# SUSTAINABILITY REPORT 2020



#### Introduction

In January 2019 LAER Realty Partners embarked on its journey to change the culture of a residential real estate company in a unique way; make sustainability part of our company's DNA. We are now entering the third year of that journey and the release of this report marks the second-year conclusion of our roadmap. We meet some of our goals, missed others, and, like many other companies, necessity required us to reinvent everything in the course of 2020. 2020. It was quite a year. It will be remembered as the year of COVID-19.

It will be remembered for the social, economic, and business challenges that the pandemic dragged along with it. At the same time, we saw stunning displays of individual and business adjustment brought by the upheaval. LAER Realty Partners is a good example. We took the time in the Spring of 2020 to reinvent our business efficiencies and launch online educational programming for our agents, and other real estate professionals across the United States who were faced with reinventing their homes as multiple office spaces, schools, recreation, and workout areas. These investments in business efficiencies and increased employee engagement led to the most profitable year in LAER Realty Partners six-year history.

Despite the challenges this year brought, we noticed that several organizations noted that COVID was raising awareness about climate change, the environment, and the importance of indoor air quality. The data suggests that consumer awareness of climate change continues to grow in relationship with the outbreak of COVID19. We were also inspired by the work that the National Association of REALTORS® did in 2020 to advance vigorous sustainability and resiliency plans for the largest trade organization in the United States.

Despite the challenges 2020 brought, LAER Realty Partners, like the National Association of REALTORS® looked forward and reinvented us to better serve clients, communities, and a sustainable and resilient future for all.



LAER Realty Partners is the largest independent (not aligned with a large real estate brand) real estate company in New England with over 30 offices and 500 real estate agents. In 2020 the company assisted 3500 families and companies to find new locations to raise their children or run their businesses. Our total real estate sales volume exceeded \$1.33 billion dollars in 2020. We increased our real estate sales volume by 30% over our 2019 numbers. The company is led by its chief executive officer Stacey Alcorn. In January 2019 it hired its chief sustainability officer Craig Foley. What follows is an account of sustainability initiatives that LAER Realty Partners has begun in 2019 to better serve the communities that we live and work in.

# **Executive Summary**

The LAER Sustainability Report is our way to engage all stake holders and hold ourselves accountable in the sustainable real estate space. We believe that last year's report was the first sustainability report published by a residential real estate firm in the United States. Our hope is that this document inspires other real estate brokerages to engage with their agents, staff, partners and, most of all, the consumers, and communities they serve in a new and exciting way.

The annual report establishes LAER's work to make sustainability part of the DNA of our company. We have looked for opportunities to turn our sustainability initiatives into tangible markers that our agents and staff can use in their business practices. We believe, as Joel Makower said in this article The State of Green Business 2021 "for many of the world's largest companies, sustainability is now seen as key to minimizing risk, increasing resilience, enhancing competitiveness and unlocking new opportunities"

LAER Career Den, our online portal for staff and agents, is the primary communication tool to our staff and agents. It offers not only upcoming events and news articles, but LAER University and a library of tools necessary to succeed in the fast-changing business of real estate. In 2019 we built a resource for listing, marketing, and valuation of homes with high-performance features. In 2020 we expanded our educational offerings by creating ROAR, Real Online Agent Resources, an online video educational platform that includes a set of videos on sustainability and valuation of high-performance homes.[1]

On January 1st, 2019 LAER Realty had four (4) agents that had achieved their NAR Green Designation. By the end of 2020 nearly 50 agents had obtained their Green Designation as a LAER agent. Agent education has been one of the key drivers of success of LAER's sustainability initiatives.

Engagement can also be measured by the quotes of our agents sprinkled throughout this document. The deeply felt beliefs about our sustainability initiatives may be the most eye opening for industry leaders reading this report. The remarks were even surprising to us as we collected them. It may indicate that agents that feel strongly about a sustainable future have not had an opportunity to voice their beliefs.



"Sustainability efforts have always been important to me personally. I was excited as soon as I heard LAER was offering the GREEN designation classes. As a Realtor® it's important for us to be educated in all areas of our business and with home energy efficiency aspects. The knowledge that we can share as our sustainability efforts grow is priceless. Not only have I been able to share my knowledge and encourage agents from other companies to expand their education in this field, but I've also been able to help my community by becoming appointed to our town sustainability committee."



"With technology I wondered if Realtors would go the way of travel agents or stockbrokers etc. With the trends all leaning towards sustainability and energy efficiency I viewed getting on board this movement as "career insurance." I wanted to get ahead of the curve and not get left behind so I became GREEN certified and focus my efforts in the area where sustainability and real estate cross paths. LAER gets it, plain and simple."

Phil Massa, LAER Realty Partners



# Overview of MA/NH Green Home Marketplace



As it turns out Brookline's ban on fossil fuels in new construction did not seed regional change - yet. In November 2019, as was reported in the 2019 LAER Sustainability Report, the town of Brookline, MA passed by an overwhelming vote at their town meeting a ban to new construction of residential homes from using fossil fuels. The attorney general of the state of Massachusetts in April of 2020 ruled that the ban was not allowable under state law. Unlike the state of California, where over 40 communities have adopted similar bans, Massachusetts administers a statewide building code through the Board of Building Regulation and Standards (BBRS). It was determined by the AG that the ban fell under BBRS purview. The outcome of that action is that included in a climate bill sent to Governor Baker's desk at the very end of the extended session (January 5th 2021). The law would require BBRS to add a net zero energy (NZE) stretch code for Massachusetts communities. This would communities to voluntarily adopt a more rigorous building code that would foster fossil fuel free development, but not require it. Governor Baker vetoed the bill on January 15th, 2021. The bill as refiled with the new legislative session. It was immediately brought to vote and passed by both the House and Senate.

The Governor asked for amendments to several sections of the bill including the NZE stretch code. One of his worries was that it might stifle new development at a time when the state is suffering from a housing shortage. To our knowledge, the Governors worries were not backed up by fact-based data.

