



2011 CARIS I – Preliminary Discussions of Emission Cost Projections

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Update of Slides Presented and Discussed 7/7/11

- ◆ **Contains supplemental information and clarifications as requested by ESPWG**
- ◆ **Contains alternative cost projections for 2011- 20 which were presented for preliminary discussion purposes only**
- ◆ **Additional information and presentations will be provided at a future ESPWG meeting**

Changes in Carbon Markets

(DRAFT – FOR DISCUSSION ONLY)

◆ California Carbon Allowances

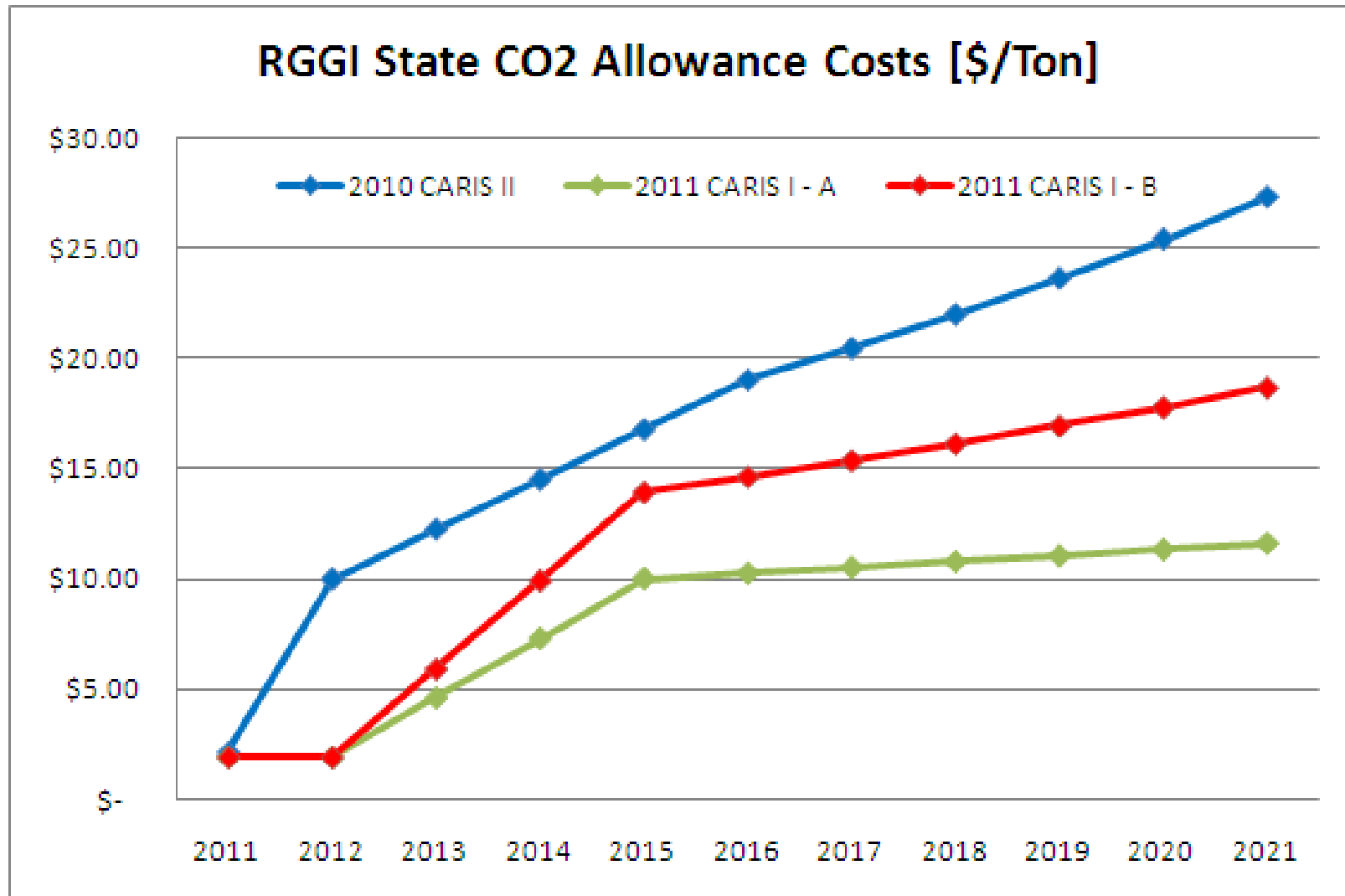
- *California/WCI = 1 Billion Tons CO₂ per year*
- *Startup Date now 2013 (prev. 2012)*
- *Allows unlimited RGGI allowances as offsets*
- *First transactions for Dec. 2012 Delivery, \$12.65/Ton (\$11.50 /Metric Ton)*
- *Approximately 5% Annual Floor Growth*
- *Likely Template for National Carbon Policy*

