



# Paying to Save Money: Energy Efficiency and the Clean Power Plan

*ACEEE Webinar Series*

June 23, 2016

# ACEEE Webinar Series

- “Energy Efficiency and the Clean Power Plan”
- Series of five webinars through July
- Upcoming Topic: People’s Choice!
- Links to register and webinar recordings - [aceee.org/topics/clean-power-plan](http://aceee.org/topics/clean-power-plan)

# Webinar Speakers



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# The Opportunity

Energy efficiency is a real bargain so why doesn't it happen?

## Upfront cost!

and also market failures, outdated regulatory framework, lack of understanding....

The Clean Power Plan creates an opportunity for new investments.





# What We'll Cover

We are discussing some of the more prevalent options to pay for energy efficiency.

For each option we'll give a very high level overview and make some suggestions for how it could be leveraged to aid in Clean Power Plan compliance.

**These aren't ALL the options!**

# Leveraging the Compliance Market

## Allowance Allocation

- States that opt for a mass-based compliance plan can design allocation mechanisms that reward investments in energy efficiency.

## Path to Compliance

- Updating output-based allocation – states can create an allocation approach that allows energy efficiency programs and projects to earn allowances for savings generated.
- Set-aside - states can assign a portion of their allowance budgets for allocation to energy efficiency investments.

# Leveraging the Compliance Market

## Auctions

- States that opt for a mass-based compliance plan can auction their allowances and use the revenues to invest in energy efficiency.

## Path to Compliance

- RGGI!
- Revenue can be disbursed to encourage both public and private sector investments.
- Revenue can be given out via a “bid” process to certified project and program administrators based on their performance and cost.

# Leveraging the Compliance Market

## Emission Reduction Credits (ERCs)

- States that opt for a rate-based compliance plan can award tradable ERCs to project developers and program administrators.

## Path to Compliance

- ERCs are the commodity used by power generators to show compliance with the CPP. ERCs can be used as a revenue stream for EE investors who can sell them to power generators.
- The administrative process of applying for ERCs can be streamlined. A simple and straightforward process will help ensure a wide variety of EE investors can take advantage of the financial incentive.



# Utility Ratepayer Funding

- Electric utilities pay for efficiency programs via a charge on customers' utility bills
- Typical programs include rebates, residential retrofits, and direct install measures

## Path to Compliance

- States can tie utility ratepayer funded programs to specific energy savings goals. This can ensure that dollars spent result in quantifiable emissions reductions.
- This option can guarantee a fixed amount of CO<sub>2</sub> reductions.
- This is a good option for addressing EM&V requirements.

# Energy Service Contracts

- An Energy Service Company (ESCO) pays the upfront costs and guarantees savings
- Primarily used in MUSH sector, some C&I as well
- Performance Guarantee
- Example: In Shreveport, LA an ESPC for 33 municipal buildings delivered over 9 million kWh of savings/year and was used to comply with ozone standards.

## Path to Compliance

- States can strengthen energy savings goals for public buildings. This helps ensure a fixed amount of CO<sub>2</sub> reductions.
- To increase ESCO funding of private sector deals states can remove existing market and regulatory barriers and consider incentives (allowances or allowance revenues)
- This is a good option for addressing EM&V requirements.

# Public/Private Partnership

- A government entity can offset risks for a private financier
- May result in better terms for the end-user
- Examples: Michigan Saves' Loan Loss Reserve, Mass Heat's Interest Rate Buy Down, Connecticut Green Bank

## Path to Compliance

- Cities and states can leverage private sector investment to achieve air quality goals. This limits the need to raise revenues or increase utility bills for electric customers.
- These types of programs remove existing barriers, but would likely need to be coupled with other policies for emission reductions to be relied up on in a state plan.

# Bonds

- A debt investment where investors lend money to a corporate or government entity and is repaid over a fixed time at an agreed-upon interest rate.
- Types: general purpose bonds, revenue bonds
- Example: DC Water's 100 year green municipal bond

## Path to Compliance

- States can issue bonds to pay for a bundle of energy efficiency investments that would be paid for through the energy savings from the projects.
- Alternatively, EE investments could be folded into bonds for a single large project (new stadium, etc.).



# PACE & On-Bill

## PACE

- Repayment of upfront costs via tax assessment
- Example: Prologis of San Francisco did a \$1.4m project, reduced energy usage by 32%, saved \$100,000/yr, and no increase in operating expenses

## On-Bill

- Repayment upfront costs via utility bill
- Example: TVA guarantees OBR loans from private financiers

## Path to Compliance

- These products can facilitate EE investments in a rate-based or a mass-based compliance approach, but do not guarantee pollution reductions.
- These approaches would likely need to be coupled with a policy to drive demand and ensure energy savings are appropriately tracked.

# Concluding Thoughts

- Many of these options can be used alone or in combination with others so think creatively!
  - Private sector funded ESCO projects can be incentivized via allocation of allowances and utility rebates.
- Some of these things will be embedded in the state's compliance plan for the Clean Power Plan.
  - Disposition of auction revenues, allowance allocation
- Some are steps that are taken outside of the compliance planning process.
  - Utility ratepayer funded programs
  - Energy offices can be a great place to initiate some of these discussions

# Additional Resources

Clean Power Plan Resources [aceee.org/topics/clean-power-plan](http://aceee.org/topics/clean-power-plan)

Answers to States Questions (ASQ) [cpp.naseo.org/asq](http://cpp.naseo.org/asq)

State & Local Policy Database [database.aceee.org/](http://database.aceee.org/)

## Financing Resources:

- Energy Efficiency Finance: A Market Reassessment Report [aceee.org/white-paper/ee-financing-market-reassessment](http://aceee.org/white-paper/ee-financing-market-reassessment)
- SEE Action <https://www4.eere.energy.gov/seeaction/topic-category/energy-efficiency-financing>
- DOE <http://energy.gov/eere/slsc/pay-clean-energy?AssistanceArea=Pay%20for%20Clean%20Energy>

# Upcoming Webinar

People's Choice!

Thursday, July 28<sup>th</sup>, 1:00 – 2:00pm EDT

Register and vote:

[attendee.gotowebinar.com/register/1970732029541162242](http://attendee.gotowebinar.com/register/1970732029541162242)

## Topics:

1. Learning from the Leaders: Lessons from States Planning for Compliance
2. Clean Energy Incentive Program: What is the Opportunity for Energy Efficiency?
3. Using Building Energy Codes to Comply with the Clean Power Plan



# Questions?

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