In addition, several other Greater Boston municipalities have considered home-rule petitions. Home rule petitions, if passed by the municipality, then move on to the state legislature to be passed into law. Arlington, Massachusetts a suburb of Boston at the terminus of Boston's MBTA Redline, passed a home-rule petition in November 2020 that, again sought to control the use of fossil fuels in residential new construction [2]

Arlington's Article 5 is included as an appendix to this document. Lexington, MA Article 29 is also included in the appendix. Of course, any discussion about 2020 must include a section that covers COVID-19.

Massachusetts's first COVID ban occurred on March 23, 2020 when Governor Baker announced a stayat-home advisory effective from noon March 24 until noon April 7. As we all were realizing by this time, the COVID virus was a serious public health issue that was going to have an impact on our lives that we could only imagine. How would the pandemic affect the lives of our children and their education? How would the pandemic impact employment and business? Which industries would be declared "essential" and still be able to operate? How would the pandemic impact the real estate industry? How would real estate professionals be able to show homes and host open houses? How would the best practices of real estate evolve to provide reasonable degrees of safety to our clients and ourselves? How would the pandemic make us rethink how our homes are utilized? Who would have imagined going into 2020 that our homes would serve as full time educational facilities, offices, entertainment centers, gyms, and restaurants?

As a real estate company, LAER Realty Partners had to ask itself many tough questions as we were on uncharted territory. It was impossible to guess in mid to late March how the pandemic might affect our brokerage. LAER Realty Partners reacted quickly to new business conditions and successfully delivered new products and services for our agents under CEO's Stacey Alcorn's vision and leadership.



One of these new services was our Real Online Agent Resources (ROAR) tool designed as an education tool for real estate professionals finding themselves (and their children) due to the first stay at home advisory. ROAR utilized the Facebook platform to bring a series of interviews between LAER CEO Stacey Alcorn and real estate industry leaders to the homes of real estate agents across the United States. The platform was created in a matter of hours and in a few weeks, there were over 1500 real estate professionals from across the United States following the platform.

That platform was added to our LAER University video training for our agents. Part of the platform now includes a "Sustainability and Green Living" section that includes interviews with industry experts like Sandra Adomatis, the leading green appraiser in the country and the author of Residential Green Valuation Tools, NAR's Director of Sustainability Amanda Stinton, Joseph Gentile from our partner Pearl Certification, Miriam Aylward the Executive Director of North East Sustainable Energy Association, and Steve Baczek a local architect who is a national expert on green building and design as well as videos from our chief sustainability officer Craig Foley.

Another way that COVID made an impact on LAER Realty Partners that had a beneficial impact on our carbon footprint was the implementation of virtual meetings. Pre-COVID individual offices met in person monthly, and the executive staff met weekly. The inperson meetings required travel for each team member to attend. For NAR's annual convention, held virtually in October of 2020, LAER CEO Stacey Alcorn and CSO Craig Foley were featured in a well-attended educational session Sustainability as a Brokerage's Value Proposition [3] In the session how a shift in online office meetings had a surprising environmental impact. Using conservative travel assumptions, we calculated less miles travelled due to virtual meetings. Our feeling is that is that are a more efficient brokerage, both in terms of time and money spent for travel.

We also recognize that the increased efficiencies for our agents and staff resulted in a calculable environmental impact as well with equivalencies for annual Savings for virtual LAER office meetings equaling:

- A reduction of the equivalent 7,050 lbs. of coal burned into the atmosphere
- A reduction of 816,000 smart phones charged
- A reduction of 1.1 homes' electricity for one year

# Impact of 1 year of online office meetings for LAER



**18,000**Fewer Miles Driven (1500 per meeting)



Gallons of gas saved annualy



\$1,872

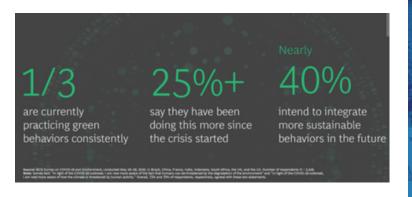
Total cost reduction for brokerage

- · Virtual meetings mean no agent travel to office
- Assumes conservative travel average of 10 miles round tripp per agent at 25mpg
- Assumes 2020 gas cost average of \$2.60

Although the pandemic had devastating impacts on the commercial real estate sector, the residential market held firm. Thanks to the work of our trade organization the National Association of REALTORS® (NAR) we advocated that real estate professionals need to be deemed essential workers. Several states, added includina Massachusetts. real estate professionals as essential and we could, with guidance from NAR on the best practices for showing homes and hosting open houses, still perform our roles helping sellers and buyers buy and lease homes. In fact, LAER Realty Partners had their best year ever with over \$1.3 billion in real estate sales.

It is worth noting that COVID did have negative impacts on some residential Massachusetts markets, however. For instance, the worries about a "flight from the City" were substantiated in the fall of 2020. In Boston at the beginning of September there were over 1000 condos on the market for sale. By the end of September 2020, the City of Boston had over 1800 condos available. The City of Boston also experienced a particularly challenging rental market during COVID. At the same time, in the suburban markets our agents regularly experienced multiple offers for single family homes.

At the same time COVID did have an impact on consumer awareness about indoor air quality, a changing climate, and sustainability.



The pandemic has made many people rethink the expectations of their home, and obviously the amount of time that we spent in it due to the stay-athome advisories. Also, the media attention around reopening schools, restaurants, and commercial offices and focused on adequate ventilation has raised awareness about proper ventilation in our homes as well. The ventilation topic is one that high-performance residential remodelers and builders have been aware of for several years.

Of course, the presidential election in November 2020 brought a new administration that is aware of the climate crisis and sees that opportunities for energy efficiency and renewable energy are opportunities for immense job growth in the United States and global leadership in the clean energy economy. In fact, President Biden's initial infrastructure proposal is calling for 1.5 million sustainable homes that would increase housing supply while keeping the environmental impact (and operating expenses for the new homeowners) low. LAER Realty Partners sees this as an exciting time of change and new opportunities for our real estate

professionals, our company and the clients and

communities that we serve.

