



**HOME BUILDERS & REMODELERS ASSOCIATION  
OF CONNECTICUT, INC.**

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*Your Home  
Is Our  
Business*

December 14, 2012

(via email to: [debra.morrell@ct.gov](mailto:debra.morrell@ct.gov))

Debra Morrell  
DEEP  
Bureau of Energy and Technology Policy  
Ten Franklin Square  
New Britain, CT 06051

Re: Comprehensive Energy Strategy

Dear Ms. Morrell,

On behalf of the residential development and construction industry in Connecticut, thank you for this opportunity to comment on the Comprehensive Energy Strategy (CES). We commend the Governor and DEEP for producing the draft CES and wholeheartedly support the goal of achieving cheaper, cleaner and more reliable energy in Connecticut. We also agree with the Governor that the choice between business and environment goals is often a false choice. These seemingly competing goals can often, although not always, be reconciled with balanced approaches and we have said so for many years in other contexts.

Yet, as is the case with many policy choices that attempt to achieve this balance, the devil is in the details and some policy choices can have consequences not yet considered. Our comments and recommendations below suggest some changes or additions to the CES in the light of achieving a better balance between energy, environmental and our business goals and policies related to housing production and economic growth. We also agree with other business leaders, such as CBIA, that the plan represents opportunities to transform the state's struggling economy. When Connecticut is able to obtain cheaper, cleaner and more reliable energy, it will greatly benefit businesses and consumers alike and will remove one of the major impediments of doing business and living in our state. Thus, a comprehensive plan that addresses our energy future is greatly welcomed.

The **HBRA of Connecticut is a professional trade association with almost 1,000 member firms** statewide, employing tens of thousands of Connecticut citizens. Our members, all small businesses, are residential and commercial builders, land developers, home improvement contractors, trade contractors, suppliers and those businesses and professionals that provide services to our diverse industry. Our members build 70% to 80% of all new homes and apartments in the state each year and are involved in countless home improvement projects. We also created the HBRAC Green Homes Council, which serves as a special educational forum for our members and others that focuses on residential green construction knowledge.

General Issues & Engaging the Residential Construction Industry by Recognizing the Value of the National Green Building Standard (NGBS) and Incentivizing Its Use

**First Recommendation:** The HBRA of CT was one of the first ten chapters, out of over 800 local and state affiliate chapters in the nation, to partner with the National Association of Home Builders in support of the National Green Building Standard (NGBS). The NGBS is still to this date the only national green building standard to obtain ANSI approval as a truly consensus-built green building standard, and is recognized in state statute, CGS, sec. 29-256a. Many states and local governments around the nation have recognized and provide incentives to use the NGBS.<sup>1</sup> The NGBS is easier to use, more cost effective and achieves equal if not better results than other residential green building rating systems. The NGBS is applicable to both new construction and remodeling of existing homes. A very effective way to engage the for-profit residential construction industry as partners in the drive toward higher energy efficiency is for the state to recognize the value, and incentivize the use, of the NGBS.

**Accordingly, our first recommendation for the plan is to incorporate a recommendation that residential contractors, both new and home improvement, and residential customers, on a voluntary basis, strongly consider adopting the 2012 NGBS (the next version) as a highly cost effective way to achieve not only energy efficiency goals but also other green building benefits. The 2012 NGBS is also designed to follow the 2012 IECC (see comments on the IECC below). We would be happy to meet with DEEP or other state officials to more fully explain the benefits and cost effectiveness of promoting the NGBS.**

**Second Recommendation:** Our members are on the front line working with their clients (home buyers and home owners) every day. **Therefore, our second recommendation regarding the plan, particularly its suggested new efficiency outreach effort (“Energize Connecticut”) is to use us as one of the primary vehicles to reach the residential marketplace. Please don’t relegate us to non-status by refusing to acknowledge us.** For example, at [http://www.ctenergyinfo.com/sub\\_category.htm?subcat=e6i420mf](http://www.ctenergyinfo.com/sub_category.htm?subcat=e6i420mf), we urge this web page to cite directly to the HBRA of CT’s green building resources and the NGBS, as follows:

- HBRA of CT’s [Build Green Connecticut](http://www.hbact.org/displaycommon.cfm?an=1&subarticlenbr=208#buildgreent) program:
- the [NGBS](http://www.nahbgreen.org/NGBS/default.aspx): (<http://www.nahbgreen.org/NGBS/default.aspx>).

