

To: Community Members  
From: Terry Nash Giovannucci,  
Community Engagement Manager



Date: January 25, 2021

---

Subject: Public Comments - Fall 2020 Public Input Period  
Low-Income Housing Tax Credit (LIHTC) program and the Qualified  
Allocation Plan (QAP)

---

The Connecticut Housing Finance Authority (CHFA) and its Board of Directors will be undertaking a revision of the QAP that will govern the 2022 Credits. Stakeholder comments are a valued and important part of the process. As such, CHFA invited the public to present its views and comments regarding the LIHTC program and its governing document, the QAP, in the late fall of last year (November 23 – December 23, 2020).

A summary of all comments received during the fall public input period immediately follows this cover memo, which is then followed by submitted written public comments in their entirety.

There will be additional opportunities for stakeholders and interested parties to provide feedback in 2021. CHFA is tentatively targeting the 2<sup>nd</sup> quarter for a spring public comment period, with a public hearing to be scheduled upon Board approval. More information will be provided as it becomes available. Questions, if any, may be directed to Terry Nash Giovannucci, Community Engagement Manager at [terry.nash@chfa.org](mailto:terry.nash@chfa.org).

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
<p><b>1</b></p> <p><b>2</b></p> <p><b>3</b></p> <p><b>4</b></p> <p><b>5</b></p> <p><b>6</b></p> <p><b>7</b></p>	<p><b>Ashford Clean Energy Task Force:</b></p> <p>Samantha Dynowski, State Director Sierra Club Connecticut</p> <p>Tom Swan, Executive Director CCAG</p> <p>Susan Eastwood, Chair Ashford Clean Energy Task Force</p> <p>Peter Millman Eastern CT Green Action, Leadership Team</p> <p>Leticia Colon de Mejias, Co-chair Efficiency For All</p> <p>Charles J. Rothenberger, Climate &amp; Energy Attorney Save the Sound</p> <p>Amy McLean, Connecticut Director &amp; Senior Policy Advocate Acadia Center</p>	<ul style="list-style-type: none"> <li>• Develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change...by building to net-zero all electric, zero carbon standard.</li> <li>• Recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points.</li> </ul>
<p><b>8</b></p>	<p><b>Beacon Communities</b> Dara Kovel, CEO</p>	<p>Hold an early round to forward allocate credits and jump start economy; develop policy to forward allocate 50% of following year's credits. Recommends:</p> <ul style="list-style-type: none"> <li>• Pre-application process to review projects at a high level for policy goals and readiness;</li> <li>• Focus 9% credits on new construction with no more than one exceptionally high-cost preservation deal funded per round, preservation deals should be funded with 4% credits;</li> <li>• Provide significant points as an incentive for developers to undertake the 8-30g appeals process;</li> <li>• Re-evaluate construction cost limits outlined in the Construction Standards – they should be higher;</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
		<ul style="list-style-type: none"> <li>• Concerned with the points for multiple bedroom sizes and lack of demand for larger units as experienced in their New Haven development;</li> <li>• Proposes points for TOD that equate to points in opportunity areas so that cities and suburban locations have equal access to points;</li> <li>• Opposes credits per qualified bedroom and suggests credit per qualified unit;</li> <li>• Proposes tax-counsel verification that hybrid deals are two separate deals in lieu of requirements currently in place;</li> <li>• Proposes early notice if 90% drawings are not receiving points so applicants do not proceed with this work;</li> <li>• Opposed to one-deal-per-developer;</li> <li>• Proposes the calculation of rental affordability be based on qualified units not total units; and</li> <li>• Proposes 5 points award for Commissioner's choice.</li> </ul>
9	<b>BNT (Building Neighborhoods Together)</b> Noah Gotbaum, Chief Executive Officer	Supports recommendations made by LISC, including <ul style="list-style-type: none"> <li>• A CDC/CHDO set-aside for 9% LIHTC.</li> <li>• Enhanced pre-application review.</li> <li>• Additional points for CTtransit proximity.</li> <li>• Additional points for walkability.</li> <li>• Opposed to opportunity points narrow requirements and proposes expansion to other areas and development types. Suggests points for six or more community resources</li> </ul>
10	<b>CARSCH</b> <b>Connecticut Association of Resident Service Coordinators in Housing</b> Ellen Cyr, Co-Chair	<ul style="list-style-type: none"> <li>• Supports prioritizing the funding of age-restricted affordable housing projects so that seniors can age in place and take advantage of the in-home services that Connecticut offers, while paying a reasonable rent</li> </ul>
	Tom Swan, Executive Director CCAG	<ul style="list-style-type: none"> <li>• Develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change...by building to net-zero all electric, zero carbon standard.</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
	( Submission is duplicate of letter Mr. Swan signed for the Ashford Clean Energy Task Force)	<ul style="list-style-type: none"> <li>Recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points.</li> </ul>
11	<b>Citizen and Architect</b> Anthony Law, Resident of New Haven and Architect	Recommends: <ul style="list-style-type: none"> <li>Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
12	<b>Citizen and Architect</b> Deane Evans, Resident of Connecticut and Architect	Recommends: <ul style="list-style-type: none"> <li>Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
13	<b>Citizen and Builder</b> Chris Trolle, Resident of Trumbull and Builder	Recommends: <ul style="list-style-type: none"> <li>Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> </ul>



## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
		<ul style="list-style-type: none"> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
14	<b>Citizen and Certified Passive House Consultant</b> Charles Litty, Resident of Southbury and CPHC	<ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>• Total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions.</li> <li>• Urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications</li> </ul>
15	<b>Citizen and Energy Consultant</b> Paul Keyes, Resident of Bloomfield	Recommends: <ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>• The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
16	<b>Citizen and Energy Consultant</b> Bill Freeman, Resident of Guilford, Zero Energy/Passive House Design Consultant	Recommends: <ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>• The total number of points for Sustainable Design Measures (SDM) should increase in order to send a</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
		<p>strong signal to developers to pursue high-performance projects.</p> <ul style="list-style-type: none"> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
17	<p><b>Citizen and Board Member/Officer of CTGBC</b> Caroline DiDomenico, Resident of Norwich and as a Board Member and Officer of CTGBC</p>	<p>Recommends:</p> <ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>• The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
18	<p><b>Citizen and Sustainability Consultant</b> Katie Troy, Resident of Bethel</p>	<p>Recommends:</p> <ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>• The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
19	<p><b>Citizen, Environmental Activist and Small Business Owner</b> Kristen Coperine, Resident of Glastonbury</p>	<p>Recommends:</p> <ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent Company/Role Name/Title		Comment
		<ul style="list-style-type: none"> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> <li>• Strongly support the continued inclusion of the Passive House building standard, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard</li> </ul>
20	<b>Citizen</b> Meg Smith, Resident of Guilford	<p>Recommends:</p> <ul style="list-style-type: none"> <li>• Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>• The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>• Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>• QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>
21	<b>City of Torrington</b> Elinor Carbone, Mayor	<ul style="list-style-type: none"> <li>• Supports development of affordable age-restricted housing in cities and town with aging populations</li> </ul>
22 23	<b>Collaborative Center for Justice</b> Dwayne David Paul – Director Rachel Lea Scott – Associate Director	<ul style="list-style-type: none"> <li>• Supports increasing the allotted points for the inclusion of sustainable features, particularly the Passive House Standard</li> <li>• Sustainable affordable housing construction should be better reflected in the QAP through the inclusion of greater incentives for these features</li> </ul>
24	<b>Corporation for Supportive Housing</b> Sonya Jelks, Director, Connecticut CSH	<p>Strengthen QAP to further advance supportive housing as an effective tool to end homelessness:</p> <ul style="list-style-type: none"> <li>• Adopt a supportive housing setaside</li> <li>• Develop KPIs related to supportive housing production and report on progress.</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
		<ul style="list-style-type: none"> <li>• Implement tax credit compliance monitoring that includes supportive housing commitment</li> <li>• Ensure quality standards by requiring applicants to submit a Commitment to Quality Checklist with their application</li> </ul> <p>Further recommends:</p> <ul style="list-style-type: none"> <li>• Notifying the IACSH if a unit of supportive housing loses its subsidy so that the loss can be mitigated and not revert to a 50% or 60% AMI unit</li> <li>• Expand resident participation to all developments not just public housing developments</li> <li>• Include language under public housing preference to include CAN referrals and bolster the Certification exhibit in the ConApp to allow applicants to certify that their tenant selection plan will give preference to households connected to the CAN</li> </ul>
25	<b>Connecticut Housing Partners</b> Renee Dobos, Chief Executive Officer	<p>Recommends:</p> <ul style="list-style-type: none"> <li>• A CDC/CHDO set-aside for 9% LIHTC;</li> <li>• Enhanced pre-application review;</li> <li>• Additional points for CT transit proximity;</li> <li>• Additional points for walkability;</li> <li>• Support senior housing;</li> <li>• Include points for urban developments;</li> <li>• Implement a smoke-free housing policy; and</li> <li>• Together with DOH, CHFA should lobby the state government to allow a PILOT program for all affordable housing.</li> </ul>
26	<b>Connecticut Passive House</b> Alicia Dolce, Founding Member	<ul style="list-style-type: none"> <li>• New construction in Connecticut should be designed, built and operated to achieve net zero emissions;</li> <li>• Passive House (PH) Building Standard must proportionally receive more points in the QAP in order to incentivize developers to pursue it; features superior indoor air quality, energy security and resiliency.</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
		<ul style="list-style-type: none"> <li>Expressed thanks for all of CHFA's efforts to date to create affordable housing that meet's Connecticut's climate and housing goals</li> </ul>
27	<b>Dorgan Architecture and Planning</b> Kathy Dorgan, Principal	<ul style="list-style-type: none"> <li>Community Development-Support CDCs and their work in vulnerable communities; direct all discretionary funds to the development of CDCs</li> <li>Rehabilitation-Establish construction funding program for 1-4 family homes statewide in need of rehabilitation</li> <li>Opportunity-Address segregation through policies that support community choice</li> <li>Sustainability-Align all construction with sustainability goals. CHFA should have specific initiative to bring entire portfolio into compliance with state's climate change goals for 2030 and 2040.</li> <li>Financing-Expand and employ low interest resources to support CDFIs and their ability to deliver low interest financing</li> </ul>
	<b>Eastern Connecticut Green Action</b> Peter Millman  ( Submission is duplicate of letter Mr. Millman signed for the Ashford Clean Energy Task Force)	<ul style="list-style-type: none"> <li>Develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change...by building to net-zero all electric, zero carbon standard.</li> <li>Recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points</li> </ul>
28	<b>George Penniman Architects LLC</b> George Penniman, Principal	<ul style="list-style-type: none"> <li>Sustainable design criteria in the QAP should be elevated as one of the top priorities.</li> <li>The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.</li> <li>Reward Passive House projects with maximum points as it is the gold standard for high-performance, low-energy building.</li> <li>The QAP should also specify that all new construction should be designed, built and operated to achieve net zero emissions</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
		<ul style="list-style-type: none"> <li>Strongly supports the continued inclusion of the Passive House building standard, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard</li> </ul>
29	<b>Hartford Foundation for Public Giving</b> Erika Frank, Senior Community Impact Officer	<ul style="list-style-type: none"> <li>Consider additional weight in scoring to local developers, and particularly local nonprofit developers, as well as for local hiring and procurement;</li> <li>Continue to find ways to reduce the administrative burden of the application process. ... the high cost of application submission, for something that may ultimately be unsuccessful, is a barrier to many worthy developments</li> <li>Supports pre-application process - applaud commitment to reviewing submissions through Developer Engagement Process and recommend building on this success with a robust pre-application that identifies and guides projects that are at an early stage and not ready for competitive review</li> <li>Consider additional points for CTtransit proximity. ...expand definition of Transit Oriented Development beyond Ctfastrak and commuter rail proximity to projects that meet the existing definition of "Local bus service provided seven days a week within a ½ mile of the proposed development as measured by a pedestrian's path."</li> </ul>
30	<b>JHM Group</b> Todd McClutchy	<ul style="list-style-type: none"> <li>Increase the 9% cap above \$30,000 for Hybrid Financing structures to allow full leveraging of the 4% LIHTC and associated bonds</li> <li>Reduce points for Opportunity Characteristics and equally award points for additional phases of public housing replacement... urban areas are not able to score competitively against municipalities located in areas of opportunity</li> <li>Encourages additional points incentive for veteran participation equal in value to the points provided for women and minority business participation</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
31	<b>LISC Connecticut</b> James Horan, Executive Director	Suggests including the following in the revised QAP: <ul style="list-style-type: none"> <li>• A CDC/CHDO set-aside for 9% LIHTC;</li> <li>• Enhanced pre-application review;</li> <li>• Additional points for CT transit proximity;</li> <li>• Additional points for walkability;</li> <li>• Implement a smoke-free housing policy.</li> </ul>
32	<b>North Haven Housing Authority</b> Richard LoPresti, Chairman	<ul style="list-style-type: none"> <li>• Advocates for a senior housing set aside for the multi-year 2021 LIHTC Qualified Allocation Plan;</li> <li>• Strongly supports the continued inclusion of the Passive House building standard, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard</li> </ul>
33	<b>Paul B. Bailey Architect</b> Paul Bailey, Principal	<ul style="list-style-type: none"> <li>• Urgently requests to remove current disincentive for elderly housing from QAP and supports age-restricted housing</li> </ul>
34	<b>Peer to Peer Multifamily Network</b> Paul Selnau, Principal, Schadler Selnau Associates, PC	<ul style="list-style-type: none"> <li>• Encourages additional points for Passive House, the gold standard and Connecticut's best method to reach 2030 commitment</li> </ul>
35	Susan B. Odell, Senior Project Architect, Paul B. Bailey Architect LLC	<ul style="list-style-type: none"> <li>• Strengthen sustainability sections of the QAP</li> </ul>
36	<b>Preservation of Affordable Housing (POAH)</b> Corey Fellows, Vice President Real Estate Development	<ul style="list-style-type: none"> <li>• Reconsider scoring incentives for municipalities with less assisted and deed restricted housing to include those municipalities that may have just achieved the 10% affordable threshold but still need affordable housing;</li> <li>• Create a third classification (in addition to Public Housing and General Class) for Senior Housing</li> <li>• Encourage CHFA to reconsider the current practice of allocating 50% of its LIHTC to public housing when there is a vast, unmet need for development of new units of affordable housing</li> <li>• Passive House and energy efficiency measures can be met without substantial cost premiums and offer real operational benefits, now is not the time to lower the bar;</li> <li>• Supports discretionary "Director's Choice" award</li> <li>•</li> </ul>

## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
37	<b>Partnership for Strong Communities</b> Sean Ghio, Policy Director	<p>Recommends setting a minimum number of awards under the revised QAP in these areas:</p> <ul style="list-style-type: none"> <li>• Expand affordable housing in areas of opportunity</li> <li>• Preserve existing affordable housing in areas of community revitalization</li> </ul> <p>Additionally recommends:</p> <ul style="list-style-type: none"> <li>• Threshold criteria to include a minimum number of extremely low-income units</li> <li>• Continue to prioritize developments that rehabilitate SSHP developments</li> <li>• Incentivize mixed-income development</li> <li>• Consider ways to expand the pool of applicants, remove incentives for 90% drawings, years of experience and zoning as a threshold</li> </ul>
38	<b>Rippowam Corporation</b> Jonathan Gottlieb	<ul style="list-style-type: none"> <li>• Provide incentives for rehabilitation of urban preservation and SSHP developments; balance QAP so as not to disadvantage preservation and SSHP</li> </ul>
	<p><b>Sierra Club</b> Samantha Dynowski</p> <p>( Submission is duplicate of letter Ms. Dynowski signed for the Ashford Clean Energy Task Force)</p>	<ul style="list-style-type: none"> <li>• Develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change...by building to net-zero all electric, zero carbon standard.</li> <li>• Recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points</li> </ul>
39	<b>Torrington Community Housing Corporation</b> Samuel E. Slaiby, President	<ul style="list-style-type: none"> <li>• Provide equal incentives for age-restricted senior housing as for non-age restricted family housing</li> </ul>
40	<b>Vesta Corporation</b> Lewis Brown, EVP	<ul style="list-style-type: none"> <li>• Strongly encourages CHFA to even the playing field for age-restricted developments in the upcoming QAP and provide equal incentives</li> </ul>
41	<b>Winn Development Company LP</b> Adam Stein, Senior Vice President	<ul style="list-style-type: none"> <li>• Suggests revisions to points incentives including broadening the definitions under Transit Oriented Development and providing additional incentive for developers undertaking an application in an area under 8-30g;</li> <li>• Suggests changes to sustainability design measures</li> </ul>



## 2020 Fall Public Input Period - Comments Summary

Respondent	Company/Role Name/Title	Comment
42	<b>Wyeth Architects</b> Leonard Wyeth, Principal	<ul style="list-style-type: none"> <li>• Strongly recommends increasing attention given to sustainability and maximizing points</li> <li>• increase the points dedicated to sustainability and Passive House</li> </ul>
43	<b>Wyeth Architects</b> Sara D. Holmes	<ul style="list-style-type: none"> <li>• Strongly in favor of continued inclusion of the Passive House building standard in the QAP, but with additional points to reflect its proven track record as the most robust energy efficient high-performance standard</li> <li>• Recommends elevating Sustainability as one of the top priorities and offers suggestions for scoring incentives</li> </ul>
44	<b>Yale School of Public Health Center on Climate Change and Health</b> Laura Bozzi, PhD, Director of Programs	<ul style="list-style-type: none"> <li>• Housing is health and CHFA is urged to maintain and invigorate Passive House design standards;</li> <li>• Establish policy that all new construction be designed, built and operated to achieve net zero emissions;</li> <li>• Urge CHFA to incorporate climate adaptation and resilience principles into its policy goals and programs, including the QAP</li> </ul>

NOTE: Comments are listed in alphabetical order by respondent's company or role.

December 22, 2020

VIA ELECTRONIC FILING PublicComment@chfa.org  
Terry Nash Giovannucci  
CHFA  
999 West Street  
Rocky Hill, CT 06067

Re: Low-Income Housing Tax Credit Program

Dear Ms. Giovannucci:

We, the undersigned, thank you for providing this opportunity to comment on CHFA's Low-Income Housing Tax Credit Program, its QAP, and its current priorities and policy goals.

CHFA's Qualified Allocation Plan (QAP) plays a vital role in setting guidelines for the allocation of Low-Income Housing Tax Credits and ensuring better-built homes for low-income Connecticut residents. The intersection between affordability, health, comfort, climate resilience and climate mitigation has never been more important. Now is the time to develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change.

We recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points, and allow another high standard such as ILFI or Passive House until that time. This should be the direction for all buildings in Connecticut, but it is extremely important for newly built affordable housing as ILFI, Passive House and energy efficient and net-zero, all-electric, zero embodied carbon designs are the most cost effective and healthy choice for new buildings.

Net-zero, all-electric codes are recognized as the future of clean buildings. Washington D.C.'s energy code<sup>1</sup> is one of the most stringent in the country with a voluntary path to net-zero energy (NZE) buildings through Appendix Z. Massachusetts has proposed a net-zero stretch code<sup>2</sup>. Forty cities in California have adopted building codes to reduce their reliance on gas and move towards net-zero, all-electric buildings.<sup>3</sup>

Because of advances in technology - solar, LEDs, battery storage, heat pumps, and other equipment and design techniques, the initial cost of a net-zero building need not be higher than that of a conventional energy building. Net-zero buildings also have lower lifetime costs, using significantly less energy than conventionally constructed buildings and by supplying their own renewable energy. Rocky Mountain Institute (RMI) analyzed the costs of a new all-electric home versus a new mixed-fuel home that relies on gas for cooking, space heating, and water heating in a

---

<sup>1</sup> <https://gettingtozeroforum.org/appendix-z-offers-district-buildings-a-path-to-net-zero-energy/>

<sup>2</sup>

<https://www.mass.gov/doc/11-03-2020-code-change-proposal-mass-zero-energy-buildings-coalitionpdf/download>

<sup>3</sup> <https://www.sierraclub.org/articles/2020/12/californias-cities-lead-way-gas-free-future>

number of cities across the United States, including Boston and New York. In Boston, the all-electric home saves nearly \$1,600 in costs and 51 tons of CO2 emissions over a 15-year period. In New York City, the all-electric home saves \$6,800 in net present costs and 46 tons of CO2 emissions over a 15-year period.<sup>4</sup>

Connecticut municipalities are beginning to recognize the value of building to a net zero standard in planning their own projects. Mansfield is scheduled to begin construction in the spring of 2021 of what will be the first net zero public school in the state. Meanwhile, Manchester is planning to retrofit one of its elementary schools to a net zero standard and other municipalities are taking a close look at the idea of building efficiently now to reap long term benefits.

Net-zero all-electric, zero carbon profile buildings are better for human health. The combustion of gas in buildings produces a range of air pollutants with both acute and chronic health effects. UCLA researchers found that after an hour of cooking on a gas stove, 98 percent of smaller apartments had peak levels of NO2 that exceeded state and national air-quality standards.<sup>5</sup> In other words, the air quality inside nearly every apartment was so bad that it would be illegal if measured outside. Health-related costs are one of the next highest costs for low-income individuals after rent/mortgage payments, so controlling these costs with healthier buildings is an important component of maintaining affordability in Connecticut.

Homes and infrastructure built now will last many decades, well into 2030 and 2050 when Connecticut's Global Warming Solutions Act mandates greenhouse gas emission reductions of 45% and 80% respectively. By building now to a net-zero all-electric, zero carbon standard, CHFA will avoid costly retrofits later to comply with the greenhouse gas emission reductions of the Global Warming Solutions Act.

Thank you for your consideration of our comments.

