Describing a Regional Emission Reduction Target

Regional Targets Advisory Committee

May 5, 2009

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SB 375 Requires ARB to Set:

'greenhouse gas emission reduction targets for the automobile and light truck sector for 2020 and 2035'

Government Code § 65080 (b)(2)(A)

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Building an Emission Reduction Target

Reduction from Current Year Conditions	or	Reduction from Future Year Conditions
Uniform Statewide	or	MPO-specific
Absolute	or	Relative

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Current Year or Future Year Comparison?

Should emission reductions be compared against current practice today or current practice projected into the future?

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Current Year Conditions

Example 1:

*By 2035, the AMBAG region shall reduce per capita emissions by 15% below **today's levels***

- Requires emission reductions achieved by 2035 to be compared to today's emissions
- Developed based on what is on the ground today in terms of transportation infrastructure, land use, etc.

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Future Year Conditions

Example 2:

*By 2035, the AMBAG region shall reduce emissions by 15% below **2035 business-as-usual levels***

- Requires emission reductions achieved by 2035 with SB 375 strategies to be compared to emissions in 2035 without SB 375 strategies
- Developed based on assumptions about what 2035 would look like without SB 375

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Uniform Statewide or MPO-Specific?

Should each MPO get the same target statewide, or should the targets vary by MPO?

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Uniform Statewide Target

Example 3:

*By 2035, **each MPO** region shall reduce emissions below today's levels by **2 MMT***

- This overlooks regional differences in at least two ways:
  - –Starting point (existing emissions)
  - –Projected growth rates

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Uniform Statewide Target

Example 4:

*By 2035, **each MPO** region shall reduce emissions below today's levels by **20%***

- Accommodates different starting points
- Current year versus future year dilemma
  - A uniform 20% reduction from today is effectively a ton target specific to each MPO

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MPO-Specific Target

Example 5:

*By 2035, the **SACOG** region shall reduce emissions below today's levels by **3 MMT;** the **Butte** region shall reduce by **0.2 MMT;** etc.*

- Provides customized targets that reflect regional differences
- Absolute versus relative dilemma
  - Setting an absolute ton target may limit or ease an MPO's ability to meet target (see next 2 slides)

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Absolute or Relative?

Should a target be expressed as an absolute reduction or a relative reduction?

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Absolute Reduction Target

Example 6:

*By 2035, the SACOG region shall reduce emissions below today's levels by **3 MMT;** the Butte region shall reduce by **0.2 MMT;** etc.*

- Provides a fixed ton reduction target for a specific year regardless of changes in key factors, like population in 2035
- May limit or ease the MPO's ability to meet the target depending on how key factors change over time

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Relative Reduction Target

Example 7:

*By 2035, the SANDAG region shall reduce emissions by **25%** below 2035 business-as-usual levels*

- Allows the actual tons reduced to adjust automatically as key factors (e.g., population projections) change over time

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If it's a Relative Target…

Should it be expressed by a per unit measurement? If so, which one:

per household?

per driver?

per capita?

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Per Household

Example 8:

*By 2035, the SACOG region shall reduce **per household** emissions by 25% below today's levels*

- Relies on readily available data
- Requires key assumptions about household characteristics that make regional comparisons difficult, such as:
  - # of households, #of people and drivers per hh
  - ages, activities, incomes, travel modes, etc.

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Per Driver

Example 9:

*By 2035, the SACOG region shall reduce **per driver** emissions by 25% below today's levels*

- Relies on data that may be available, but is not currently widely used
- Easily comparable across regions
- Ties directly to individual travel behavior

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Per Capita

Example 10:

*By 2035, the SACOG region shall reduce **per capita** emissions by 25% below today's levels*

- Relies on readily available data and a widely used unit that is comparable across regions
- Requires assumption about the ratio between drivers versus non-drivers

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Comparison of Per Unit Options

	Readily available data	Currently widely used	Comparable across regions
Per HH	Yes	Yes	Depends on assumptions
Per Driver	Yes	No	Yes
Per Capita	Yes	Yes	Yes

Note: A per unit metric creates fewest problems when combined with other choices

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So what are some choices?

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Three Key Decisions

Reduction from Current Year Conditions	or	Reduction from Future Year Conditions
Uniform Statewide	or	MPO-specific
Absolute (ton)	or	Relative (%, per unit)

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Considerations for RTAC Discussion

- Many combinations possible
- The presentation examples explore two initial staff preferences:
  - Current year conditions for comparison
  - Relative: reduction in per capita emissions

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Initial Staff Preferences

Example 11:

*By 2035, the MPO region shall reduce **per capita emissions** by X% below **today's levels***

- Per person metrics are easily understood, readily available, widely used, and generally comparable across regions
- What is on the ground today is more certain than what will be tomorrow

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Comments from April 22 meeting

- Most participants favored similar options
- Current year to provide more certainty
  - Need decision on which “current year”
- MPO-specific to address regional differences
  - Recognized uniform metric may be easier to develop
- Relative to allow flexibility
  - Need more information on per unit options
  - Concerned over AB 32 “accounting”

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Interregional Travel

How should interregional trips be accounted for?

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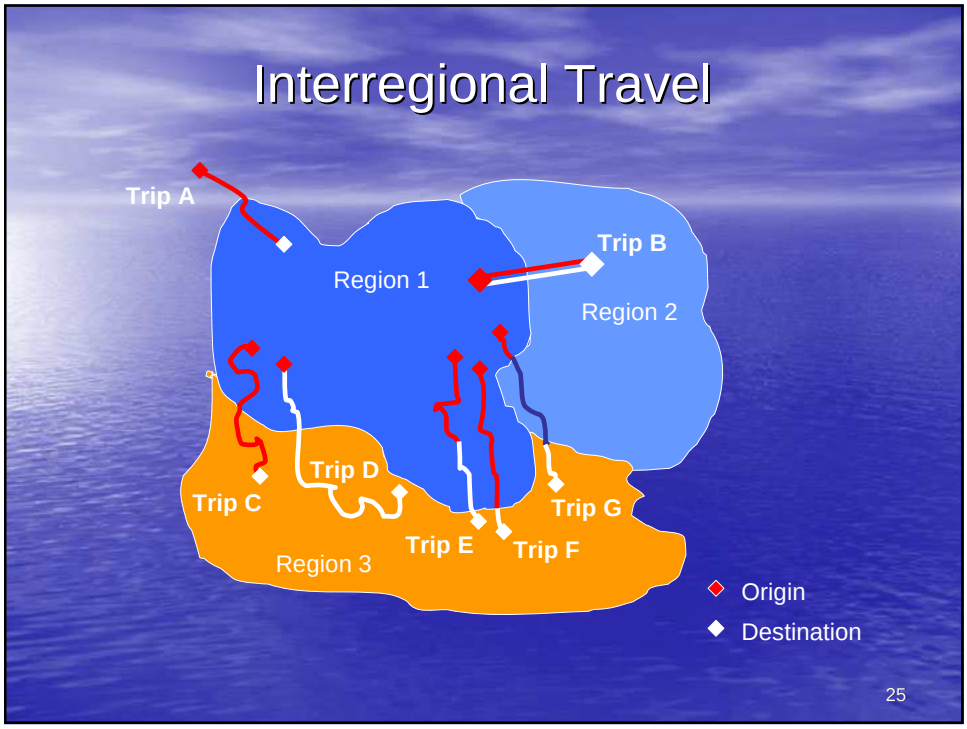
Interregional Travel
Trip A
Region 1
Trip B
Region 2
Trip C
Trip D
Trip E
Trip F
Trip G
Region 3
Origin
Destination
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