**Third Recommendation:** Clearly identifying and marketing available energy efficiency incentives will help drive the market. We have opposed legislation (specifically, 2012 session, SB 450, section 6) that required new home construction contractors to inform customers “of the availability of any state or federal incentives for installing energy

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<sup>1</sup> <http://www.hbact.org/associations/5098/files/NGBS%20Incentives%20-%20by%20state%20-%20Sept%202011.pdf>

efficient options” in a new home. Our opposition to this mandate was and is based on the inability of home builders to research and identify all the varied federal, state and utility incentives. The information about energy efficiency incentives is also constantly changing. As drafted, the legislation set up unacceptable liability issues for providing false information. We offered a compromise to legislative leaders that would require DEEP to indentify all such incentives and place such list on a web page. Home builders and remodelers could then refer their clients to the DEEP web page. However, this issue was not addressed in the final energy legislation that passed. **Therefore, our third recommendation is two-fold:**

**A. Create a set of voluntary incentives to help move both contractors and residential customers toward higher energy efficiency goals and then don’t change them in order to create consistency and reliability of these programs. The incentives could include some percentage off real estate conveyance taxes, sales taxes or permit fees. They could also include expedited permit processing. The Energy Star program also suggests a number of incentives that the state could adopt as incentives to undertake efficiency improvements. Incentives should be created for not only energy efficiency improvements but also green building programs, such as LEED-H and the NGBS (see above and footnote 1).**

**B. Make the list of these incentives and any offered by the federal government, utilities or other sources, user-friendly and easily accessible in one place on the web. Forms and information on the various incentives are difficult to locate. This new single web resource should also contain information on energy efficiency financing programs contemplated by the CES as well as information on green building practices, such as those recognized in state statute, CGS sec. 29-256a (i.e., LEED and NGBS).**

Our remaining comments regarding the CES are limited at this time to the following items:

- Adoption of the 2012 IECC and a six-year building code cycle to create reasonable, measured progress toward policy goals;
- Suggestion by other stakeholders of adopting a “stretch code” or allowing municipal option adoption of building code provisions;
- Energy audits, benchmarking and home labeling issues;
- Appraisal industry issues relative to accurately appraising green buildings;
- General comments about natural gas and other energy sources; and
- Transit oriented development.

Adoption of the 2012 IECC and a Six-Year Building Code Cycle

We recognize that the 2012 IECC is the most recent published version of the IECC, and that CT statute, CGS Sec. 29-256a(a), requires the adoption of the 2012 IECC within eighteen months of its publication. We also know the state Codes & Standards

Committee is already underway reviewing the 2012 family of codes from the International Code Council (ICC), of which the 2012 IECC is just one of many codes.

While we support adoption of the 2012 family of codes, provided certain state-specific amendments are also made (as has been done with every prior model code version adopted here), our biggest concerns are with increasing the frequency (i.e., short cycle) of code adoptions in the state. We are deeply involved in the building code process, both nationally at the model code organizations and here, and offer our experience and expertise in this regard. In this light we offer the next recommendation, which is also two-fold:

**Fourth Recommendation:** **A. For all the following reasons, while we support adoption of the 2012 IECC, with appropriate state-specific amendments, the timetable of such adoption should be amended to the end of 2013 or even into 2014 if necessary to accommodate a thorough review process to be conducted by the Codes and Standards Committee. The state also needs to better understand the policy and economic ramifications of adopting the 2012 IECC. B. More importantly, we urge that the CES include a recommendation that the state move to a regular six-year code adoption cycle after the 2012 ICC family of codes is reviewed and adopted.**

#### **A. Understanding the 2012 IECC and model codes:**

We support adoption of the 2012 IECC, with appropriate amendments by the Codes & Standards Committee, but any emphasis that is placed on ramping up building codes for new construction as an effective strategy to achieve the CES goals is overblown given the diminishing returns on energy efficiency gains achieved with each new version of the IECC. In addition, we also believe many in state government not connected with building codes as well as other advocates need to better understand the building code adoption process, how and why so-called “model” codes are created, and the ramifications of adopting the 2012 IECC.

