

To: The Massachusetts Energy Efficiency Advisory Council

Thank you for your work to develop and expand energy efficiency programs in Massachusetts.

On May 17, 2016, the Massachusetts Supreme Judicial Court ruled the state hasn't met the requirements of the 2008 Global Solutions Warming Act. We need to do much better than this.

Retrofit of existing homes to achieve deep energy reductions has been demonstrated to be expensive, but constructing new multifamily buildings to the Passive House standard has proven to be a low/no cost / high leverage path toward long term energy use and therefore Green House Gas reductions.

I am writing to say I strongly support the actions outlined in the LISC letter of 4/4/2018 "Recommendations for EEAC's 2019-2021 Three-Year Energy Efficiency Plan." These include:

A \$1 million EEAC fund for training architects, mechanical engineers, consultants, project leaders, general contractors and sub-contractors in Passive House technology, and the design and construction of certified Passive House buildings. The State of Massachusetts would benefit from the development of a "strong bench" of Passive House trained individuals and firms to take on the first multi-family Passive House projects in the State.

A \$5 million EEAC fund for an affordable, multi-family Passive House Pilot Program to mitigate concerns that Passive House projects will cost more and thereby somewhat reduce the State resources available to produce desperately needed affordable housing units. Affordable Passive House projects in other states such as Pennsylvania have demonstrated such projects can be built for between 2.5% more to 2% less than conventional projects. By providing some gap funding for the first several affordable, multi-family, Passive House projects in the state, EEAC could jump start the industry with demonstration projects. This would assist practitioners in MA with catching up with Passive House technology, as is currently being practiced in Pennsylvania, New York, New Hampshire and other states as they forge forward in designing, constructing and certifying low income multi-family certified multi-family Passive House. Other states have made considerable progress in reducing Passive House technology to practice, we should apply EEAC resources to help MA catch up.

To be able to cost effectively produce affordable multi-family Passive House projects that meet certification requirements when completed, the EEAC funding of Green Design Charrettes focused on Passive House will help to ensure that the project team is properly coordinated from the outset and shares the same goals of achieving passive house certification.

I am a Certified Passive House Consultant, a PHIUS Plus Rater and I am currently working on what may be the first affordable, multi-family Passive House in New Hampshire, Gilford Village Knolls phase III.

<https://www.revisionenergy.com/events/gilford-village-knolls-iii-ribbon-cutting-gilford-nh/>

The reason I'm working on this NH project is NH has tax credit incentives for affordable multifamily Passive House projects, so it became a Passive House project.

I'd much prefer to be working such a project in MA, but here we do not have tax credit incentives.

The low bid contractor had no special difficulty delivering a building enclosure meeting Passive House air tightness requirements in the testing we have done to date. I think this amply demonstrates that one of the challenges of Passive House, meeting the air tightness test, can be easily accomplished by combining a good air barrier design with good building practice - this isn't 'rocket science.'

I'm writing to encourage you to help Massachusetts catch up with other states in the work they are doing to combat climate change in making dramatic reductions in operational energy of their new affordable multifamily buildings, by adopting Passive House technology.

Let's stop making new buildings that are part of the problem, and start making buildings that can be part of the solution: buildings that produce less greenhouse gas emissions by virtue of their reduced annual energy use, that are more resilient in keeping occupants warm in the event of grid failure, are more comfortable by virtue of their higher internal surface temperature, and have much better indoor air quality by virtue of properly designed and commissioned ventilation systems.

Thank you for considering these comments.

Best Regards, Michael Duclos