

**RTAC DISCUSSION OF POINT SYSTEM  
APPROACH TO TARGET SETTING**

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**SB 375 (Steinberg)**

**“A small step can be an important step,  
if it is the step that turns a corner.”**

**Amanda Eaken  
Natural Resources Defense Council  
September 26, 2008**

## **SB 375**

Goal = Reduction LDV GHG Emissions  
through Land-use/transportation Policies

### **Target Audiences**

- County Boards/City Councils & their Planning Commissions
- MPO Boards and Transportation Commissions
- Land Use and Transportation Professionals
- Developers/Investors
- General Public
- Others

## **SB 375**

- No change in land-use decisionmaking authority
- No penalty for non-implementation of SCS on APS

## **Methodology**

- Technically sound
- Based on existing and near-term available data
- Equitable between regions, including past progress
- Accurate to degree practicable
- Feasible to implement, including cost
- Repeatable results
- Understandable to decisionmakers
- Explainable to general public (transparent)
- CARB staff ability to determine target is met

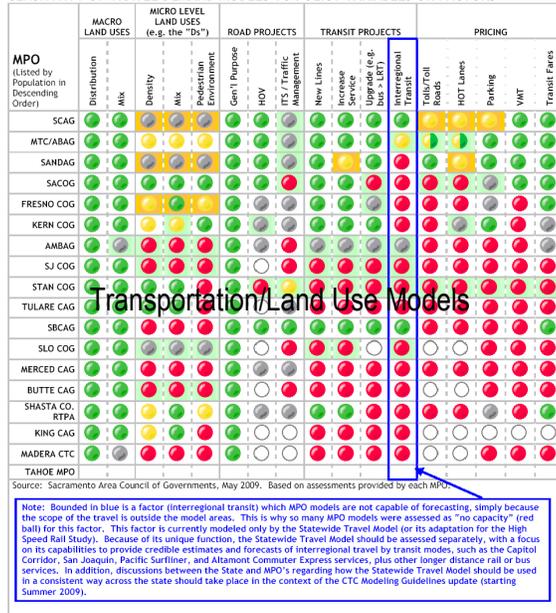
## One Path or Two?

- Modeling and Point System
  - Both imperfect
  - Both their own pros and cons
  - Both feasible
  - Both have data shortcomings

## Transportation/Land Use Models

	Capabilities	Limitations
Sketch Plan Models (INDEX, I-PLACE <sup>3</sup> S)	<ul style="list-style-type: none"> <li>• High resolution – population, density, and employment data</li> <li>• Project level analysis</li> <li>• Growth allocation accounts for accessibility</li> </ul>	<ul style="list-style-type: none"> <li>• Not designed to forecast travel as function of land-use and transportation characteristics</li> <li>• Require large amount of information – may not be available for specific area of interest</li> <li>• Not suitable for larger areas of interest</li> </ul>
4-Step Travel Demand Models (UTMS)	<ul style="list-style-type: none"> <li>• Person trip-based</li> <li>• Can have high resolution in traffic network and transit network</li> <li>• Ability to access transportation in a larger region</li> <li>• Ability to split daily and peak periods</li> </ul>	<ul style="list-style-type: none"> <li>• Land use must be manually edited to reflect changes in transportation accessibility</li> <li>• Travel decisions based on aggregated land use and average characteristics</li> <li>• Generally insensitive to non-motorized trips and urban form</li> </ul>
4D Analysis	<ul style="list-style-type: none"> <li>• Reduces vehicle trips based on local attributes</li> <li>• Elasticities may be applied from literature review</li> <li>• Applicable to areas less than 2 miles in diameter</li> </ul>	<ul style="list-style-type: none"> <li>• Lacks geographic context (infill vs. edge)</li> <li>• Does not identify shifts to bike, pedestrian, transit or other modes</li> <li>• May double count vehicle reductions when used with more sophisticated travel demand models.</li> </ul>
Next Generation Models (UrbanSim, PECAS, SACSIM, SimAGENT)	<ul style="list-style-type: none"> <li>• Transportation accessibility effects on future land use allocations</li> <li>• Ability to account for chained trips</li> <li>• Travel behavior based on individuals rather than group averages</li> </ul>	<ul style="list-style-type: none"> <li>• Require additional input data (parcel level accessibility and land-use)</li> <li>• Most regions lack necessary survey data</li> <li>• Resource intensive to run</li> <li>• Not transparent</li> </ul>

Figure 1a.  
SENSITIVITY OF TRAVEL DEMAND MODELS TO POLICY VARIABLES OR FACTORS



## Point System

	Capabilities	Limitations
Point System	<ul style="list-style-type: none"> <li>• Understandable to non-technical audiences</li> <li>• Uniform assumptions</li> <li>• Allows selection of strategy package</li> <li>• Available short-term</li> <li>• Applications easy to check and verify</li> </ul>	<ul style="list-style-type: none"> <li>• Regional variations</li> <li>• Complex interactions among land use and transportation</li> <li>• May not be as accurate as enhanced models</li> </ul>

Source: Jerry Waters  
August 2009

## **Feasibility of Point System**

- Recommendation from Jerry Walters for small MPOs lacking resources
- Recommendations from Dr. Robert Johnston
  - March 26 and July 27, 2009 Comments to RTAC
- Similar data/approach used by CARB previously
  - AB 32 Scoping Plan
  - Guidance documents for local government

## **CAPCOA RFP – Technical Analysis of GHG Mitigation Measures**

- 6 proposals received
- All proposals contained estimation/ranking approach for GHG reduction policies
- CAPCOA evaluating proposals

## Point & Methodology

- Technically sound – Yes
- Based on existing and near-term available data – Yes
- Equitable between regions, including past progress – (Yes-)
- Accurate to degree practicable – (Yes-)
- Feasible to implement, including cost – Yes
- Repeatable results – Yes
- Understandable to decisionmakers – (Yes+)
- Explainable to general public (transparent) – Yes
- CARB staff ability to determine target is met – (Yes+)

## POINT SYSTEM

- Does the “step turn the corner” in the first cycle?”
  - GHG LDV Reductions – Yes
  - Enhance land-use/transportation policy implementation – Yes
  - Advancement of scientific tools – No, unless otherwise addressed

## **SUMMARY**

- Concerns regarding both approaches
- Use of Point System feasible
- Recommend that both approaches be discussed in RTAC report (include discussion of capabilities/limitations)
- Leave open for CARB to consider in subsequent actions