# Climate Science 101

- 1. It's warming
- 2. It's us
- 3. We're Sure
- 4. It's bad
- 5. We can fix it

I believe, just as COVID-19 has affected what people want in a home, climate has become so important in deciding where and what to buy. COVID pushed many people to work from home, necessitating a nice and efficient home office. Climate change is causing many buyers and investors to search even more carefully for their next property. Think about it. If you are searching for a vacation home to enjoy and then pass along to your family, flood issues must be a factor. If you are a savvy investor adding to your real estate portfolio, you must take climate change into account."

John Takvorian, LAER Realty Partners







This year was an exciting time for change at the National Association of REALTORS® as well. The 2020 President Vince Malta faced a crisis no one was prepared for. At the same time, however, he kept the topic of sustainability and resiliency at the front of the page for our trade organization. This year saw the development of a ten-year sustainability plan for NAR. The work that NAR did to advance a sustainable future was unprecedented. One of the topics listed on NAR's 2021 Federal Advocacy Agenda is resilient infrastructure investment [4]. The combination of aging infrastructure and the impact of a changing climate are already being felt in New England. There is some awareness by legislators that a business-as-usual approach is no longer acceptable.

The economic burdens of high energy costs and awareness that there may be a potential "cost of doing nothing" to tackle the climate problem has created housing challenges as well as new market opportunities in the region

For instance, the Commonwealth of Massachusetts passed Green Communities Act (GCA) in 2008. GCA allowed the solar industry to take off by setting the state's net metering policy and first of three (to date) solar incentives. Growth of solar photovoltaics (PV) grew faster than anyone could have expected. Now the state of Massachusetts has over 100,000 residential solar PV installations. These homes are transacting daily. Residential real estate agents are asked questions about how the systems work. Do they add or decrease value to the property? What impact do solar panels have on a home's roof. Can a homebuyer assume a lease or power purchase agreement of third party owned systems?

At the same time principles in building science and technologies that increase the energy efficiency of existing buildings and new construction have accelerated as well. Cold climate air source heat pumps (ccASHP) are also available for more efficient and more environmentally friendly heating and cooling options.

[4]https://www.nar.realtor/political-advocacy/federal-advocacy/nars-federal-advocacy-agenda

Ground source heat pumps, or geothermal heating and cooling systems, are seen more and more in residential settings. Smart home features like thermostats that learn your behavior and adjust temperatures to lower operating costs are just one example. Others include indoor air quality monitors that can measure in real time humidity, CO2 and volatile organic compounds (VOCs) are also available in the marketplace.



Figure 1: Merrimack Valley NG SEPTEMBER 2018

On top of the climate mitigation solutions mentioned above, climate adaptation strategies are also being enforced in local building codes. For instance, on Plum Island off the coast of Massachusetts building codes require residential new construction to be built on stilts as a climate resiliency strategy.

As mentioned earlier, desire at the municipal level to tackle the challenges in front of us was exemplified by the town of Brookline, MA banning the use of fossil fuels in new construction projects in late November 2019, the first Massachusetts town to enact such a ban[5]. Town Meeting members passed the ban by an overwhelming majority of 211 to 3. There are several other communities in and around Greater Boston that are also considering such a ban. In New Hampshire on January 10th, 2020 the state legislator raised the net metering cap. In 2019, despite bipartisan support, Governor Sununu vetoed the measure. As described by this NH Labor News article, "Residents feeding the power grid with clean solar energy will help reduce costs to all residents and will reduce the need for fossil fuel power generation or bio-fueled power generators. This is a big step in reducing carbon emissions and greenhouse gases

Also, worth noting is the state of New Hampshire's Environmental Dashboard which can be found at <a href="https://www4.des.state.nh.us/NHEnvironmentalDashboard">https://www4.des.state.nh.us/NHEnvironmentalDashboard</a>

For more information about state and federal incentives for renewable and energy efficiency improvements you can search by zip code at <a href="https://www.dsireusa.org/">https://www.dsireusa.org/</a>

[5]https://www.wbur.org/earthwhile/2019/11/20/brookline-fossil-fuel-ban-heating-oil-natural-gas

[6]https://nhlabornews.com/2020/01/nh-senate-passes-legislation-to-raise-net-metering-cap-to-5-megawatts

# **Building Codes**

There is no question that aggressive building codes have directly led to the growing supply of green home inventory in the states of Massachusetts and New Hampshire.

Both Massachusetts and New Hampshire have adopted state-wide building codes. These codes are based on the International Energy Conservation Code (IECC). Although 41 states have adopted some version of the IECC, states may vary in which code cycle they have adopted. New Hampshire, effective September 15th, 2019 jumped two code cycles from IECC 2009 to 2015 [7]. As previously mentioned, many communities surrounding Greater Boston have interest in exploring a net zero energy (NZE) building code. This opt-in code would offer communities the chance to regulate new construction and significant remodels to a NZE standard. What does that mean? The answer depends on if the option is passed by law and what the regulatory standard is.

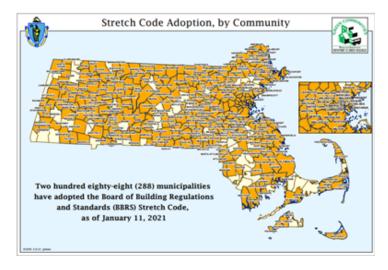
The simplest definition of a NZE home is one that produces as much energy as it uses on an annual basis. Although this standard sounds draconian, the advances in building science have made this a cost-effective goal. In fact, when you look at the payback of investment due to utility savings an additional cost for construction quickly payback for the new homeowner. There is a growing awareness that first time homebuyers need to be aware of not just principal, interest, taxes, and insurance (these numbers are used in most online mortgage calculators), but the total cost of ownership (TCO). TCO includes transportation, utility, and long-term maintenance costs[8]

[7]https://www.nh.gov/safety/boardsandcommissions/bldgcode/nhstatebldgcode.html

[8]https://www.washingtonpost.com/business/2019/06/25/new-homeowners-often-underestimate-how-much-houses-really-cost

[9]https://www.hersindex.com/hers-index/what-is-the-hers-index

The IECC 2006 code is the baseline for a HERS score of 100. The Home Energy Rating System (HERS) Index is the industry standard by which a home's energy efficiency is measured. It's also the nationally recognized system for inspecting and calculating a home's energy performance[9]. High-performance homes need to be able to prove their performance and a HERS score is one metric to do so. Like your golf score, the lower a building's HERS score the better. If a home built to IECC 2006 code is assumed to have a HERS score of 100, the IECC 2015 code requires a HERS sore of 69. In Massachusetts 288 of the 351 cities and towns in the state have voluntarily adopted the more rigorous stretch energy code as of January 11. 2021.



