Public Meeting

Implementing a Quantitative Limit on the Use of Offsets in a Cap and Trade Program

March 23, 2009

California Air Resources Board

Agenda

- Opening Remarks (15 minutes)
- Staff Presentation (30 minutes)
- Round-Table Discussion (2 hours)
- Other Issues (15 minutes)
- Adjourn

Purpose of Meeting

- Discuss options for implementing a quantitative limit on the use of offsets in a cap-and-trade program
- Stakeholders are asked to provide written comments on this topic to ARB by April 30th (to **ccworkshops@arb.ca.gov**)

Outline of Presentation

- Introduction and Background
- What does ‘49% of reductions’ mean?
- How should the offset limit be implemented?
  - Usage, supply, hybrid limits
  - WCI considerations
  - Temporal considerations
- Offset limits in other greenhouse gas cap-and-trade programs
  - EU ETS
  - RGGI
- Questions for Discussion

California Cap-and-Trade Rulemaking Timeline

- Focus in 2009: work through implications of different issues and policy decisions
- Focus in 2010: finalize program design and develop regulatory language
- End of 2010: Board action on cap-and-trade regulation
- Extensive public process throughout

Upcoming Meetings

- April 2nd
  - Competitiveness Issues & 'Leakage'
- April 10th
  - Biomass Emissions in a Cap-and-Trade Program
- April 21st
  - Essential Elements of an Offset System
  - Intro to Cap Setting and Data Review

What Sources are Capped?

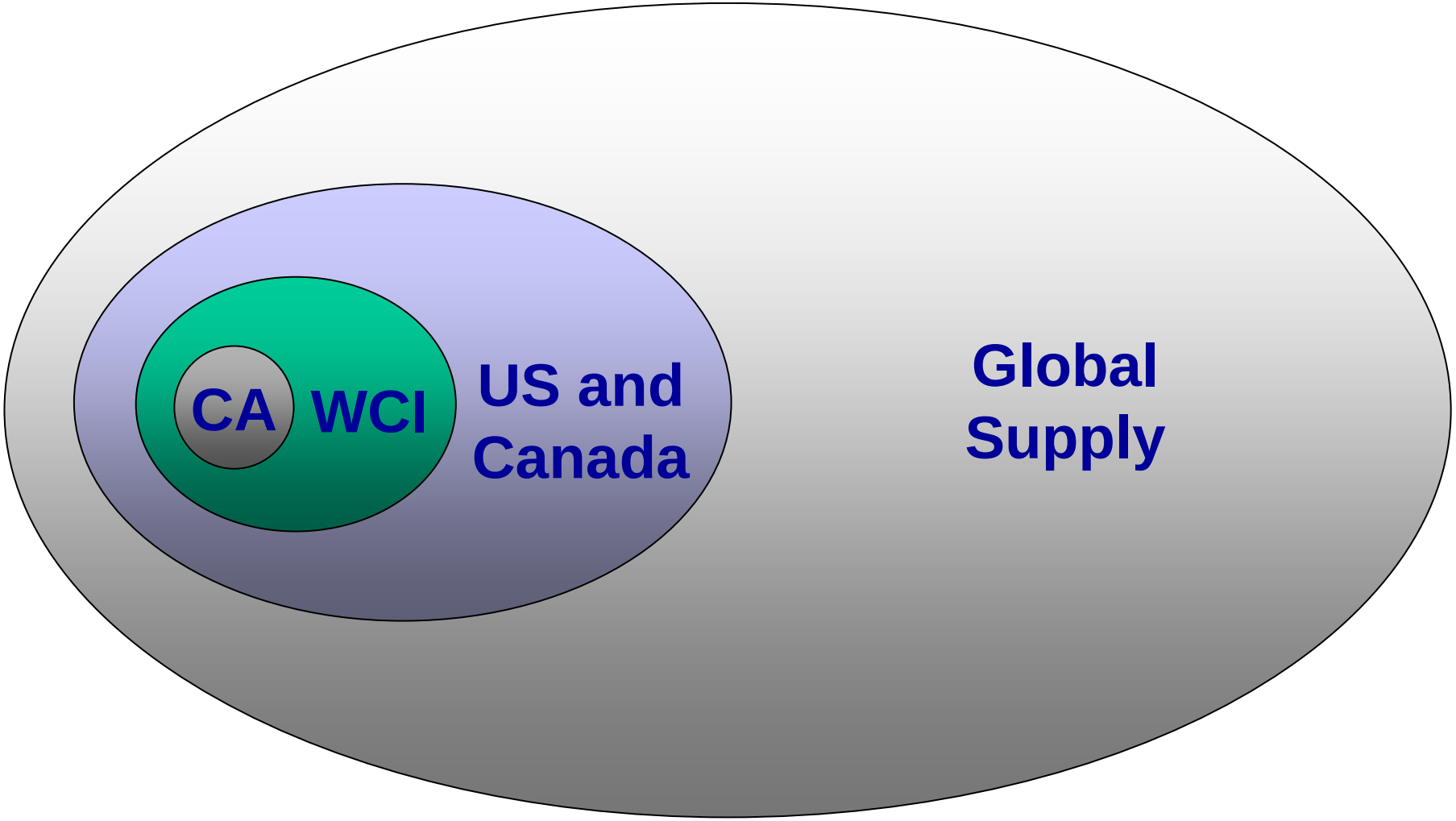
- 2012-2014
  - In-State Electricity Generation Facilities (>25,000 MT CO_2e/year) and Imported Electricity
  - Large Industrial Facilities (>25,000 MT CO_2e/year)
- 2015-2020
  - 'Upstream' treatment of fuel combustion where fuel enters into commerce covering
    - Small industrial fuel use (for facilities $\leq$ 25,000 MT CO_2e/year)
    - Residential and commercial fuel use
    - Transportation fuel use

Source: Scoping Plan page 31

What is an Offset Credit?