**First**, CT adopted the 2009 IECC a brief 14 months ago (effective Oct. 7, 2011). The 2009 IECC (and the equivalent energy chapter in the 2009 International Residential Code or IRC, which governs the construction of one and two-family homes) provides high energy efficiency construction practices relative to prior codes and the existing housing stock. Moving to the 2012 version of the IECC will improve efficiency by 15% over the high efficiency practices of the 2009 current code (not 30% referenced in the CES). But, the 15% improvement represents diminishing returns as the model code process moves toward zero energy consumption by 2030 (see our Fourth point in this section, next page). In terms of achieving overall energy efficiency goals for the state, the benefits gained by improving new home construction with the 2012 IECC pales relative to the much more significant efficiency gains that could be made by addressing the existing home market. The CES recognizes this and is further demonstrated below.

**Second**, amazingly the state statutory requirement that the 2012 IECC be adopted within 18 months of publication was placed into statute before the 2012 IECC was fully drafted by the International Code Council (ICC) (see PA 09-192). During the process of adopting PA 09-192, this requirement was a side bar to the main debate over the provisions contained in 29-256a(b). Frankly, there was little thought given at the time to inserting the reference to the 2012 IECC as that code had not yet been published by the ICC and legislators felt there would be time to correct it if necessary.

**Third**, while new construction is constantly being improved by new technologies, manufacturers' improvements in heating and cooling equipment, appliances, insulation, windows and exterior doors, and by the code adoption cycle itself, the model codes are not perfect. The IECC, like other model codes, are created on a frequent basis (typically a three-year cycle) because the model code organizations such as the ICC are in the business of selling code books. Nobody should be seduced into thinking the model code organizations are benevolent, objective bodies of experts. The model codes are created through as much politics and lobbying by stakeholders as is legislation. In recognition of this fact and some recent highly debated missteps by the ICC, a number of states are moving toward a six-year code cycle either formally or informally (some with even a longer code adoption cycle). CT's historically lengthy code adoption process is also a reflection of the significant review that must be undertaken of the model codes by the Codes & Standards Committee and the CT-specific amendments necessary to make them work for our state. It is prudent that we have taken our time to get our codes right, as much as it might frustrate one or another stakeholder who wants a particular provision.

Moreover, as noted earlier, the 2009 IECC was just adopted last year and building officials and contractors are still in the learning curve of the 2009 IECC. Imposing the 2012 IECC onto the industry and code officials at this time will be disruptive and confusing so appropriate educational tools need to be in place to smooth the next code transition.

**Fourth**, any increase in energy efficiency achieved through adoption of the latest IECC will have an insignificant, at best, impact on the total energy consumption and greenhouse gas emission reduction targets in the state. New residential construction today under existing codes is significantly more energy efficient than the existing housing stock. As recognized in the 2012 Integrated Resource Plan (IRP), more aggressive codes should be pursued "as appropriate." So as not to subvert the ongoing process of reviewing the 2012 family of ICC codes, it may be appropriate to proceed with a deliberate 2012 IECC adoption process, but a timeline for final adoption by the summer of 2013 does not accommodate the very thorough review and amendment process required to fix real issues that exist with the "model" codes. We also strongly assert that it's not appropriate to go through this process every three years.

As the CES recognizes, all residential uses in the state amount to 33% of the state's entire energy use and 21% of GHG emissions. **Energy consumption in homes has steadily and significantly been decreasing over time.** The average energy consumption per

home (in California where this study was conducted) has steadily decreased with each decade:

- Homes built in the 1970s had an average energy consumption of over 160 kBTU/sqft-year, while
- the average for all homes built in the 1980s was 80 kBTU/sqft-year,
- in the 1990s was just over 60 kBTU/sqft-year, and
- the 2000s has been 40 kBTU/sqft-year.

Since CT has ranked high in ACEEE (American Council for an Energy-Efficient Economy) rankings (#6 in the nation under the 2012 ranking, improving from #8 in the 2011 ranking that is noted in the CES), similar reductions by decade can be assumed for CT's housing stock.