As mentioned in the earlier section, the Massachusetts Board of Building Regulations and Standards has been petitioned to create a NZE energy stretch code that communities could voluntarily adopt.

With mounting evidence that meeting these rigorous building codes is cost effective, it is conceivable in the extremely near future that new buildings in the state will have a significant impact on lower energy demand and carbon emissions.

"It's great to be working at a brokerage that is at the forefront of sustainability and provides me with the education and tools necessary to be ahead of the competition and provide value to my clients."

> Raji Mahaadevan, LAER Realty Partners.

"Coming from a background that included some high-performance remodeling training, I joined the LAER team to kick my highperformance business in high gear"





Part of the mandate of the HELIX project is that the information in the data repository is available to multiple listing services in the region, and, in a best-case scenario, would auto populate the green data fields with an address match when the listing agent is uploading the home information into the MLS. Why is auto population of green data field in the MLS necessary? There is evidence that even though green data fields have increased in the approximately 600 MLSs spread across the U.S. listing agents are not always populating these fields. Agents may not be aware of what the green fields mean or may be worried about lawsuits if they enter the wrong information.

It is worth mentioning that at least one study has found a relationship between listing agents that are marketing green features appropriately and those that are not and the impact on sales price. [10] Real estate appraisers also are challenged to find comps for homes with high-performance features if listing agents are failing to fill the fields properly.

An example of this is that Massachusetts predominant MLS, MLSPIN located in Shrewsbury, MA, in September 2020 added a more rigorous set of data fields for renewable energy generation of power. If the fields are filled out, it supplies real estate appraisers much better data to add contributory value for the system. It is not difficult, from a quick view of the fields, why an agent without extensive experience in selling homes with solar might be intimidated entering the data. It is also worth noting that if a listing agent checks one of the power production types, the red fields are mandatory to enter.

LAER Realty Partners believes that better education for our agents and having a sustainability department to field questions about green data fields is the answer to better population of the fields, but there is no doubt that aligning the HELIX database to MLSPIN and having the information auto populate with an address match would be a significant step forward for the marketplace.



[10]https://www.imt.org/resources/what-is-green-worth-unveiling-high-performance-home-premiums-in-washington

Receiving my Green Designation has started a whole new chapter for me to show clients the benefit and savings of being "green". The building materials, the systems and efficiency far outweigh the effort while doing our part for future generations





# Market Opportunity



In an online poll we conducted with LAER real estate professionals that we conducted at the of 2020, 30% of the agents that responded said that they sold a home in the last year with third party owned solar PV panels and an additional 24% reported selling a home in which the homeowner owned the solar PV system. There is clearly a significant market opportunity for our brokerage and our agents.

The latest info we have from HELIX specific inventory at the end of 2020 revealed over 52,855 homes with some type of green certification or energy asset rating like Leadership in Energy and Environmental Design (LEED), the National Green Building Standard (NGBS), Energy Star Certified Homes, U.S. DOE Zero Energy Ready Homes or the HERS Index Score. This represents a 27% jump from the 2019 numbers. The HELIX database also plateaued over one hundred thousand homes in the state with solar PV systems installed on residential homes at 100,054 at the end of 2020. the Other green certification schemes not included in the registry in Passive House and Pearl Certifications The numbers are clear; there is a market opportunity for real estate firms that take the time and energy to invest in how a green home should be properly marketed and valued.

The HELIX inventory in New Hampshire tells a different story, but it is important to remember that the July 1, 2018 census states there are 638,091 households in that state versus 2,914,929 in Massachusetts or 22% of total households compared to its neighbor to the south. The HELIX database reveals 6255 homes with solar PV, an increase of almost 17% from the 2019 number.

With the adoption of the new state building code, we expect that New Hampshire will see rapid growth in the number of homes with HERS scores over the coming years. It seems that there may need to be a change in political will at the state governance level for the state to advance solar PV growth as Massachusetts has experienced over the last decade. It is also important to note that green home inventory is not limited to homes with green certifications, energy asset scores, or solar PV and geothermal heat pump systems. Many homeowners are upgrading to high-performance features such as cold climate air source heat pumps (ccASHP), heat pump water heaters, or have had air sealing and insulation work completed through utility programs. performance features in a home can also include simple upgrades like changing from incandescent to LED lightbulbs or adding a programable thermostat. For more information on high-performance features in homes see our blog post https://www.laerrealty.com/posts/what-is-a-highperformance-home



"Being a part of a real estate company that cares about environmental issues, educating it's agents, and breaking the stigma solar has in the real estate community makes me beyond proud. LAER has taken the opportunity to be a leader in sustainability, and I couldn't be more excited to be along for the ride!"



# Deeper Dive on Massachusetts Solar PV Growth



Unlike green certifications or HERS Index scores which, which do not have visual signals for the average real estate agent to identify, homes with solar panels are a clear visual marker that the homeowner has made an investment in a high-performance feature. In Massachusetts alone more than 100,000 homes with solar photovoltaic (PV) panels that are ground mounted or attached directly to the roof. Homes with solar PV are transacting daily in Massachusetts.

What has accounted for this rapid growth? In 2008 Massachusetts passed, and Governor Deval Patrick signed into law the Green Communities Act (GCA). The law expanded the net metering policy in place since the 70's. The solar boom now in place was triggered by the expansion of the GCA net metering policy expansion.

The federal investment tax credit (ITC) for solar originally went into effect in 2005. Set to originally expire in 2007, the credit has been extended through the end of 2022 at 26% of the installed system cost for residential homeowners. The credit will drop to 22% in 2023 and expire at the end of that year if the credit is not extended by Congress. The ITC has certainly been one of the drivers of the rapid growth of solar PV across the nation, as the tax credit has been one of the reasons the solar industry has expanded by over 10,000% since the credit started [11][12]

How are the systems valued by appraisers? Can a solar lease or power purchase agreement by assumed by a new buyer? What happens if a buyer does not want to assume a lease?