- A GHG offset is a GHG emission reduction …
  - beyond what otherwise would have happened because of regulation and common practice
  - that generates a credit that can be used to meet a regulatory compliance obligation or a voluntary commitment
  - that addresses emissions not included in a cap-and-trade program
- Under AB 32, the reductions must be real, additional, quantifiable, permanent, verifiable and enforceable
  - H&S Code §38562(d)(1-2)

Anticipating Potential Offset Supply by Region



Why Allow Offset Credits?

- Cost-containment
  - Allow capped sources to take advantage of lower-cost reductions
- Temporal considerations
  - Offset projects may be available more quickly than other forms of reductions
- Target sources/sinks of emissions that are difficult to include directly in the cap
  - May be difficult to quantify emissions/reductions for all sources/sinks but possible at the individual project level

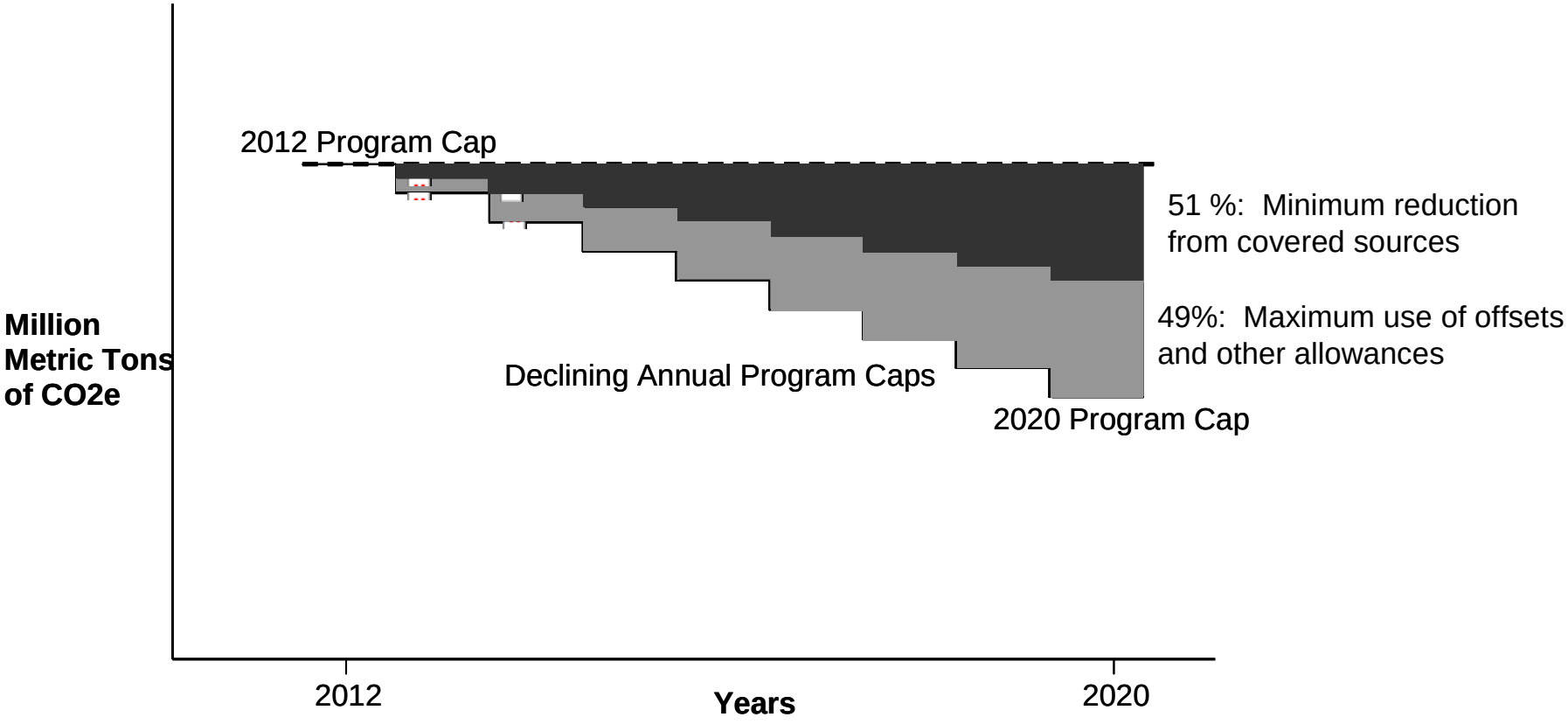
Scoping Plan: Limits on Offsets

- All offsets must meet high quality standards; no geographic limits
- The majority of emission reductions must be met through action at capped sources
  - No more than 49% of reductions can come from offsets
- Similar to the "supplementarity" argument
  - The Kyoto protocol requires that the use of flexible mechanisms (e.g., CDM offsets) be 'supplemental' to domestic action