Sincerely,

Samantha Dynowski, State Director  
Sierra Club Connecticut

Tom Swan, Executive Director  
CCAG

Susan Eastwood, Chair  
Ashford Clean Energy Task Force

Peter Millman  
Eastern CT Green Action, Leadership Team

---

<sup>4</sup> <https://rmi.org/insight/the-new-economics-of-electrifying-buildings>

<sup>5</sup>

<https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california>

Leticia Colon de Mejias, Co-chair  
Efficiency For All

Charles J. Rothenberger, Climate & Energy Attorney  
Save the Sound

Amy McLean, Connecticut Director & Senior Policy Advocate  
Acadia Center



Two Center Plaza, Suite 700 Boston, MA 02108  
P: 617.574.1100  
BeaconCommunitiesLLC.com

December 23, 2020

Nandini Natarajan  
Chief Executive Officer  
Connecticut Housing Finance Agency  
999 West St #3019  
Rocky Hill, CT 06067

Re: Comments to Proposed 2022 QAP Changes

Dear Ms. Natarajan,

We appreciate CHFA's commitment and leadership to address affordable housing solutions across the State of Connecticut. Our recent completion of Montgomery Mill and ongoing rehabilitation of Ninth Square reflect what is possible in the partnership that Beacon and CHFA have developed in both new production and preservation across the State. We remain committed to our Connecticut pipeline and look forward to pursuing developments that align with the housing needs and goals of the communities in which we work.

We are all mindful of the significant adverse impact caused to the State's economy as a direct result of the COVID-19 pandemic which is still an ongoing crisis. Affordable housing is a mechanism to foster economic development and generate opportunity in times of recession. It creates jobs while providing stability for the most vulnerable households in the State. Accordingly, many states are looking to forward allocate resources to encourage such positive outcomes. While we appreciate the effort to align the funding round with the credit year, this change will mean that there are no funding rounds in 2021 in a time when the economy needs it most. We propose that CHFA hold a round as early as summer 2021 in order to put forth investment as a key solution in moving forward from this crisis. Further, we recommend that CHFA implement a policy to forward allocate at least 50% of the following years' credits in order to mitigate these economic losses in the foreseeable future.

We understand that changes to the Qualified Allocation Plan are being considered for incorporation into a new version. Since this important tool will direct production and preservation of affordable housing for multiple years, we wish to provide feedback for consideration in the redrafting process. We also offer the following comments for your consideration:

Pre-Application Process: The high cost of investment in order to compete in an application round remains a concern among the larger development community (including the 90% plan requirement). In order to address this issue, we support the concept of a pre-application process whereby high-level policy alignment can be assessed in determining a project's readiness and whether it should be admitted into the round. We have seen this process successfully implemented in Massachusetts and would welcome the opportunity to participate in a working group to develop such a tool.

Production versus Preservation: We strongly recommend that the 9% credit be reserved for true, high-cost deals. Preservation projects remain an important initiative but can typically be addressed through use of the 4% credit. Preservation deals included for consideration in the 9% round should be those that can be narrowly defined and achieve a higher-than-typical threshold (more than the current \$50,000 of rehabilitation costs per unit). In any event, the amount of 9% credit allocated to preservation should be limited to no more than one deal per round.

Land-use Appeals Process: In municipalities where there is opposition to affordable housing, developers must undertake significant effort and cost to go through a Section 8-30g appeal process. The QAP does not incentivize towns on decisions and opposition is most often met in areas with limited affordable housing – in direct conflict with Areas of Opportunity. If a developer must go through an 8-30g process, substantial recognition should be given to these projects. This could be accomplished through a significant point category (10 points) for successful 8-30g projects. Since developer's are not pursuing deals in these areas due to increased uncertainty and risk, this change could unlock deals that otherwise would not be worth the investment to get started.

Cost Effectiveness: It appears the baseline hard-cost standards with which projects are measured have not been updated sufficiently over time to reflect construction inflation. Moreover, the QAP indicates that the appropriate range for any one project is determined at the Authority's discretion. This subjectivity makes it hard to predict what success looks like for these points. We recommend reevaluating the cost limits outlined in the Construction Standards and giving a more explicit definition of the baseline (including project type, building type, location, etc.) so applicants can understand their likely assessment.

Areas of Opportunity Points: We are concerned that the area of opportunity points may be creating a surplus of two-bedroom units across the state. We are currently actively leasing two-bedroom units in New Haven and Windsor Locks and the two-bedrooms are the last to lease, particularly in New Haven. We value the goal of creating larger unit sizes in towns that are highly ranked areas of opportunity, however, the current point system also pushes developers to have more than 50% two-bedroom units in all areas because that is the only way to get any points in this category. Downtown New Haven, for example, where we have specifically had trouble leasing larger LIHTC units, gets 5 of the 9 points in category 4b, so most projects in New Haven are going to choose to have 50% or more of two-bedroom units in order to be competitive. We would recommend realigning the point system so that the two bedroom requirement is only imposed in order to receive more than 4 or 5 points. This recommendation ensures that larger units occur in higher opportunity locales while allowing market flexibility in other locations.

Areas of Opportunity Map: We also understand there is a new map that will combine CHFA and DOH criteria for Areas of Opportunity projects. This map should be part of the QAP review and public comment process since it will be a large driver in the outcome of projects scored under the QAP.

Increase Transit Oriented Development Points: The points for transit-oriented development should be increased in order to appropriately capture the policy priorities of the State. Section the 3b of the scoring provides 2 points for mixed-income developments located within half of a mile of a transit station and 2 points for mixed-use projects. As a comparison, there are potential 15 points that are

available to developments in areas of opportunity (Section 4a and b). We propose the points for these two TOD categories be increased to 10 and 5 points respectively so that the TOD category is comparable to the points awarded for an Area of Opportunity project.

Credits per Qualified Bedroom: This category gives a competitive advantage to projects with the most large-bedroom types. While we appreciate the importance of large bedroom types for family housing, we also recognize the importance of balancing with the market demand. As we have seen in our recent Ninth Square development (transit-oriented development in New Haven, CT), the two-bedroom units are proving to be a challenge in lease-up while studio and one-bedrooms have leased much faster. We propose that this category be evaluated on credits per qualified LIHTC *unit* so that the financial efficiency is measured by the number of LIHTC units created as appropriate for any given market.

Hybrid Developments (CHFA 2020 Hybrid Structure Guidelines, Page 2): We appreciate the work that CHFA has done to progress this financing tool. The hybrid financing structure is a good (though complicated and expensive) way to support larger deals, as the twinned 4% project utilizes the so-called “excess basis” created by the cap on 9% credits. Beacon has successfully implemented this structure in Massachusetts. The hybrid structure as proposed includes several unnecessary complexities that would adversely impact the achievable scale of the project, including separate physical features (entrances, signage, stairs, etc.). Other states (including Massachusetts) have successfully implemented 9%/4% hybrid financing and addressed concerns about keeping federal resources separate without requiring any of these artificial distinctions. We propose that hybrid financing deals demonstrate a plan for independent financing and ownership and provide a letter from tax counsel corroborating that the proposed structure will comply with IRS regulations.

90% Plans: We understand and generally agree with the desire to require less expenditure to get to an application. We would support the elimination of a 90% plan requirement if confirmed by January 31, 2021 so that projects for next year can plan accordingly.

Rental Affordability Fix: The threshold for the percentage of 50% units continues to be of ‘total units’ rather than qualified units. We would like to see this updated to reflect the same threshold as is noted for 30% AMI units. This conflict in the definitions discourages mixed income projects as adding non-LIHTC units harms the affordability score. As written, the other tiers become compressed and forces a less diverse population.

One deal per Developer: The QAP and the policies outlined therein are intended to put forth the most qualified projects across the State. The introduction of this limitation undermines the QAP by ensuring that a lesser project, for any reason, would be awarded over another more qualified project. This undermines capacity concerns and is disadvantageous to more challenging geographies. If a single developer is considering two separate and geographically diverse projects, this policy will encourage the stronger market project to be pursued. We propose that projects continue to be evaluated on merit as delineated under the QAP. In all events, we propose that CHFA & DOH recognize an exception for partnerships whereby developers have partnered with non-profit and/or Housing Authorities such that it would not count against the developer to also submit a standalone project.

Commissioner’s Choice: The nature of affordable housing is such that one-size does not always fit all. While the QAP seeks to promote projects which most closely align with policy goals, there are instances where projects undertake noteworthy initiatives. Since the Commissioner most closely recognizes

State policies that do not show up in the QAP, we propose that a category be created whereby the Commissioner awards 5 points to any one project per round.

Thank you for the opportunity to provide these comments. We look forward to working with CHFA as we expand on our important work together in the State of Connecticut.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dara Kovel', with a stylized, cursive script.

Dara Kovel, CEO Beacon Communities





December 23, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

We are writing in response to the call for comments on Connecticut's Qualified Allocation Plan (QAP) for the State's Low-Income Housing Tax Credit program. We would like to 2nd those recommended modifications of our colleagues from LISC, which include the following::

- A CDC/CHDO set-aside for 9% LIHTC.
- Enhanced pre-application review.
- Additional points for CTtransit proximity.
- Additional points for walkability.

Additionally, while we don't believe that Areas of Opportunity should be favored over other areas in the QAP scoring, if you are inclined to provide Areas of Opportunity with extra points, we recommend the following amendments:

- Revise Development located in an Area of Opportunity definition: We suggest eliminating non-age restricted units of which more than 50% must contain two-bedroom units.
- Expand Area of Opportunity definition to include tipping point neighborhoods which are experiencing significant investment by the private sector, State or local municipality.
- Community Resource Points: Additionally, and in line with LISC's walkability recommendation we recommend adding a point category for developers that can demonstrate projects that have 6 or more community resources within ½ mile of site, i.e. parks, grocery store, post office, bank, daycare, school, medical office, etc.

Please don't hesitate to contact me to discuss this further and many thanks for your consideration of our recommendation.

Kind regards,

Noah E. Gotbaum  
Chief Executive Officer



**Connecticut Association of Resident Service Coordinators in Housing**

December 18, 2020  
Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

I am writing on behalf of the Connecticut Association of Resident Service Coordinators in Housing (CARSCH) in response to the public input period regarding the new QAP for the State's Low-Income Housing Tax Credit program.

CARSCH is a professional association committed to the development and promotion of service coordination within the housing community. The mission of CARSCH is to provide opportunities for networking, continuing education and resource development and, at the same time, promote and professionalize the position of Resident Service Coordinator in housing for the elderly, persons with disabilities and families respectively.

I have worked with seniors for the last 30 years in various capacities. A primary focus of a Resident Service Coordinator is to develop relationships with our residents. RSC's assess resident needs and link them up with services to promote successful aging in place and thereby being able to remain at home. Connecticut has a very limited supply of senior affordable housing. With an aging demographic trend in the State, the current amount of quality affordable senior housing is far less than the demand. Many affordable age-restricted communities have lengthy wait lists, with some as long as or even greater than three years.

Seniors want to successfully age in place, having most comfort in their own apartment. The State of Connecticut has allocated funds to a robust home care program, which further enables a senior to remain where they are, with supportive services that enhance their independence and thereby their quality of life. The result of the lack of adequate

age-restricted affordable housing, despite the in-home services that are available, is that many seniors prematurely enter nursing facilities.

For most seniors, their only source of income is social security. In my experience, most seniors pay much more than 30% of their income towards rent. It is vital that CHFA prioritize the funding of age-restricted affordable housing projects so that seniors can age in place and take advantage of the in-home services that Connecticut offers, while paying a reasonable rent.

Sincerely,

Ellen Cyr, Co-Chair  
CARSCH

December 22, 2020

VIA ELECTRONIC FILING PublicComment@chfa.org  
Terry Nash Giovannucci  
CHFA  
999 West Street  
Rocky Hill, CT 06067

Re: Low-Income Housing Tax Credit Program

Dear Ms. Giovannucci:

We, the undersigned, thank you for providing this opportunity to comment on CHFA's Low-Income Housing Tax Credit Program, its QAP, and its current priorities and policy goals.

CHFA's Qualified Allocation Plan (QAP) plays a vital role in setting guidelines for the allocation of Low-Income Housing Tax Credits and ensuring better-built homes for low-income Connecticut residents. The intersection between affordability, health, comfort, climate resilience and climate mitigation has never been more important. Now is the time to develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change.

We recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points, and allow another high standard such as ILFI or Passive House until that time. This should be the direction for all buildings in Connecticut, but it is extremely important for newly built affordable housing as ILFI, Passive House and energy efficient and net-zero, all-electric, zero embodied carbon designs are the most cost effective and healthy choice for new buildings.

Net-zero, all-electric codes are recognized as the future of clean buildings. Washington D.C.'s energy code<sup>1</sup> is one of the most stringent in the country with a voluntary path to net-zero energy (NZE) buildings through Appendix Z. Massachusetts has proposed a net-zero stretch code<sup>2</sup>. Forty cities in California have adopted building codes to reduce their reliance on gas and move towards net-zero, all-electric buildings.<sup>3</sup>

Because of advances in technology - solar, LEDs, battery storage, heat pumps, and other equipment and design techniques, the initial cost of a net-zero building need not be higher than that of a conventional energy building. Net-zero buildings also have lower lifetime costs, using significantly less energy than conventionally constructed buildings and by supplying their own renewable energy. Rocky Mountain Institute (RMI) analyzed the costs of a new all-electric home versus a new mixed-fuel home that relies on gas for cooking, space heating, and water heating in a

---

<sup>1</sup> <https://gettingtozeroforum.org/appendix-z-offers-district-buildings-a-path-to-net-zero-energy/>

<sup>2</sup>

<https://www.mass.gov/doc/11-03-2020-code-change-proposal-mass-zero-energy-buildings-coalitionpdf/download>

<sup>3</sup> <https://www.sierraclub.org/articles/2020/12/californias-cities-lead-way-gas-free-future>

number of cities across the United States, including Boston and New York. In Boston, the all-electric home saves nearly \$1,600 in costs and 51 tons of CO2 emissions over a 15-year period. In New York City, the all-electric home saves \$6,800 in net present costs and 46 tons of CO2 emissions over a 15-year period.<sup>4</sup>

Connecticut municipalities are beginning to recognize the value of building to a net zero standard in planning their own projects. Mansfield is scheduled to begin construction in the spring of 2021 of what will be the first net zero public school in the state. Meanwhile, Manchester is planning to retrofit one of its elementary schools to a net zero standard and other municipalities are taking a close look at the idea of building efficiently now to reap long term benefits.

Net-zero all-electric, zero carbon profile buildings are better for human health. The combustion of gas in buildings produces a range of air pollutants with both acute and chronic health effects. UCLA researchers found that after an hour of cooking on a gas stove, 98 percent of smaller apartments had peak levels of NO2 that exceeded state and national air-quality standards.<sup>5</sup> In other words, the air quality inside nearly every apartment was so bad that it would be illegal if measured outside. Health-related costs are one of the next highest costs for low-income individuals after rent/mortgage payments, so controlling these costs with healthier buildings is an important component of maintaining affordability in Connecticut.

Homes and infrastructure built now will last many decades, well into 2030 and 2050 when Connecticut's Global Warming Solutions Act mandates greenhouse gas emission reductions of 45% and 80% respectively. By building now to a net-zero all-electric, zero carbon standard, CHFA will avoid costly retrofits later to comply with the greenhouse gas emission reductions of the Global Warming Solutions Act.

Thank you for your consideration of our comments.

Sincerely,

Samantha Dynowski, State Director  
Sierra Club Connecticut

Tom Swan, Executive Director  
CCAG

Susan Eastwood, Chair  
Ashford Clean Energy Task Force

Peter Millman  
Eastern CT Green Action, Leadership Team

---

<sup>4</sup> <https://rmi.org/insight/the-new-economics-of-electrifying-buildings>

<sup>5</sup>

<https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california>

Leticia Colon de Mejias, Co-chair  
Efficiency For All

Charles J. Rothenberger, Climate & Energy Attorney  
Save the Sound

Amy McLean, Connecticut Director & Senior Policy Advocate  
Acadia Center

December 22, 2020

Anthony Law  
132 Canner Street  
New Haven, CT 06511

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of New Haven and as an architect, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House

with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption.”

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured ‘Energy Conservation’ standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont’s pledge that *“Connecticut will remain a leader on climate change”*<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Anthony Law  
132 Canner Street  
New Haven, CT 06511  
(646)541-5257  
alaw@anthonylawarchitect.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)



**From:** [Evans, Deane M.](#)  
**To:** [PublicComment](#)  
**Subject:** QAP Update  
**Date:** Tuesday, December 22, 2020 8:35:47 AM

---

**[EXTERNAL EMAIL: If unknown sender, do not click links/attachments. Never give out username or password.]**

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

Thank you, the Connecticut Housing Financing Agency and the Connecticut Department of Housing for your ongoing commitment to providing high-quality affordable housing to citizens across the State of Connecticut. As an architect and Connecticut resident with a long commitment to sustainable design and construction, I am proud of our state's aggressive and forward-looking emission-reduction goals for 2030 and 2050, and I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role that buildings play in GHG emissions and push for highest levels of performance and sustainability in the QAP. especially critical since CHFA's intention is to develop a multiyear QAP.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.
  - **The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions.** Buildings being built today will be in existence in 2050 so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT,

to achieve Zero Energy.

- The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

**3. I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

- The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve.
- Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that

*"Connecticut will remain a leader on climate change"*<sup>[1]</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Deane Evans, FAIA  
Fox Run Productions, LLC  
8 Fox Run Road  
Norwalk, CT 06850

---

[1] [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 22, 2020

Chris Trolle, PE, CPHC  
15 Clover Hill Rd.  
Trumbull, CT 06611

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Trumbull, CT and as a DOE award winning Passive home builder in CT, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change*"<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Chris Trolle, PE, CPHC  
15 Clover Hill Rd.  
Trumbull, CT 06611  
203-258-5821  
chris@bpcgb.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 21, 2020

Charles J. litty  
67 Fox Run Drive  
Southbury, CT. 06488

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Southbury, CT and as a Certified Passive House Consultant, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

3. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that *"Connecticut will remain a leader on climate change"*<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Charles J. litty  
67 Fox Run Drive  
Southbury, CT, 06488  
203 586-9078  
chuck.litty@gmail.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 22, 2020

Paul N. Keyes  
9 Juniper Rd  
Bloomfield, CT 06002

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Bloomfield and as an energy consultant, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."



Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change*"<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Paul N. Keyes  
9 Juniper Rd  
Bloomfield, CT 06002  
860-913-4208  
gfpaul@gmail.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 23, 2020

Bill Freeman  
301 Old Whitfield St  
Guilford, CT

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Guilford and as a past Real Estate Developer (30 yrs.) and currently a Zero Energy/Passive House design consultant, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change*"<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Bill Freeman  
301 Old Whitfield St  
Guilford, CT  
Cell – 860-883-6200  
Bill@celebrationgreen.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 23, 2020  
Caroline DiDomenico  
35 Williams Street  
Norwich, CT 06360

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Norwich and as a Board Member and Officer of CTGBC I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change*"<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Caroline DiDomenico, LEED AP, GPRO O+M  
CTGBC Officer and Chair, Membership  
Cell- 860-836-5962  
[cdidom.ctgbc@gmail.com](mailto:cdidom.ctgbc@gmail.com)

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 23, 2020

Katie Troy  
30 Reservoir St,  
Bethel, CT

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Bethel and as a Sustainability Consultant, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change*"<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Katie Troy  
30 Reservoir St, Bethel, CT  
669.350.4371  
ktroy@swinter.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 21<sup>st</sup>, 2020

Kristen Coperine  
318 Griswold St.  
Glastonbury, CT 06033

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Glastonbury and as an environmental activist and small business owner, I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.



Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

3. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that *"Connecticut will remain a leader on climate change"*<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Kristen Coperine  
318 Griswold St.  
Glastonbury, CT 06033  
860-967-8762  
Kristen.coperine@gmail.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

December 22, 2020

Meg Zelickson Smith  
66 High Street, Unit 4  
Guilford, CT 06437

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of Guilford and I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play in greenhouse gas (GHG) emissions and push for highest levels of performance and sustainability in the QAP, especially critical since CHFA's intent is to develop a multiyear plan.

Since buildings contribute 40% of GHG emissions, we must raise the bar for how we define high-performance buildings in the QAP, how we differentiate the standards, and how many points are allocated in order to ensure that developers are motivated to pursue "forward-thinking" projects, especially since CHFA's intention is to develop a multiyear QAP.

Recommendations:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions**. Buildings constructed today will exist in 2050, so is vital to reach far enough ahead to ensure Connecticut's buildings will not be obsolete in ten years as building codes inevitably get more robust and mandates for Zero Energy emissions/carbon become the norm, as we are starting to see in other states.

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

The Passive House (PH) building standard has been recognized as the leading high-performance building standard in the market both globally and in the US by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption."

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

4. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that fundamentally different from PH or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In closing, the QAP serves as an important lever that drives market adoption. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change*"<sup>1</sup>.

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

Meg Zelickson Smith  
66 High St. Unit 4  
Guilford, CT  
914-844-0402  
megsmith1215@gmail.com

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut To Lead On Climate Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

# City Of Torrington



ELINOR CARBONE  
Mayor

140 Main Street  
Torrington, CT 06790-5245  
elinor\_carbone@torringtonct.org  
Tel: (860) 489-2228  
Fax: (860) 489-2541

December 14, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

## Re: Public Input for Qualified Allocation Plan

Dear Ms. Natarajan:

I am writing to you today as Mayor of the City of Torrington, CT regarding public input for the Qualified Allocation Plan (QAP) for Connecticut's Low Income Housing Tax Credit Program. As such, my comments revolve around the City of Torrington.

According to the US Census 2010 and the projection of the 2020 US Census the population of Torrington is between 36,350 and 33,898. Of that population, 32 percent are age 45-64 and 18 percent are age 65 and over (Connecticut Economic Resource Center, Inc. Town profile 2019). That is 50 percent of Torrington's population is over the age of 45. And according to the 2016 US Census Bureau American Community Survey (ACS) Torrington median age is 10% higher than that of the State of Connecticut.