LAER Realty Partners sees a huge opportunity to fill this market void through aggressive education of its real estate agents.

According to the 2020 State Solar Rankings Report

Massachusetts ranked number one in the nation. It is worth noting that Rhode Island is ranked fourth, Connecticut sixth, and New Hampshire eighth. As LAER continues to expand through the New England area opportunities for our agents are clear.

"Obtaining my Green Designation had been on my wishlist for a while. LAER and its partnerships actually made it attainable for me and now I am a part of the GBAR Sustainability Task Force! I am eagerly anticipating the opportunity to be a part of positive change in the Commonwealth and its Realtor culture. Conversations will be had, minds will be opened, positive, sustainable change will occur. This is just another check mark on the lengthy list that proves LAER Realty Partners is the brokerage of the future!"



Julie Ochs, LAER Realty Partners

[11]https://www.energysage.com/solar/cost-benefit/solar-investment-tax-credit

[12]https://www.seia.org/initiatives/solar-investment-tax-credit-itc

[13]https://starw1.ncuc.net/NCUC/ViewFile.aspx? Id=f940631d-6f56-4c34-847d-bbf6044636b7

# High-Performance Homes: Do They Perform Better?



Performance testing. Homes can be tested for energy efficiency with devices like blower door tests and thermographic or infrared (IR) cameras. The results of such tests can give noticeably clear indication of the efficiency of the building envelope.

The thermal image above is a set of townhouses in Brooklyn, NY. The image was taken on a cold day and you can see examples of heat leaking from the attached homes in red and yellow. The home in blue was retrofitted to the Passive House standard.

Performance testing also is reflected in energy asset ratings on homes. What is an energy asset rating on a home and why might it matter to home buyers and their agents? If you ask a group of real estate agents in a room how many have been if they could obtain the seller's utility bills a vast majority of agents would nod their heads in agreement. Given that utility prices are high, and the market is volatile it is no wonder that home buyers are seeking such information.

The term "total cost of home ownership" indicates that there are more expenses to owning a home than just the monthly mortgage payments. [14] Total cost of ownership includes transportation costs for family members travelling to and from work (if this includes working in Boston where daily garage charges can run \$40 a day, it's easy to understand why property value in walking distance to public transit is so valued in Greater Boston), maintenance and repairs and, of course, utility costs.

Asking the seller to allow a buyer to view the last year's heating and electric bills may be a false indicator of what the home buyer should expect when they take over the home. For instance, studies have shown that there is a huge degree of variance between what homeowners in thermostat settings [15] and a driver in variance may be the lack of energy efficiency improvements in the home.

An energy asset rating takes the variance in temperature settings out of the equation by rating the efficiency of the building envelope (air sealing, insulation, windows, and doors), efficiency of heating and cooling plants, and on-site generation of energy (like solar PV systems).

Home buyers have a better chance of calculating their home's actual energy costs through an energy asset rating rather than simply asking for the home seller's utility bills. More information about how Massachusetts homeowners use power can be found at <a href="https://laer.link/navres">https://laer.link/navres</a>

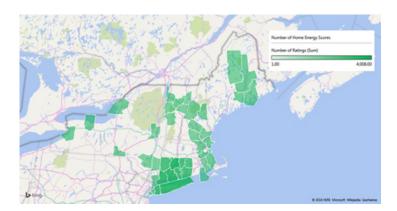
The two most used energy asset ratings in the United States are the Home Energy Rating System (HERS score) and the U.S. Department of Energy (DOE) Home Energy Score (HES score).

Massachusetts led the nation in 2016 with 61% of new construction starts obtaining a HERS Score. We have seen that with the adoption of more rigorous building codes that more and more builders are using the HERS score to meet the energy conservation requirements in the building code more cost effectively. HERS raters use tools like blower door tests and thermographic imaging to validify the home's energy



Figure 2 IR Image Weston, ma Sold by LAER Realty

Currently the U.S. DOE HES score has not made a significant market impact in Massachusetts or in New Hampshire. In 2015, the state of Connecticut added the HES with every home energy assessment completed in the state. The result is that over 40,000 homes now have a HES score. Conversation around similar energy asset ratings added to home energy assessments has occurred, but there has been no regulatory adoption to date.



Northeast U.S. DOE HES Market Penetration Map (source HELIX)

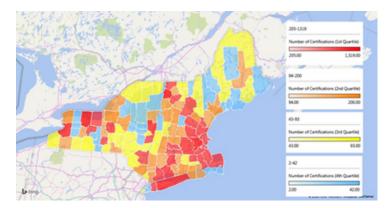


### Green Certified Homes



To misuse a popular book title, if there are 50 shades of green, homes with third party certified green home certifications are the highest shade of green. These homes have been rigorously certified by an independent third party. The green labels vary in the categories of energy efficiency and sustainability. Some markets may be including more certifications of one type than another and may have different perceived value in one market to another. Green certifications may vary from commercial buildings to homes.

Typical green home certifications include Leadership in Energy and Environmental Design (LEED), the National Green Building Standard (NGBS), Passive House, Energy Star and Pearl Certification.



Green Certified Homes by (source NEEP and HELIX)

[15]https://www.nrel.gov/docs/fy17osti/68019.pdf

[14]https://20somethingfinance.com/total-cost-of-homeownership

# Partner Engagement









Two key partners were central to the success of LAER Realty Partners sustainability strategy in 2019: Ross Mortgage our company's preferred lender and Pearl Certification. Ross Mortgage Company was founded by Robert J. Kalagher and his father in November of 2001. The co-founders have 30+ years' experience in the retail mortgage banking industry. The corporate headquarters is in Westborough with additional offices throughout Massachusetts. Ross Mortgage is licensed in Massachusetts, New Hampshire, Maine, Connecticut, and Rhode Island.

Ross is seen as an innovator in the mortgage industry because of the cutting-edge loan programs, REALTOR® Support Systems and Advanced Marketing techniques they employ to attract and retain customers.