Offset Limits Pros and Cons

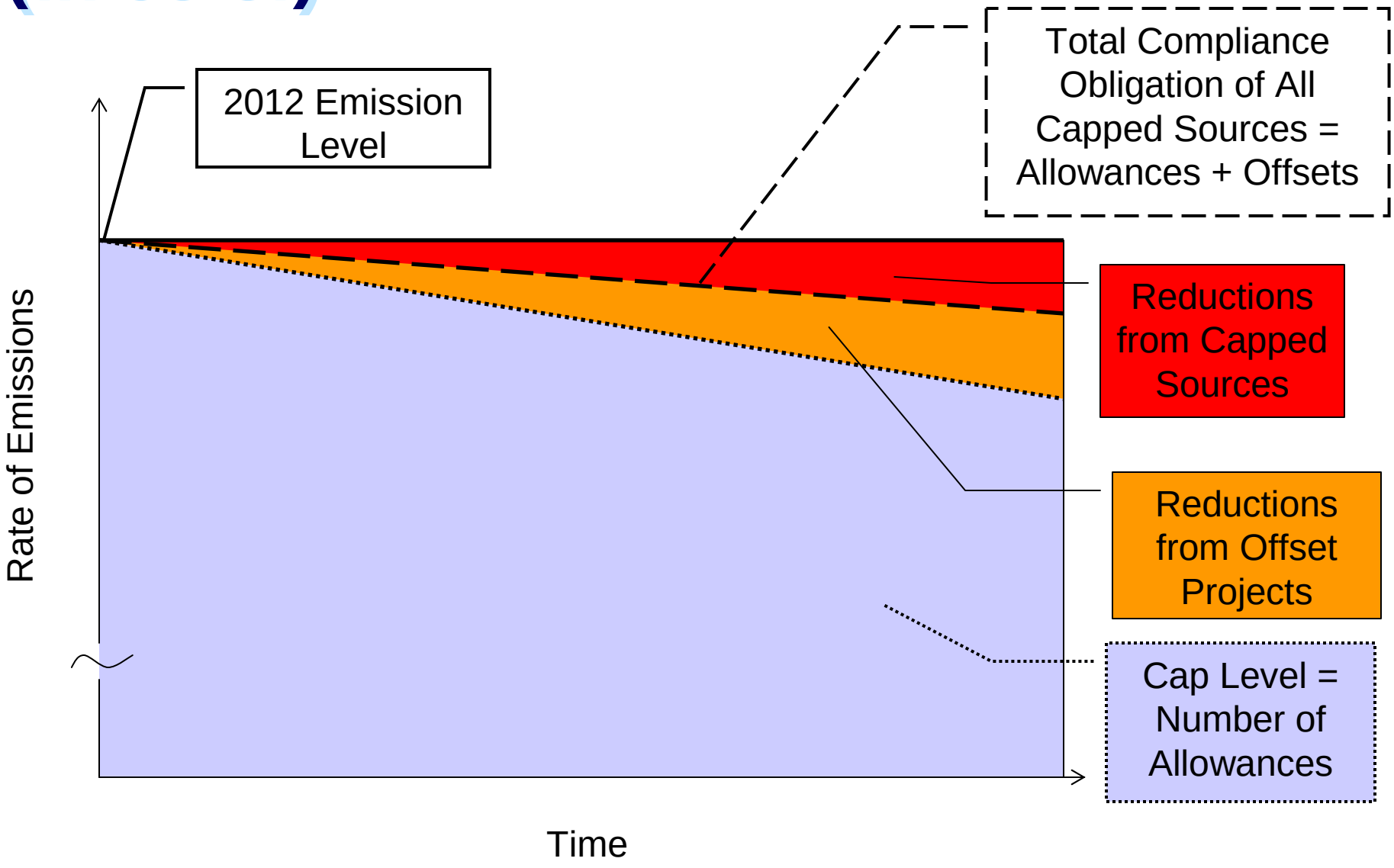
- Pros
  - Ensures emission reductions from capped entities
  - Address concerns about environmental integrity of offset credits
- Cons
  - Forgo emission reductions with lower costs
  - May discourage creation of offset projects

What does 49% of reductions mean?