Torrington is located within Litchfield County which has the largest percent of seniors (19.7 percent) of all eight counties of Connecticut. The population of people 65 years of age and older is expected to grow by 56 percent in Connecticut between 2010 and 2040. Approximately 7 percent of Connecticut seniors fall below the poverty line and another 8 percent have incomes within 149 percent of that threshold (2010 US Census Data). These poverty statistics cover Torrington as well. Torrington needs affordable housing for seniors now – and will undeniably need more in the near future.

The reason I refer to the statistics particular to Torrington, is to make the point that the current scoring system for the Qualified Allocation Plan, where family project applications are eligible for more scoring points than age-restricted project applications, really works against a City such as Torrington with a large aging population. Project applications may not address true need in a community such as Torrington or applicants may be discouraged from applying at all.

There is such a need for affordable housing of all types that I would like to think that the opportunities for development of affordable age-restricted housing in cities such as Torrington have an equal opportunity for funding in the State of Connecticut.

Sincerely,

Elinor Carbone  
Mayor



40 Clifford Street, Hartford, CT 06114 \* Ph: 860-692-3066 \* Web: ccfj.org

Terry Nash Giovannucci  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Submitted via electronic filing to [PublicComment@chfa.org](mailto:PublicComment@chfa.org)

December 22, 2020

Dear Ms. Giovannucci:

We write from the Collaborative Center for Justice, a Catholic social justice advocacy organization based in Hartford. We are sponsored by six Congregations of Women Religious across Connecticut. Thank you for the opportunity to comment on the 2020 Low-Income Housing Tax Credit Program's Qualified Allocation Plan (QAP).

We are writing to urge you not to decrease the incentives for sustainable design features, such as Passive House construction. Further, we ask that you consider increasing the allotted points for the inclusion of sustainable features, particularly the Passive House Standard.

As people of faith, we are deeply concerned about the climate crisis and the impacts it will have, and is already having, on the most vulnerable people. We also believe that each person deserves to have their basic human rights upheld, which includes having healthy, safe, and affordable housing. Building affordable, energy efficient, sustainable housing is a critical component of addressing both the housing needs of residents as well as the state's climate mandates, including the timelines for significant reductions of greenhouse gas emissions. The necessity of sustainable affordable housing construction should be better reflected in the QAP through the inclusion of greater incentives for these features.

Thank you for your consideration of these comments.

Respectfully submitted,

Dwayne David Paul – Director

Rachel Lea Scott – Associate Director



40 Clifford Street, Hartford, CT 06114 \* Ph: 860-692-3066 \* Web: [ccfj.org](http://ccfj.org)

Terry Nash Giovannucci  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Submitted via electronic filing to [PublicComment@chfa.org](mailto:PublicComment@chfa.org)

December 22, 2020

Dear Ms. Giovannucci:

We write from the Collaborative Center for Justice, a Catholic social justice advocacy organization based in Hartford. We are sponsored by six Congregations of Women Religious across Connecticut. Thank you for the opportunity to comment on the 2020 Low-Income Housing Tax Credit Program's Qualified Allocation Plan (QAP).

We are writing to urge you not to decrease the incentives for sustainable design features, such as Passive House construction. Further, we ask that you consider increasing the allotted points for the inclusion of sustainable features, particularly the Passive House Standard.

As people of faith, we are deeply concerned about the climate crisis and the impacts it will have, and is already having, on the most vulnerable people. We also believe that each person deserves to have their basic human rights upheld, which includes having healthy, safe, and affordable housing. Building affordable, energy efficient, sustainable housing is a critical component of addressing both the housing needs of residents as well as the state's climate mandates, including the timelines for significant reductions of greenhouse gas emissions. The necessity of sustainable affordable housing construction should be better reflected in the QAP through the inclusion of greater incentives for these features.

Thank you for your consideration of these comments.

Respectfully submitted,

Dwayne David Paul – Director

Rachel Lea Scott – Associate Director





Sonya Jelks  
Director, Connecticut  
CSH  
75 Charter Oak Avenue, 1-201  
Hartford, CT 06106

December 16, 2020

Nandini Natarajan  
Chief Executive Officer  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Submitted via email: [publiccomments@chfa.org](mailto:publiccomments@chfa.org)

Dear Chief Executive Officer Natarajan,

On behalf of Corporation for Supportive Housing (CSH), I am writing with recommendations for the Qualified Allocation Plan (QAP). We appreciate the QAP's current and historical contributions to the development of supportive housing, as well as CHFA's ongoing commitment to ending and preventing homelessness among Connecticut residents. Recognizing this, our comments are focused on ways we believe the QAP can be strengthened to further advance supportive housing as an effective tool to address homelessness.

The COVID-19 pandemic is shedding light on critical gaps in American housing and community-based service delivery that, in part, can be addressed through the LIHTC program. While the issue of housing insecurity is often seen through the lens of homelessness, it has much broader impacts. It has become increasingly clear that housing and health are inextricably linked.

Supportive housing (safe, stable, affordable housing with integrated services) is essential to the health and well-being of vulnerable individuals and families. Not only is supportive housing a proven method for increasing housing stability, but it has been shown to decrease high utilization of emergency services and public systems, generating significant public cost savings over time leading to greater benefits not only for individuals, but for the community at-large. The significant cost that goes into emergency and institutional response systems is woefully inadequate, which is further underscored during a public health crisis. At a time when state budgets are depleted and more service cuts are inevitable, prioritizing supportive housing and developing cross-systems opportunities to maximize resources will be critical.

CSH recommends the following items to strengthen supportive housing opportunities in the QAP:

**1. Adopt a Supportive Housing Set-aside**

CSH estimates that 1,040 units of supportive housing are needed across the state of Connecticut. We expect the COVID-19 pandemic to also increase this number as many individuals and families will be affected by loss of income and increasing housing instability as a result. While Connecticut uses a scoring incentive to award tax credits for supportive housing development, to better address the supportive housing gap for vulnerable individuals and families we recommend creating a supportive housing set-aside. While a statewide supportive housing needs assessment is recommended to help determine the appropriate tax credit allocation, as an initial step we recommend a 20%-25% set aside. Based on the 2020 credit allocation of \$8.4 million, this would lead to approximately 115 units of supportive housing<sup>i</sup>

**2. Develop Key Performance Indicators (KPIs) Related to Supportive Housing Production and Report on Progress**

The best initiatives have clearly outlined goals that are measurable. The QAP can be strengthened by clearly outlining performance indicators that measure and track the number of supportive housing units projected and actualized from the LIHTC supportive housing allocation. CHFA can then set clear expected outcomes and review data annually to determine progress on both implementation and unit production plans. Developing KPIs will be better accomplished if a supportive housing set-aside is adopted.

**3. Implement Tax Credit Compliance Monitoring**

CHFA's current compliance monitoring framework requires annual certification that a developer/owner has provided, and will continue to provide, items for which a development received points in the competitive score process that led to a LIHTC award. With the allocation of specific points for supportive housing, CHFA's monitoring should ensure that developers have fulfilled their obligations as outlined by the QAP and the Supportive Housing Guidelines. We recommend that CHFA or its designee evaluate whether developers receiving points for supportive housing are meeting all of their requirements related to QAP scoring items as part of the annual compliance certification.

**4. Ensure Quality Standards**

The QAP should include a clear definition for supportive housing that indicates that supportive housing is permanent housing that has no time limits, residents pay a portion of the rent, and have the same rights and responsibilities as renters in other low-income or market rate housing units.

We also recommend that the definition of supportive housing address the [dimensions of quality](#). Quality supportive housing is housing that is – (1) tenant-centered, (2) easily accessible to tenants of all backgrounds, (3) coordinated amongst housing partners with a shared goal, (4) integrated with voluntary services and community connections, and (5) sustainable over time<sup>ii</sup>. To ensure supportive housing maintains a level of quality, CHFA should require applicants to submit a [Commitment to Quality Checklist](#) with their application. CSH's Commitment to Quality checklist is a simple checklist that outlines and defines 25 quality indicators that the applicant is or is not committing to with their project. We can provide a copy of this Quality Endorsement checklist to CHFA staff for reference and are happy to discuss how this could be used for CHFA QAP.

**5. Strengthen Credit Award Process - Basic Threshold Requirements**



The QAP currently has a strong set of threshold requirements that support Connecticut's robust housing priorities. We suggest strengthening the text of certain requirements to further align application criteria with these priorities and to ensure shared understanding and adherence.

9. Affordability Commitment<sup>iii</sup>. The Affordability Commitment states that if "...a Proposed Development includes units that have a rental or supportive housing subsidy that subsequently becomes unavailable... the designated units may revert to 50% AMI or 60% AMI..." It is recommended that the Interagency Council on Supportive Housing and Homelessness be notified that the rental or supportive housing subsidy is no longer available so potential other subsidies could be identified.

16. Public Housing Resident Participation<sup>iv</sup>. Expand Public Housing Resident Participation to include resident participation in all proposed developments.

17. Public Housing Preferences<sup>v</sup>. The QAP currently requires all applicants to certify that they will provide preference to eligible households on PHA waitlists and make on-going efforts to request that PHAs make referrals to their development. However, the QAP does not currently require supportive housing applicants to certify that they will give preference to individuals and households on the local Coordinate Access Network (CAN) waiting list for supportive housing within their tenant selection, or that they will make ongoing efforts to request referrals from this waiting list. We recommend that CHFA include the following language in their application requirements:

*"In the case of permanent supportive housing; each applicant will be required to affirm its commitment, by certifying in writing to:*

*Give preference in its tenant selection plan for its permanent supportive housing units to eligible households through the Coordinated Access Network(s) (CAN) in the local market area unless HUD regulations prohibit such preference,*

*Make on-going efforts to request that the CAN make referrals to the project, or request that the CAN include relevant information about the project on any listing the CAN makes available."*

Additionally, we recommend that CHFA bolster the Certification Exhibit in the Consolidated Application to allow applicants to certify that their tenant selection plan will give preference to households connected to the CAN. We recommend CHFA include the following language in the Consolidated Application Certification Exhibit:

*"The Applicant shall give preference for its permanent supportive housing units in its tenant selection plan to eligible households connected to the Coordinated Access Network(s) (CAN); and make on-going efforts to request that the CAN make referrals to the project, or request that the CAN include relevant information about the project on any listing the CAN makes available.*

Yes

No

N/A

*If 'No', please provide explanation.*

CHFA's commitment to supportive housing is evidenced by the historical evolution of the QAP and the inclusion of specific language around supportive housing. However, to ensure that LIHTC results in the development of quality and sustainable supportive housing, we believe the aforementioned changes are necessary. We encourage CHFA and the state of Connecticut to adopt the recommendations set forth here as means of ensuring that supportive housing commitments are maintained by developers, that supportive housing is developed in healthy and opportunity rich environments, and that credits are targeted in the most effective manner to the populations most in need.

Given CSH's commitment and experience, we urge you to adapt the above recommendations. Thank you for considering these points as part of developing the next QAP.

Sincerely,



Sonya Jelks  
Director, Connecticut  
CSH

---

<sup>1</sup> See CSH Supportive Housing Calculator from more information: <https://www.csh.org/qap/#Calculator>

---

<sup>ii</sup> The Dimensions of Quality Supportive Housing is a national standard created by CSH and based on two years of research with communities across the country. Additional information on the Dimensions of Quality Supportive Housing can be with accessed at <https://www.csh.org/supportive-housing-101/quality/>

<sup>iii</sup> Final 2020 QAP, page 8

<sup>iv</sup> Final 2020 QAP, page 8

<sup>v</sup> Final 2020 QAP, page 9





December 20, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

We are writing in response to the call for comments on Connecticut's Qualified Allocation Plan (QAP) for the State's Low-Income Housing Tax Credit program. We would like to suggest the following modifications to the QAP for 2021:

- A CDC/CHDO set-aside for 9% LIHTC. Since 2015, only two 9% LIHTC awards have been given to Connecticut-based Community Development Corporations (CDCs), to NeighborWorks New Horizons in 2019 and Mutual Housing Association of Greater Hartford in 2018. As the 9% LIHTC is the largest subsidy for housing development in Connecticut, it is critical for the continued vibrancy of our CDC sector to have access to this pot of funds. To demonstrate the State's continued commitment to local groups and support of local jobs, we recommend a 10% set-aside for projects developed by a sponsor whose General Partner includes a Connecticut-based CDC or CHDO with a stake of at least 40%. This will build the financial capacity of our CDC sector and build the necessary expertise to complete the developments without a development partner.
- Enhanced pre-application review. We applaud CHFA and DOH's commitment to reviewing over 140 submissions through its Developer Engagement Process. We recommend building on this success with a robust pre-application that identifies and guides projects that are at an early stage and not ready for competitive review. Given the high cost of application submission (inclusive of 90% plans and specs), it is critical that developers and the agency work together to avoid costly unsuccessful applications.
- Additional points for CTtransit proximity. We propose expanding the definition of TOD beyond Ctfstrak and commuter rail proximity to projects that meet the existing definition of "Local bus service provided 7 days a week within ½ mile of the proposed development as measured by a pedestrian's path." This will enhance "naturally occurring" transit corridors, such as Farmington Avenue in Hartford or Dixwell Avenue in New Haven, by supporting walkable and dense neighborhoods are inherently transit-oriented. Supporting CTtransit aligned sites will also better



*"We Build and Transform Lives"*



reach low and moderate-income transit users. Studies in Washington, DC and elsewhere have shown that LMI riders are more likely to use inter- or intra-city bus service than commuter rail service.

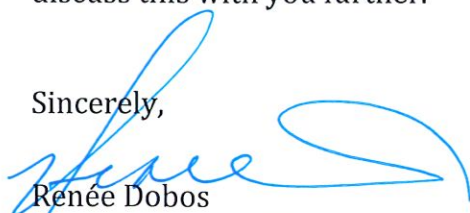
- Additional points for walkability. While the QAP offers points for projects that are mixed-use, it does not contemplate projects that are within walking distance of shopping or employment. Incentivizing walkable communities offer tangible benefits to both to residents and the broader community; including easy access to services, improved health outcomes, stronger community bonds and reduced CO2 emissions. While Walkscore is a flawed metric, we recommend offering points to projects that meet a minimum score of 50.
- Senior Housing – Points should not be lost when providing senior housing. This is a growing area of need and a large number of seniors living in Connecticut are at the poverty level or below and subject to homelessness.
- Points for Urban Developments – This appears to not be in line with the State's objective to move affordable housing into all Municipalities by requiring all municipalities to provide their affordability plan of 10% rental units to be affordable. If points are only given to urban projects, this will impact suburban goals to reach their 10% threshold. Diversity has a positive impact on communities.

Additionally, we recommend that CHFA implement a Smoke-free Housing policy for projects funded with CHFA or DOH funding. HUD implemented a policy that requiring all Public Housing Agencies to have a smoke-free policy in place by July 31, 2018. Amending the required CHFA Amendment to Lease forms to require a Smoke-free Housing policy would add no additional cost to housing developments or the Agency, while improving health outcomes for residents of CHFA-subsidized housing and reducing operating and turnover costs for property owners.

We are also asking CHFA and DOH to lobby the State government to allow a PILOT program for all affordable housing. The financial burden placed on the affordable assets is being taxed at the assessed level and not taxed at the income that is being generated. Currently only Congregate housing is allowed a Pilot with municipalities.

Thank you for the opportunity to present this feedback. We welcome the opportunity to discuss this with you further.

Sincerely,



Renée Dobos  
Chief Executive Officer



*"We Build and Transform Lives"*







Dec. 22nd, 2020

Dear Ms. Nash Giovannucci, CHFA & DOH Officials and Staff, and State of Connecticut Stakeholders:

[Connecticut Passive House](#), CTPH, appreciates this opportunity to comment on the development of a multiyear QAP which will serve as the blueprint for Connecticut's next wave of affordable housing.

The critical timeline to reduce carbon in our atmosphere has been accelerated so it will even more important for the next QAP to be forward thinking enough to "future-proof" these affordable housing projects.

- According to the 2020 final report from the Governor's Council on Climate Change (GC3) Progress on Mitigation Strategies Working Group, the reduction curve for GHG emissions must become much steeper in order for CT to meet its 2030 and 2050 goals (45% and 80% below 2001, respectively).<sup>i</sup>

**Since buildings contribute 40% of GHG emissions, they play a vital role in enabling CT to achieve its mandated climate targets. The importance of CHFA's multi-year QAP to send the right signals to developers, via the Sustainable Design Measures and specific point allocations, cannot be overstated.**

Recommendations for the multi-year QAP:

1. **Since the average lifespan of buildings built today is estimated to be at least sixty years, new construction in Connecticut should be designed, built and operated to achieve net zero emissions.** The following states and municipalities have already enacted these stipulations/energy codes or will have them go into effect by 2030: California, Massachusetts, New York, Delaware, and Washington D.C. Additionally, strategic electrification for the building sector is a goal that Connecticut is working towards, and very recently, an representative for Eversource announced that the utility is poised to offer an all-electric bonus incentive for new residential construction, including multifamily to CHFA's Sustainability Working Group held on Dec. 16<sup>th</sup>, 2020 .
2. **As the Gold Standard for energy-efficiency, The Passive House (PH) Building Standard must proportionally receive more points in the QAP in order to incentivize developers to pursue it.**

With its emphasis on the building envelope and air-sealing, the Passive House building standard has been recognized as the leading high-performance building standard in the market both globally and in the U.S. by Sam Rashkin, Chief Architect, Office of Energy Efficiency and Renewable Energy (OEERE) who stated in the 2015 OEERE Newsletter: "Passive House with PHIUS Certification makes DOE Zero Ready Home (ZERH) a prerequisite and then squeezes the last drop of additional efficiency for greater resilience and minimum energy consumption." <sup>ii</sup>

- Additionally, buildings built to the PH standard have been widely recognized as the optimal path to achieving zero energy, when coupled with renewables – either onsite or offsite.

In order to encourage Passive House projects, the criteria in the Sustainable Design Measures in the next QAP must be careful to avoid the current scenario of the 2020 QAP where comparable points are available for Passive House along with other standards that are easier to meet and/or not as robustly energy efficient.

- In the presentation, '[Taking Passive House to Scale in Massachusetts](#)' presented at the 2020 'New Gravity Housing Conference – [Climate Change and the Imperative of High Performance Affordable Housing](#)', a study of other states' QAP's revealed that when equivalent points are given for Passive House and LEED in twelve states, no PH projects were pursued.



Importantly, since the issuance of the 2020 QAP, Eversource has launched a [comprehensive PH training](#) program in partnership with CTPH, to educate and train a diverse array of stakeholders: developers, owners, state agency employees, policy decision-makers, designers, engineers, builders and tradespeople. Plus, Eversource is additionally poised to offer extensive utility incentives, specifically designed to offset soft costs – pre and post-construction - related to passive multifamily projects.

- **The combination of PH training and utility incentives in conjunction with higher points in the QAP for Passive House, have the potential to transform the market in Connecticut and take Passive House to scale as it is already doing in Massachusetts.**

In addition to being recognized as the most robust energy-efficient building standard, Passive House also delivers additional key co-benefits that are extremely pertinent for occupants of affordable housing:

**Health/Indoor Air Quality:** Passive House is the only high-performance standard that requires balanced ventilation which results in continuously filtered fresh air and superior indoor air quality.

Americans spend nearly 90% of their time indoors which elevates the importance of indoor air quality, especially for residents of affordable housing who disproportionately suffer from asthma and other chronic lung diseases. According to the [American Lung Association](#), there are disparities in harm from air pollution to racial or ethnic groups and people who are in a low socioeconomic position, have less education, or live nearer to major sources of pollution. Specifically,

- Moisture is a leading cause of health, comfort and durability concerns in homes.
- 19% of U.S. households have at least one person with asthma and there is a 20-50% increased risk of asthma in damp houses
- The economic cost of asthma amounts to more than \$56 billion annually

**Energy Security:** In their study of energy efficiency and equity, the [New Buildings Institute](#) cited Passive House as an effective tool utilized in Portland, Oregon and by the Pennsylvania Housing Finance Authority to address the disproportional burden that low-income households face on energy costs. This burden is especially pronounced in Connecticut:

- Key findings in the 2020 by VEIC for Operation Fuel and the CT Green Bank<sup>iii</sup> cite income equality in Connecticut as the third highest in the nation and specifically, “Energy burdens are highest among low-income residents: 6-7 higher”.

**Resiliency:** Since homes built to the Passive House Building standard maintain indoor air temperatures for extended periods of time – 5-6 days, occupants are able to safely and comfortably shelter in place in the advent of energy black-outs or extreme weather events, as demonstrated by the Rock Mountain Institute.<sup>iv</sup>

Finally, findings expressed in the Yale Center for Climate Change and Health 2020 report, ‘Climate Change and Health in Connecticut’<sup>v</sup> underscore the nexus of Climate, Health, and Equity:

“While climate change affects everyone, it does not affect everyone equally....Populations disproportionately vulnerable to the effects of climate change include those with low income, communities of color, immigrant groups (including those with limited English proficiency), Indigenous people, children and pregnant women, older adults, vulnerable occupational groups, people with disabilities, and people with preexisting or chronic medical conditions.”



CHFA is in a unique position to demonstrate leadership to the rest of the state and by virtue of the collaborative, inclusive and transparent development process for the next QAP, the agency has already set itself apart in creating a higher standard.

Thank you for all of the efforts to date to create affordable housing that meet's Connecticut's climate and housing goals.

CTPH is committed to supporting CHFA and DOH's efforts to meet its goals to provide high-quality affordable housing while also addressing Governor Lamont's pledge that *"Connecticut will remain a leader on climate change"*<sup>vi</sup>.