Pearl qualifies a network of contractors that improve homes' performance, and real estate professionals that ensure these homes are properly marketed and valued when sold. The network of contractors that are vetted by Pearl is very important to our agents. When marketed correctly, Pearl Certified homes can add 5% or more to a home's sale price.

Obviously, their mission and ours are aligned perfectly. Since our partnership was announced in March 2019, we have worked to gradually implement Pearl training with our agents across all our offices. The new decade brings huge opportunities for LAER agents to utilize this tool fully in their listing presentations and marketing plans.

In 2020 two additional partners were added to the LAER team to advance our sustainability efforts.

Sea Oak Capital and LAER Realty Partners entered into a power purchase agreement in September 2020. The agreement allowed all our offices in National Grid territory in Massachusetts the chance to lower operating costs and connect with a community solar array. Massachusetts created the current community solar program in 2018. Solar arrays are owned by companies like Sea Oak and small businesses like LAER are eligible to subscribe to the solar arrays and receive a credit on your utility bill. We are pleased to contribute to the community shared solar project while also lowering our operating expenses.

At the end of 2020 we also partnered with JunkLuggers of Greater Boston. The firm has the audacious goal of sending zero waste to landfills by 2025. They have developed an outstanding network of donation partners that ensures maximum reuse and recycling of materials removed from homes at the time of sale. You can find more information about the company at

https://www.junkluggersofgreaterboston.com/

November 2020
SUSTAINABILITY
AS A
BROKERAGE'S
VALUE
PROPOSITION





Stacey Alcorn



Craig Foley



Amanda Stinton

82% of S&P 500 companies published voluntary corporate sustainability report (CSRs) which grew from 20% six years earlier in 2011. Why did that growth accelerate so quickly? Is there an opportunity for real estate brokerages to engage their communities in unique ways by committing to sustainability initiatives. What do these type of initiatives look like? Do they increase agent and consumer engagement? Can these initiatives be used as recruiting and retention tools? What market conditions are necessary to make these initiatives turn into more real estate sales? All these questions answered and more...

NAR press release on the educational session can be found at https://laer.link/NARgreen







**TOP 500** 

**OVER ALL RANK** 







"While we may not have billboards advertising our low fee up and down Rte 93, and while we can't do expensive ad campaigns like some of the national companies, I will tell you, we have something way more powerful than any of that. We have a small army of agents who care a lot about their customers, their communities, the air we breathe, the extinction of animals, the temperature of the ocean, and the future of our planet. And for me, that says everything"

Stacey Alcorn CEO LAER Realty



# **2021 LAER Sustainability Goals**

## Increase Resource Efficiency at LAER Offices in 2021

Due to the pandemic implementing energy, water, waste, and paper efficiency goals were not fully realized in 2020 and is an opportunity and goal of LAER Realty Partners in 2021. Our partnership with Sea Oak Capital was a shining exception as all our offices in National Grid territory are now participating in their community solar program. Not only can we take pride knowing our electricity in these offices is powered by renewables, but it dropped our utility bills by 10%. LAER Realty Partners is doubling down in 2021 on our efficiency and procurement goals. In December of 2020, the LAER Sustainability Committee was formed. One of the Committee's objectives in 2021 is analyzing waste, recycling, and consumption so that they can recommend solutions to our staff.

Reduction of paper consumption in an industry that is addicted to marketing and transactional use of paper is also an opportunity to 2020. LAER Realty Partners did commit to a "paperless" transaction service called Dotloop in 2017. We estimate that this has reduced paper consumption in our real estate transactions by 10-15%. In 2021 we will be monitoring paper consumption in all our offices to determine ways to lower paper consumption this year. These challenges are going to need a coordinated staff effort in 2021 to start looking at opportunities to use resources more efficiently.

#### LAER REALTOR® Education in 2021

On January 3rd, 2020, the Massachusetts Real Estate Licensing Board accepted LAER Realty partners application for a licensed real estate school. In 2021 we applied to the New Hampshire Real Estate Commission for offering Selling the Sun, a real estate class on solar PV in the residential transaction, for continuing education credits. With the opening of LAER Real Estate Academy we have opportunities to expand the successful work of LAER agent education significantly. Here is the list of Massachusetts courses that offer continuing education credits and address green homes, air quality and health, and sustainability

- RE86R14 High-Performance Green Homes in Residential Real Estate (LAER CSO Craig Foley wrote the curriculum for this course)
- RE59R09 Smart growth / Smart Energy
- RE63RC10 Environmental Issues
- RE64C11 The Business of Green and Sustainability in Commercial Real Estate
- RE79R13 21E for Residential Real Estate
- RE105R108 Selling the Sun (LAER CSO Craig Foley wrote the curriculum for this course)
- RE16RCi3 Zoning & Building Codes
- RE46R05 Residential New Construction
- RE20R13 Lead Paint Residential Sales & Rentals

Specific LAER education opportunities include increasing the rate of accurate HERS Index Scores, green certifications, and solar panel data into the MLS for our listing agents. It may be possible for our agents who represent buyers to help guide listing agents from other companies to use the green data fields appropriately.

LAER also continues to sponsor events that support market education and transformation with partners like the Greater Boston Association of Realtors (GBAR). The extremely popular Creating Green Buildings virtual tour in July 2020 which can be found at <a href="https://laer.link/greenbuildings">https://laer.link/greenbuildings</a>

GBAR's Sustainability Committee also hosted an event called the Green Lending Roundtable hosted by LAER's CSO and featuring the CEO of LAER's mortgage partner Ross Mortgage Bob Kalagher. The event can be found at <a href="https://laer.link/greenloan">https://laer.link/greenloan</a>



## Concluding Remarks 2020 LAER Sustainability Report

Real estate agents make a living selling homes, not climate change solutions. That said there is a huge opportunity for agents to thrive by offering solutions for home buyers to purchase dwellings that offer lower operating costs, that are healthier and more comfortable to live in and have a better environmental footprint.

As a thriving real estate brokerage, LAER Realty Partners also believes that we have an opportunity to better serve our clients and communities with the sustainability and resiliency initiatives. We are happy to highlight some of the tangible results from these initiatives in this report.