◆ RGGI

- *RGGI = 188 Million Tons CO₂ per year*
- *Most recent auction sold 30% of allowances offered*
- *Until the oversupply is addressed, allowances will continue to trade at the floor of approx. \$1.90/Ton*
- *Possible reset of allowance cap in 2012, effective 2013*

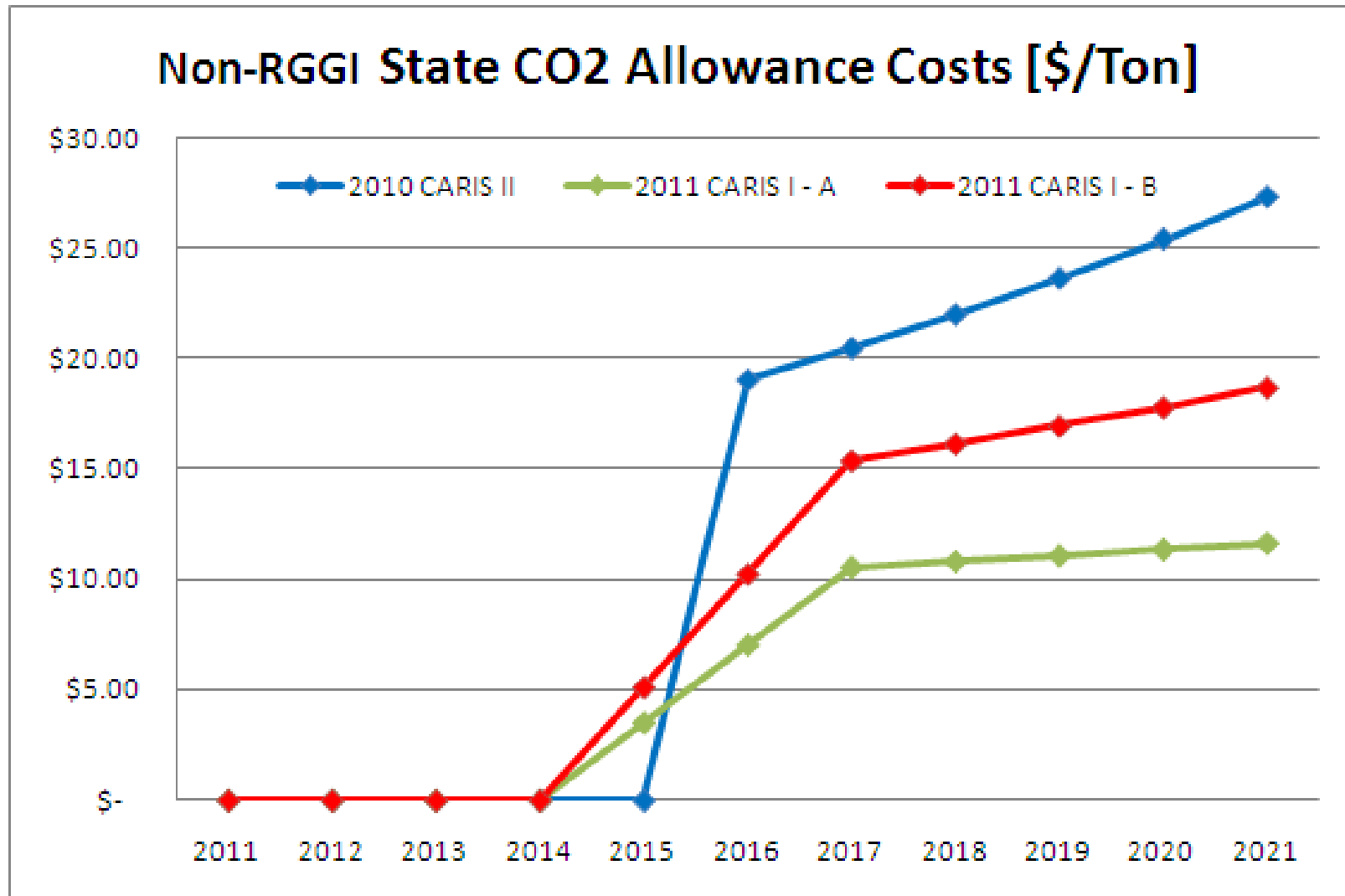
RGGI States

(DRAFT – FOR DISCUSSION ONLY)