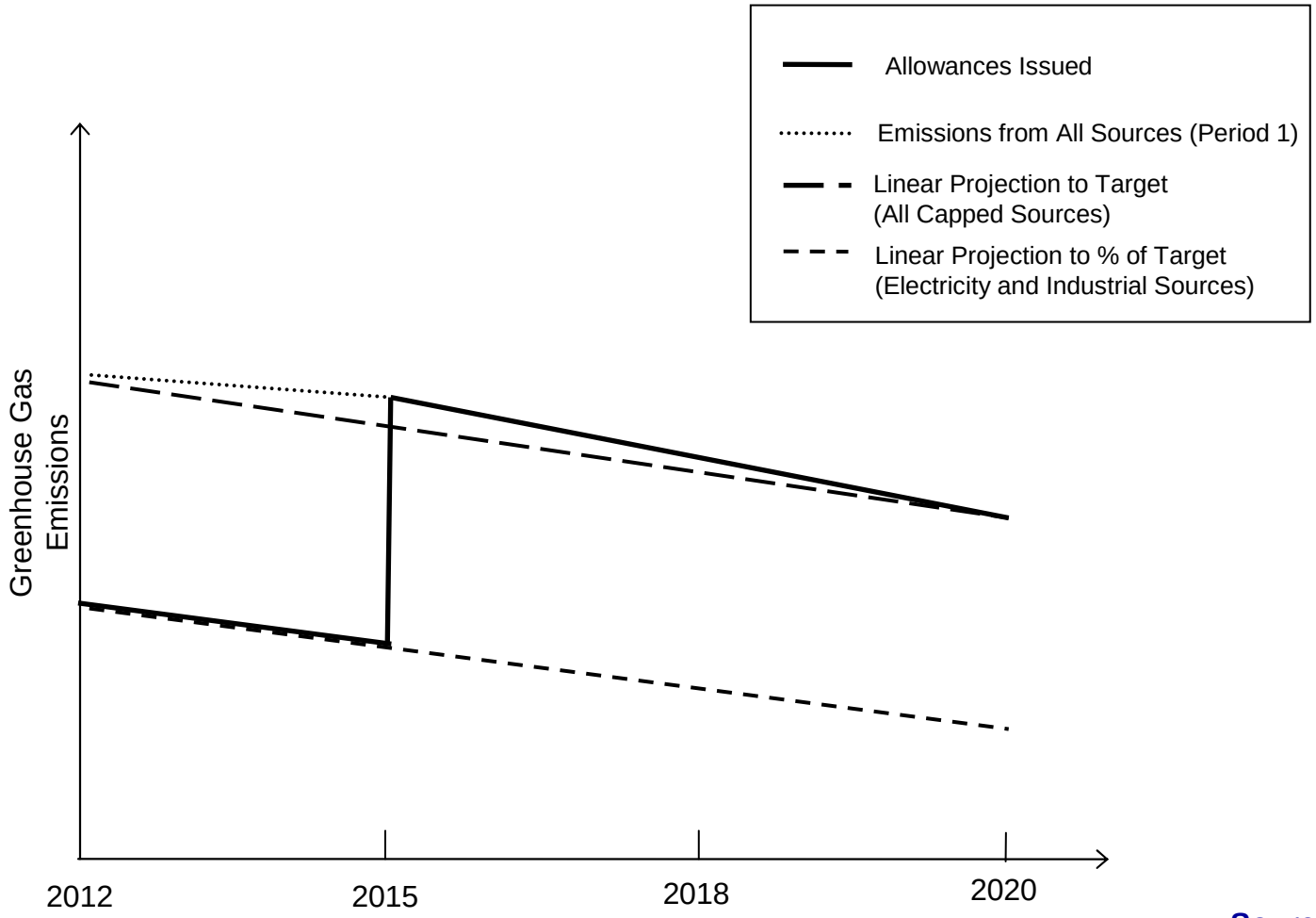


Source: Scoping Plan Appendix page C-22

What does 49% of reductions mean? (in color)

