EPA’s Proposed Clean Power Plan Rule: A Catalyst for AWWA’s Energy Initiative, and what it means for the water sector

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Hershey, PA
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acarpenter@awwa.org, 202-326-6126
Summary

• Overview of energy/climate policy and EPA’s Clean Power Plan
• Challenges
• Opportunities
• AWWA’s Energy Initiative
• Examples of actions in progress
• Next steps
Failed federal legislative attempts (by the Administration)

- Cap and trade
- Carbon tax (with or without “dividend”)
- Other meaningful emissions reductions
EPA Clean Air Act CO$_2$ Authority

*Massachusetts v. EPA* (2007)
CO$_2$ Endangerment Finding (2009)
Transportation authority (ongoing)
Power plants
- Proposed rule for new facilities (2013)
- Proposed rule for existing facilities (2014)
  - Also known as the Clean Power Plan (CPP)
Administration’s Climate Action Plan

— PRESIDENT OBAMA'S PLAN TO ADDRESS CLIMATE CHANGE —

Reduce carbon pollution from power plants and build cars that burn less fuel.

Cut energy waste from our homes and businesses.

Help states and cities prepare for the impacts of climate change.

Lead global efforts to address climate change.

Wh.gov/Climate-Change #ActOnClimate
Overview of CPP

- **State-driven** through Clean Air Act Section 111(d)
- **Reduce GHG emissions** from EGUs (30% average reduction in emissions by 2030, from 2005 levels)
- **State-specific** emission rate-based CO$_2$ goals with interim in 2020 and final in 2030
- **Plan is controversial** and will be challenged and could change substantially for final
- **AWWA not taking position on merits** of overall plan or specific state emissions goals.
State Goals

Derived through 4 “Building Blocks” to create EPA’s estimated least cost scenarios

1. Increase efficiency at power plants
2. Use lower-emitting power plants more frequently
3. Expand use of renewable energy sources
4. Reduce demand on power plants through greater energy efficiency
Challenges for Water Utilities

• **Significant electricity price increases**
  – Av. retail prices increase 6-7% by 2020 from this rule alone
  – Some regions face price increases of 10%+

• **Wholesale increases could be greater** - not subject to same regulatory price caps as retail and not analyzed in CPP.

• Limited window of opportunity, limited awareness of near term costs or opportunities
  – Drinking water regulations developed over 5-10 years
  – This regulation developed over 3-4 years
Costs Not Distributed Equally
Clean Power Plan = New Costs

- EPA estimates average retail electricity prices to rise 6-7% by 2020, in addition to all other cost drivers.
- Water utilities consume at least 1% of US electricity (from the Water Research Foundation):
  - $230 Million/yr. for water utilities in 2020 by EPA’s estimate.
  - $460 million/yr. by 2020 in some private sector estimates.
  - EPA estimate higher when including wastewater (at least $414 million).
- Some estimates are much higher for both CPP cost and Water utility consumption!
Opportunities for Water Utilities

- Opportunity to gain back some costs and mitigate future energy price increases through directed spending on energy efficiency (EE)

- $10 billion annual increase in spending for EE by 2020 for ratepayer funded EE (per EPA estimates)
Energy Efficiency Funding Available Now

• Regardless of the fate/timing of EPA’s CPP rule, energy efficiency funding exists today:
  – **$7 billion** for ratepayer funded and increasing
  – Additional direct state and federal funding
  – Public and private efficiency financing / loans

• AWWA’s Energy Initiative is using EPA’s rulemaking as a catalyst to encourage states to dedicate some of current and future EE funds to water utilities.
  – If/when funds increase due to EPA’s rule or for other reasons, water utilities will benefit from the additional funding and reduced energy costs.
Energy Efficiency Funding Today

Growth in Directed Energy Efficiency Spending

(Shows ratepayer funded EE spending. There are other forms of public and private investment as well)
2013 Electric Efficiency Budgets ($ M)
Water Utilities Have Potential to Increase their Energy Efficiency

- Use a lot of Electricity
- Routine operations, maintenance, and capital projects can reduce energy use or energy intensity
- Water utilities rarely get credit for these improvements

- Water utilities offer a “gold standard” for energy efficiency projects because they...
  - ...are monitored by trained staff
  - ...complete capital projects that are long lived
  - ...operate 24/7
  - ...are verifiable
Challenges

• Virtually no state has dedicated EE funding for water utilities
  – Handful of pilots and case studies

• Lack of Awareness
  – Among water utilities about CPP and its implications
  – Among state officials about EE potential of water utilities
  – Among EE professionals about how to measure EE at water utilities

• Short time period < 2 years for greatest impact
Timeline is Short

• Summer 2015 - EPA to promulgate rule

• Summer 2016 - States to submit individual state plans, unless extension is granted

• 2020 - Interim CO₂ emissions performance goal met [interim goals may be reduced or eliminated, according to the EPA administrator’s recent remarks]

• 2030 - Final CO₂ emissions performance goal met
AWWA’s Initiative

• Education campaign
  » State officials
  » AWWA sections and members
  » Energy sector

• Advocate EPA recognize water utility energy efficiency in final rule as a voluntary option

• Gain insight from members on their energy efficiency efforts and challenges
Joint Water Association Comments

December 1, 2014 CPP comments focused on ways incentives could be constructed:

1. Water sector EE and RE should be eligible for plans
2. Financial incentives needed to accelerate EE/RE in sector
3. Participation must be voluntary, public health is always top priority
4. No CAA liability for water utilities doing EE/RE
5. Technical assistance must be available, especially for smaller systems
Initial Findings

• Most stakeholders receptive
• Conceptual agreement
• Details more complicated, but attainable
• Monitoring and verification are a challenge
Many small steps

• DOE opportunities
  – Industrial Audit Centers
  – State/Utility funding
  – Better Plants voluntary program
• DC Efficiency / Renewables event
• Many other potential education and advocacy opportunities
How You Can be Involved

1. Study your electricity usage and find ways that verified efficiency savings could be implemented

2. Contact your state energy office and electric utility about current and future programs

3. Document savings, take advantage of incentives where available. Ask state and electric utility to develop programs if no applicable programs exist

4. Contact us if you have a potential case study, partnership, etc.
QUESTIONS?

Adam T. Carpenter
Regulatory Analyst
Email: acarpenter@awwa.org
Direct: (202) 326-6126

American Water Works Association
Government Affairs Office
1300 Eye Street, NW, Suite 701W
Washington DC  20005
Gen. Office: (202) 628-8303
Additional Example 1: Texas

- Electric utility ratepayer funds run through a third party administrator.

- Administrator has put us in touch with electric utilities potentially interested in running pilots.

- Hope to have successes to build lessons learned, case studies, and other products to use elsewhere in state and nation.
Additional Example 2: New England

- Regional Greenhouse Gas Initiative (RGGI)
- Likely to be adapted to mass-based version of CPP goals

(note, NJ has dropped out of RGGI)
Additional Example 3: California

- Much of CA EE funds administered by electric utilities directly
- At least one large electric utility interested in working together to identify barriers to water utility participation and possibly design an effective future water utility incentives program
- Coordinating with AWWA CA-NV Section to move process forward and leverage member resources