



Managing AB 32 Financial Impacts



The Bay Planning Coalition

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Estimated Facility AB 32 Costs

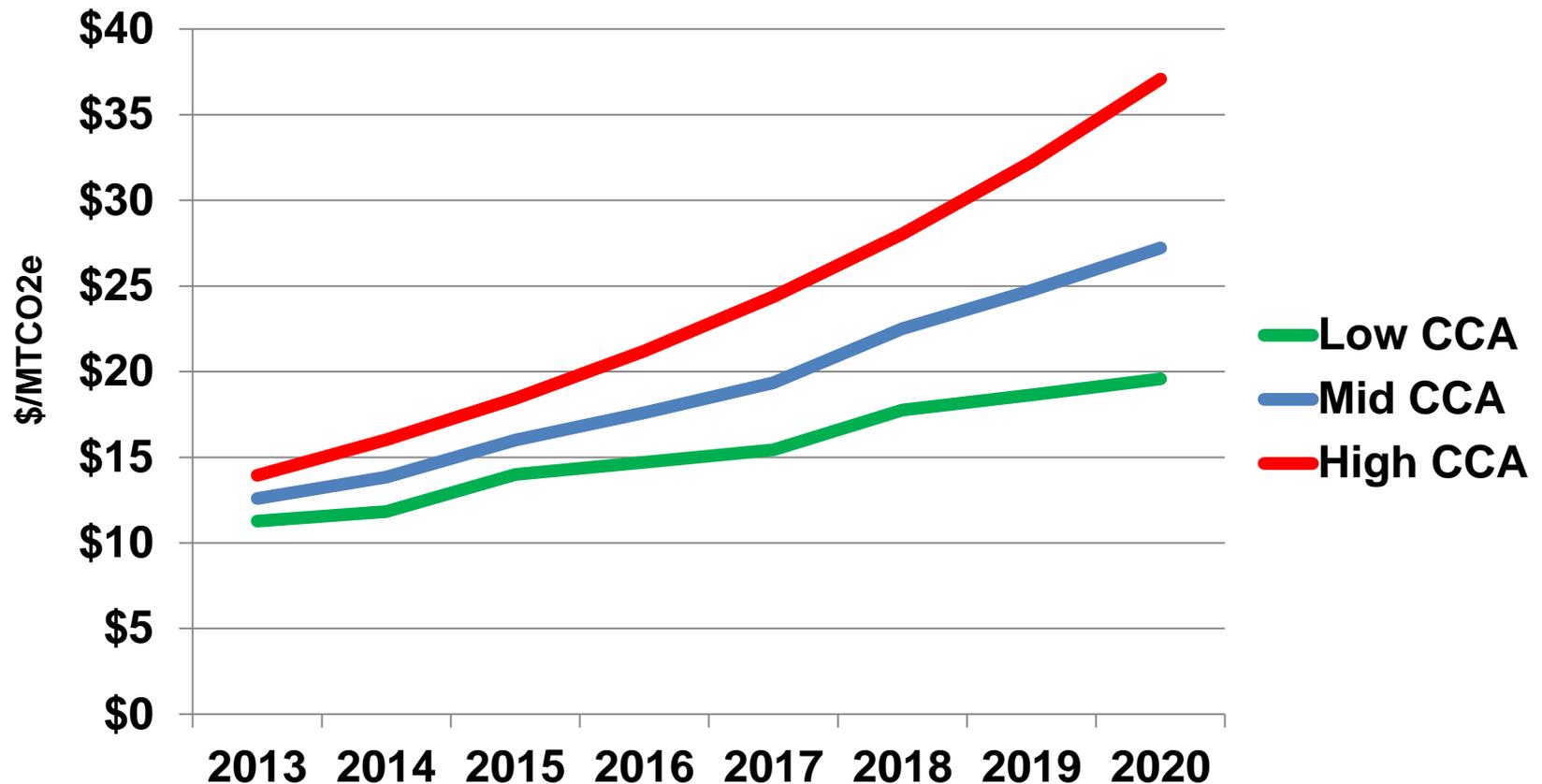
A Generic 35,000 MTCO₂e Facility 2013 – 2021
- Estimated Eight Year Cumulative Costs -

Allowance Cost Scenarios	Estimated Direct Allowance Purchase Cost	Estimated Electricity AB32 Pass-through Cost	Total Estimated Cost
Low	\$ 1.9 M	\$ 0	\$ 1.9 M
High	\$ 3.7 M	\$ 2.9 M	\$ 6.6 M

- In 2013 dollars, not adjusted for inflation
- Assumes 100,000 allowances are purchased between 2013 and 2021
- Allowance purchase assumed to take place at the end of each compliance period