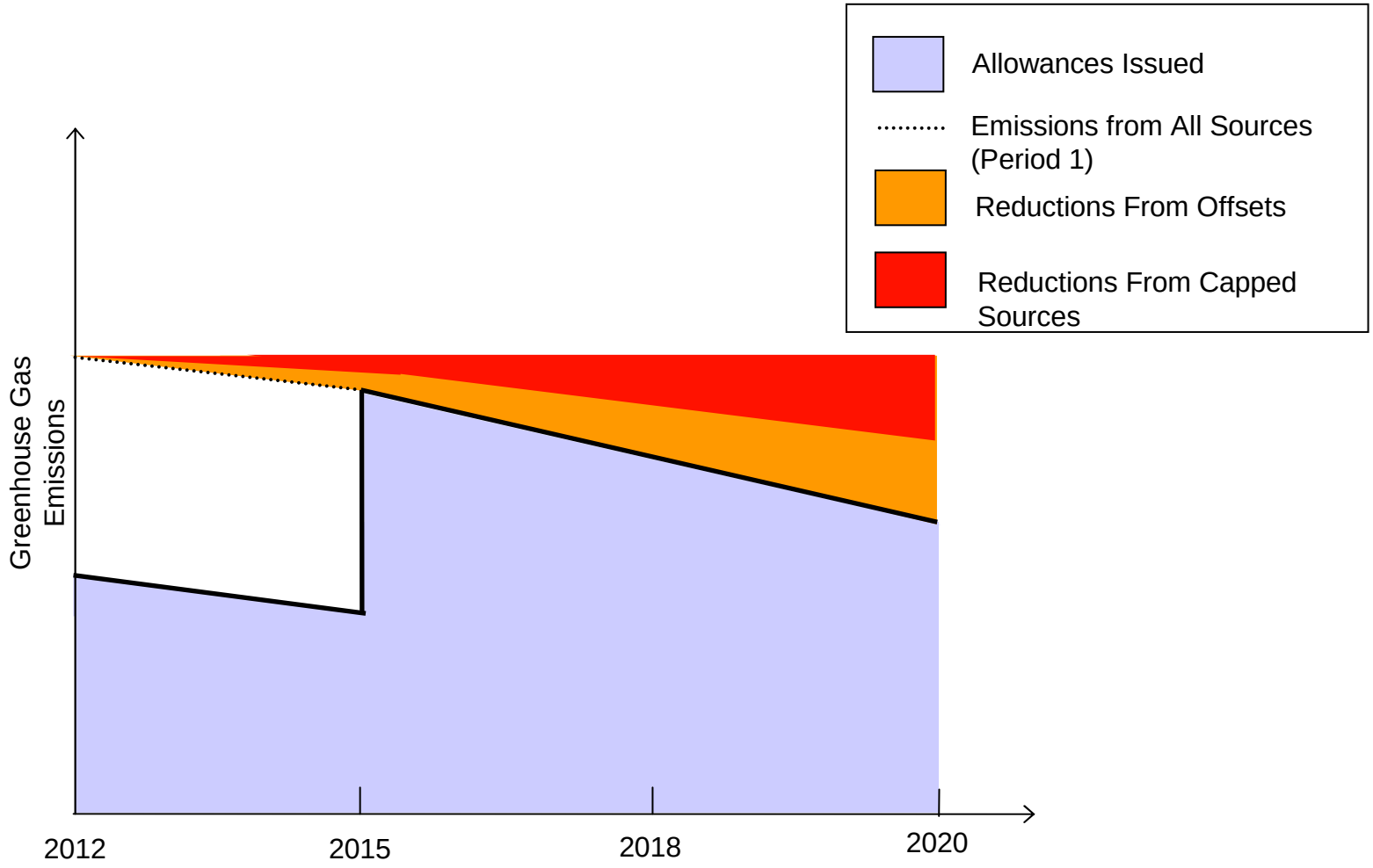


Accounting for Phase II Change in Scope

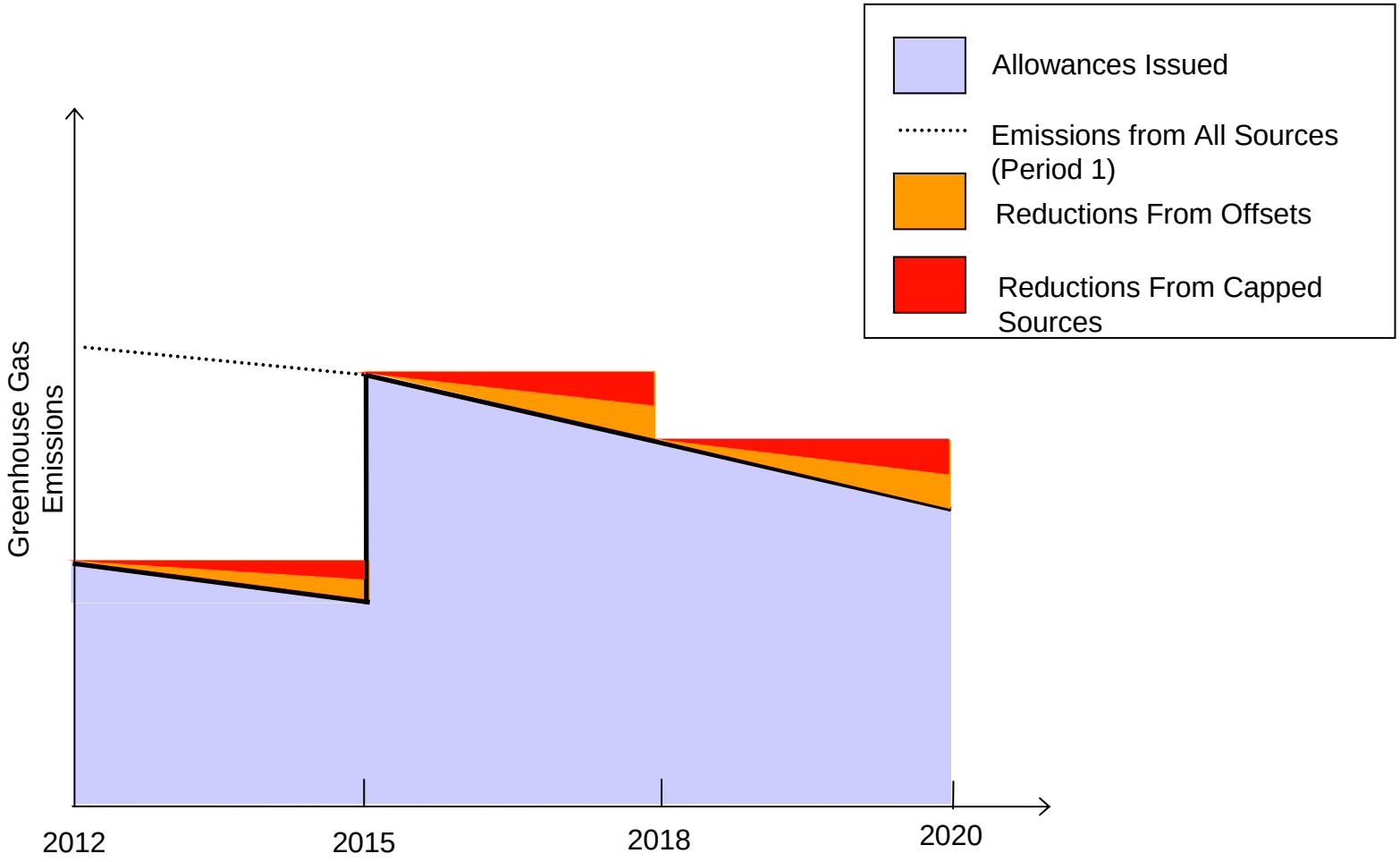


Source: Scoping Plan Appendix page C-18

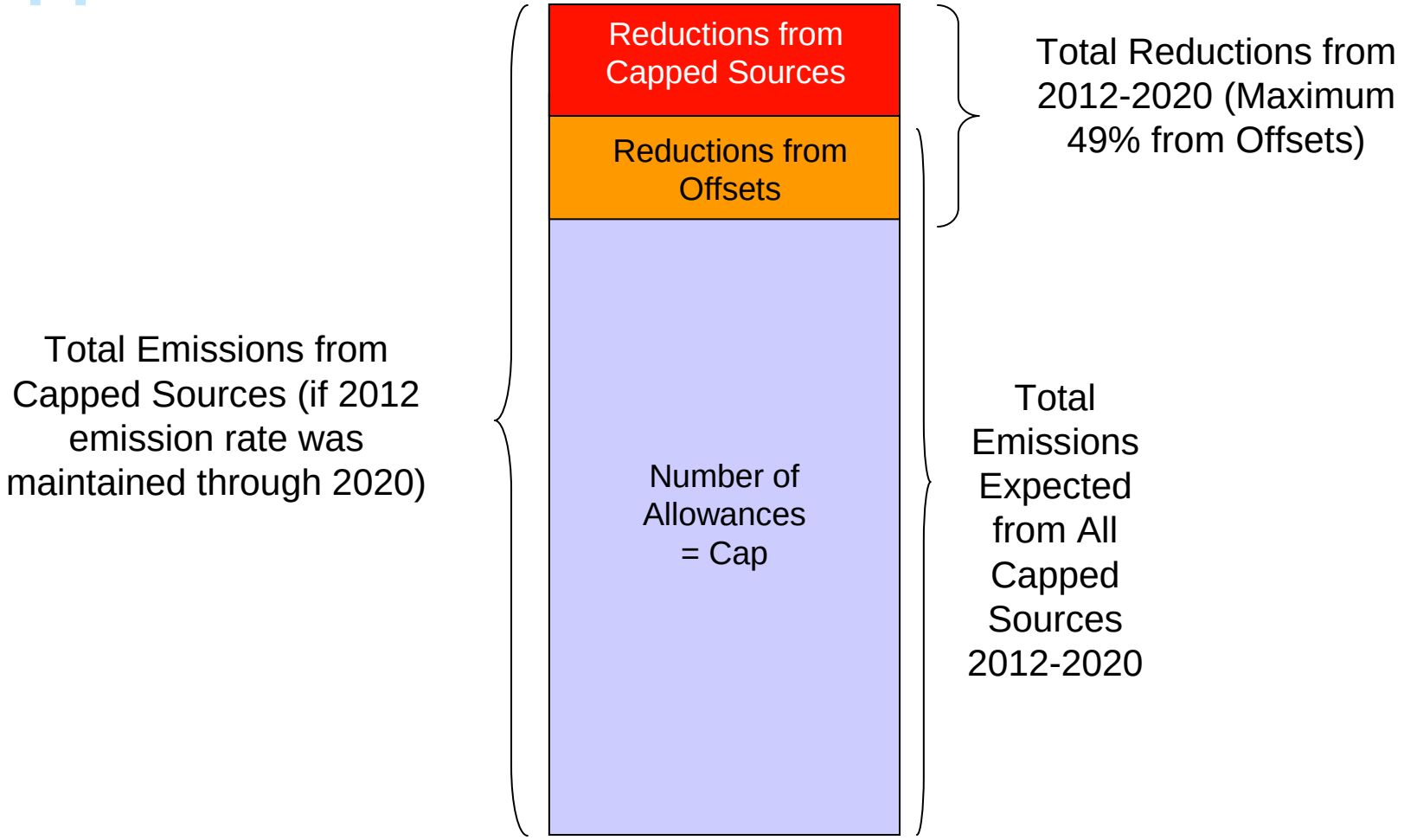