All housing built between 1991 and 2001 contributed 2.5% of the total fossil fuel consumption in the nation. **Energy consumption by new housing that will be built under the 2009 IECC is, of course, unknown but it will clearly be improved over the housing built in the 2000s and will be much less than the 2.5% of all fossil fuel consumption experienced by housing built between 1991 and 2001.** The CES recognizes that residential construction activity will be depressed for some time to come and our recent historical and projected permit activity bears this out. **Thus, the reduction to total energy consumption in the state that could occur from new home construction under the 2012 IECC versus what will occur under the existing 2009 IECC over the course of a non-accelerated (i.e., six-year or longer) CT code adoption cycle is negligible.** Moreover, the effects of occupant behavior on energy consumption are significant regardless of the statutory or building code requirement or energy score a particular home achieves, which could defeat any of the already negligible gains in energy efficiency to be achieved by upgrading codes on a frequent basis.

**Fifth**, the state needs to understand the policy and economic ramifications of imposing the costs of new codes on new home construction buyers. While adoption of the 2012 IECC will incrementally move us toward that future zero energy home, it will also further erode our ability to recover the current depressed CT new housing market due to its significant increased construction costs over what is required under the current 2009 IECC. These additional costs amount to, on average, \$4,653 in incremental costs per home in climate zone 5 according to one study.<sup>2</sup> We understand PA 07-242 calls for the implementation of “all cost-effective energy efficiency” but we did not find in statute or the CES how “cost-effectiveness” is measured. We submit that these additional costs on the new housing sector in this economic environment are not “cost effective” even if the policy objectives are deemed to outweigh their cost ineffectiveness.

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<sup>2</sup> 2012 IECC Cost Effectiveness Analysis, NAHB Research Center (May 24, 2012); [http://www.hbact.org/associations/5098/files/2012\\_IECC\\_Cost\\_Effectiveness\\_Analysis\\_Final\\_2012-05-24\\_LOCKED.PDF](http://www.hbact.org/associations/5098/files/2012_IECC_Cost_Effectiveness_Analysis_Final_2012-05-24_LOCKED.PDF); the \$4,653 additional cost is based on a typical 2,500 sq. ft. home.

The CES, at fn 19, recognizes the “policy dilemma” of reconciling energy efficiency goals with the “broader public policy supporting historic preservation” and we assert there is as important – if not more important – policy dilemma in reconciling energy efficiency needs with the need to restore new home construction to support our overall economy.

**The recovery of our housing markets is critical to the recovery of our overall economy.** The Governor and many other policy makers and advocates have recognized this basic economic fact. The Dept. of Economic & Community Development has cited statistics we commissioned from a national housing expert in early 2012 that in CT, the construction of 100 homes creates 334 new jobs, \$29.5 million in wages, and \$5.5 million in real estate taxes, fees and charges – all paid to state and local government in the first year alone. One hundred multifamily units create 165 jobs, \$14.5 million in wages and \$2.9 million in taxes and fees in the first year alone. In the second and subsequent years, on average each 100 housing units (both SF and MF) produce another 52 jobs, \$4.3 million in wages and \$1.4 million in taxes and fees for state and local government due to the economic activity of occupants. **Housing is clearly an economic engine that the overall economy needs in order to grow and prosper.**<sup>3</sup> Without restoring our economy, the state will have fewer resources available to funnel into incentive programs, tax credits and financing systems that support greater energy efficiency. Thus, this policy dilemma connected with adoption of the 2012 IECC should also be noted in the CES.

#### **B. A Six-Year Code Cycle Will Save the State and Municipalities Real Money and Provide More Certainty to the Residential Construction Industry:**

Constant building code changes through a short three-year adoption cycle that matches the model code organizations’ book publication schedules (and business plans) are expensive for state government due to the lengthy regulatory process, for municipal governments which are charged with enforcing the building code and which must train their building officials, and for the entire design and construction industry which must learn and adjust to frequently changing codes.

The state and municipalities could save money by moving to a six-year code adoption cycle after the 2012 ICC family of codes is completed. The regulatory process of building code adoption is time consuming and expensive for the state as well as for stakeholders. While model codes are generally produced on a three-year cycle, the state could save half its regulatory and training development costs by moving to a six-year cycle (i.e., reviewing and adopting every other model code version; skipping review of interim versions). This would not preclude the state from amending the State Building Code in the interim if a significant issue arose that warranted such an amendment, but would avoid a review of the entire family of model codes produced every three years.

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<sup>3</sup> For more on how “Homes Do Pay For Themselves” go to [www.hbact.org](http://www.hbact.org) and click on “Housing & Economic Development” under the Knowledge Center menu.