Respectfully submitted on behalf of CT Passive House,

*Alicia Dolce*

Alicia J. Dolce,  
Founding member, CTPH

---

<sup>i</sup> [https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3-working-group-reports/GC3\\_Progress\\_Mitigation\\_Final\\_Report\\_111620.pdf](https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3-working-group-reports/GC3_Progress_Mitigation_Final_Report_111620.pdf)

<sup>ii</sup> <https://www.energy.gov/sites/prod/files/2015/05/f22/ZERH%20Update%20May%202015.pdf>

<sup>iii</sup> <https://ctgreenbank.com/wp-content/uploads/2020/11/Mapping-Household-Energy-and-Transportation-Affordability-Report-Oct-2020.pdf>

<sup>iv</sup> <https://rmi.org/wp-content/uploads/2020/02/Hours-of-Safety-insight-brief.pdf>

<sup>v</sup> [https://publichealth.yale.edu/climate/YCCCH\\_CCHC2020Report\\_395366\\_5\\_v1.pdf](https://publichealth.yale.edu/climate/YCCCH_CCHC2020Report_395366_5_v1.pdf)

<sup>vi</sup> <https://portal.ct.gov/Office-of-the-Governor/News/Press-Releases/2019/09-2019/Governor-Lamont-Signs-Executive-Order-Strengthening-Connecticuts-Efforts-to-Mitigate-Climate-Change>





## dorgan architecture & planning

10 Eastwood Road, Storrs, CT 06268

01.518.469.6464

Registered Architect NCARB

December 23, 2020

Dear Commissioner Mosquera-Bruno, Ms. Natarajan, and CHFA Stakeholders:

Thank you for this opportunity for public participation in CHFA's plans.

I appreciate all of the hard and effective work CHFA has undertaken to respond to the needs of the Connecticut's vulnerable communities during this exceptionally difficult year. I particularly appreciate the nationally recognized response to meeting the needs of our homeless neighbors. CHFA's financial management and retention of the highest bond rating is laudable. This status can and should be leveraged to further benefit CHFA's mission.

The State of Connecticut requires policies that clearly direct support and funding to the people with the greatest needs, including additional support for CHFA and DOH.

A couple of thoughts I would like to share about CHFA's focus for the future:

1. Community Development – As evidenced by the largest racial educational achievement gap in the nation, Connecticut has failed to invest sufficiently in community development. This should start with support for Community Development Corporations in all state programs as well as preference for funding for vulnerable communities. CHFA should direct all discretionary funds to the development of CDCs.
2. Rehabilitation – Many urban, suburban and rural properties in Connecticut have unmet rehabilitation needs. These properties have deteriorated, are energy inefficient or are functionally obsolescent. CHFA should establish construction funding programs for 1-4 family homes designed to address large volumes of rehabilitation.
3. Opportunity – Connecticut remains unacceptably segregated. The QAP and other policies should support community choice.
4. Sustainability – All construction should align with international and state sustainability goals. CHFA should have a specific initiative designed to bring its entire portfolio into compliance with the State's climate change goals for 2030 and 2040. This should include an immediate focus on very high-performance building envelopes with a life expectation of 40 years or more as well as energy recovery ventilation. Goals should expand over the next few years to include reducing embodied carbon. Any renewable energy systems should be subsidized outside of housing funds.
5. Financing – CHFA should continue and expand its initiatives to employ its financial resources to secure low interest financing, allowed by its AAA bond rating, to support CDFIs and other public and public interest organizations ability to deliver low interest financing.

Please let me know if you have any questions.

Your truly,

Kathleen A. Dorgan

December 22, 2020

VIA ELECTRONIC FILING PublicComment@chfa.org  
Terry Nash Giovannucci  
CHFA  
999 West Street  
Rocky Hill, CT 06067

Re: Low-Income Housing Tax Credit Program

Dear Ms. Giovannucci:

We, the undersigned, thank you for providing this opportunity to comment on CHFA's Low-Income Housing Tax Credit Program, its QAP, and its current priorities and policy goals.

CHFA's Qualified Allocation Plan (QAP) plays a vital role in setting guidelines for the allocation of Low-Income Housing Tax Credits and ensuring better-built homes for low-income Connecticut residents. The intersection between affordability, health, comfort, climate resilience and climate mitigation has never been more important. Now is the time to develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change.

We recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points, and allow another high standard such as ILFI or Passive House until that time. This should be the direction for all buildings in Connecticut, but it is extremely important for newly built affordable housing as ILFI, Passive House and energy efficient and net-zero, all-electric, zero embodied carbon designs are the most cost effective and healthy choice for new buildings.

Net-zero, all-electric codes are recognized as the future of clean buildings. Washington D.C.'s energy code<sup>1</sup> is one of the most stringent in the country with a voluntary path to net-zero energy (NZE) buildings through Appendix Z. Massachusetts has proposed a net-zero stretch code<sup>2</sup>. Forty cities in California have adopted building codes to reduce their reliance on gas and move towards net-zero, all-electric buildings.<sup>3</sup>

Because of advances in technology - solar, LEDs, battery storage, heat pumps, and other equipment and design techniques, the initial cost of a net-zero building need not be higher than that of a conventional energy building. Net-zero buildings also have lower lifetime costs, using significantly less energy than conventionally constructed buildings and by supplying their own renewable energy. Rocky Mountain Institute (RMI) analyzed the costs of a new all-electric home versus a new mixed-fuel home that relies on gas for cooking, space heating, and water heating in a

---

<sup>1</sup> <https://gettingtozeroforum.org/appendix-z-offers-district-buildings-a-path-to-net-zero-energy/>

<sup>2</sup>

<https://www.mass.gov/doc/11-03-2020-code-change-proposal-mass-zero-energy-buildings-coalitionpdf/download>

<sup>3</sup> <https://www.sierraclub.org/articles/2020/12/californias-cities-lead-way-gas-free-future>

number of cities across the United States, including Boston and New York. In Boston, the all-electric home saves nearly \$1,600 in costs and 51 tons of CO2 emissions over a 15-year period. In New York City, the all-electric home saves \$6,800 in net present costs and 46 tons of CO2 emissions over a 15-year period.<sup>4</sup>

Connecticut municipalities are beginning to recognize the value of building to a net zero standard in planning their own projects. Mansfield is scheduled to begin construction in the spring of 2021 of what will be the first net zero public school in the state. Meanwhile, Manchester is planning to retrofit one of its elementary schools to a net zero standard and other municipalities are taking a close look at the idea of building efficiently now to reap long term benefits.

Net-zero all-electric, zero carbon profile buildings are better for human health. The combustion of gas in buildings produces a range of air pollutants with both acute and chronic health effects. UCLA researchers found that after an hour of cooking on a gas stove, 98 percent of smaller apartments had peak levels of NO2 that exceeded state and national air-quality standards.<sup>5</sup> In other words, the air quality inside nearly every apartment was so bad that it would be illegal if measured outside. Health-related costs are one of the next highest costs for low-income individuals after rent/mortgage payments, so controlling these costs with healthier buildings is an important component of maintaining affordability in Connecticut.

Homes and infrastructure built now will last many decades, well into 2030 and 2050 when Connecticut's Global Warming Solutions Act mandates greenhouse gas emission reductions of 45% and 80% respectively. By building now to a net-zero all-electric, zero carbon standard, CHFA will avoid costly retrofits later to comply with the greenhouse gas emission reductions of the Global Warming Solutions Act.

Thank you for your consideration of our comments.

Sincerely,

Samantha Dynowski, State Director  
Sierra Club Connecticut

Tom Swan, Executive Director  
CCAG

Susan Eastwood, Chair  
Ashford Clean Energy Task Force

Peter Millman  
Eastern CT Green Action, Leadership Team

---

<sup>4</sup> <https://rmi.org/insight/the-new-economics-of-electrifying-buildings>

<sup>5</sup>

<https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california>

Leticia Colon de Mejias, Co-chair  
Efficiency For All

Charles J. Rothenberger, Climate & Energy Attorney  
Save the Sound

Amy McLean, Connecticut Director & Senior Policy Advocate  
Acadia Center

GEORGE PENNIMAN  
ARCHITECTS LLC

December 23, 2020

Dear Ms. Nash Giovannucci, Ms. Mosquera-Bruno, Ms. Natarajan, Ms. Landau, and Ms. Malani,

Thank you for providing this opportunity to comment on LIHTC procedures and the proposed LIHTC Qualified Allocation Plan (QAP).

I am an architect practicing in Essex for the past 29 years. In 1994 I established my own firm which currently employs 4 architects and an office manager. Sustainable design has been a focus of my practice and my own life since I entered the profession in the 80's; and in recent years I have focused on the Passive House building standard as a way to incorporate a sustainable design and building ethic into projects, while creating healthy environments and providing my clients significant cost savings through reduced energy use.

In addition to the benefits of utility cost savings and a much healthier indoor environment, building to Passive House standards is a particularly effective way to ensure resilience and durability in a housing stock that should last for decades. It is particularly effective as a way to provide long-term affordability for vulnerable constituents whose standard of living can hinge on the unpredictability of energy cost fluctuations.

At this time, I am making the request that CHFA increase their commitment to sustainability in the Low-Income Housing Tax Credit. Especially in light of your (sensible) decision to make this a 3-year QAP outline, now is the time to raise the bar and become a leader on the road to a healthier future. Taking this action will align with the state's benchmarks for reducing greenhouse gas emissions in S.B. 7: An Act Concerning Climate Change Planning & Resiliency along with the 2018 Comprehensive Energy Strategy and our ambitious state housing goals. Most buildings constructed under your new QAP will be around in 2050, thus should be built to the highest possible performance standards. By that time our building codes will have evolved and these buildings should not be outdated relative to the code.

The specific actions I am requesting are:

1. Sustainable design criteria in the QAP should be elevated as one of the top priorities.  
**The total number of points for Sustainable Design Measures (SDM) should increase in order to send a strong signal to developers to pursue high-performance projects.**
2. Reward **Passive House projects with maximum points** as it is the gold standard for high-performance, low-energy building.
3. The QAP should also specify that all new construction should be designed, **built and operated to achieve net zero emissions.**

Globally and regionally (Massachusetts & New York), the Passive House (PH) building standard has been widely acknowledged as the optimal path to achieve net-zero. A recent survey of other QAPs, especially in Pennsylvania, Massachusetts, and Wash. D.C. revealed noticeably higher allocation of points for Passive House that work in conjunction with more stringent building state codes, than CT, to achieve Zero Energy.

Furthermore, when points for Passive House in the QAP are combined with utility incentives specifically designed for new residential construction -- as is the case in Massachusetts -- market transformation occurs.

Connecticut is on the cusp of a similar market transformation. Eversource is launching Phase 1 of a substantial multi-pronged PH training program in Jan. 2021 to be followed by a bounty of utility incentives, specifically designed for PH new multifamily residential construction.

1. **I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.**

The current 2020 QAP, does not provide adequate points for Passive House because it is grouped with other standards that are easier to achieve. *All green building standards are not created equal.* Grouping them together does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver.

Additionally, in the early-stage matrix that was recently previewed that featured 'Energy Conservation' standards again, included PH with other standards or metrics that are fundamentally different from PH, or in the case of ZERH, a prerequisite for PHIUS PH Certification. If a developer can earn the same number of points for ZERH certification, why would they go the extra mile for Passive House?

Given the complexities of the various high-performance and green building standards, I urge CHFA to carefully re-examine both the groupings of all of the standards and point allocations to make sure that the classing and points reflect the ease or difficulty of achieving these benchmarks or certifications.

In summary, our governor and legislature have demonstrated great leadership on behalf of Connecticut to position our state to achieve a cleaner, healthier, more resilient, and carbon-free future.

By implementing the specific action described above for the QAP, CHFA can ensure that our buildings will be part of the solution to meeting our state's reduced emission and decarbonization targets, while improving the quality of life of their occupants.

I appreciate your consideration of this very important issue.

Sincerely,

A handwritten signature in black ink, appearing to read "George W. Penniman". The signature is fluid and cursive, with a long horizontal stroke at the end.

George W. Penniman, AIA, LEED-AP, CPHD/C



# Hartford Foundation

FOR PUBLIC GIVING

December 22, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

We are writing in response to the call for comments on Connecticut's Qualified Allocation Plan (QAP) for the State's Low-Income Housing Tax Credit program. As a community foundation with a strategic focus on investing in inclusive community and economic development, we would like to make the following comments regarding the QAP for 2021:

- Consider additional weight in scoring to local developers, and particularly local nonprofit developers, as well as for local hiring and procurement. Inclusive development is not just about the ultimate beneficiaries, but maximizing the direct benefit to target residents in all aspects of the project design and implementation. Local developers are more likely to keep spending within the state and nonprofit developers in particular are more likely to prioritize the needs of residents and provide added value beyond creating additional housing units. Investing in local developers builds the capacity of our local sectors including community development corporations, small businesses and workers.
- Continue to find ways to reduce the administrative burden of the application process. As a foundation that works with many nonprofits, including those developing housing, we have consistently heard that the high cost of application submission, for something that may ultimately be unsuccessful, is a barrier to many worthy developments. We applaud CHFA and the Department of Housing's commitment to reviewing submissions through its Developer Engagement Process and recommend building on this success with a robust pre-application that identifies and guides projects that are at an early stage and not ready for competitive review.



**Hartford Foundation**  
FOR PUBLIC GIVING

- Consider additional points for CTtransit proximity. We join local housing advocates in proposing an expanded definition of Transit Oriented Development beyond Ctfastrak and commuter rail proximity to projects that meet the existing definition of “Local bus service provided seven days a week within a ½ mile of the proposed development as measured by a pedestrian’s path.” Supporting CTtransit-aligned sites will better reach low and moderate-income transit users. Studies in Washington, DC and elsewhere have shown that low- and moderate-income riders are more likely to use inter- or intra-city bus service than commuter rail service.

Thank you for the opportunity to present this feedback. We welcome the opportunity to discuss this with you further.

Sincerely,

Erika Frank  
Senior Community Impact Officer





---

1266 E Main Street, Suite #601  
Stamford CT, 06902  
Telephone: (203) 348-2644  
Facsimile: (203) 348-2611

December 23, 2020

Terry Nash Giovannucci  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Nash:

With respect to CHFA's public input period to receive comments to its LIHTC Program, its QAP, and its policies, the JHM Group provides the recommendations outlined in items 1 through 3, below, for consideration by CHFA in drafting its guidance materials in the upcoming application year. We have focused on three areas that we feel will 1) leverage state resources to maximize the number of quality affordable housing units built/preserved; 2) prevent a disproportionate number of points from being allocated to areas of high opportunity and provide equal consideration for projects that build upon robust efforts in public housing replacement; 3) provide consideration for United States military veterans in development and ownership of housing developments. As always, we appreciate the thought and effort that CHFA staff has put into its policies and hope that our comments and questions are constructive in helping create next year's final documents.

1. Increase the 9% LIHTC cap above \$30,000 for Hybrid Financing Structures. With CHFA's inclusion of the Hybrid Financing Structure in the 2020 Qualified Allocation Plan, it is clear that it is CHFA's intent to maximize the use of its scarce resources such as 9% LIHTC and soft funding from the State of Connecticut to create the greatest number of qualified residential units possible. As JHM has expressed previously, we agree and support CHFA's efforts to provide this tool to allow developers the ability to increase production of qualified units with the least cost to the State. However, we must stress that the 2020 QAP, subsection (4) of Section III(B) restricts the ability to effectively implement the Hybrid Financing Structure since, as written, CHFA's guidelines limit a 9% LIHTC allocation to no more than \$30,000 per qualified unit. This is problematic as it doesn't allow for the proper leveraging of the tax-exempt bonds and their attendant 4% credit.

For example, consider a conventional 9% LIHTC application that could seek the maximum allowed allocation of LIHTC, \$2,000,000, which is 20% of the state's total \$10,000,000 allocation and that is also within the parameters of the \$30,000 LIHTCs per qualified unit. To qualify for the maximum allocation, ~\$21,600,000 of eligible basis is necessary, but the actual total eligible basis is ~\$34,700,000, which means that ~\$13,100,000 in eligible basis would be stranded. This is a very valuable resource that could be used to create basis for a separate tax-exempt bond issuance

which would allow for the leveraging of the ~\$4,600,000 equity raised from the sale of the bonds. As described, this is a significant benefit that will allow for funding for additional units. However, capturing the excess basis requires splitting the project into separate and simultaneous 9% and 4% projects thereby reducing the qualified units in the Hybrid 9% piece. The \$30,000/unit max annual credit amount then prevents the project from achieving the necessary aggregate \$2,000,000 max annual credit. For this reason, we are requesting the ability to exceed the \$30,000 per unit limit as described in the QAP subsection (2) of Section III(B) when applying under the Hybrid Financing Structure in order to allow the leveraging of 4% LIHTC to occur.

This is a key tool that will further assist CHFA in meeting its core mission as it works to address the state's constantly growing demand for affordable housing. The hybrid structure outlined here does just that.

2. Reduce points awarded under Opportunity Characteristics and equally award points for additional phases of public housing replacement. Currently, applicants that qualify under 4.a., as Municipalities Having Less Assisted and Deed Restricted Housing, receive 6 points in addition to receiving the 9 points that become automatic under 4.b., Development Located in an Area of Opportunity, thereby providing a very significant 15-point total under section 4. Compare this to Bridgeport which only receives a total of 2 points under section 4. As we have expressed previously during the QAP comment period in July, the disproportionate allocation of points remains a concern as urban areas would not be able to score competitively against municipalities located in areas of opportunity. We are not disputing the need affordable housing in all areas, however, developing affordable housing in urban and low-income areas should remain a priority as these investments help address critical needs within communities by ensuring safe and healthy living conditions.

The city of Bridgeport's 2020-2024 consolidated plan states that new development of public, affordable, and subsidized housing is one of the "most immediate needs" for the city. Its existing housing stock is in dire need of replacement and revitalization due to its age and present state of deterioration. This is not only the case for Bridgeport, but for all urban areas throughout Connecticut with aging public housing stock that was originally built in the mid-1900s. Urban areas need investment in their housing and should not be left behind in that regard.

For these reasons, we recommend that the points under section 4.a. Municipalities Having Less Assisted and Deed Restricted Housing and also 4.b. Development Located in an Area of Opportunity be capped at a combined 6 points. Additionally, that those applications for developments meant to replace existing, obsolete public housing units be awarded comparable points to those in Areas of Opportunity, thereby making those applications more competitive.

We believe that the replacement of obsolete public housing within new mixed-income, family developments should be equally ranked and have available the same number of points as is available for developments in Areas of Opportunity. The fact that residents are being relocated from failed public housing complexes to new mixed-income communities creates real, meaningful opportunities for them and their families as well as for the community at large. This has also proven to be a catalyst that transforms communities as it encourages new economic development and value enhancement for the surrounding community as it increases income levels and provides

new, safe, quality housing at all income levels, from very-low income families as well as those able to pay up to market-rate.

Redeveloping and replacing obsolete public housing developments, by its very nature, creates Areas of Opportunity. This process creates focus on neighborhoods that would otherwise be subject to unrelenting decline and, ultimately, abandonment. Instead, it transforms them into vibrant, sustainable segments of the overall community. These developments create areas where residents find new hope and opportunities in the housing provided as well as the economic development that inevitably takes place.

Further, replacing public housing complexes with new mixed-income housing also meets many of the criteria as stated under II. State Housing Plans. Specifically, it meets many of the objectives stated in the Con Plan, including 1) Prevent and end homelessness; 2) Increase the supply of affordable housing, which includes...creation of affordable housing with the goal of expanding housing choice and opportunity; 3) Increase the supply of affordable housing in order to support economic growth and the development of stable and healthy communities and neighborhoods; 4) Make housing investments that support responsible growth and development in the state and the efficient use of existing infrastructure investment in transportation, water, sewer, and other utility systems.

Replacement public housing meets these criteria by:

- a. Relocating public housing residents to new, quality housing serves the lowest income families in the best way possible and the fact that these new developments are located on public housing authority properties, ensures that they will remain affordable in perpetuity.
- b. New mixed-income housing that replaces existing, obsolete public housing units inevitably increases the supply of affordable housing as the housing it's replacing always includes vacant units that are uninhabitable, thereby expanding housing choice and opportunity.
- c. Eliminating obsolete public housing removes unstable, unhealthy housing from the market by replacing it with new, quality affordable housing that creates a new healthy environment that stabilizes neighborhoods and their surrounding communities.
- d. The public housing developments that are being replaced are in areas that are transit-oriented and have existing water, sewer and other utilities readily available. Not only does the investment in this housing in-and-of-itself constitute responsible growth and development, but, as experience has proven, it inevitably becomes a catalyst for additional economic development as well as increased property values.

For the reasons stated above we believe ranking public housing replacement evenly with opportunity areas is a worthy cause. We propose these qualifying standards as basis for earning the points:

- a. Must be a development that is linked to a phased masterplan to replace obsolete public housing; and
- b. These developments should be encouraged to utilize unique funding sources such as Urban Act and federal programs that allow the state to better leverage its investment.

3. Consideration for Veteran participation. In order to encourage the participation in the ownership, development and operation of affordable housing, we recommend that an additional category be included to award points to developments owned and managed by United States military veterans. This should have the same point value as for section 5.c Women and Minority Participation. The US military is compiled of individuals of different races, ethnicities, gender and socioeconomic backgrounds. In addition to the vast cultural diversity in its ranks, the act of serving their country provides every service man and woman with an additional set of experiences and perspectives, which can prove invaluable. US military veterans bring a wide variety of skills and perspectives that are essential for operating housing that serves residents that need housing most. These attributes include, but are not limited to leadership and teamwork, independent thinking, problem-solving and decision-making, and attention to detail.

We thank you for your time and consideration in reviewing our suggestions regarding Connecticut's LIHTC policies. As we are all aware, it's going take creativity to develop financing structures that allow CHFA to leverage the scarce resources available to it. Doing so will allow it to provide the greatest number of quality affordable-housing units possible and we feel our comments help achieve that goal. We have also highlighted the importance of cooperation with US military veterans, and investment in public housing and in urban areas. It is our hope that CHFA finds our recommendation to be constructive. Should you have any questions, please do not hesitate to contact me at (203) 595-5172 or via email at [todd@groupjhm.com](mailto:todd@groupjhm.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "todd", enclosed within a large, loopy circular flourish.