We believe that embedding sustainability into the DNA of our company is part of our fiduciary responsibility to all our stakeholders from investors, our agents and staff, our partners and the consumers and communities that we serve.

Questions about this document or more information about strategic partnerships with LAER on our sustainability initiatives should be addressed to

Craig Foley - CSO LAER Realty CFoley@LAERrealty.com 857.259.1838

Please feel free to contact Craig to speak at community events within our service territory about LAER's sustainability work.



## Appendix A Arlington, MA Article 5

# ARTICLE 5 HOME RULE LEGISLATION/BYLAW AMENDMENT/ FOSSIL FUEL INFRASTRUCTURE

To see if the Town will vote to authorize and request the Select Board to file Home Rule Legislation to allow the Town of Arlington to regulate fossil fuel infrastructure in new construction and/or major renovation and rehabilitation projects in Arlington for the purposes of reducing greenhouse gas emissions and encouraging renewable energy production and use, notwithstanding the State Building Code, the Gas Code, M.G.L. c. 164 or any other law of the Commonwealth regulating natural gas as a residential utility; and further to vote to establish a new section of Title VI of the Town Bylaws prohibiting or otherwise regulating the installation of fossil fuel infrastructure in new construction projects and/or major renovation and rehabilitation projects in Arlington, and to set forth the terms and scope of such prohibition, including exemptions or waivers to same; or take any action related thereto.

(Inserted by the Select Board and at the request of the Clean Energy Future Committee)

VOTED: That the Town does hereby request and authorize the Select Board to file Home Rule Legislation to provide substantially as follows:

"AN ACT AUTHORIZING THE TOWN OF ARLINGTON TO ADOPT AND ENFORCE LOCAL REGULATIONS RESTRICTING NEW FOSSIL FUEL INFRASTRUCTURE IN CERTAIN CONSTRUCTION"

Be it enacted as follows:

SECTION 1. Notwithstanding chapter 164 of the General Laws, section 13 of chapter 142 of the General Laws, the State Building Code, or any other general or special law or regulation to the contrary, the town of Arlington is hereby authorized to adopt and further amend general or zoning by-laws that restrict new construction or major renovation projects that do not qualify as fossil-fuel-free, as defined in section 4 of this act.

SECTION 2. Notwithstanding section 7 of chapter 40A of the General Laws, or any other general or special law or regulation to the contrary, the Building Inspector of the town of Arlington, or any designee thereof, shall be authorized to enforce restrictions on new construction and major renovation projects that do not qualify as fossil-fuel-free, as defined in section 3 of this act, including through the withholding of building permits.

SECTION 3. As used in this act, the term "fossil-fuel-free" shall refer to construction or renovation that results in an entire building or an entire condominium unit that does not utilize coal, oil, natural gas other fuel hydrocarbons (including synthetic equivalents), or other fossil fuels in support of its operation.

SECTION 4. This act shall take effect upon its passage and shall authorize any pending bylaw already approved by Arlington's Town Meeting consistent with Sections 1 through 3 above

SECTION 5. If any provision or section of this act is invalidated, the remainder shall survive in full force and effect.

AND FURTHER VOTED, that at Title VI of the Town Bylaws be and hereby is amended to add a new Article 10 entitled "Prohibition on New Fossil Fuel Infrastructure in Major Construction" as follows:

# ARTICLE 10. PROHIBITION ON NEW FOSSIL FUEL INFRASTRUCTURE IN MAJOR CONSTRUCTION Section 1 Purpose

This Bylaw is adopted by the Town of Arlington, under its home rule powers and its police powers under Massachusetts General Laws, Chapter 40, Sections 21 (clauses 1, 18) and 21D, and Chapter 43B, Section 13, to protect the health and welfare of the inhabitants of the town from air pollution, including that which is causing climate change and thereby threatens the Town and its inhabitants.

#### Section 2 Definitions

"New Building" shall mean a new building or new accessory building (a building devoted exclusively to a use accessory to the principal use of the lot) that is associated with a valid building permit application on or after the Effective Date.

"On-Site Fossil Fuel Infrastructure" shall mean piping for fuel gas, fuel oil, or other fuel hydrocarbons, including synthetic equivalent that is in a building, in connection with a building, or otherwise within the property lines of premises, extending from a supply tank or from the point of delivery behind a gas meter (customer-side of gas meter).

"Major Renovation" shall mean a renovation project associated with a valid building permit application on or after the Effective Date of this article that:

- (1) For existing structures regulated by the current edition of the International Residential Code as amended by 780 CMR 51: Massachusetts Residential Code, includes the reconfiguration of space and/or building systems, in which the Work Area, not including any added space, is more than 75% of the Gross Floor Area, as defined in Section 2 of the Arlington Zoning Bylaw, prior to the project;
- (2) For existing structures regulated by the current edition of the International Building Code as amended by 780 CMR 34: Massachusetts Commercial Code, includes the reconfiguration of space and/or building systems, in which the Work Area, not including any added space, is more than 50% of the building floor area prior to the project, as defined by the Massachusetts Building Code.

"Work Area" shall mean the portions of a building affected by renovations for the reconfiguration of space and/or building systems, as indicated in the drawings associated with a building permit application. Areas consisting of only repairs, refinishing, and/or incidental work are excluded from the Work Area.

"Effective Date" shall mean July 1, 2022, or six months following the date by which the Town is authorized by Special Act to regulate fossil fuel infrastructure by the Commonwealth of Massachusetts, whichever is later in time.