Municipalities would also save money with a six-year cycle because they have to train building officials on each adopted code version, as well as buy the books and training materials. They are still far behind in their training of building officials on the 2009 IECC, 14 months after its adoption. Once the 2012 code process is complete, a six-year cycle would be more reasonable and create more certainty among both code officials and the industry. The entire design and construction industry would also experience less disruption and less costs with less frequent changes to construction requirements.

The ICC will no doubt object to a six-year adoption cycle for obvious reasons. Some organizations who structure their revenue-producing training classes on the model codes, versus on the code that is the law of the state, will also object (but they should be training on CT law, not what ICC or other model code group produces). Advocates who are successful in lobbying the model code organizations and who obtain their provisions in the model codes may also object. However, we assert that the interests of Connecticut, municipalities and the state's design and construction industry should override these objections.

#### Stretch Code, or Municipal Option for Code Adoption

**Fifth Recommendation:** We strongly recommend that a “stretch code” or local variance for construction requirements **not** be allowed. We understand the idea of adopting a “stretch code” per the Massachusetts program or allowing municipalities to go beyond the statewide building code at their option are not currently in the draft CES. However, these ideas were presented to DEEP at the Technical meeting held on November 27, 2012, by another stakeholder and we strongly oppose including these ideas in the plan.

One of the few strengths of CT's regulatory system is that we have had a statewide building code since 1970 that cannot be varied by municipalities. It is not a minimum code beyond which municipalities may require more stringent construction. This statewide code provides consistency and certainty to everyone involved in the construction of buildings, including homes. Building officials, architects, engineers, licensed trades, general and subcontractors all play by the same rules in each of our 169 municipalities, at least when it concerns building codes. If you allow municipalities to start varying our statewide code, you will establish a precedent that will destroy this consistency and certainty.

Our objections are mirrored by the Energy Star program. See from the Energy Star web site (emphasis added):

#### “An Above-Code Program

Note that, while there are great benefits in sponsoring an ENERGY STAR for New Homes program in your area, ENERGY STAR is an above-code program and is not meant to be adopted as a local code by cities or municipalities. If you're interested in promoting energy efficient buildings through the implementation of advanced codes, consider adopting the [2009 ICC International Energy](#)

[Conservation Code® \(IECC\)](#), [which CT has done] including blower door and duct blaster diagnostic tests as part of your local building inspection process, and fully enforcing existing energy codes. View a [list of ideas on how local governments can make the most of ENERGY STAR as an above-code option](#).

(71KB)<sup>4</sup>

#### Energy audits, benchmarking and home labeling issues

**Sixth Recommendation: We support a uniform and voluntary home energy labeling format, but only if one can be achieved affordably, without disrupting real estate transfers in the existing home market and such a system can be credibly used to compare existing homes with newly built homes.**

Energy efficiency improvements are constantly marching forward through education, engaging the marketplace and the continual advancement of technology, products and building construction techniques. Voluntary market acceptance, where people make decisions in their own self-interest, will advance the cause of achieving higher energy efficiency goals more effectively than statutory or regulatory mandates. Thus, having a uniform and consistent way to compare home purchases, relative to energy efficiency, is an important component to providing consumers what they need to make informed decisions.

The Home Energy Score and its scoring tool presented at the Dec. 7 DEEP meeting on Weatherization Standard for Single Family Homes is a good start. It opens the door, so to speak, for many retrofit options and should lead to better options to finance energy efficiency upgrades, more rebates or other incentives for home owners, as well as informing appraisers about the value of energy efficiency options (see more on appraisals below). However, HERS scores (Home Energy Rating System) are the standard system by which many new homes are assessed and are necessary for many of the tax credit programs. HERS assessments, the market rate for which can cost between \$700 and \$1,200 per home, are far different than DOE's Home Energy Score, which costs much less. We urge DEEP to work with us to come up with a credible scoring tool that can reasonably and affordably compare existing homes to newly constructed homes so that consumers have access to the best comparability data available when making decisions about either home purchases or efficiency upgrades.