Todd D. McClutchy



December 20, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

We are writing in response to the call for comments on Connecticut's Qualified Allocation Plan (QAP) for the State's Low-Income Housing Tax Credit program. We would like to suggest the following modifications to the QAP for 2021:

- A CDC/CHDO set-aside for 9% LIHTC. Since 2015, only two 9% LIHTC awards have been given to Connecticut-based Community Development Corporations (CDCs), to NeighborWorks New Horizons in 2019 and Mutual Housing Association of Greater Hartford in 2018. As the 9% LIHTC is the largest subsidy for housing development in Connecticut, it is critical for the continued vibrancy of our CDC sector to have access to this pot of funds. To demonstrate the State's continued commitment to local groups and support of local jobs, we recommend a 10% set-aside for projects developed by a sponsor whose General Partner includes a Connecticut-based CDC or CHDO with a stake of at least 40%. This will build the financial capacity of our CDC sector and build the necessary expertise to complete the developments without a development partner.
- Enhanced pre-application review. We applaud CHFA and DOH's commitment to reviewing over 140 submissions through its Developer Engagement Process. We recommend building on this success with a robust pre-application that identifies and guides projects that are at an early stage and not ready for competitive review. Given the high cost of application submission (inclusive of 90% plans and specs), it is critical that developers and the agency work together to avoid costly unsuccessful applications.
- Additional points for CTtransit proximity. We propose expanding the definition of TOD beyond Ctfstrak and commuter rail proximity to projects that meet the existing definition of "Local bus service provided 7 days a week within ½ mile of the proposed development as measured by a pedestrian's path." This will enhance "naturally occurring" transit corridors, such as Farmington Avenue in Hartford or Dixwell Avenue in New Haven, by supporting walkable and dense neighborhoods are inherently transit-oriented. Supporting CTtransit aligned sites will also better reach low and moderate-income transit users. Studies in Washington, DC and elsewhere have shown that LMI riders are more likely to use inter- or intra-city bus service than commuter rail service.
- Additional points for walkability. While the QAP offers points for projects that are mixed-use, it does not contemplate projects that are within walking distance of shopping or employment. Incentivizing walkable communities offer tangible benefits to both to residents and the broader community; including easy access to services, improved health outcomes, stronger community bonds and reduced CO2 emissions. While Walkscore is a flawed metric, we recommend offering points to projects that meet a minimum score of 50.

Additionally, we recommend that CHFA implement a Smoke-free Housing policy for projects funded with CHFA or DOH funding. HUD implemented a policy that requiring all Public Housing Agencies to have a smoke-free policy in place by July 31, 2018. Amending the required CHFA Amendment to Lease forms to require a Smoke-free Housing policy would add no additional cost to housing developments or the Agency, while improving health outcomes for residents of CHFA-subsidized housing and reducing operating and turnover costs for property owners.

Thank you for the opportunity to present this feedback. We welcome the opportunity to discuss this with you further.

Sincerely,

James Horan, Executive Director  
LISC Connecticut

**Local Initiatives Support Corporation**

75 Charter Oak Avenue, Suite 2-250 Hartford, CT 06106 • T 860.525.4821 • [lisc.org/connecticut-statewide](https://lisc.org/connecticut-statewide)

December 23, 2020

Richard LoPresti  
Chairman  
North Haven Housing Authority  
175 Sentinel Hill Road  
North Haven, CT 06473

Dear Terry Nash Giovannucci, CHFA board members & staff and Governor Lamont:

I am a resident of the Town of North Haven and as the Chairman of the North Haven Housing Authority (NHHA), I appreciate this opportunity for public comment on the development of the multi-year 2021 LIHTC Qualified Allocation Plan.

I would like to advocate for a senior housing set aside for the multi-year 2021 LIHTC Qualified Allocation Plan. In addition, that Passive House projects be rewarded with maximum points as it is the gold standard for high-performance, low-energy building. I strongly support the continued inclusion of the Passive House building standard in the multi-year QAP, but with enough additional points that reflect its proven track record as the most robust energy efficiency high-performance standard.

Currently in North Haven, the waiting lists for all subsidized senior housing includes hundreds of folks, which could result in a wait of up to two years for an available unit. The NHHA has site plan approval for an approximately 50-unit senior housing complex. The architectural plans for this building are 90% complete and have been designed using the Passive House building standard. Unfortunately, without a senior housing set aside, this development will not be able to earn enough points, without the Passive House building standard, to be awarded funding through the LIHTC Program. There is certainly a need for senior housing. This project will provide the NHHA with economies of scale and allow the NHHA to be more self-sufficient in the future. And this project is ready to go and located adjacent to an existing NHHA facility (Temple Pines).

Thank you for this opportunity to comment on the development of the multi-year 2021 QAP.

Sincerely,

*Richard LoPresti*

Richard LoPresti  
175 Sentinel Hill Road  
North Haven, CT 06473  
203-623-0536  
richlopresti@gmail.com

P A U L B. B A I L E Y  
• A R C H I T E C T

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

Thank you for this opportunity to provide input regarding the forthcoming Qualified Allocation Plan (QAP) for Connecticut's Low-Income Housing Tax Credit program. I understand that CHFA intends to make significant changes to its next QAP, with this next version remaining in place for many years. I am writing to you now to request that CHFA modify its funding requirement to include affordable housing for our very needy senior population in Connecticut.

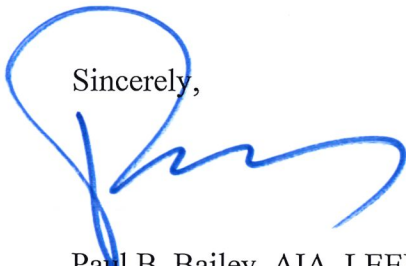
As you may know, our architectural firm has more than thirty years' experience designing affordable housing, including many developments for Connecticut's senior citizens. In the past decade or more, however, funding for new senior housing has virtually disappeared, even though the need has grown substantially as the country's population has grown much more skewed to its elderly residents. Two of our firm's clients have responded to this need by committing to substantially expand their existing senior housing developments with much needed new construction projects. The zoning approval for these developments was secured last year, but these projects (which are of critical need in response to the senior housing crisis) cannot go forward without government funding. As the CHFA 9% LIHTC seems to be the only possible source of funding, we are therefore making this urgent request to remove the current disincentive in the QAP for age-restricted senior housing and allow these projects and many others to start to fill this great need.

We all want our elder population to be able to live independently in security and dignity. Age-restricted developments are the best solution for a peaceful and quiet home environment for

our seniors, while also mitigating the need for more affordable housing. Mixed-age apartment buildings with families and young adults in close proximity to senior citizens result in complaints of noise pollution and exposure to certain health risks. Additionally, senior housing generally is designed with more age-appropriate accessibility amenities, such as low-grade ramps, fewer stairs, bathroom handrails and emergency monitoring systems. Ensuring that our senior citizens have access to these amenities in an affordable setting will allow for their independence and protection, which the state can supply through a reconfiguration of its QAP scoring system.

Thank you again for the opportunity to provide input on this critically important topic of affordable senior housing in Connecticut.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Paul B. Bailey', is written over the word 'Sincerely,'. The signature is stylized with a large loop at the beginning and a long, sweeping tail.

Paul B. Bailey, AIA, LEED AP BD+C





Accelerating the Development of High Performance Multifamily Housing

December 21, 2020

Terry Nash Giovannucci, CHFA  
999 West Street Rocky Hill, CT 06067 [PublicComment@chfa.org](mailto:PublicComment@chfa.org)

Re: QAP Update Process

Dear Ms. Nash Giovannucci, CHFA and DOH Officials, and State of Connecticut Stakeholders:

Thank you, Connecticut Housing Financing Agency and Connecticut Department of Housing for your ongoing commitment to providing high-quality affordable housing to citizens across the State of Connecticut.

The Connecticut Multi-Family Housing Peer-to-Peer Network (“P2P Network”) is a group of affordable housing stakeholders focused on improving the sustainability and performance of multi-family housing across the state, and we appreciate this opportunity to offer feedback during the current public comment period concerning revisions to the QAP. The QAP is an important lever to ensure that all of the low-income housing built or renovated today will address the needs of tomorrow: to provide healthy, comfortable, energy-efficient housing that will play a pivotal role in meeting the state’s mandated climate goals to decarbonize and increase the resiliency of our building stock. We applaud CHFA’s efforts to update the current QAP and transform it into an innovative, progressive plan that will help meet these goals over the next 3-5 years.

While we acknowledge that Passive House has been challenging for Connecticut to implement for the three years in which it received priority status in the QAP, we are encouraged by the data supporting Passive House sustainability and cost-saving documentation coming out of states like Massachusetts and feel that Connecticut is on the right path. We are also encouraged by the recent addition of Eversource’s Passive House training and predevelopment funds, to be followed by additional utility incentives specifically designed for Passive House. Together with additional points for Passive House in the QAP, these developments will tip the balance to accelerate market transformation in Connecticut’s sustainability efforts. We all recognize Passive House as the gold standard and it is Connecticut’s best method to reach our 2030 commitment.

Over the last several months, members of the P2P Network have conducted a series of analyses of the current QAP and its relationship to Connecticut’s sustainability goals. The findings from these analyses have been incorporated into three online presentations – *Green Building Standards Comparison*; *Costs and Benefits of Passive House*; and *Implementing Governor Lamont’s Goals* – that can be viewed at <https://ctgreenbank.com/mf-tpn-network/>.

Based on results from these analyses – and building on ongoing work by members of the Peer-to-Peer Network and other high performance housing groups across the region – we have already identified a number of areas where the sustainability sections of the QAP could be significantly strengthened. Many of these areas are addressed by the current sustainability criteria matrix that CHFA is considering, but not all of them, and not in the same way that we would recommend – for example in the precise definitions of the standards to be used and of the points to be awarded. We would therefore suggest that the current matrix is an excellent starting point, but that it needs to be refined and optimized before it is incorporated into the final QAP update.

The Peer-to-Peer Network is ready and willing to work with CHFA on this refinement/optimization process over a near-term timeframe defined by CHFA (perhaps January 1 – March 31, 2021). We have significant experience to bring to this effort and we have been actively analyzing and evaluating the 2020 QAP over the last six months, with the goal of recommending forward-looking and, at the same time, cost-effective upgrades to the sustainability criteria. We therefore look forward to actively engaging with CHFA over the first quarter of next year. To that end, we will reach out soon to schedule a kick-off discussion sometime in early January 2021.

Thank you for your consideration.

On behalf of the P2P Network QAP Working Group



Susan Bridgewater Odell, AIA, CPHC®  
Senior Project Architect  
Certified Passive House Consultant  
Paul B. Bailey Architect, LLC  
110 Audubon Street  
New Haven, CT 06510



Paul Selnau, AIA, CPHC®  
Schadler Selnau Associates, p.c.  
5 Waterville Rd.  
Farmington, CT 06032



December 23, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

**Re: POAH Comments on Connecticut Housing Finance Authority (CHFA)  
Low Income Housing Tax Credit Qualified Allocation Plan**

Dear Ms. Natarajan:

Thank you for the opportunity to submit comments on Connecticut Housing Financing Authority's LIHTC Program, its QAP, and its current priorities and policy goals.

As you know, Preservation of Affordable Housing, Inc. (POAH) is a national nonprofit devoted to the preservation and long-term stewardship of at-risk affordable housing. Since 2001 POAH has built or preserved more than 100 rental communities, providing affordable homes for nearly 20,000 low- and moderate-income people across 11 states and the District of Columbia. In Connecticut, with CHFA's support and partnership, POAH has preserved and renovated three affordable rental communities – and we hope to make additional investments in other new construction and at-risk affordable properties in Connecticut in the future.

POAH greatly appreciates CHFA's careful development of a balanced plan for the allocation of its housing resources over many years, and its commitment to a transparent process which incorporates stakeholder input. We are aware that CHFA is now contemplating the first significant overhaul of its Qualified Allocation Plan in some time, and that it has invited its development partners to weigh in throughout that process. With that in mind, we would like to offer a few comments for your consideration:

- 1. Scoring Incentives for Municipalities with Less Assisted and Deed Restricted Housing:** As stated on previous occasions, POAH strongly supports the goal of ensuring affordable housing opportunities across all communities. However, our experience has been that because this scoring item is an all-or-nothing allocation of six points (6% of max points), it effectively "redlines" communities which may be just over the 10% affordable threshold – preventing them from accessing the resources they need to address serious local housing needs. Again, POAH supports the intent of this scoring item – but not to the exclusion of funding for communities which may have met the 10% standard but still have very serious local housing needs.

In view of these considerations, we would reiterate our previous recommendation that CHFA consider a more graduated approach for this scoring item, which appropriately weights proposals in households below the state's 10% threshold, but also allocates points on a sliding scale for municipalities between 10% and perhaps 15%. For example, municipalities under 10% would earn six points; those between 10% and 11% would earn five; those between 11% and 12% would earn four; and so on. Such a gradual approach would appropriately prioritize resources for locations with low affordable inventories without completely excluding locations with slightly higher inventories but equally pressing local housing needs.

2. **Senior Housing:** We are pleased to hear that CHFA is considering a scoring system that is not as heavily weighted against housing for seniors, especially in view of the state's aging population. To achieve a more balanced resource allocation, CHFA could create a third classification for senior housing applications (in addition to Public Housing and General) and seek to allocate its awards across the three. Another option could be a scoring incentive or separate classification for multi-generational housing, which is a model that has shown promise elsewhere.
3. **Public Housing Allocation:** POAH strongly supports preservation of existing, at-risk affordable housing as a core element of the state's housing strategy, and understands the significant challenges facing the SSHP portfolio in particular. However, given the state's vast unmet need for new affordable housing – according to the Center on Budget and Policy Priorities, more than 250,000 low-income Connecticut renters pay more than half their income for housing – and in view of the fact that public housing (including federal public housing and SSHP) make up just over one-quarter of the state's 90,000 unit publicly assisted inventory - we would encourage CHFA to reconsider the current practice of allocating half of its 9% LIHTC allocation to public housing projects in order to allow a greater investment of resources to produce new, desperately needed affordable housing.
4. **Passive House/ Energy Efficiency:** We are aware that some prospective applicants have expressed concerns about the inclusion of scoring incentives for Passive House and other energy-efficiency measures, based largely on perceived front-end costs and doubts about long-term benefits. We have some experience with these types of standards, and have seen that they can often be met without substantial cost premiums. The operational benefits are real, and we believe that CHFA should continue to reward sponsors who incorporate these concepts into their designs. We respectfully assert that now is not the time to lower the bar, and we would be happy to share our data and lessons learned.
5. **Discretionary Award:** One idea which has been proposed during recent developer stakeholder forums is a so-called "Director's Choice" funding award which could go to a project which might not score as highly as some others but which addresses a particularly critical need, has strong local support, and/or incorporates an innovative approach. We would support this type of discretion, since occasionally there are deserving projects which cannot quite thread the scoring needle or find themselves in an especially competitive round.

Thank you once again for the opportunity to share POAH's perspective on CHFA's LIHTC Program, its QAP, and its current priorities and policy goals. Please do not hesitate to contact me at (617) 449-0878 with any questions or comments you may have.

Sincerely,



Cory Fellows  
Vice President, Real Estate Development





December 23, 2020

Terry Nash Giovannucci  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

RE: Partnership for Strong Communities' input on 2021 Qualified Allocation Plan for federal Low Income Housing Tax Credits

Dear Ms. Giovannucci,

Partnership for Strong Communities is a statewide nonprofit policy and advocacy organization dedicated to ending homelessness and expanding affordable housing to strengthen Connecticut communities. The Partnership staffs and manages two statewide campaigns – Reaching Home and HOMEConnecticut focused on these goals, respectively. Given our work to foster more affordable and supportive housing options in Connecticut, we respectfully submit the comments below and request that the Connecticut Housing Finance Authority consider them as you draft the 2020 Qualified Allocation Plan (QAP).

The QAP serves as a detailed description of state priorities for funding affordable housing development through Low Income Housing Tax Credits. We applaud CHFA's recent strategic plan's policy priority to use the QAP as a means of reducing Connecticut's stark racial and economic segregation. We believe CHFA will receive stronger proposals if the QAP includes a restatement of this commitment to racial equity, as well as the Authority's assessment of low- and moderate-income housing needs in Connecticut as expressed in your recent Housing Needs Assessment.

As part of this policy statement, **we ask CHFA to adopt as principal funding goals: 1.) expanding affordable housing in areas of opportunity and 2.) preserving existing affordable housing in areas of community revitalization.** The QAP should achieve these funding goals through a balance of new construction in higher Opportunity Areas and the rehabilitation/preservation of existing affordable rental homes in distressed community areas, allowing the greatest amount of choice for low-income households to access quality housing. **To that end we ask CHFA to consider setting a minimum number of awards for applications in both funding areas.**

**We ask CHFA to consider including as a Threshold Criteria the inclusion of units for ELI persons or families.** As you know, Connecticut's rental affordability crisis for our poorest households persists. More than 117,000 rental households spend more than half of their income on housing. These households are headed disproportionately by people of color. Nearly a third of Black renter households are severely housing cost burdened, and ninety-five percent of severely cost burdened households have very low- or extremely low-income. Even within existing Connecticut LIHTC developments twenty-six percent of tenants pay more than thirty percent of their income on rent.



According to the most recent National Housing Preservation Profile for Connecticut, there are 4,987 publicly supported rental homes in Connecticut with affordability restrictions expiring in the next five years. **The QAP should continue to prioritize applications that rehabilitate State Sponsored Housing Portfolio (SSHP) developments and other existing units reaching the end of their affordability period and/or in need of rehabilitation.**

Well-designed mixed income communities are an important tool in correcting Connecticut's economic segregation. **We ask CHFA to consider giving greater weight to mixed income development proposals** in both opportunity areas and distressed communities. Specifically, we recommend a significant increase in the number of additional points added for projects including 20% market rate units and offering even more points for units that achieve a blend of 60% affordable and 40% market rate projects. Projects that can achieve a 60%/40% mix or better will provide greater access to social capital and avoid concentrations of poverty – objectives that are often missed in 100% affordable projects.

An expanded pool of qualified applicants will result in higher quality applications for tax credits. Some QAP criteria can unnecessarily restrict the number of developers able to submit a successful application. **We ask CHFA to consider ways to expand the pool of qualified applicants for the 2021 QAP, including by considering:**

- **Removing the point for 90% building plan and specifications drawings to reduce upfront costs – especially for projects in a high opportunity area;**
- **Removing prior planning and zoning approval for projects in a high opportunity area;**
- **Creating a simple pre-application process to clarify application expectations and identify projects that may not be ready to proceed to competitive review;**
- **Setting a minimum threshold for the number of projects and years' experience required of applicants without additional points for experience beyond these thresholds.**

We appreciate CHFA's continued leadership in providing affordable and supportive housing in Connecticut. We also appreciate the opportunity to engage with CHFA around the QAP and ways that we can work together to advance the goals of ending homelessness and expanding housing choice. Thank you for your consideration of our comments. Please feel free to contact us with any questions you might have.

Sincerely,

Sean Ghio  
Policy Director  
Partnership for Strong Communities



December 22, 2020

VIA ELECTRONIC FILING PublicComment@chfa.org  
Terry Nash Giovannucci  
CHFA  
999 West Street  
Rocky Hill, CT 06067

Re: Low-Income Housing Tax Credit Program

Dear Ms. Giovannucci:

We, the undersigned, thank you for providing this opportunity to comment on CHFA's Low-Income Housing Tax Credit Program, its QAP, and its current priorities and policy goals.

CHFA's Qualified Allocation Plan (QAP) plays a vital role in setting guidelines for the allocation of Low-Income Housing Tax Credits and ensuring better-built homes for low-income Connecticut residents. The intersection between affordability, health, comfort, climate resilience and climate mitigation has never been more important. Now is the time to develop and adopt a QAP that will future proof affordable housing for our state's climate goals and the impacts of climate change.

We recommend that the QAP set a date by which only energy efficient, net-zero, all-electric, zero embodied carbon designs will earn points, and allow another high standard such as ILFI or Passive House until that time. This should be the direction for all buildings in Connecticut, but it is extremely important for newly built affordable housing as ILFI, Passive House and energy efficient and net-zero, all-electric, zero embodied carbon designs are the most cost effective and healthy choice for new buildings.

Net-zero, all-electric codes are recognized as the future of clean buildings. Washington D.C.'s energy code<sup>1</sup> is one of the most stringent in the country with a voluntary path to net-zero energy (NZE) buildings through Appendix Z. Massachusetts has proposed a net-zero stretch code<sup>2</sup>. Forty cities in California have adopted building codes to reduce their reliance on gas and move towards net-zero, all-electric buildings.<sup>3</sup>

Because of advances in technology - solar, LEDs, battery storage, heat pumps, and other equipment and design techniques, the initial cost of a net-zero building need not be higher than that of a conventional energy building. Net-zero buildings also have lower lifetime costs, using significantly less energy than conventionally constructed buildings and by supplying their own renewable energy. Rocky Mountain Institute (RMI) analyzed the costs of a new all-electric home versus a new mixed-fuel home that relies on gas for cooking, space heating, and water heating in a

---

<sup>1</sup> <https://gettingtozeroforum.org/appendix-z-offers-district-buildings-a-path-to-net-zero-energy/>

<sup>2</sup>

<https://www.mass.gov/doc/11-03-2020-code-change-proposal-mass-zero-energy-buildings-coalitionpdf/download>

<sup>3</sup> <https://www.sierraclub.org/articles/2020/12/californias-cities-lead-way-gas-free-future>



number of cities across the United States, including Boston and New York. In Boston, the all-electric home saves nearly \$1,600 in costs and 51 tons of CO2 emissions over a 15-year period. In New York City, the all-electric home saves \$6,800 in net present costs and 46 tons of CO2 emissions over a 15-year period.<sup>4</sup>

Connecticut municipalities are beginning to recognize the value of building to a net zero standard in planning their own projects. Mansfield is scheduled to begin construction in the spring of 2021 of what will be the first net zero public school in the state. Meanwhile, Manchester is planning to retrofit one of its elementary schools to a net zero standard and other municipalities are taking a close look at the idea of building efficiently now to reap long term benefits.