Non-RGGI States

(DRAFT - FOR DISCUSSION ONLY)



Assumptions – 2010 CARIS II

(DRAFT – FOR DISCUSSION ONLY)

◆ **RGGI States**

- *Trading will continue at the floor until 2012*
- *RGGI Cap reset effective in 2012, price reaches \$10/Ton*
- *Assume the Boxer Bill begins in 2016*
- *Linearly increase price from \$10 in 2012 to the mid-point of the Boxer Bill (\$19/Ton in 2016)*
- *Boxer Bill midpoint thereafter*

◆ **Non-RGGI States (Pennsylvania)**

- *\$0 /Ton 2011-2015*
- *Boxer Bill starting in 2016*

Assumptions – 2011 CARIS I-A

(DRAFT – FOR DISCUSSION ONLY)

◆ **RGGI States**

- *Trading will continue at the floor until 2013*
- *RGGI Cap reset for 2013 onwards*
- *Historic market oversupply and emission banking will allow for a gradual increase in prices*
- *RGGI price will reach \$10/Ton by 2015, and then increase 2.5% annually to 2021*

◆ **Non-RGGI States (Pennsylvania + New Jersey (assumed))**

- *By 2016 some form of federal plan will be in place*
- *Trading Costs will align with RGGI Costs*
- *Costs will rise over a 3 year period reaching full market price in 2017*

Assumptions – 2011 CARIS I-B

(DRAFT – FOR DISCUSSION ONLY)

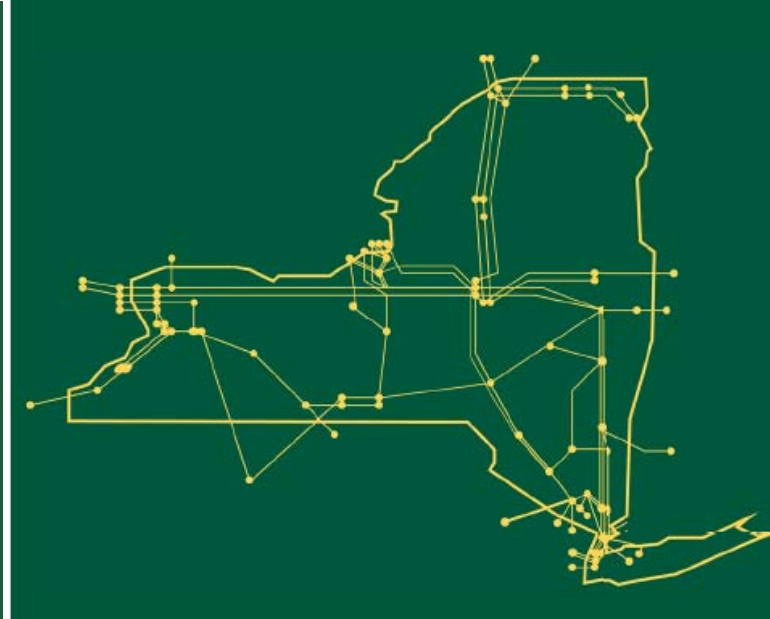
◆ **RGGI States**

- *Trading will continue at the floor until 2013*
- *Historic market oversupply and emission banking will allow for a gradual increase in prices*
- *RGGI will reach parity with CCA by 2015 @ approx. \$14/Ton (\$12.65 in 2013 + 5% annual growth)*
- *5% Annual Growth to 2020*

◆ **Non-RGGI States (Pennsylvania + New Jersey (assumed))**

- *By 2016 some form of federal plan will be in place*
- *Federal Trading Costs will Mirror CCA Market*
- *Costs will rise over a 3 year period reaching full market price in 2017*

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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