Regarding the voluntary approach to home ratings and labeling, we understand the CES does not mandate that an assessment be done (be it HERS, Home Energy Score, or some other tool). **However, just as with the local code adoption issue, some stakeholders have proposed mandatory energy use assessments at the time of real estate transfer (see 2011, HB 6544; 2012, HB 5385) and we urge the state to not recommend that path at this time. We need to see how the voluntary approach works over time to better inform housing consumers.**

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<sup>4</sup> [http://www.energystar.gov/index.cfm?c=bldrs\\_lenders\\_raters.nh\\_local\\_government](http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_local_government)

We also do not support requiring landlords to disclose energy consumption of their units because energy consumption is far different than energy efficiency. The significant variable of occupant behavior greatly affects energy consumption but should have no effect on the energy efficiency score of a building or a unit. Disclosure of unit utility bills reflects energy consumption, not efficiency, and therefore does not address a renter's need for better information about the energy efficiency of a unit.

**In addition, we renew our statement, made at the November 27 technical meeting, that the time of a real estate transfer is the wrong time to pursue mandatory energy efficiency information.**

Any suggestion that adding only a \$75 energy audit to a real estate transaction will not disrupt sales does not reflect market realities. A \$75 audit cost will not be the only addition to a home real estate transaction. Each of these energy audits usually produces \$500 to \$1,000 worth of recommended "fixes" to a home. It's these higher amounts that will be added to the transaction as they will introduce a new cost to be negotiated out of a seller by a buyer. And, in today's buyers' market, it will be borne by the seller in almost every transfer or the transaction will fall apart.

Any new "energy audit" requirement would be in addition to, and will work exactly like, a regular home inspection that is done by buyers of homes. Practically every purchase and sale contract has a home inspection condition, and they usually produce a report that introduces new costs to be negotiated out of the seller as a condition to close. That's how real estate markets work. In addition, a mandated energy assessment for an existing home will likely trigger existing home sale contingency clauses that are in new home sale contracts if the requirement prevents an existing home transfer. Home builders will, then, lose buyers of their new homes, and builders will then incur increased carrying costs and interest charges. So, the downstream consequences of mandating energy assessments for existing home transactions will not only hurt existing home sellers but also the sales of much higher energy efficient new homes.

And, the bottom line is, some sellers may hire contractors to include recommended efficiency upgrades to stand out from other homes on the market, many others will be forced to credit buyers the additional \$500 to \$1,000 at closing (if they can), many buyers may demand the credit versus having the seller do the work, and there is no guarantee that buyers will actually implement the recommended energy efficiency changes after purchase. Therefore, using the real estate transfer as a trigger point will have succeeded in imposing substantial new costs on home sales without achieving the desired efficiency improvements in many cases.

Thus, any such efficiency rating should be done only voluntarily by home owners. The better way to engage the marketplace is to incentive home owners to upgrade their homes prior to entering the sales market. They will not only enjoy the benefits of improved

efficiency and comfort, they can then voluntarily “label” their home as energy efficient as their own market situation informs them.

Finally, while we support a uniform and consistent home energy labeling format, if one can be achieved affordably and without disrupting real estate transfers, labeling a home with an energy efficiency rating is nothing like labeling an auto with a mpg rating as has been suggested by some. Every car we drive has not been tested to determine its mpg rating. Rather, auto manufacturers test a very limited sample of a model and slap the entire line with a mpg rating. But for homes, each individual “product” (i.e., home) has to be evaluated. Every home is unique, even within certain “models” of homes because of customization desired by buyers. The cost of testing and achieving a certain mpg for autos is spread out over hundreds of thousands, if not millions, of individual vehicles. The cost for testing and rating a home is unique and specific to each home. The cost of rating a home is borne solely by that home owner, or in the context of a real estate transfer by the party who is in the weaker negotiating position. The comparison to auto mpg is silly.

For newly constructed homes, the 2009 IECC (current law) already requires a label on the electrical panel that lists the R-value of insulation in all components, U-value of windows, efficiency of heating, cooling and hot water equipment, etc. However, in order to compare apples to apples, both new and existing homes should follow the same labeling protocol to avoid duplication and confusion. This provision in the IECC may need to be amended to ensure labeling consistency with any additional voluntary labeling system contemplated by the CES.

Appraisal industry issues relative to accurately appraising green buildings.

**Seventh Recommendation:** We recommend that the plan also include an effort to bring together the appropriate stakeholders (builders, appraisers, real estate professionals and lenders) to address green building appraisal practices. As we mentioned at the Technical meeting held on November 27, 2012, few appraisers understand the benefits of green building and energy efficient construction practices and most, therefore, do not value them appropriately. Therefore, neither new home builders nor customers gain the benefit of higher valuations. Lenders, which are directly tied to such appraisals, then are not inclined to provide any additional financing for such improvements.