Net-zero all-electric, zero carbon profile buildings are better for human health. The combustion of gas in buildings produces a range of air pollutants with both acute and chronic health effects. UCLA researchers found that after an hour of cooking on a gas stove, 98 percent of smaller apartments had peak levels of NO2 that exceeded state and national air-quality standards.<sup>5</sup> In other words, the air quality inside nearly every apartment was so bad that it would be illegal if measured outside. Health-related costs are one of the next highest costs for low-income individuals after rent/mortgage payments, so controlling these costs with healthier buildings is an important component of maintaining affordability in Connecticut.

Homes and infrastructure built now will last many decades, well into 2030 and 2050 when Connecticut's Global Warming Solutions Act mandates greenhouse gas emission reductions of 45% and 80% respectively. By building now to a net-zero all-electric, zero carbon standard, CHFA will avoid costly retrofits later to comply with the greenhouse gas emission reductions of the Global Warming Solutions Act.

Thank you for your consideration of our comments.

Sincerely,

Samantha Dynowski, State Director  
Sierra Club Connecticut

Tom Swan, Executive Director  
CCAG

Susan Eastwood, Chair  
Ashford Clean Energy Task Force

Peter Millman  
Eastern CT Green Action, Leadership Team

---

<sup>4</sup> <https://rmi.org/insight/the-new-economics-of-electrifying-buildings>

<sup>5</sup>

<https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california>

Leticia Colon de Mejias, Co-chair  
Efficiency For All

Charles J. Rothenberger, Climate & Energy Attorney  
Save the Sound

Amy McLean, Connecticut Director & Senior Policy Advocate  
Acadia Center

**From:** [Gottlieb, Jonathan](#)  
**To:** [PublicComment](#)  
**Subject:** QAP Comments  
**Date:** Thursday, December 17, 2020 3:24:12 PM

---

**[EXTERNAL EMAIL: If unknown sender, do not click links/attachments. Never give out username or password.]**

Terry,

PSC published a notice that CHFA is seeking comments on the QAP at this time, and they had a Zoom meeting to solicit comments. I'm a little confused (not upset, just confused) because in the past, QAP comments were sought after a draft QAP was issued, and that process took place only a few months ago. Because CHFA is not seeking comment on new proposed revisions, the comments below are our general suggestions, which echo our comments over the past few years. Thanks.

The combined preferences for new construction, supportive services, locations in "opportunity areas", housing the homeless, and sustainable design/energy efficiency combine to significantly disadvantage preservation projects in urban areas. While minor revisions have been made recently to expand eligibility for preservation points, the overall effect of the scoring matrix creates a very unlevel playing field. The disadvantages I've described apply to SSHP projects, which as a group deserve higher priority given their age, affordability levels, typical large size unit mix, lack of operating subsidy, and 100% affordability.

We have an excellent example of an SSHP project in Stamford that would not now be competitive for 9% credits but which should be a high priority. Oak Park was built in 1946. It has been providing affordable housing for 168 families in 27 buildings containing two and three bedroom units for 64 years. Oak Park faces significant rehab needs which cannot be adequately addressed with 4% credits. The eventual loss of this affordable housing resource would cause the displacement of resident families and the loss of an important housing resource in the least affordable housing market in Connecticut, yet we cannot justify the expense of a 9% application based on the current QAP. Existing occupied developments can't qualify for new construction points, cannot become supportive housing since they are already occupied (almost exclusively with the working poor), can't be moved to opportunity areas, can't house the homeless except on turnover because most are fully occupied already, and can't afford to qualify for design and energy points.

Two aspects of the value of urban preservation projects that are not addressed in the QAP are the importance of investment in disadvantaged communities and of addressing urban gentrification by ensuring the ongoing availability of affordable housing, especially for families. Because the allocation of tax credits and the other resources leveraged by the credits is a zero sum game, a tax credit dollar invested in the suburbs is a dollar not invested in an urban area that may be badly in need of such investment. High quality affordable housing in marginal neighborhoods improves overall community confidence, helps stabilize the area, and in the case of gentrifying areas, provides an important long term affordable housing resource for families that would otherwise become priced out of neighborhoods they have lived in for years.

We understand the goals of achieving a net increase in the number of affordable units, of making affordable housing available outside of impacted urban areas, of housing the homeless, providing supportive housing, and increasing energy efficiency. But the priority being given to these goals (especially in combination) is placing existing affordable housing at risk of continued deterioration and eventual loss to the community and displacement of low-income households. We urge CHFA, as we have done for several years, to level the playing field and allow urban preservation projects, especially SSHP developments, to once again be competitive for 9% credits.

Finally, we suggest that CHFA modify its position which effectively mandates the use of general contractors and precludes the use of the construction management approach, except in limited circumstances or by exception. While less experienced owners/developers may be exposed to greater risk under the construction management approach, developers and owners with greater experience and capacity can benefit from this approach and should not have to obtain waivers or exceptions to do so. We have completed two large projects with construction managers, and a third is nearing completion. Our experience to date supports the position that this approach should be permitted for use by experienced development teams.

Jonathan Gottlieb  
Vice President  
Rippowam Corporation  
40 Clinton Avenue, Suite 101  
Stamford, CT 06901  
Phone: 203 977-1400 ext. 3405  
Fax: 203 977-8522

**Please visit us at:**

<http://www.CharterOakCommunities.org>

<http://www.VitaStamford.com>

The information contained in this e-mail and any attachments hereto is confidential. If you are not the intended recipient, you must not use or disseminate any of this information. If you have received this e-mail in error, please immediately notify the sender by reply e-mail and permanently delete the original e-mail (and any attachments hereto) and any copies or printouts thereof. Although this e-mail and any attachments hereto are believed to be free of any virus or other defect that might affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by Charter Oak Communities or its subsidiaries or affiliates, either jointly or severally, for any loss or damage arising in any way from its use.

**TORRINGTON COMMUNITY HOUSING CORPORATION**

**110 PROSPECT STREET  
TORRINGTON, CT 06790  
(860)482-4257  
(860)482-5841 FAX**

December 9, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Re: Public Input for Qualified Allocation Plan

Dear Ms. Natarajan:

I am writing to you today on behalf of Torrington Community Housing Corporation (TCHC) regarding the public input period for the Qualified Allocation Plan (QAP) for Connecticut's Low Income Housing Tax Credit Program.

TCHC is a non-profit real estate development company, dedicated to improving the City of Torrington through providing affordable housing opportunities to its citizens. TCHC has purchased several properties in the City of Torrington, rehabbed them, and worked with the local CoC and The Housing Authority of the City of Torrington to offer needed affordable housing. We were able to accomplish this, in part, due to housing tax credits provided by CHFA, and for this we are grateful.

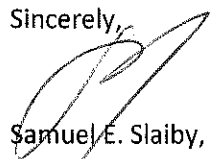
What we have found in our endeavors is that the need for affordable housing is not limited to younger families and younger singles. People of all ages struggle with the cost of housing. Local properties that have aged out of affordable deed restrictions after 30 years – now have very senior people staying in their home of 30 years but who can no longer afford it. And yet, there is no affordable place for them to go.

Connecticut is no exception to the 'aging of America'. According to US Census statistics, State of Connecticut Department of Public Health and the National Center for Health Statistics, in July 2019, approximately 31 percent of Connecticut's population was age 50 or over. By 2040 the same population is expected to be 57% of Connecticut's population (Connecticut Data Collaborative and Connecticut Legislative Commission on Aging).

Our experience leads us to believe that both age-restricted or senior developments and family developments should have equal opportunity for point-scoring in the Connecticut Low Income Housing Tax Credit Program application. There is a real need for both these types of housing. The current scoring system clearly favors family housing over age-restricted or senior housing and this does a disservice to a large and growing segment of Connecticut population.

We thank you for this opportunity to present this information.

Sincerely,



Samuel E. Slaiby, Esq.  
President

December 18, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

I am writing on behalf of Vesta Corporation in response to the public input period regarding the forthcoming Qualified Allocation Plan (QAP) for the State's Low-Income Housing Tax Credit program.

Vesta is built on the wealth of experience of its Team. To date, Vesta has closed over \$1 billion in financings for the development of more than 20,000 apartment homes in 12 states and the District of Columbia. Today, Vesta's portfolio is approaching 10,000 units, with more than 1,500 of those apartment homes located in Connecticut, including both family and senior communities.

We recognize that CHFA intends to make significant changes to its next QAP, and that this next version will remain in place for multiple years. We are focusing on one vitally important matter, the need for affordable housing for the senior population in Connecticut.

Connecticut's residents are aging. According to the Connecticut Data Collaborative in partnership with Connecticut's Legislative Commission on Aging, "more than one-third of Connecticut's population is over the age of 50, and that proportion continues to rise." They also note that "between 2010 and 2040 Connecticut's population of people age 65 and older is projected to grow by 57%, but its population of people age 20 to 64 is projected to grow by less than 2%. Overwhelmingly, these growing numbers of older adults want to stay in their communities and to have choice, independence, and dignity." A report entitled 'Demographics: Connecticut's Senior Population' by the Connecticut Office of Legislative Research provides a concerning statistic, "A commonly accepted guideline for housing affordability is a housing cost that does not exceed 30% of a household's gross income...Nearly 39% of Connecticut's senior homeowners and 54% of senior renters had annual housing costs at or above this 30% threshold." The state's existing supply of affordable housing for seniors will become more and more scarce as time goes on.

The scoring system in the 2020 QAP puts age-restricted developments at a significant disadvantage compared to family developments. There is a substantial need for both types of housing in the state, and neither should be disincentivized. There are two areas in the 2020 QAP that discourage age-restricted housing. The first is 3c. 'Family Developments', and the second is 4b. 'Development located in an Area of Opportunity'. These two sections combined provide up to 10 points. The difference between an application being selected and not being selected often comes down to one or two points, so the loss of 10 points makes it nearly impossible for an age-restricted project to be successful in obtaining 9% Low-Income Housing Tax Credits. We strongly encourage CHFA to even the playing field for age-restricted developments in the upcoming QAP.

For many years the QAP has disincentivized age-restricted housing, and in light of the foregoing statistics it is critically important at this time to restore balance in recognition of the aging demographic trend in Connecticut.

We would welcome the opportunity to meet with CHFA to discuss the importance of affordable housing for the senior population in Connecticut.

Sincerely,



Lewis Brown, EVP  
Vesta Corporation

December 23, 2020

Ms. Nandini Natarajan, CEO  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Dear Ms. Natarajan:

We are writing in response to the call for comments on Connecticut's Qualified Allocation Plan (QAP) for the State's Low-Income Housing Tax Credit (LIHTC) program. Our organization owns and operates nine LIHTC projects across the state, comprising 1,600 units of housing, and is an experienced LIHTC developer operating across New England and the Mid-Atlantic.

Generally speaking, we have seen and heard the state's and advocates' desire to develop more LIHTC projects in communities of opportunity. We believe the state should adopt a balanced approach that also views LIHTC as an economic development tool to revitalize distressed urban areas. This is especially true if new LIHTC units are paired with workforce and market rate housing, as the QAP currently encourages. WinnCompanies has successfully completed many of these projects in urban communities, with positive outcomes. Promoting new development in dense urban centers also promotes many of CHFA's sustainability objectives, often times creating walkable communities in close proximity to transit. Funding of projects in urban areas should not be entirely abandoned.

However, we are in agreement that additional LIHTC development should take place in opportunity communities, and have several of these projects in our development pipeline. In order to increase the likelihood that projects can be funded in opportunity communities, changes to the QAP should be made to make it easier for these projects to be funded.

Below are our comments to the QAP. Some of the comments are tied to specific scoring language that we propose should be amended. Other comments are more general.

1. Scoring Section 4a. Municipalities having less assisted and deed restricted housing. Additional points should be granted to projects developed in 8-30g eligible communities. Often, the local permitting and zoning associated with projects in 8-30g communities entails significant cost burden and risk, owing to potential community opposition and litigation of approvals. This additional risk should be compensated by a greater likelihood that an 8-30 project will be funded with LIHTC.



2. Scoring Section 3b. Transit Oriented Development. We propose the first two-point category be amended to read as follows (added text in italics and deleted text struck through):

*"Mixed income development located within a half mile of an existing station or hub along the CTfastrak corridor, ~~or the Hartford rail line, Shoreline East, or~~ MetroNorth's New Haven, New Canaan, Danbury and Waterbury lines; *or Amtrak's Northeast Regional line.*"*

The current language in the QAP excludes other viable TOD projects in close proximity to Amtrak stations, unfairly hindering projects in prime TOD locations in Eastern Connecticut. In communities such as New London, Pawcatuck, Mystic, and Old Saybrook, regional Amtrak service is comparable to the lines listed in the QAP and provides frequent service to major employment hubs, including New Haven, CT and Providence, RI. Several of these locations are also located in high opportunity communities, where TOD should be encouraged.

3. Scoring Section 3b. Transit Oriented Development. We propose the second two-point category be amended to read as follows (added text in italics):

*"Mixed use development that includes *or is within 1000' walking distance to* neighborhood amenities such as pharmacy, restaurant, market, studio or other retail/commercial/cultural opportunity(ies) that encourage community revitalization. ~~Such commercial aspect of the Proposed Development must: (i) have its own exterior entrance, (ii) comprise at least 10% of the building area on the floor(s) of its location, and (iii) comprise at least 500 square feet.~~"*

Limiting these points to mixed-use buildings under this category ignores projects that are developed in dense, urban, walkable neighborhoods without themselves building mixed use space. Walkable urban communities can be developed by building dense housing *adjacent to or in very close proximity* to urban amenities. Furthermore, requiring affordable housing developers to construct commercial or retail space in a post-COVID environment, where commercial vacancy has increased dramatically, places undue risk on new developments that can otherwise benefit from nearby existing community resources. Adjusting the language to the proposed furthers the development of mixed-use, walkable neighborhoods, without putting undue risk or financial burden on tax credit projects.

4. Scoring Section 2d. Other Permanent Funding Sources. It should be recognized that developments in opportunity communities will face a more difficult time obtaining local resources to secure points under this category. Many opportunity communities are smaller communities without the same entitlement resources, such as local HOME or CDBG funds, that are available to larger urban communities. Furthermore, in-kind resources, such as tax abatements or waived fees, may be more difficult to obtain owing to tight municipal





budgets coping with potential new development. This scoring section should be waived for developments in opportunity communities.

5. Scoring Section 2f. Sustainable Design. Winn applauds CHFA's continued leadership in sustainable design, as demonstrated by its 7-point QAP category. CHFA is appropriately organizing Sustainable Design Measures in a hierarchical manner; however, Winn suggests modifying the category to better reflect the distinction and impact between the referenced standards and energy modeling metrics. Our recommendations pertaining to CHFA's Sustainable Design Measures are summarized below:

- In order to better distinguish between Option 1 and Option 2, we suggest making the HERS Index range and ASHRAE target for Option 1 less stringent and eliminating the program certification. Option 1 targets should be adjusted to HERS 65 and ASHRAE > / 10%, which should be verified by a third party without specific programmatic certification requirements. This will allow more preservation projects to qualify for points in this section.
- Enterprise Green Communities (EGC) is a highly regarded certification program specifically developed and designed for affordable housing projects. For new construction projects, there is no energy performance distinction between EGC and LEED, as both utilize Energy Star Certification to dictate energy performance. Given the equal energy performance requirement, and EGC's certification options for both moderate and substantial rehab projects, EGC and LEED should be awarded equal points under Option 2.
- After extensive efforts to design and price Passive House projects in Massachusetts, Connecticut, New York, and Washington D.C., Winn has found the cost premium to achieve Passive House certification is approximately 3-5% compared to EGC or LEED projects. These projects require greater subsidy above and beyond the \$30,000 per unit credit cap to support the cost premium. If additional resources are not made available to support Passive House projects, we propose CHFA award equal points for more cost-effective ways to develop environmentally responsible projects.
- CHFA should consider providing points for designing to specific Energy Use Intensities, separate from third-party certification programs, which often add significant soft costs for program administration and associated paperwork, without adding value to long-term energy performance. Energy performance targets could be modeled pre- and post-construction through a variety of modeling strategies/platforms.
- CHFA should consider how to better recognize sustainable design measures in preservation projects. As the QAP is currently written, it is highly unlikely that any



preservation projects that are not unoccupied gut rehabs will qualify for any points under this category, with the exception perhaps of Solar PV (1 point). CHFA's sustainability guidelines should consider preservation projects that reduce energy consumption below their historic baseline and/or industry averages, such as the US Department of Energy's ENERGY STAR Portfolio Manager Median EUI for multifamily projects (Portfolio Manager Reference: <https://www.energystar.gov/buildings/tools-and-resources/portfolio-manager-technical-reference-us-national-energy-use-intensity>).

6. Project design in suburban communities. CHFA's design and sustainability guidelines should take into account the desire to develop more projects in opportunity communities. For example, in some suburban community, the most desirable form of building typology is likely to be low density – detached duplexes, townhomes, or multiple low-rise structures. Meeting the most stringent sustainability requirements, including Passive House, is more difficult to accomplish in multiple buildings, with significantly greater exterior building envelope to volume ratios. Additionally, CHFA design guidelines require in-unit laundry in large bedroom units; however, Passive House would require in-unit dryers to be ventless. These pose ongoing maintenance issues and are not desirable.

We respectfully request that you make the above-mentioned modifications to the QAP for next year's funding round to ensure a more fair and equitable allocation of tax credits. If you have any questions, please reach out.

Sincerely,



Adam Stein, Senior Vice President

WinnDevelopment Company LP





**WYETH**  
**ARCHITECTS**

94 West Main Street  
Chester, CT 06412  
860 526 5111

[wyetharchitects.com](http://wyetharchitects.com)

December 22, 2020

Terry Nash Giovannucci  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Re: CHFA LOW-INCOME HOUSING TAX CREDITS (LIHTC)  
QUALIFIED ALLOCATION PLAN (QAP)  
Incentive Points for Passive House Standards

Ms. Nash Giovannucci,

Please increase the points dedicated to sustainability and Passive House in the 2021 Qualified Allocation Plan of the CHFA Low-Income Housing Tax Credit program. The best path to energy efficiency (lower utility bills), durability, resiliency, and healthy interior environments is to continue to encourage designing and developing Low-Income Housing to Passive House standards.

Passive House standards are measurably greater in energy use, durability and sustainability. Passive House = Net Zero Ready. As an example: This is why Passive House amounts to 10 additional points in Pennsylvania.

Prior rounds of the QAP treated Passive House as equal to NGBS 2015, or LEED Platinum (in terms of points). All sustainable building standards are not created equal. Passive House is science-based and must be tested and measured for quality control and certification. It is widely regarded as the most stringent low-energy building standard.

Please maintain the momentum of the Legislature's past leadership by keeping Connecticut moving forward toward our shared 2030 and 2050 energy, sustainability and resilience goals.

US Department of Energy experts have said that energy efficiency is the best way to save customers money and help low-income families. They found that energy efficiency can help a typical U.S. family lower their energy bills by up to 25%. These savings are particularly meaningful to low-income households, who often spend a disproportionately high portion of their income on energy bills.

Connecticut is currently a leader in these issues. We should continue to move forward, not backward. I strongly recommend increasing attention given to sustainability and maximizing points awarded for Passive House projects.

Thank you,

Leonard Wyeth AIA CPHD

- These actions align with Connecticut's adopted benchmarks for reducing greenhouse gas emissions in SB 7: An Act Concerning Climate Change Planning & Resiliency along with the 2018 Comprehensive Energy Strategy and our ambitious State housing goals.
- If significant revisions to the QAP are needed for other reasons, consider maintaining the existing language while more study is done over the next year. We encourage taking the long view.



**WYETH**  
**ARCHITECTS**

94 West Main Street  
Chester, CT 06412  
860 526 5111

[wyetharchitects.com](http://wyetharchitects.com)

December 22, 2020

Re: Public comments on CHFA's proposed changes to the 2021 Low-Income Housing Tax Credit Program (LIHTC) Qualified Allocation Plan (QAP)

Dear Decision-makers,

I am *strongly* in favor of the **continued inclusion of the Passive House building standard in the multiyear QAP, but with additional points to reflect its proven track record as the most robust energy efficient high-performance standard** to encourage high quality buildings for the sector of the population who would most benefit from affordable utilities and healthy buildings.

Affordable housing needs to be:

- **Energy efficient** - essential for those needing a low utility cost burden.
- **Durable** - the longer the housing lasts, the more cost effective it is.
- A **healthy environment** – enable healthy living.

#### BENEFITS OF PASSIVE HOUSE STANDARDS FOR CHFA INCENTIVES IN CONNECTICUT:

- **Low Energy:** Passive House Standards assure efficiency and low utility costs because it is the lowest energy-use standard for the construction industry. It is science-based, with measurable results during and following construction.
- **Durability:** Buildings built to Passive House Standards control moisture and air – they last longer. Smaller & simpler mechanical systems are lower initial cost and easier to maintain.
- **Indoor Air Quality:** Passive House buildings manage fresh air. They filter smoke, dust & allergens. The air is always fresh throughout. They are, therefore, healthier environments. They can contribute to a lower healthcare cost burden and a higher quality of life.

In looking ahead at a multiyear plan, it must be forward-thinking. It is vital to ensure Connecticut's buildings will meet future codes and energy goals. Developers must be motivated to pursue the highest levels sustainability.

