Rush to RE? Everything but EE?)
    - Final rule's clarity on rate-based & ERCs; could be construed as EPA preference?
- What: EE proponents need to stress
  - Least-cost (Who's job *is* least-cost?)
  - Reduces multiple pollutant emissions
  - Saves water (compared to thermal generation)
  - Most important, EE works

What You Need to Know (3)

- When: ASAP
  - Submit state plan early so as to have EE efforts count sooner
  - Start counting everything now (MWh, emissions (mass) measure lives, etc.)
- Where: Venues
  - State regulators AND policy makers (governor, legislators,…)
  - EPA's Regional Office
  - RTO/ISO or Balancing Authority
- How:
  - Per above…
  - Develop allowance allocation schemes encouraging EE
  - Comment on proposed rules!

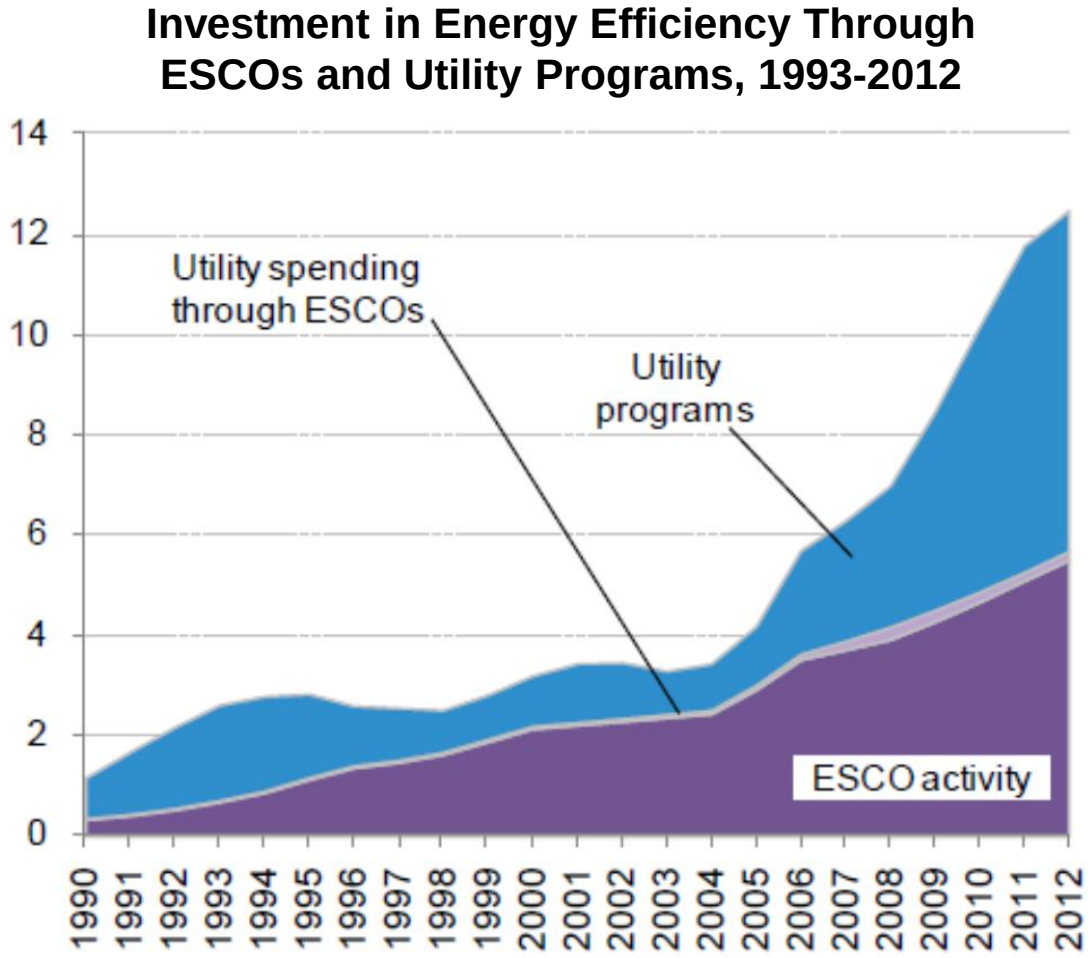
Multi-Pollutant Reductions + Water Savings



- Good CPP choices can help air quality; good air quality choices can help CPP compliance
- Ditto for increasing ***water*** concerns
- Integrated multi-pollutant, multi-media approach can lower cost, risk (see RAP's IMPEAQ paper)

www.raponline.org/document/download/id/6440

What About Privately-Delivered EE (ESCOs)?



Source: Bloomberg New Energy Finance, "Sustainable Energy in America Factbook"

- Doesn't rely on state or utility investment
- Projected to grow to $10-15 billion by 2020
  - Scalable for CPP
- Not clear how to include in state CPP plans
- *Ditto for straight-up industrial EE efforts*
- *Ditto for state policies*
- *Trading: Need for an EE Registry?*

Needed: Detailed "How-to" Examples for Including EE in Mass-Based

	Auction Allowances?	EE Set-Aside in Allocation?	Direct EE Allocations?	…
Private EE (ESCOs)	*[How-to]*	*[How-to]*	*[How-to]*	…
Industrial EE Actions	*[How-to]*	*[How-to]*	*[How-to]*	…
Building Codes	*[How-to]*	*[How-to]*	*[How-to]*	…
Appliance Standards	*[How-to]*	*[How-to]*	*[How-to]*	…
Rate Design	*[How-to]*	*[How-to]*	*[How-to]*	…
IRP Plans	*[How-to]*	*[How-to]*	*[How-to]*	…
RTO Actions	*[How-to]*	*[How-to]*	*[How-to]*	…
…	…	…	…	…

Recommendations

- Engage officials ASAP to include EE
  - Pathway choices, allowances for EE, etc.
  - EPA Regional Offices, RTOs, associations, etc.
- Comment on the proposed rules and EM&V
  - 90 days once published in Federal Regiser
  - RAP "Mobile Source Analogy" to ease EM&V burden: www.raponline.org/document/download/id/7501
- Elevate multi-pollutant/water solutions
  - New ozone standards coming soon; other regs
  - RAP "IMPEAQ": www.raponline.org/document/download/id/6440
- Challenge EPA to approve EE in your state plan!

Thank You for Your Time and Attention

About RAP

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

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

Learn more about RAP at www.raponline.org

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QUESTIONS

Type Your Questions in the Chat Box

Save the Dates

February 1-4, 2016	AESP's National Conference Phoenix, Arizona
May 10-12, 2016	AESP's Spring Conference Philadelphia, PA
August 16-18, 2016	AESP's Summer Conference Chicago, IL

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