Cost Containment Mechanisms for RGGI

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Why RGGI Needs Flexibility

Forecasts are always wrong...

Prices could be too low

- As a result of technological innovation
- Being wrong on the low side (over-allocation) could undermine investments and the incentive to innovate
- Reserve price in auction will guard against this outcome (and is generally good auction design)

Prices could be too high

- Possibly as a result of technological limits
- Due to economic volatility
- Being wrong on the high side could undermine economic growth or commit economy to higher costs than anticipated



Flexibility Mechanisms

Ways to introduce costs management in cap and trade systems

Banking

Offsets

• Timing is an issue

Strategic Expenditures

• Energy efficiency

Price Collars

- Reserve price (price floor)
- Allowance reserves (price ceilings)



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Hard versus Soft Price Collars

Are there limits on allowances offered/purchased?

Soft Collar

- Make allowances available from a reserve when price reaches a trigger
- Introduce a fixed quantity of allowances from the allowance reserve into program

Hard Collar

• Introduce an unlimited quantity of allowances at price trigger.

A **soft collar** provides some relief but if price expectations prove to be wildly wrong, reserve will be exhausted and prices will move beyond the collar.

A hard collar provides unlimited additional allowances, but raises specter that emissions could increase beyond environmental target



Important Feature of Soft Collars

Biggest bang for the buck.

- First allowances made available when price hits trigger provide greatest relief in terms of program costs.
- Diminishing returns to adding more allowances to reserve.
- In an uncertain, dynamic context, less likely that additional allowances will be used.
- A limited allowance reserve provides most of cost savings while avoiding possibility of busting the cap.



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Populating the RGGI Allowance Reserve

Three options are available:

1. Unsold allowances from prior auctions

2. Assign allowances identified as part of adjustments to cap

 Options 1 and 2 bring additional allowances into program if reserve is tapped

3. Bring allowances forward from future time periods.

- This is the approach to be used in California program
 - 4% of allowances over 2013-2020 in reserve with no vintage.
- System borrowing which is distinct from firm-level borrowing



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How to introduce allowances

Going from the reserve to the market

- Having limited sales of allowances from the reserve at particular time could lead to rationing.
- Could solve this by
 - Having a continuously open window with first come first served.
 - Having an auction of reserve allowances with a reserve price equal to the high side of the price collar.



Designing the Collar

This is an economic and political decision

Expected prices will depend on whether RGGI cap is tightened or not.

• Implications for ceilings and floors

Expected prices will depend on design of the collar.

• Bidding, trading and banking behavior will be influenced by collar design

Collar could replace current offset trigger mechanism.

Uncertain collars may diminish benefits of added certainty.

Simplicity is an important principle of collar design.



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Thank you.



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