#### RECOMMENDATIONS

1. **Sustainable Design Measures (SDM)** should be elevated as one of the **top priorities**. The total number of points for SDM should increase in order to send a strong signal to developers to pursue high-performance projects.
2. Reward Passive House certification with **Energy Conservation Tier 4** points as it is the most stringent energy standard. It is widely regarded as the gold standard for low-energy. Any rating based solely on energy should award Passive House projects maximum points.
3. Reward Passive House certification with **Green Building Tier 3** points for its focus on energy, indoor air quality, and provides a clear path to full electrification and integration of renewable energy to avoid fossil fuels.

*All green building standards are not created equal. Awarding fewer points to Passive House, and grouping it with other green building standards, does not fairly reflect that Passive House has a higher level of positive impact than what the other standards deliver. Passive House is superior to other green building standards because it is the most rigorous for low energy; it yields a higher quality building stock and supplies lower-income families with housing that is less of a burden.*

Furthermore, Passive House buildings can facilitate the state's adopted benchmarks for reducing greenhouse gas emissions in S. B. 7: An Act Concerning Climate Change Planning and Resiliency, the 2018 Comprehensive Energy Strategy and our ambitious state housing goals. The UN has identified

## WYETH ARCHITECTS

Passive House as the best way to achieve a sustainable low carbon future as outlined in the 2015 Paris Accord target.

Passive House most aligns with the State's goal to provide fair, equitable, and affordable housing. *Elevating Passive House*, with more points and separating it from other green building standards, is in the best interest of the State and those who most benefit from what Passive House buildings offer. This level of high-performance building should be encouraged and rewarded.

CHFA has played a major role as a catalyst fueling Connecticut's green energy economy in accordance with the Governor's goals and as such, is in a unique position to demonstrate leadership by recognizing the role buildings play. The proposed multiyear QAP has the potential to ensure that the next wave of affordable housing projects represent a beacon of sustainability in accordance with Governor Lamont's pledge that "*Connecticut will remain a leader on climate change.*"<sup>1</sup>

Thank you for the opportunity to share my views with you today. And thank you for the work you do on behalf of Connecticut's residents.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sara', followed by a large, stylized flourish.

Sara Dodson Holmes AIA, LEED BD+C, Certified Passive House Designer  
Connecticut Passive House founding Board Member, Secretary

---

<sup>1</sup> [portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change](https://portal.ct.gov/Office-of-the-Governor/2019/09-2019/Governor-Lamont-Signs-Executive-Order--Connecticut-To-Lead-On-Climate-Change)

**Yale** SCHOOL OF PUBLIC HEALTH  
*Center on Climate Change and Health*

December 21, 2020

VIA ELECTRONIC FILING PublicComment@chfa.org  
Ms. Terry Nash Giovannucci  
Connecticut Housing Finance Authority  
999 West Street  
Rocky Hill, CT 06067

Re: CHFA Low-Income Housing Tax Credit Program, Qualified Assistance Program, and current priorities and policy goals

Dear Ms. Giovannucci:

The Yale Center on Climate Change and Health (YCCCCH) appreciates this opportunity to provide comments to the Connecticut Housing Finance Authority (CHFA) regarding its Low-Income Housing Tax Credit Program, its Qualified Assistance Program (QAP), and its current priorities and policy goals.

Housing is a key determinant of health and is at a critical nexus with climate mitigation and climate adaptation. Americans spend nearly 90 percent of their time indoors,<sup>1</sup> making indoor air quality of prime importance to health. Housing stability is linked to improved health outcomes, particularly for mental health, as well as avoided emergency department visits and hospitalizations.<sup>2</sup> At the same time, housing also is a key factor in climate mitigation and adaptation needs and opportunities. Burning fossil fuels to heat buildings accounts for approximately one-quarter of Connecticut's greenhouse gas emissions.<sup>3</sup> Ending the use of fossil fuels to heat Connecticut's homes is a necessary and urgent step in order for Connecticut to meet its statutory economy-wide targets of 45 percent greenhouse gas emissions reduction below 2001 levels by 2030 and 80 percent reduction by 2050.<sup>4</sup> In terms of climate adaptation, protection

---

<sup>1</sup> Klepeis, N. E., Nelson, W. C., Ott, W. R., Robinson, J. P., Tsang, A. M., Switzer, P., ... & Engelmann, W. H. The National Human Activity Pattern Survey (NHAPS): a resource for assessing exposure to environmental pollutants. *Journal of Exposure Science & Environmental Epidemiology*, 2001;11(3), 231-252.

<sup>2</sup> Rollins, C., Glass, N. E., Perrin, N. A., Billhardt, K. A., Clough, A., Barnes, J., ... & Bloom, T. L. Housing Instability Is as Strong a Predictor of Poor Health Outcomes as Level of Danger in an Abusive Relationship: Findings From the SHARE Study. *Journal of Interpersonal Violence*, 2012;27(4), 623-643.

<sup>3</sup> Connecticut DEEP, *2017 Connecticut Greenhouse Gas Emissions Inventory*, 2020, available at [https://portal.ct.gov/-/media/DEEP/climatechange/2017\\_GHG\\_Inventory/2017\\_GHG\\_Inventory.pdf](https://portal.ct.gov/-/media/DEEP/climatechange/2017_GHG_Inventory/2017_GHG_Inventory.pdf).

<sup>4</sup> See Public Act 08-98, An Act Concerning Connecticut Global Warming Solutions, available at <https://www.cga.ct.gov/2008/ACT/PA/2008PA-00098-R00HB-05600-PA.htm>; Public Act 18-82, An Act Concerning



from storms, flooding, extreme heat, and vector-borne diseases – all hazards that are expected to rise under climate change in Connecticut – can be addressed at least in part through climate resilient housing measures. In fact, in our recently released *Climate Change and Health in Connecticut: 2020 Report* ([executive summary attached](#); [full report available online](#)), we point to housing as a key issue where Connecticut can reap synergistic and economically efficient benefits when climate mitigation, adaptation, and the social determinants of health are addressed collectively.

The need is especially great to address these housing issues for low-income families and individuals. Low and fixed-income households face particularly high energy burdens in Connecticut; households earning less than 30% of median state income face energy burdens over 15%, which is six to seven times the statewide mean and far above the energy affordability limit of 6 percent.<sup>5</sup> Disadvantaged populations are also more likely to suffer from the health effects of impaired indoor air quality, such as worsened asthma or allergy symptoms, often the consequence of poor housing quality. Nationally, asthma is a leading cause of student school absenteeism.<sup>6</sup> Correspondingly in Connecticut, a 2015 analysis found that approximately one in 10 middle and high school students statewide reported an episode of asthma or an asthma attack in the past year; prevalence was highest among non-Hispanic black students (12.4%).<sup>7</sup> Poor children and children of color bear the highest asthma burden.

With these factors in mind, YCCCCH requests that the CHFA maintain its strong attention to passive house building standards in the QAP. Passive house standards are an evidence-based approach to accomplish our state's health, climate change, and family economic security objectives. When employed correctly, passive house design strategies – which include airtightness, controlled ventilation rates, and mechanical ventilation with heat recovery – yield health-benefiting improvements in air quality compared to traditional housing.<sup>8</sup> These design strategies also achieve impressive reductions in energy use, lowering not only greenhouse gas emissions but also heating and cooling expenses that can narrow the energy affordability gap.

Second, we urge CHFA to set into policy that all new construction be designed, built and operated to achieve net zero emissions by adopting requirements including maximized energy

---

Climate change Planning and Resiliency, available at <https://www.cga.ct.gov/2018/ACT/pa/pdf/2018PA-00082-R00SB-00007-PA.pdf>.

<sup>5</sup> Sears, J. and L. Badger. *Mapping Household Energy & Transportation Affordability in Connecticut*. 2020. VEIC, prepared for the Connecticut Green Bank.

<sup>6</sup> Hsu J, Qin X, Beavers SF, Mirabelli MC. Asthma-related school absenteeism, morbidity, and modifiable factors. *American Journal of Preventive Medicine*. 2016;51(1):23-32.

<sup>7</sup> Connecticut Department of Public Health. Youth Asthma in Connecticut: Current Estimates. CT DPH Asthma Program. 2016; available at <https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/hems/asthma/pdf/YouthAsthmaFactsheet2016pdf.pdf>.

<sup>8</sup> Moreno-Rangel, A., Sharpe, T., McGill, G., & Musau, F. Indoor air quality in Passivhaus dwellings: A literature review. *International Journal of Environmental Research and Public Health*, 2020;17(13), 4749.

efficiency, electrification of heating, and on-site renewable energy. Doing so avoids costly retrofits later, saving money and resources long term. It also assures that Connecticut residents of all income levels may benefit from the growing clean energy economy. Zero emission buildings are highly cost-effective; as one example, the City of Boston's *2020 Guidebook for Zero Emission Buildings (ZEBs)* concluded that "there is little-to-no cost increase for building to Zero Emission Building (ZEB) standards" and the City is moving forward with plans to make the city's Department of Neighborhood Development portfolio of new construction affordable housing carbon neutral.<sup>9</sup>

Finally, we call on CHFA to incorporate climate adaptation and resilience principles into its policy goals and programs, including the QAP. Passive house standards already address some of the major concerns, including exposure to indoor extreme heat as annual temperatures continue to warm and indoor air quality impairment from humidity and air pollution. In addition, CHFA should incorporate climate resilience into the QAP basic threshold requirements. Such requirements could include: siting outside of the 500-year flood zone, wet and/or dry floodproofing, maintaining backup power to critical systems and for residents' lifesaving medical devices, elevated equipment, and surface stormwater management.<sup>10</sup>

Thank you for your consideration of our comments.

Respectfully,

A handwritten signature in blue ink that reads "Laura Bozzi". The signature is fluid and cursive, with the first name "Laura" and the last name "Bozzi" clearly distinguishable.

Laura Bozzi, PhD  
Director of Programs  
Yale Center on Climate Change and Health  
laura.bozzi@yale.edu

---

<sup>9</sup> City of Boston Department of Department of Neighborhood Development. *2020 Guidebook for Zero Emission Buildings (ZEBs)*. 2020; available at

[https://www.boston.gov/sites/default/files/file/2020/03/200306\\_DND%20book\\_FOR%20WEB.pdf](https://www.boston.gov/sites/default/files/file/2020/03/200306_DND%20book_FOR%20WEB.pdf)

<sup>10</sup> Enterprise Community Partners. *Strategies for Multifamily Building Resilience*. 2015; available at

<https://www.enterprisecommunity.org/resources/ready-respond-strategies-multifamily-building-resilience-13356>;

Climate Resilience Finance Working Group. *Climate Resilience in Multifamily Affordable Housing*. Energy Efficiency for All Initiative. 2020; available at <https://sahln.energyefficiencyforall.org/climateresilience>.



---

**YALE CENTER** on  
**CLIMATE CHANGE**  
and **HEALTH**

# Climate Change and Health in Connecticut 2020 Report Executive Summary



---

#### **AUTHORS**

Laura Bozzi, PhD

Robert Dubrow, MD, PhD

#### **CONTRIBUTORS**

Mauro Diaz-Hernandez

Melpomene Vasiliou, MPH

Kai Chen, PhD

#### **SUGGESTED CITATION**

Bozzi, L. and Dubrow R. (2020). *Climate Change and Health in Connecticut: 2020 Report Executive Summary*. New Haven, Connecticut, Yale Center on Climate Change and Health.

**THE YALE CENTER ON CLIMATE CHANGE AND HEALTH** utilizes research, education, and public health practice to help safeguard the health of human populations from adverse impacts of climate change and human activities that cause climate change. To protect health, we work with academic, government, and civil society partners to utilize science to contribute toward sharply reducing greenhouse gas emissions and building resilience to the climate change impacts that continue to occur. We aim to make local, national, and international impact and to integrate social justice into all of our work.

More information about the Yale Center on Climate Change and Health can be found at: <https://publichealth.yale.edu/climate>.

---





# EXECUTIVE SUMMARY

This report tracks 19 indicators related to climate change and health in Connecticut. Its purpose is to inform policymakers, health professionals, advocates, and residents about the impact of climate change, now and in the future, on human health in Connecticut. The indicators have been developed using publicly available data from state and federal agencies, peer-reviewed literature, and medical associations. Where possible, we directly track trends in health impacts (e.g., West Nile virus infections; emergency department visits and hospitalizations for heat stress). However, because of the relative paucity of Connecticut-specific data on health impacts associated with climate change, we also track environmental and climate conditions (e.g., drought; outdoor allergens) that can lead to adverse health outcomes.

We note trends when they are statistically significant, and wherever possible we report indicator results for each county. Some of our indicators demonstrate a trend over time consistent with what is expected under climate change, such as increasing average temperatures and heavy rainfall events. Other indicators do not

yet show a trend, but scientific studies project changes as the planet continues to warm (see [PANEL](#)). The number of heat waves, for example, is projected to increase, in turn causing more heat-related illness.

There is overwhelming evidence that the dominant cause of warming temperatures is human activities, particularly from the emissions of greenhouse gases through the burning of fossil fuels (i.e., coal, oil, and natural gas), as well as from other activities including livestock production and deforestation.<sup>1</sup> Greenhouse gases warm the planet by acting like a blanket that traps heat from the Earth that would otherwise escape into space; the more greenhouse gases in the atmosphere, the more heat is trapped. In this report, we track indicators related not only to the impacts of climate change, but also to impacts caused by the drivers of climate change (specifically, air quality impacts largely driven by fossil fuel combustion).

While climate change affects everyone, it does not affect everyone equally. Climate change is sometimes called a “risk amplifier,” meaning that many existing

## PROJECTED CLIMATE CHANGE PHYSICAL IMPACTS

University of Connecticut researchers projected climate change impacts in Connecticut employing a high greenhouse gas emissions scenario (RCP 8.5, or “business as usual,” in which no efforts are made to reduce emissions). Under this scenario, the following impacts are projected for mid-century (2040–69), compared with 1970–99:

- 5 °F increase in annual mean temperature
- 8.5% increase in annual precipitation, due primarily to increases in winter and spring

- Greater flood risk due to the increase in heavy rainfall events
- Extreme summer droughts that occur three times as often<sup>4</sup>

The Connecticut Institute for Resilience and Climate Adaptation recommends planning for 20 inches (0.5 meters) of sea level rise by 2050, with continued sea level rise to occur after 2050.<sup>5,6</sup> Higher sea levels lead to more severe storm surges associated with coastal storms. In addition, as climate change progresses, Atlantic hurricanes are expected to become more intense (higher sustained wind speeds), with greater amounts of precipitation.<sup>7</sup>

risks to health—derived from environmental, economic, demographic, social, or genetic factors—are intensified by climate change impacts.<sup>2,3</sup> Populations disproportionately vulnerable to the effects of climate change include those with low income, communities of color, immigrant groups (including those with limited English proficiency), Indigenous people, children and pregnant women, older adults, vulnerable occupational groups, people with disabilities, and people with preexisting or chronic medical conditions.<sup>3</sup>

## KEY FINDINGS

The following section presents the report's key findings for each of the 19 indicators, along with a brief explanation about the indicator's relationship to climate change and health. A complete description of each indicator, including data figures, is found in the full report.

## TEMPERATURE

### INDICATOR 1: AVERAGE ANNUAL TEMPERATURE.

**Average annual temperature increased by 3.0–3.5 °F in each county from 1895 to 2019.** The increase in average temperature has wide-ranging effects, including for human health. For instance, warmer nighttime temperatures can be especially dangerous, particularly for people living in urban areas and for those without access to air conditioning. This is because cool nights are typically an opportunity for the body to cool down; without this cooling-off time, heat waves can be even more perilous.

**INDICATOR 2: EXTREME HEAT DAYS.** From 1950 to 2018, the number of extreme heat days (days with maximum temperature over 90 °F) did not change significantly in any county. However, under climate change, such extreme heat days can be expected to increase, which is a significant concern for human health. Extreme heat days can be especially dangerous in cities because of the urban heat island effect, a phenomenon

in which urban areas are hotter than surrounding areas because of the density of buildings and roads and the lack of trees, other greenery, and streams, rivers, ponds, and lakes.

### INDICATOR 3: FROST DAYS. The number of frost days (days with minimum temperature at or below 32 °F) decreased from 1950 to 2018 in four of the eight counties: Middlesex, New London, Tolland, and Windham.

Fewer frost days, an earlier winter-spring transition, and a later fall-winter transition transform the natural environment in ways that can negatively affect human health, including by creating conditions for larger tick and mosquito populations that are active over a greater proportion of the year; a longer season for ragweed pollen,<sup>8</sup> which causes hay fever and exacerbates asthma; and a greater abundance of and longer seasons for plant pests, adversely affecting both forests and agriculture.<sup>9</sup>

### INDICATOR 4: EMERGENCY DEPARTMENT VISITS AND HOSPITALIZATIONS FOR HEAT STRESS. From 2007 to 2016, there were on average 422 emergency department visits and 45 hospitalizations per year for heat stress in Connecticut.

It is important to note, however, that the numbers of emergency department visits and hospitalizations are likely underreported; medical personnel often mistakenly fail to attribute the cause of illness to extreme heat, especially in a state like Connecticut where heat-related illness may not be as common as in some other parts of the country. Heat-related illnesses, such as heat exhaustion or heat stroke, happen when the body is not able to properly cool itself. Heat stroke can cause damage to the brain and other vital organs, or even death.

**INDICATOR 5: POPULATIONS VULNERABLE TO HEAT-RELATED ILLNESS.** This indicator tracked the following groups that are especially vulnerable to heat-related illness: outdoor workers (farm laborers; workers in the landscape and construction industries), people experiencing homelessness, and people age 65 and older. **The number and proportion of people over 65 in Connecticut is increasing, while the number of**



**people experiencing homelessness is decreasing. The number of people in the other groups shows no trend over time. Together, these populations represent a substantial number of people at risk for heat-related illness.**

## EXTREME EVENTS

**INDICATOR 6: HEAVY RAINFALL EVENTS.** From 1960 to 2019, the annual number of heavy rainfall events (three consecutive days with cumulative precipitation of 3 inches or more) increased in New Haven, Hartford, Litchfield, Tolland, and Windham counties. Heavy rainfall can overwhelm the natural and human-made systems that normally process rainwater, leading to flooding along river systems and in urban areas. Flooding can cause injury and death due to drowning; can lead to indirect health impacts from disruption to medical care and critical infrastructure; and can result in human exposure to pathogens or toxic chemicals through their release into floodwaters or drinking water sources.<sup>10</sup> Heavy rain and flooding also can adversely affect indoor air quality by causing mold growth, chemical off-gassing from damaged building materials, and formation of other air contaminants.<sup>11,12</sup> Exposure to extreme events, including flooding, is associated with a range of mental health impacts, such as post-traumatic stress disorder.<sup>12</sup>

**INDICATOR 7: HIGH TIDE FLOODING.** The annual number of days with high tide flooding has increased at the New London and the Bridgeport tide gauges, a trend consistent with the 8–9 inches of global sea level rise since 1880. High tide flooding occurs when seawater temporarily inundates low-lying areas until the tide recedes. As the flooding becomes more common or greater in magnitude or both, it can have an adverse effect on health. Flooding can transmit pathogens such as *Vibrio* bacteria, which can cause wound infections among people walking through the water. Saltwater can contaminate drinking water sources near the coast, as well as coastal agricultural fields. With a highly developed coastline, Connecticut

also is at risk for high tide flooding affecting a large number of roads, homes, businesses, and other infrastructure.<sup>13</sup>

**INDICATOR 8: DROUGHT.** While there is no significant trend toward increased drought in any county, Connecticut has recently experienced disturbing droughts, including a 46-week statewide drought in 2016–2017. Expected impacts of moderate drought include increased wildfires, stressed trees and landscaping, and lake and reservoir levels below normal capacity. As a drought worsens, impacts expand, with particular concerns about agriculture, wildlife, and wildfires. Drought strains drinking water systems by lowering surface water reserves and contributing to saltwater intrusion into freshwater aquifers along the coast. The prolonged 2016–2017 drought raised awareness in Connecticut that river basins can become depleted, even though water scarcity has not typically been a problem for the state in the past.<sup>14</sup>

**INDICATOR 9: DRINKING WATER RESERVOIR CAPACITY.** We found no indication of a trend toward lower reservoir levels. Climate change may affect drinking water availability by increasing the intensity or frequency of droughts, storms, and other system shocks. Droughts, especially if prolonged, lower water levels in reservoirs (and wells), an impact we investigated through this indicator. Hurricanes may damage drinking water system infrastructure, as occurred during Hurricane Irene in 2011.<sup>15,16</sup> Wells near the coast may be at risk for contamination from saltwater intrusion due to sea level rise and drought. Blue-green algae blooms—and more dangerously, harmful algal blooms—are more likely as surface water sources warm with rising temperatures.<sup>17</sup>

**INDICATOR 10: WEATHER DISASTERS.** From 2010 to 2019, nine federal disaster declarations for weather events were issued for Connecticut, compared with only 13 in the previous 56 years. Following those nine disaster declarations, the Federal Emergency Management Agency provided a total of \$304.6 million in combined individual and public assistance grants to

support recovery efforts. Nationally, weather disaster events are rising, with significant economic and social cost: 2019 was the fifth consecutive year in which the country endured 10 or more billion-dollar weather disaster events.<sup>18</sup> Over the past five years, the total cost of these disaster events nationally was approximately \$500 billion.<sup>18</sup>

**INDICATOR 11: SUPERFUND SITES.** **Seven of Connecticut's 16 Superfund sites are vulnerable to climate change impacts, including flooding and hurricane storm surge.** Under the U.S. Environmental Protection Agency's Superfund program, the federal government identifies and cleans up contaminated sites to protect human health and the environment. In Connecticut, these sites range from old industrial sites to waste lagoons, quarries, and landfills. Climate change is making coastal storms more intense and extreme precipitation events and coastal and inland flooding more frequent, which may further damage Superfund sites and potentially release contaminants into ground or surface water, the air, or the soil.<sup>19</sup>

## INFECTIOUS DISEASES

**INDICATOR 12: MOSQUITOS.** **During 2001–2019, of 28 mosquito species found in Connecticut to carry viruses that cause human disease, 10 show trends of increasing abundance and three show trends of decreasing abundance.** Mosquito abundance is a key factor that influences the capacity of a mosquito to transmit a virus and the rate at which infections spread. A high abundance is often a prelude to an epidemic.<sup>20</sup> Each of the mosquito species we tracked has been found in Connecticut to carry one or more of the following viruses: Cache Valley, Eastern equine encephalitis, Jamestown Canyon, Trivittatus, or West Nile.<sup>21</sup> Mosquitos, which are ectothermic (i.e., cold-blooded), can thrive in a warmer world.<sup>22</sup> As Connecticut becomes warmer, disease-carrying mosquitos may become even more abundant.