Accounting for Phase II Change in Scope (continued)



Alternate Definitions of ‘Reductions’



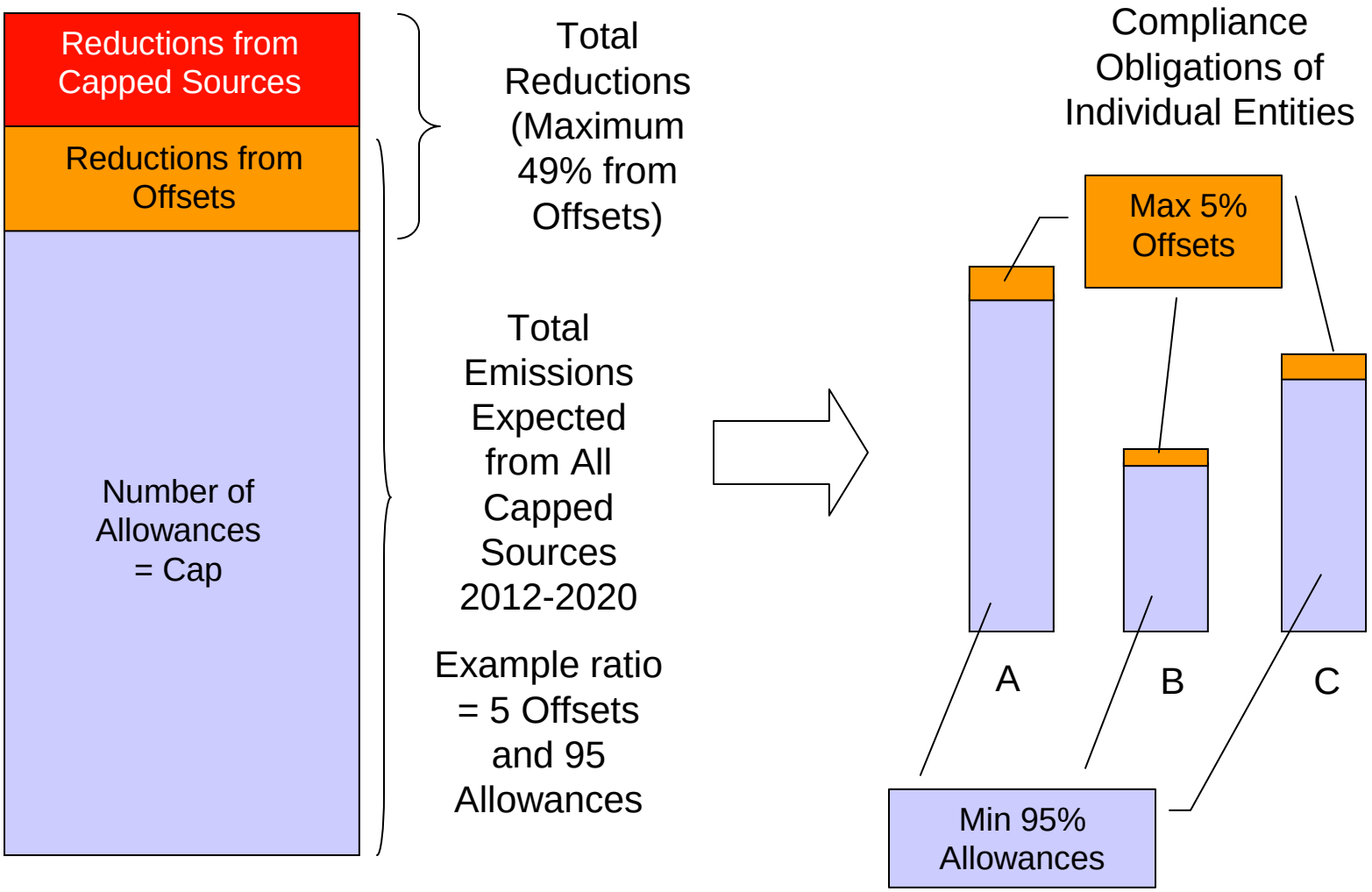
Once the Cap is Set, a Total Maximum Amount of Expected Offset Use Could be Approximated