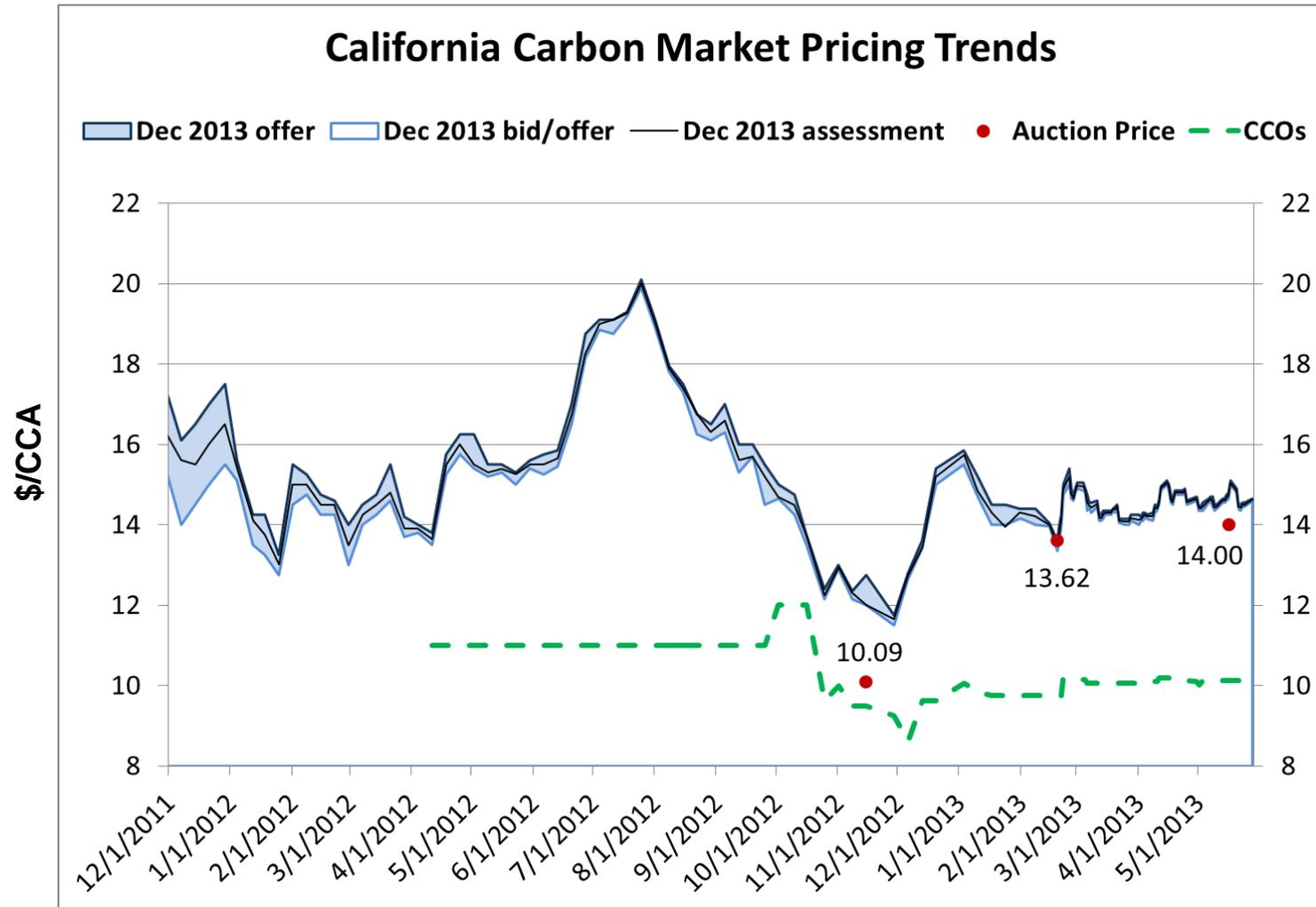
AB 32 Allowance Price Projections

URS Estimated Carbon Allowance CCA Prices (2013 Dollars)



AB 32 Secondary Market Prices

Secondary Market CCA Prices Much Higher than CCA Auction Prices



Electricity Prices & AB 32 + RPS

- Varying price projections by CARB:
 - AB 32 + RPS: 2.4% to 4%/yr and 3.3% avg. price increase for IOUs [2010]
 - AB32 only: Increase for 2012-20 industrial electricity of 1% to 3%/yr (if Carbon = \$15/ton or \$30/ton) [2012]
- URS has client-specific energy price projections for AB 32 and RPS impacts .

AB 32 Expands in 18 months – to Fuel

- Natural gas suppliers will need to comply with emission caps
- Intended to affect facilities emitting less than 25,000 MTCO₂e
- Energy costs to climb for small business, commercial facilities, local government, and residential users
- CPUC ratemaking for IOUs and fuel suppliers

Reducing AB 32 Costs and Risks

- Estimate your future allowance needs/surplus
- Evaluate your facility or process for changes that reduce carbon emissions and/or energy demand
- Complete any “no regrets” efficiency improvements
- Evaluate “net lifecycle costs” for long term financial benefits
 - Facility changes may meet IRR if carbon and energy savings are factored in
 - Allowance and/or offset purchases can be used to reduce costs/risks

Reducing AB 32 Costs and Risks - 2

- Create a Compliance Instrument Management Plan:
 - Auction Strategy:
 - Buy-as-you-go vs. early purchase
 - Bidding strategy
 - Secondary Market Strategy:
 - Brokers, Traders, Speculators, Risk, Changing Conditions
 - Futures contracts vs. real allowances
 - Offsets
 - Secondary Market
 - Create your own

Reducing AB 32 Costs and Risks - 3

- Engage CARB on regulations and program
- Evaluate Supply Chain AB 32 Costs
 - Higher electricity costs
 - Higher natural gas costs
 - Increased transportation fuel costs (LCFS, 2015 AB 32 Cap and Trade Expansion)
 - Higher cold storage costs (energy and “controlled” refrigerants)
 - Increased water pumping/conveyance costs

Reducing AB 32 Costs and Risks -- 4

Evaluate Contractual Liabilities

- Review existing supply and distribution agreements for potential AB32 “pass through” costs or liabilities to you
- Renegotiate terms if necessary/possible.
- Use contract/procurement terms so suppliers disclose their carbon use and AB32 costs

Thank You

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Climate Change and Renewable Energy Services

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