**INDICATOR 13: WEST NILE VIRUS INFECTIONS.** **During 2000–2018, the number of reported symptomatic cases per year of West Nile virus infection, the leading mosquito-borne disease in the United States,<sup>23</sup> varied from 0 (2004 and 2009) to over 20 (2012 and 2018).** Only about one in five people infected with West Nile virus show symptoms, which can include fever, headache, muscle pains, and rash. In very rare cases (1%), the infection can cause serious illness affecting the central nervous system, which can be fatal.<sup>24</sup> West Nile virus is transmitted by *Culex* mosquitos. Under **INDICATOR 12**, we found that one *Culex* species (*Culex salinarius*) has exhibited an increasing trend, which may be influenced by warmer weather or changes in precipitation patterns caused by climate change.

**INDICATOR 14: EASTERN EQUINE ENCEPHALITIS.** **Connecticut's first reported human case of Eastern equine encephalitis, a rare mosquito-borne disease, occurred in 2013. In 2019, four cases were reported, of which three were fatal.** Most people infected with this virus have no symptoms. Only in rare cases does an infected person develop a central nervous system infection; in these cases, Eastern equine encephalitis can be fatal. It is transmitted by *Aedes*, *Coquillettidia*, and *Culex* mosquitos. **INDICATOR 12** shows that *Aedes albopictus*, *Culex salinarius*, and *Coquillettidia perturbans* are increasingly abundant in Connecticut, which may be influenced by warmer weather or changes in precipitation patterns caused by climate change.

**INDICATOR 15: LYME DISEASE.** **Reported cases of Lyme disease declined from about 3,700 per year in 2008–2010 to about 1,900 per year in 2016–2018.** Lyme disease, a bacterial disease transmitted to humans by the blacklegged tick, is generally cured with treatment; without treatment, symptoms can progress to severe joint pain and swelling, facial palsy, heart palpitations, inflammation of the brain and spinal cord, and nerve pain or numbness.<sup>25</sup> Transmission of Lyme disease occurs seasonally, with the most cases in Connecticut reported in June and July.<sup>26</sup> Cases may have declined because people are taking protective measures such as applying tick repellent and wearing

long pants and sleeves when outdoors. Shorter and milder winters and earlier springs projected under climate change may lead to earlier tick activity and larger tick populations.<sup>27</sup> But extreme heat and drought increase tick mortality, so climate change also may lead to a countervailing force on tick abundance.<sup>28</sup>

#### INDICATOR 16: **FOODBORNE *VIBRIO* INFECTIONS.**

**The annual number of confirmed cases of foodborne *Vibrio* infections has increased.** *Vibrio* bacteria live naturally in warm coastal waters, especially in lower-salinity estuaries. Humans can become infected by eating contaminated seafood that is raw or undercooked. Symptoms include abdominal cramps, nausea, headaches, diarrhea, fever, and chills. As sea surface temperature rises, the abundance of *Vibrio* increases.<sup>29</sup> In Connecticut, summer near-surface water temperature is increasing at a significant rate on Long Island Sound,<sup>30</sup> consistent with the increase in *Vibrio* foodborne infections.

## AIR QUALITY

**INDICATOR 17: **GROUND-LEVEL OZONE.** Since 1990, the annual number of days on which ground-level ozone exceeded safe levels decreased in all counties, but more improvements are needed to fully protect human health.** In fact, the American Lung Association gave all eight Connecticut counties an F grade for ozone pollution in its 2019 *State of the Air Report*.<sup>31</sup> The decreasing ground-level ozone trend in Connecticut (and nationally) is due to national and state environmental regulations, including those that limit emissions of precursor pollutants from the burning of fossil fuels in vehicles, power plants, and industry. Ground-level ozone is a strong lung irritant that can cause respiratory symptoms, asthma exacerbation, and premature death. In the Northeast's urban areas, the hottest days are associated with the highest concentrations of ground-level ozone.<sup>9</sup> This combination of extreme heat and poor urban air quality poses a major health risk to vulnerable groups, especially those with asthma and other preexisting respiratory conditions.<sup>9</sup>

#### INDICATOR 18: **FINE PARTICULATE MATTER (PM<sub>2.5</sub>).**

**Since 1999, the annual number of days on which fine particulate matter exceeded safe levels decreased in Fairfield, Hartford, New Haven, and New London counties.** No days meeting PM<sub>2.5</sub> Air Quality Index categories of unhealthy, very unhealthy, or hazardous have been reported in any of the five monitored counties in at least the past eight years. (There are no PM<sub>2.5</sub> monitoring stations in Middlesex, Tolland, and Windham counties.) As with ground-level ozone, this improvement in PM<sub>2.5</sub> pollution can be attributed to national and state environmental regulations that limit PM<sub>2.5</sub> emissions produced by the burning of fossil fuels in power plants, vehicles, and industrial sources. Exposure to PM<sub>2.5</sub> causes or aggravates heart and lung conditions and can cause premature death. Communities of color often live near power plants, major roads, and industrial facilities, increasing their exposure to PM<sub>2.5</sub> (as well as to ground-level ozone and other pollutants).

**INDICATOR 19: **OUTDOOR ALLERGENS (MOLD AND POLLEN).** Since 2007, the percent of measured days with “high” or “very high” outdoor mold concentrations has increased.** Concentrations of tree, grass, or weed pollen did not have increasing or decreasing trends. Nevertheless, increased carbon dioxide emissions and higher temperatures are expected to worsen allergies by lengthening the pollen season, raising the amount of pollen produced by plants, and possibly increasing the allergenic potency of the produced pollen, which would cause more intense allergic reactions.<sup>32-34</sup> Higher temperature and humidity have been found to promote the growth of mold outdoors.<sup>35-37</sup>

## CONCLUSION

To protect human health now and in the future, Connecticut decision makers and residents alike must undertake strong action to confront the challenges identified in this report. First, this means swift action to mitigate climate change by reducing greenhouse gas emissions. Under its 2008 *Global Warming Solutions*



*Act and 2018 Act Concerning Climate Change Planning and Resiliency*, Connecticut has committed to reducing greenhouse gas emissions below 2001 levels by 45% by 2030 and 80% by 2050. Other states have committed to even more significant cuts, suggesting that Connecticut has further to go: New York, for instance, set a target of net-zero greenhouse gas emissions by 2050. Second, Connecticut must expand its work to prepare for and adapt to the climate change impacts that have begun and will worsen in the future. The Governor's Council on Climate Change now guides both efforts, with policy recommendations anticipated in early 2021 as part of the updated *Adaptation and Resilience Plan* for Connecticut and the council's annual report on the state's climate mitigation progress.

With this in mind, we offer seven crosscutting recommendations to support equitable, science-based, and holistic mitigation and adaptation actions to protect human health.

### **1 Monitor current conditions and project trends for Connecticut**

To make rapid and effective responses based on data, decision makers need systems in place that monitor environmental and climatic changes and that track climate-sensitive health outcomes. Also needed is more research that projects Connecticut-specific impacts of climate change on human health in the future and identifies vulnerable populations. The state should pursue funding opportunities and partnerships to support the collection, monitoring, analysis, and dissemination of these critical data.

### **2 Invest in the social determinants of health**

Social factors, including housing, education, employment, income, and access to medical care, are major drivers of population health. Climate change makes the imperative of addressing these social determinants to improve health and reduce health disparities even more urgent.<sup>38</sup> Actions to address climate change mitigation or adaptation that also invest in the social determinants of health produce synergistic benefits and should be prioritized.

### **3 Tackle the upstream drivers of climate change and health disparities**

It has been aptly stated that “the root causes and upstream drivers of climate change and health inequities are often the same: Our energy, transportation, land use, housing, planning, food and agriculture, and socioeconomic systems are at once key contributors to climate pollution and key shapers of community living conditions.”<sup>39</sup> Furthermore, these systems are “shaped by current and historical forces that include structural racism and the persistent lack of social, political, and economic power of low-income communities and communities of color.”<sup>39</sup> Addressing climate change and health inequities requires confronting these upstream drivers by challenging historic and systemic burdens, including environmental pollution, income inequality, racism, and inequitable access to power and resources.

### **4 Pursue actions that integrate mitigation, adaptation, and immediate health benefits**

Measures that combine climate change mitigation and adaptation with immediate health benefits should be prioritized. For example, increasing forested green space in coastal urban areas accomplishes mitigation because trees absorb carbon dioxide from the atmosphere; accomplishes adaptation because trees reduce the urban heat island effect through evapotranspiration and shade provision and because green space reduces flood risk; and provides immediate health benefits of space for physical activity, improved mental health, and healthier shellfish in Long Island Sound.

### **5 Build the capacity of health professionals and decision makers in other sectors to address climate and health**

Most health professionals did not learn about climate change and its health effects in their formal training, and many other decision makers lack specific knowledge about how their issue area relates to climate change and health. Incorporating this material into health and other higher education curricula, as well as continuing education courses, would help close this key knowledge gap and prepare the workforce to make informed decisions under a changing climate.

This challenge should be addressed through combined efforts of colleges and universities, public health agencies, and professional associations.

## **6 Incorporate climate change into decision making across sectors**

For both adaptation and mitigation efforts to be effective, climate change needs to be considered and incorporated into planning and investment at all levels of government. To do so requires that climate change not be treated as a siloed issue that can be addressed in isolation by personnel and policies focused only on climate change. Rather, inter-sectoral collaboration is essential.

## **7 Incorporate public health into climate change decision making**

A “health in all policies approach” calls for public health representatives to be at the table when making policy decisions ranging from urban planning to transportation to voter registration.<sup>40</sup> Public health considerations should be incorporated into all climate change policymaking. An encouraging sign in Connecticut is that the Department of Public Health now has a seat on the Governor’s Council on Climate Change. Its role on the council should fully cover both adaptation and mitigation workstreams, particularly given the opportunities for immediate health benefits from mitigation.

---

# REFERENCES

- 1 Blanco G, Gerlagh R, Suh S, Barrett J, de Coninck HC, Diaz Morejon CF, et al. Drivers, trends and mitigation. In: Edenhofer O, Pichs-Madruga R, Sokona Y, Farahani E, Kadner S, Seyboth K, et al., editors. *Climate Change 2014: Mitigation of Climate Change Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press; 2014.
- 2 Ebi KL, Balbus JM, Lubner G, Bole A, Crimmins A, Glass G, et al. Human health. In: Reidmiller DR, Avery CW, Easterling DR, Kunkel KE, Lewis KLM, Maycock TK, et al., editors. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Washington, DC: US Global Change Research Program; 2018.
- 3 Gamble JL, Balbus J, Berger M, Bouye K, Campbell V, Chief K, et al. Populations of concern. In: Crimmins A, Balbus J, Gamble J, Beard C, Bell J, Dodgen D, et al., editors. *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, DC: US Global Change Research Program; 2016.
- 4 Seth A, Wang G, Kirchhoff C, Lombardo K, Stephenson S, Anyah R, et al. *Connecticut Physical Climate Science Assessment Report (PCSAR): Observed Trends and Projections of Temperature and Precipitation*. Connecticut Institute for Resilience and Climate Adaptation; 2019.
- 5 Sweet WV, Kopp RE, Weaver CP, Obeysekera J, Horton RM, Thieler ER, et al. *Global and Regional Sea Level Rise Scenarios for the United States*. NOAA Technical Report NOS CO-OPS o83. Silver Spring, MD: National Oceanic and Atmospheric Administration; 2017.
- 6 O'Donnell JO. *Sea Level Rise in Connecticut, Final Report February 2019*. Connecticut Institute for Resilience and Climate Adaptation; 2019; online at <https://circa.uconn.edu/wp-content/uploads/sites/1618/2019/10/Sea-Level-Rise-Connecticut-Final-Report-Feb-2019.pdf>.
- 7 Hayhoe K, Wuebbles D, Easterling D, Fahey D, Doherty S, Kossin J, et al. Our changing climate. In: Reidmiller DR, Avery CW, Easterling DR, Kunkel KE, Lewis KLM, Maycock TK, et al., editors. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Washington, DC: US Global Change Research Program; 2018.
- 8 Ziska L, Knowlton K, Rogers C, Dalan D, Tierney N, Elder MA, et al. Recent warming by latitude associated with increased length of ragweed pollen season in central North America. *Proceedings of the National Academy of Sciences*. 2011;108(10):4248-51.
- 9 Dupigny-Giroux LA, Mecray EL, Lemcke-Stampone MD, Hodgkins GA, Lentz EE, Mills KE, et al. Northeast. In: Reidmiller DR, Avery CW, Easterling DR, Kunkel KE, Lewis KLM, Maycock TK, et al., editors. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Washington, DC: US Global Change Research Program; 2018.
- 10 Bell JE, Herring SC, Jantarasami L, Adrianopoli C, Benedict K, Conlon K, et al. Impacts of extreme events on human health. In: Crimmins A, Balbus J, Gamble J, Beard C, Bell J, Dodgen D, et al., editors. *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, DC: US Global Change Research Program; 2016.
- 11 Institute of Medicine. *Climate Change, the Indoor Environment, and Health*. Washington, DC: The National Academies Press; 2011.
- 12 Dodgen D, Donato D, Kelly N, La Greca A, Morganstein J, Reser J, et al. Mental health and well-being. In: Crimmins A, Balbus J, Gamble J, Beard C, Bell J, Dodgen D, et al., editors. *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, DC: US Global Change Research Program; 2016.
- 13 Dahl K, Cleetus R, Spanger-Siegfried E, Udvardy S, Caldas A, Worth P. *Underwater: Rising Seas, Chronic Floods, and the Implications for US Coastal Real Estate*. Cambridge, MA: Union of Concerned Scientists; 2018.
- 14 Connecticut Water Planning Council. *Connecticut State Water Plan, Final Report*. 2018; online at <https://portal.ct.gov/Water/Water-Planning-Council/State-Water-Plan>.
- 15 The Cadmus Group. *Report on the Operational and Economic Impacts of Hurricane Irene on Drinking Water Systems*. Denver, CO: Water Research Foundation; 2012.
- 16 No Author. *Drinking Water Vulnerability Assessment and Resilience Plan*, Fairfield, New Haven, Middlesex, and New London Counties. Prepared for: Connecticut Department of Public Health; 2018.
- 17 Connecticut Department of Public Health. *Fact Sheet: Blue-Green Algae Blooms in Connecticut Lakes and Ponds*. 2013; online at [https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental\\_health/BEACH/Fact-sheet\\_Blue-Green-Algae-Blooms\\_102918.pdf](https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental_health/BEACH/Fact-sheet_Blue-Green-Algae-Blooms_102918.pdf).
- 18 NOAA National Centers for Environmental Information. *U.S. Billion-Dollar Weather and Climate Disasters*. 2020; online at <https://www.ncdc.noaa.gov/billions/>.
- 19 US Government Accountability Office. *SUPERFUND: EPA Should Take Additional Actions to Manage Risks from Climate Change*. 2019; online at <https://www.gao.gov/products/GAO-20-73>.
- 20 Roiz D, Ruiz S, Soriguer R, Figuerola J. Climatic effects on mosquito abundance in Mediterranean wetlands. *Parasites & Vectors*. 2014;7(1):333.

- 21 Andreadis TG, Thomas MC, Shepard JJ. Identification Guide to the Mosquitoes of Connecticut. New Haven, CT: The Connecticut Agricultural Experiment Station; 2005.
- 22 Rocklöv J, Dubrow R. Climate change: an enduring challenge for vector-borne disease prevention and control. *Nature Immunology*. 2020;21(5):479-83.
- 23 Beard CB, Eisen RJ, Barker CM, Garofalo JF, Hahn M, Hayden M, et al. Vectorborne diseases. In: Crimmins A, Balbus J, Gamble J, Beard C, Bell J, Dodgen D, et al., editors. *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, DC: US Global Change Research Program; 2016.
- 24 Centers for Disease Control and Prevention. West Nile Virus: Symptoms, Diagnosis, & Treatment. 2018; online at <https://www.cdc.gov/westnile/symptoms/index.html>.
- 25 Centers for Disease Control and Prevention. Tickborne Illnesses of the United States: A Reference Manual for Healthcare Providers. 5th Edition. 2018; online at <https://www.cdc.gov/ticks/tickbornediseases/TickborneDiseases-P.pdf>.
- 26 Connecticut Department of Public Health. Lyme Disease Annual Statistics. 2019; online at: <https://portal.ct.gov/DPH/Epidemiology-and-Emerging-Infections/Lyme-Disease-Statistics>.
- 27 Centers for Disease Control and Prevention, American Public Health Association. Insects and Ticks. n.d.; online at [https://www.cdc.gov/climateandhealth/pubs/vector-borne-disease-final\\_508.pdf](https://www.cdc.gov/climateandhealth/pubs/vector-borne-disease-final_508.pdf).
- 28 Ogden NH, Lindsay LR. Effects of climate and climate change on vectors and vector-borne diseases: ticks are different. *Trends in Parasitology*. 2016;32(8):646-56.
- 29 Vezzulli L, Grande C, Reid PC, Hélaouët P, Edwards M, Höfle MG, et al. Climate influence on *Vibrio* and associated human diseases during the past half-century in the coastal North Atlantic. *Proceedings of the National Academy of Sciences*. 2016;113(34):E5062-E71.
- 30 O'Donnell JO. Water Temperature. Dataset published in Long Island Sound Study. n.d.; online at <https://longislandsoundstudy.net/ecosystem-target-indicators/water-temperature/>.
- 31 American Lung Association. State of the Air 2019. 2019; online at <http://www.stateoftheair.org/assets/sota-2019-full.pdf>.
- 32 Singer BD, Ziska LH, Frenz DA, Gebhard DE, Straka JG. Increasing Amb a 1 content in common ragweed (*Ambrosia artemisiifolia*) pollen as a function of rising atmospheric CO<sub>2</sub> concentration. *Functional Plant Biology*. 2005;32(7):667-70.
- 33 Ziska LH. An overview of rising CO<sub>2</sub> and climatic change on aeroallergens and allergic diseases. *Allergy, Asthma & Immunology Research*. 2020;12(5):771-82.
- 34 Ziska LH, Makra L, Harry SK, Bruffaerts N, Hendrickx M, Coates F, et al. Temperature-related changes in airborne allergenic pollen abundance and seasonality across the northern hemisphere: a retrospective data analysis. *The Lancet Planetary Health*. 2019;3(3):e124-e31.
- 35 Katial RK, Zhang Y, Jones RH, Dyer PD. Atmospheric mold spore counts in relation to meteorological parameters. *International Journal of Biometeorology*. 1997;41(1):17-22.
- 36 Corden JM, Millington WM. The long-term trends and seasonal variation of the aeroallergen *Alternaria* in Derby, UK. *Aerobiologia*. 2001;17(2):127-36.
- 37 Kinney PL. Climate change, air quality, and human health. *American Journal of Preventive Medicine*. 2008;35(5):459-67.
- 38 Artiga S, Hinton E. Beyond health care: the role of social determinants in promoting health and health equity. *Kaiser Health News*. 2018.
- 39 Rudolph L, Harrison C, Buckley L, North S. *Climate Change, Health, and Equity: A Guide for Local Health Departments*. Oakland, CA and Washington D.C.: Public Health Institute and American Public Health Association; 2018.
- 40 Rudolph L, Caplan J, Ben-Moshe K, Dillon L. *Health in All Policies: A Guide for State and Local Governments*. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute; 2013.

# ACKNOWLEDGEMENTS

The authors gratefully acknowledge feedback, provision of data, and guidance from the following individuals: Martin Klein (Yale Center on Climate Change and Health); Michael Pascucilla (East Shore District Health Department); Leah Schmaltz (Save the Sound); Laura Hayes, Lori Mathieu, and Steven Harkey (Connecticut Department of Public Health); Joanna Wozniak-Brown (Center Institute for Resilience and Climate Adaptation); Kirby Stafford, Goudarz Molaei, Eliza Little, John Shepard, and Philip Armstrong (Connecticut Agricultural Experiment Station); Arthur Degaetano (NOAA Northeast Regional Climate Center); Juliana Barrett (University of Connecticut Sea Grant Program); Ellen Mecray (NOAA/NESDIS/National Centers for Environmental Information); Jeremy Beatty (Center for Allergy, Asthma & Immunology); Taj Schottland and Emmalee Dolfi (The Trust for Public Land); David Vallee (NOAA Northeast River Forecast Center); TC Chakraborty (Yale School of the Environment); Elizabeth Edgerley (Yale School of Public Health); Kristin DeRosia-Banick (State of Connecticut Department of Agriculture); Tracy Lizotte (Connecticut Department of Energy and Environmental Protection); and Huan Ngo, who initially suggested this project. The report was designed by HvADesign and the executive summary copy edited by Marcia Kramer, Kramer Editing Services. The Yale Center on Climate Change and Health is supported by a generous grant from the High Tide Foundation. We also gratefully acknowledge a generous gift from The Patrick and Catherine Weldon Donaghue Medical Research Foundation to support the design, production, and printing of this report.

---