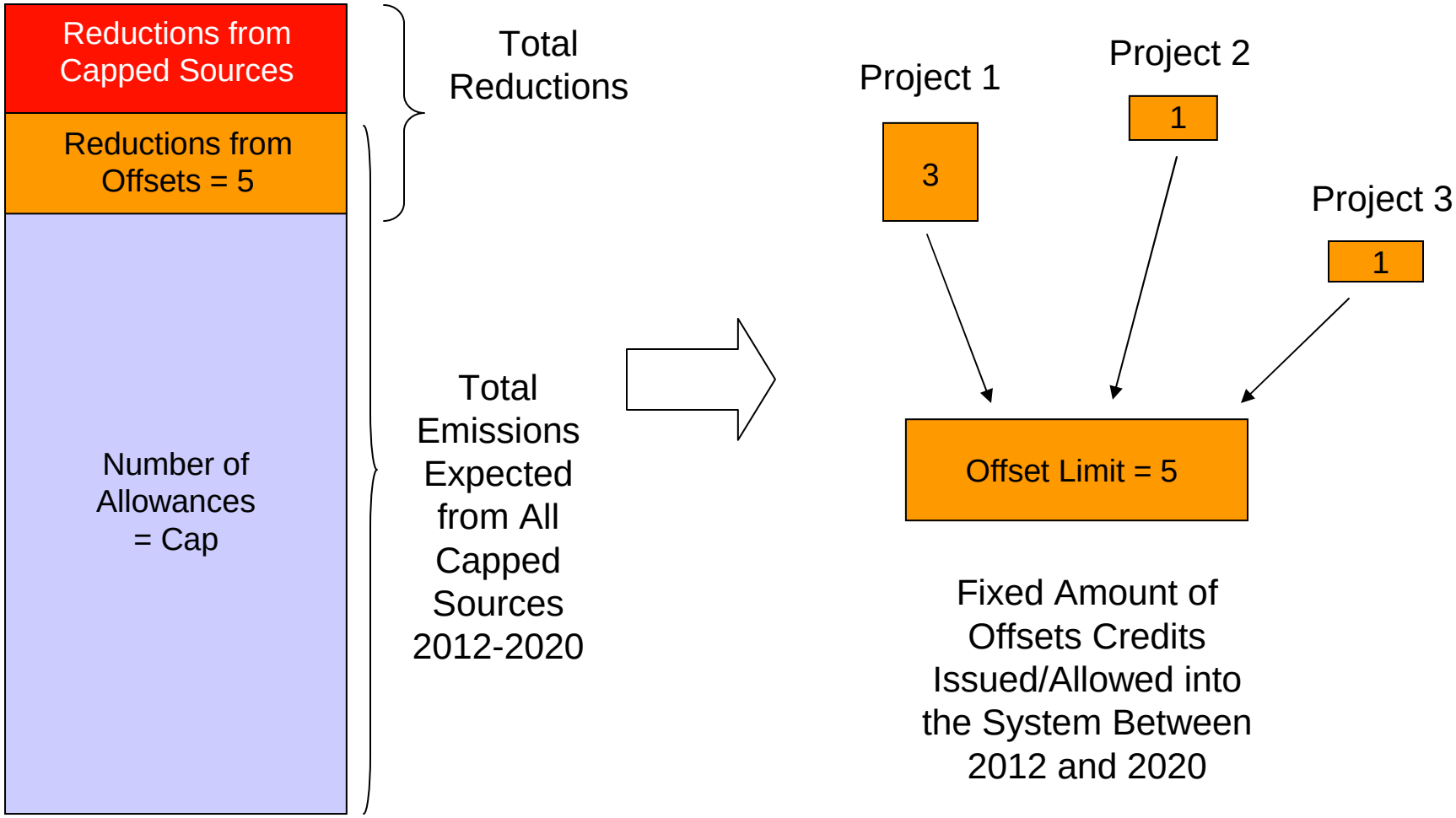
Potential Types of Offset Limit Implementation