#### Section 3 Applicability

The requirements of this article shall apply to all permit applications for New Buildings and Major Renovations proposed to be located in whole or in part within the Town, except that:

- A.The requirements of this article shall not apply to utility service piping connecting the grid to a meter, or to a gas meter itself.
- B.The requirements of this article shall not apply to piping required to fuel backup electrical generators.
- C.The requirements of this article shall not apply to piping required for cooking appliances and related appliances.
- D.The requirements of this article shall not apply to the use of portable propane appliances for outdoor cooking and heating.
- E. The requirements of this article shall not apply to the piping required to produce potable or domestic hot water from centralized hot water systems in buildings with building floor areas of at least 10,000 square feet, provided that the Engineer of Record certifies that no commercially available electric hot water heater exists that could meet the required hot water demand for less than 150% of installation or operational costs, compared to a conventional fossil-fuel hot water system.
- F. So long as new fossil fuel piping is not installed, the requirements of this article shall not apply to the extension or modification of heating systems via HVAC system modification, or modification of radiator, steam, or hot water piping.
- G. The requirements of this article shall not apply to research laboratories for scientific or medical research or to medical offices regulated by the Massachusetts Department of Public Health as a healthcare facility.
- H. The requirements of this Article shall not apply to repairs of any existing portions of a fuel piping system deemed unsafe or dangerous by the Plumbing and Gas Fitting Inspector

#### Section 4 Enforcement

Upon the Effective Date, no permits shall be issued by the Town for the construction of New Buildings or Major Renovations that include the installation of new On-Site Fossil Fuel Infrastructure, except as otherwise provided in Sections 3, 5, and 6 of this bylaw

#### Section 5 Waivers

The requirements of this article shall apply to all permit applications for New Buildings and Major Renovations proposed to be located in whole or in part within the Town, except that:

A. In the event that compliance with the provisions of this bylaw makes a project financially infeasible or impractical to implement, the Building Inspector may grant a waiver subject to reasonable conditions. Where appropriate, such waivers shall be issued narrowly for specific portions of a project that are financially infeasible or impractical to implement under the requirements of this Article. Waiver requests shall be supported by a detailed cost comparison, inclusive of available rebates and credits. A waiver request may be made at any time and may be based upon submission of conceptual plans. Particular consideration for waivers will be given to projects sponsored by non-profit or government-sponsored affordable housing entities.

B. Guidance regarding the granting of waivers and prescription of conditions shall be provided by the Select Board prior to the Effective Date and periodically extended or amended in the light of experience and changing circumstances.

Notwithstanding the foregoing, Compliance with this bylaw may be considered financially infeasible if:

- 1. As a result of factors beyond the control of the proponent the additional cost of the project over the long term, including any available subsidies, would make the project commercially unviable; and/or
- 2. If technological or other factors would make the project unsuitable for its intended purpose.
- C. The Building Inspector's decision with respect to the granting of a waiver, the scope thereof, and any conditions prescribed, shall be appealable to the Town Manager in accordance with procedures established by the Town Manager.

#### Section 6 Appeals

The Town Manager shall hear appeals from decisions by the Building Inspector on the applicability of this bylaw under section 3 in accordance with such procedural rules as may be adopted from time to time by the Town Manager.

(4 - 0) Mr. DeCourcey recused himself from discussion

**COMMENT:** \*This article returns to Town Meeting from the 2020 Annual Town Meeting with revisions. The Select Board urges Town Meeting's support for this two-pronged effort to take firm action to reduce dependence on fossil fuels and reduce pollution in Arlington as recommended by Arlington's Clean Energy Future Committee. In short, this article would seek a Special Act to allow the Town to regulate the installation of fossil-fuel based infrastructure on new residential and commercial construction and major renovations (with major renovations for most projects defined in a manner consistent with special-permit triggering work) while also enacting a local bylaw detailing such regulations. It is likely that an approved bylaw would be put on hold until the requested special legislation were passed.

Substantively, the Town would seek to prohibit the installation of new fossil fuel pipe infrastructure (natural gas, propane, fuel oil) so as to require what are essentially new or significantly renovated buildings to use cleaner fuel sources in the interests of protecting both health and safety and the natural environment. It is important to highlight that the list of exemptions to the proposed bylaw is extensive, addressing common concerns and needs including:

- All cooking appliances;
- Backup generators;
- Outdoor cooking and heating;
- •Large central hot water heaters;
- Labs and certain medical offices;
- •Repairs to unsafe conditions

Furthermore, the proposal creates a system of waivers for qualifying projects where non- fossil fuel infrastructure are not feasible or would frustrate important goals such as the creation and maintenance of affordable housing. In sum, the Board believes this coordinated effort is a valuable incremental step in reducing pollution and investing in clean energy technologies for future generations, and highly recommends positive action.

#### Appendix B Town of Lexington, MA Clean Heat Article 29

# ARTICLE29 CLEAN HEAT-AUTHORIZE SPECIAL LEGISLATION TO REGULATE FOSSIL FUEL INFRASTRUCTURE AND ADOPT BY LAW AMENDMENT ENABLING LEGISLATION

To see if the Town will 1. vote to authorize the Select Board to petition the Massachusetts General Court for special legislation to:

- a. Allow the Town of Lexington to regulate fossil fuel infrastructure in new buildings and major renovations for the purposes of improving health and safety, reducing greenhouse gas emissions, and encouraging renewable energy production and use, notwithstanding the State Building Code, the Gas Code, M.G.L. c. 164 or any other law of the Commonwealth regulating natural gas as a residential utility;
- b. Allow the Town to adopt and further amend general or zoning bylaws that regulate fossil fuel infrastructure; and
- c. Allow the Town to administer such bylaws, including through the withholding of building permits by the Building Commissioner; and
- 2. vote to add a new Chapter to the Town's Code of Bylaws prohibiting or otherwise regulating or restricting the installation of fossil fuel infrastructure in new construction projects or major renovation and rehabilitation projects in Lexington, and to set forth the terms and scope of such regulations or restrictions, including exemptions or waivers to same, provided that said Chapter will take effect only if permitted pursuant to General or Special Legislation enacted by the Massachusetts General Court; or take any action related thereto.

(Inserted by the Select Board at the request of the Sustainable Lexin gton Committee)

DESCRIPTION: This article would authorize the Town 1) to file a home-rule petition with the Massachusetts General Court for Special Legislation that would enable the Town to enact local bylaws that would regulate fossil fuel infrastructure in buildings and 2) to enact such a bylaw that would restrict fossil fuel infrastructure in new construction and major renovations. The bylaw would limit the installation of new fossil fuel (natural gas, propane, fuel oil) infrastructure so as to require new or significantly renovated buildings to use clean energy source