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April 20, 2015

**RE: BTEC Statement on the 2015 National Green Building Standard™**

The Biomass Thermal Energy Council (BTEC) appreciates the opportunity to share our perspective on the 2015 Green Building Standard™ and its treatment of residential renewable thermal energy.

BTEC is an association of biomass fuel producers, forest landowners, appliance manufacturers, combined heat and power project developers, thermal energy utilities, district energy system operators, supply chain companies, universities, agencies, and non-profit organizations. Collectively, our diverse membership of businesses and organizations views biomass thermal energy as a proven, renewable, responsible, clean and energy-efficient pathway to meeting America's energy needs.

Thermal energy, or heat delivered in the form of energy, is derived from many sources; within the renewable energy portfolio, these sources are biomass, solar and geothermal. Thermal energy accounts for as much as 40% of the U.S. total energy consumption; the total surpasses this figure in several regions of the country.<sup>i</sup>

Biomass thermal energy investments provide immediate value for homeowners, industries, businesses, and communities. Examples of biomass thermal projects and technologies include heating of homes, businesses, schools, hospitals, commercial and industrial buildings; district heating of campuses; densely developed commercial and industrial parks; neighborhoods and city centers; domestic hot water for large consumers such as laundries; industrial process heat for companies in food processing, metallurgy, and pharmaceuticals; and combined heat and power projects that produce both heat and electricity for consumers. In recent years, several states have recognized the widespread benefits of conversion from high-cost heating oil appliances to biomass, not only in terms of job creation but also in terms of lowering consumer costs and reducing pollution. For example, both Maine, through Efficiency Maine's Home Energy Savings Program, and Massachusetts, through its Commonwealth Woodstove Change-Out, have launched rebate programs<sup>ii</sup> to reduce high home fuel costs through promoting the installation of advanced and efficient biomass heating systems.

The proposed NGBS standards feature inconsistencies with regards to renewable heating sources. These standard mismatches limit builders' and homeowners' options and flexibility unnecessarily towards designing energy and resource efficient residences. In fact, the NGBS promotes renewable heating practices that—on first appearance—run counter to the certification's purpose in encouraging sustainability and energy efficiency practices for new and renovated homes.

The following two inconsistencies on renewable home heating sources dilute the NGBS standards and provide unclear guidance to professionals and owners who depend on them to reduce environmental impacts and promote renewable energy sources:

- Chapter 9, Indoor Environmental Quality, Section 901.2.1, awards various point totals for code-compliant wood-burning stoves and heaters, whereas section 901.2.2 awards the highest total, **seven points** for non-installation of woodstoves, pellet stoves and masonry heaters. These adjoining sections, taken together, provide unclear guidance on installing clean, highly efficient wood-burning technologies. In fact, several wood-burning appliances achieve the highest efficiencies available for renewable heating. Furthermore, maintaining different point classes for installation and non-installation make no sense when taking in consideration widely-available, clean, wood-burning technologies that meet NGBS principles.
- Chapter 11, Remodeling, Section 11.901.2.2 repeats this inconsistency in providing the highest number of points, **seven points**, for the non-installation of woodstoves, pellet stoves and masonry heaters. As noted for 901.2.1 and 901.2.2, these adjoining sections, taken together, provide unclear guidance on installing clean, highly efficient wood-burning technologies. As mentioned before, many wood-burning appliances achieve the highest efficiencies available for renewable heating. Furthermore, maintaining different point classes for installation and non-installation make no sense when taking in consideration widely-available, clean, wood-burning technologies that meet NGBS principles.

Should the NGBS purport to promote renewable energy sources, it should consider awarding its *highest level of credit towards the use of renewable heating technologies*. For this reason, BTEC proposes eliminating the point total for non-installation for both chapters. There is no need to exclude a class of technologies with high resource efficiency or to discourage adoption of safe, renewable biomass heating systems, including pellet stoves and boilers. The optimal standard should incentivize renewable technology adoption without encouraging non-installation or suggesting unclear or even counter-productive guidance.

As stated previously, the deployment of biomass thermal energy, rather than restriction, fulfills the same objectives of the NGBS standards in terms of:

- Increasing resource and energy efficiency
- Reducing fossil-fuel based energy through the deployment of renewable energy sources, of which biomass comprises a main category
- Improving health through reducing emissions of certain air pollutants such as sulfur dioxides, PM 2.5, and mercury, as compared to fossil fuels
- Lowering emissions of greenhouse gases due to the low carbon intensity or near carbon neutrality of biomass

BTEC offers its full support in adapting the 2015 NGBS to capture the full benefits of all proven, renewable resources including biomass thermal technologies and welcomes future opportunities to work with you in this process.

Respectfully submitted,



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<sup>i</sup> [https://www.biomassthermal.org/resource/pdfs/heatne\\_vision\\_full.pdf](https://www.biomassthermal.org/resource/pdfs/heatne_vision_full.pdf) , <http://energy.gov/public-services/homes/heating-cooling> , [http://energy.gov/sites/prod/files/2013/11/f5/building\\_trends\\_2010.pdf](http://energy.gov/sites/prod/files/2013/11/f5/building_trends_2010.pdf) , <http://www.eia.gov/todayinenergy/detail.cfm?id=10271>

<sup>ii</sup> <http://www.efficiencymaine.com/at-home/home-energy-savings-program/hesp-incentives/> and <http://www.masscec.com/programs/commonwealth-woodstove-change-out>