



1215 K Street
Suite 1200
Sacramento, CA 95814
916/443-7933
fax 916/443-1960
www.cbia.org

2008 OFFICERS

Chairman
RAYMOND C. BECKER
DMB
El Rancho San Benito
Hollister

Vice Chairman
HORACE HOGAN II
Brehm Communities
Carlsbad

CFO/Secretary
JOHN R. YOUNG
Young Homes
Rancho Cucamonga

President & CEO
ROBERT RIVINIUS, CAE
Sacramento

MEMBER ASSOCIATIONS

Building Industry
Association of
Central California
Modesto

Building Industry
Association of the Delta
Stockton

Building Industry
Association of
Fresno/Madera Counties
Fresno

Building Industry
Association of
San Diego County
San Diego

Building Industry
Association of
Southern California
Diamond Bar

Home Builders
Association of
Central Coast
San Luis Obispo

Home Builders
Association of
Kern County
Bakersfield

Home Builders
Association of
Northern California
San Ramon

Home Builders
Association of
Tulare & Kings Counties
Visalia

North State Building
Industry Association
Sacramento

The Honorable Mary Nichols, Chair
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Subject: Supplement To November 20, 2008, CBIA Preliminary Comments On Proposed AB 32 Scoping Plan

Dear Madam Chair:

The California Building Industry Association offers the following comments and attachments as a supplement to our earlier letter of November 20.

Transparency of Data and GHG Reduction Estimates

Table 1 of Appendix C of the Proposed Scoping Plan, along with the Draft 2020 BAU Inventory, provides an understanding of how emissions are divided between and among the sectors. The information, though, is not detailed for each measure. As several measures cover multiple sectors and potentially overlap, it is difficult to discern the amount of reductions expected from specific sectors or to understand the magnitude of overlap between specific measures.

We recommend that the Proposed Scoping Plan set the stage for future refinements by providing clarity and transparency about the assumptions employed in setting sector and individual measure targets.

To this end, we request that CARB provide transparency for all GHG reduction estimates, detailing not only the referenced studies or data sources as provided for some measures, but also providing:

- Additional information and calculations detailing how specific measure reductions were derived;
- Additional information pairing reductions noted in the Proposed Scoping Plan to BAU Inventory categories to better clarify expected reductions and provide an understanding for where overlaps may occur;
- Notes showing where calculations were not performed but where best engineering/scientific knowledge may have been used while additional information/calculations are being collected and performed by CARB.

We also request that CARB provide detailed technical documentation for the 1990 baseline and the 2020 BAU inventories, detailing calculations performed and data categories utilized from referenced data sets.

For example, it is essential the Scoping Plan document the population, housing, employment, and VMT growth projections used to calculate sector targets, measure effectiveness, and cost-effectiveness.

Economic Analysis

Measures in the Scoping Plan should be included based on their cost-effectiveness relative to the universe of potential measures. This is an important factor in addition to the Scoping Plan's strategy of a "balanced and comprehensive" approach. Given the enormity of public and private investment recommended in the Scoping Plan, the public and affected sectors need to know that investments are being made strategically.

The discussion of cost-effectiveness on page 84 of the document points out that cost-effectiveness is a criterion set by AB 32, but does not provide a rank-ordered listing of measures. Table G-1- 2 in the Appendices provides part of the information but does not rank order measures in terms of their cost-effectiveness. Cost-effectiveness rankings need to be at the core of the Scoping Plan strategy and should be included in main document.

VMT and Land Use and Transportation Strategies

The Preliminary Draft Scoping Plan target for the Transportation/Land Use Sector was 2 MMMTCO₂E. This figure was predicated on 3 % per year average VMT growth through 2020, a figure we questioned in our August comment letter and for which we requested documentation. In the Proposed Scoping Plan the target has increased to 5 MMTCO₂E.

We note that the Proposed Scoping Plan no longer discusses the magnitude or role of VMT in determining the targets, even though a goal of Measure T-3 is a 4% reduction in per capita VMT growth. Consistent with our earlier recommendation in August, we request that CARB document in detail the VMT growth projections upon which Measure T-3 is based, and the amount of VMT that equates to a 4% per capita VMT reduction.

Because assumptions on VMT growth, fuel price and fleet mix affect many measures in the Proposed Scoping Plan in addition to the land use/transportation sector, it is essential that these assumptions are documented and validated before the GHG targets are set.

We are submitting, as an attachment to this letter, our white paper originally submitted with our August comment letter, providing a summary of VMT growth issues that need to be clarified and documented on page 10.

Water & Low Impact Development

Our August comment letter highlighted the disconnect between higher density, infill development and Low Impact Development (LID) requirements for less than 5% impermeable surfaces on a development site that favor more spread out development patterns. Urban infill and redevelopment sites are usually not large enough to accommodate a project while also limiting roofs, sidewalks, parking and other impermeable surfaces to less than 5% of the site. Requirements to match pre-project drainage characteristics could also limit project density and the financial viability of projects, especially affordable housing projects.

As currently written, the LID measure encourages sprawl rather than compact development and infill. In doing so, the LID measure conflicts with T-3, regional targets for transportation/land use, which seeks VMT reductions supported by higher densities and infill.

We note that this measure still lacks a cost estimate, underscoring the difficulty in gauging its usefulness as a cost-effective approach for all developments.