- Usage Limits
  - Fix the amount that an individual entity can use
    - Example: each entity able to surrender allowances and offsets up to a fixed percentage of individual ‘compliance obligation’ (emissions)
- Supply Limits
  - Fix the total amount of offsets that would be accepted in the system
    - No limit placed on the amount used by an individual entity
- Hybrids of both are conceivable

‘Usage’ Limit Graphical Example



‘Supply’ Limit Graphical Example



Considerations of Offset Limit Structures

- Usage Limit:
  - Diminishes the total cost of compliance vs. a supply limit
  - Complying entities capture benefit of limit structure
- Supply Limit:
  - Increases the total compliance cost vs. a usage limit
  - Offset sellers capture benefit of limit structure
  - May create uncertainty for project developers

Source: Anger and Dixon 2009

Hybrid Limit Option

- Create a new offset license instrument
  - ‘Offset Quota Certificate’
  - Number issued is fixed = total offset limit
- Sources using offsets for compliance surrender both an offset credit and an offset quota certificate
- CA could auction offset quota certificates
  - State captures benefit of limit structure
- Proceeds of offset quota certificate auction could be used for purposes similar use of any allowance auction proceeds

How Should the Limit be Calculated and Applied Across the WCI?

- Jurisdiction Specific
  - Each jurisdiction independently estimates reductions
  - Each jurisdiction implements a limit
- WCI Wide
  - Estimate reductions using the WCI-wide cap (sum of ‘allowance budgets’)
  - Apply a uniform limit WCI-wide
- Many possible permutations with different market implications

Should the Offset Limit Change Through Time?

- Arguments for Greater Use of Offsets in Early Years
  - Reduction activities at capped sources will take time to implement
- Arguments for Increased Use of Offsets in Out Years
  - Expectation of higher carbon prices in later years
  - Potentially greater confidence in mature offset program rules

Offsets Limits in the EU ETS

- **Phase I** – unlimited use of credits from CDM but in practice not available and not needed
- **Phase II** – initial assumption: offset limit of 10% of allocated allowances
  - Each member state could argue for a higher limit
  - Some EU member states got limits up to 20%
  - Overall limit at about 13.6 % of EU wide cap
    - Potential to exceed supplementarity goal
  - Limit varies by source type in some countries
    - UK limited to 9.3% of allocation for electricity generators 8% for all other sources

Offsets Limits in the EU ETS (continued)

- **Phase III**
  - Tighten limit to ensure offset use is supplemental to domestic action
  - Reconsideration of limits on use of international credits after international agreement is achieved
  - Rules on offsets for 2013 -2020 can respond to changing circumstances
    - Intentionally avoided legislative lock-in

Offsets Limits in RGGI

- Guiding principle:
  - No more than 50% of reductions from offsets
  - 'Reductions' defined from an increasing BAU
- Principle led to an initial offset limit of 3.3 % of compliance obligation (emissions)
- Price Triggers
  - If Allowance Price > $7/short ton
    - Offset limit = 5% of compliance obligation
  - If Allowance Price > $10/short ton
    - Offset limit = 10% of compliance obligation

Questions for Discussion

- Should the limit be applied based on the use of offsets, the supply, or a hybrid of both?
  - Are there other options?
- How should the 49% limit be applied across jurisdictions in the Western Climate Initiative?
- How should the limit be divided among time (compliance) periods?
  - Is it more critical to have a greater supply of offsets early in the program or later in the program?

Potential Topics for Future Meetings on Offsets

- Essential elements system requirements for the offset program
- Eligible offset project types and protocols
  - Protocol review process
  - Requirements for linkage to other offset and GHG trading systems
  - International offsets/ International forestry offsets
- Further meetings to discuss staff thinking on implementing a quantitative limit on the use of offsets

Reminder:

Stakeholders are asked to provide written comments on this topic to ARB by April 30th (to **ccworkshops@arb.ca.gov**)

Team Leads for Cap & Trade Rulemaking

Sam Wade, Mary Jane Coombs	Cap setting and allowance distribution
Ray Olsson	Market operations and oversight
Brieanne Aguila	Offsets and cap-and-trade project manager
Claudia Orlando	Electricity
Karen Khamou	Transportation
Manpreet Mattu	Reporting Energy efficiency
Bruce Tuter, Mihoyo Fuji	Industrial sectors
Mihoyo Fuji, Claudia Orlando	Natural gas for residential and commercial
Mihoyo Fuji	Marginal abatement costs and competitiveness issues
Barbara Bamberger, Mihoyo Fuji, Jeannie Blakeslee, Judy Nottoli, Jerry Hart	Impact analyses (environmental, economic, localized, small business, public health)

For More Information…

- ARB's Cap-and-Trade Web Site
  - http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm
- To stay informed, sign up for the Cap-and-Trade listserv:
  - http://www.arb.ca.gov/listserv/listserv_ind.php?listname=captrade-ej
- Western Climate Initiative
  - http://www.westernclimateinitiative.org