If the appraisal industry did value such improvements appropriately, it would be a huge financial incentive for builders, remodelers and home owners to pursue more efficiency upgrades. Improving the appraisal industry’s understanding of green building and energy efficiency practices, and getting their appraisals to account for the higher values produced by such practices, must be addressed. Capturing the self-interested motivations of people in the marketplace, including builders, remodelers and our customers, which accurate appraisals can crystallize, will much more effectively produce energy efficiency improvements than regulatory structures such as building codes or other mandates.

In recognition of the importance of appraisals in pursuing energy efficiency goals, Colorado Gov. John Hickenlooper recently signed a memorandum of understanding with the Appraisal Institute that addresses the need for better data in valuing homes with green and energy-efficient features. We urge Governor Malloy and DEEP to pursue the same goal of utilizing appraisals as a critical component of using the marketplace to drive energy efficiency improvements.

### Alternative Energy Sources

**In addition to our comments on the energy efficiency strategies in the plan, we add a caution about having the state invest too heavily in one or another energy source.** We support the goal of offering to businesses and consumers greater marketplace energy source choices. But, there are many unanswered questions, particularly concerning energy markets and technology developments, that counsel against making a significant state expenditure in creating a specific energy source future. For example:

- How long will natural gas be less expensive than oil?
- What geopolitical events will occur that will change the dynamics of oil and natural gas supply and demand, and in what direction?
- Oil, a global commodity, is sold at a global price, whereas there are evolving limits on natural gas' current fragmented supplies. Will trade barriers to liquefied natural gas (LNG) exports change such that world demand for our LNG results in upward price pressures that make natural gas not as favorable, relative to oil, as exists today? The question really is not if that will happen, but when.
- Will technology and safety advances get to the point where distributing LNG or compressed natural gas (CNG) via truck delivery to home tanks becomes feasible and affordable, as is currently done with propane?
- Will fuel cell, geothermal, solar, wind or other technologies advance to the point of surpassing all fossil fuels in terms of viably providing for our heating, cooling and electricity needs, obviating the need for major state infrastructure or utility investments?
- Will there be changes in electricity generation and distribution that drastically reduce electric rates such that electric heating becomes competitive with other sources of heat?
- What are the competitive advantages and disadvantages between natural gas and propane, and how will those change over time?
- **And of direct import to the residential development industry, if the focus is to remain on expanding the reach of natural gas, will natural gas utilities and their regulators change their practices in dealing with the new home development industry in a way that stops driving our industry away from natural gas and toward alternative fuels, such as propane?** For example, issues with contract required absorption rates and onerous fees imposed on new developments by natural gas utilities could subvert the plan's goal of expanding

natural gas. Today, some home builders have sworn off natural gas, even when it's available, and choose alternative fuels for their customers due to these concerns.

One thing is certain - the pace of technology changes generally outstrips our ability to accurately predict the future. So, our position is, and we believe the state's position should be, to let the marketplace, with appropriate and affordable incentives geared toward reasonable goals, determine outcomes. The state's regulatory, tax and fiscal policies should facilitate and unleash the marketplace to achieve as many options as are possible for our businesses and residents but without assuming winners today will be the preferred choice tomorrow.

#### Transportation & TOD

We reserve comments on transportation segments of the CES, and particularly issues dealing with smart growth, the state Plan of Conservation & Development, and transit oriented developments (TOD). We have extensively participated in TOD and other smart growth, responsible growth and balanced growth discussions in many contexts, in many venues and over an extended period of time. We stand ready to participate in any further discussions on these matters as legislative, regulatory and policy proposals are made. In short, while there is an underserved market for TOD that we should strive to fulfill, it is not the panacea that some think or hope will solve our housing, economic development, transportation, land use and energy issues.

Again, we welcome the initiation of a comprehensive energy strategy for Connecticut and look forward to working with DEEP and other stakeholders to fulfill the goal of achieving a cheaper, cleaner and more reliable energy future.

Thank you again for this opportunity to comment on the draft CES.

Sincerely,

*Bill Ethier*

William H. Ethier, CAE  
Chief Executive Officer