We recommend that the LID measure be eliminated from the Scoping Plan until such time as LID requirements are modified to support T-3's emphasis on compact development.

Green Buildings - Assumptions & Cost

At page C-141, the "Other Recommended" Green Buildings strategy includes measures aimed at state buildings, schools, new residential and commercial construction and existing buildings. The GHG emission reduction target is very large – 26 MMTCO₂E – in the context of the Scoping Plan. At this time, it is not possible to discern how much of this target was earmarked for new construction versus existing structures.

The 26 MMTYCO₂E target greatly overlaps with other energy efficiency, solar roof, solar water heating, and other measures recommended in the Scoping Plan. New construction accounts for less than 1% of the building stock each year, raising the question of what additional reductions new construction can provide through green building techniques not already addressed.

We are left with too little information about how much of the target is being assigned to new construction over and above the Recommended Measures, as opposed to the other types of buildings included in the strategy.

We also continue to be concerned about the lack of cost-effectiveness information when discussing the GHG reductions associated with green building codes. The cost of greening new residential and commercial construction is included in this strategy, and is not estimated at the present time in Table 23. Therefore, we have no way to know how cost –effective this measure is.

This missing information is important because the new 2009 energy efficiency standards will add \$2,500 to the cost of a new single family home built to the 2005 standards. Because the 2009 code is already so stringent, we anticipate that future code upgrades will more than double that additional cost.

We recommend that the discussion of the Green Buildings strategy eliminate double-counting green building GHG emission reductions achieved by recommended GHG reduction measures. The Scoping Plan must provide a clearer estimate of any additional benefits expected from new construction from this strategy, and detail the assumptions used in the calculation.

We also recommend that CARB provide greater transparency about the costs of the Green Buildings strategy. CARB should break out the costs of greening new residential construction, which we expect to exceed \$5,000 per residential unit for the next planned code update in 2011-2012, and provide separate estimates for the retrofit, state buildings, and public schools components.

Electricity & Natural Gas - Energy Efficiency and Conservation

The Scoping Plan is structured in a manner that allows only electric and natural gas utilities to receive credit for energy efficiency retrofits of existing commercial and residential buildings. This restriction is a major disincentive for other businesses to help accelerate the GHG reduction benefits of retrofits. The ability for a larger universe of businesses to earn credits for retrofits will motivate greater competition to retrofit the existing building stock, potentially leading to lower costs and quicker results.

The Proposed Scoping Plan should be revised to open up measures designed to spur energy efficiency retrofits of existing buildings to all interested businesses, including electric and natural gas utilities.

Further, the Scoping Plan does not clearly present the opportunities for energy efficiency in new residential construction. Nor does the document explore the relative costs and benefits of increasing energy efficiency further on new

development vs. the cost and benefits of retrofitting existing development to achieve the same GHG reductions.

We recommend adding relevant information to the Scoping Plan on the cost of energy efficiency beyond current code, including:

- The current (2005) CEC energy efficiency standards are approximately 30% more stringent than the national standards (International Energy Conservation Code). The next update of the CEC energy efficiency standards takes effect statewide on July 1, 2009. These new standards will be 20% more stringent than the current 2005 CEC standards. All new homes (100%) must comply with these stringent minimum state standards;
- The new CEC standards will put energy efficiency of new homes in California at a level that is 50% more stringent than the national energy standards at a cost of approximately \$2,500 per home;
- In order to reach Tier II, a new home must be 30% more stringent than the minimum state energy efficiency standards. However, the cost of compliance in many parts of California (such as inland areas of Southern California) will be substantial. The extra 30% beyond the July 2009 standards will cost another \$5,000-\$10,000 per home, for a total added cost of \$7,500 to \$12,500 per unit.

Million Solar Roofs

Like solar water heating, the eventual role that this measure plays in the Scoping Plan should depend on its cost-effectiveness relative to other measures. Targets for the Million Solar Roofs measures should be adjusted to reflect cost-effectiveness relative to other measures. The target should take into account circumstances where solar roofs are not appropriate due to unintended consequences such as glare, especially in locations with higher densities, high rise and compact development.

Solar Water Heating

The proposed solar water heating measure expands on AB 1470 goals to require 75% of new homes to be equipped with both a traditional natural gas water heater and an auxiliary solar roof unit. We request that this measure demonstrate cost-effectiveness relative to other measures in the Scoping Plan before CARB makes a decision to expand beyond the AB 1470 goal of 200,000 solar water heaters by 2017.

Other Recommended Measures

The Scoping Plan lists six "Other Recommended Measures" but does not clearly explain how they relate to the "Recommended Measures." Four of the "Other" measures significantly overlap with the "Recommended Measures," leaving unclear how many additional emission reductions are ultimately available from these measures. For example, Green Buildings is estimated to produce 26 MMTCO₂E in 2020. However, numerous green building requirements are already built into the Energy Efficiency, Regional Transportation, and Million Solar Roof measures, as acknowledged on page 58.

The "Other Recommended Measures" should consist only of emission reductions not accounted for in the "Recommended Measures." We also request that the Scoping Plan clearly state the intended use of these additional measures and under what circumstances their emission reductions would be considered further.

Thank you for the opportunity to offer these comments.

Sincerely,

A handwritten signature in black ink that reads "Richard Lyon". The signature is stylized with a large, sweeping initial "R" and a cursive "Lyon".

Richard Lyon
Senior Legislative Advocate