

Green Communities Summit

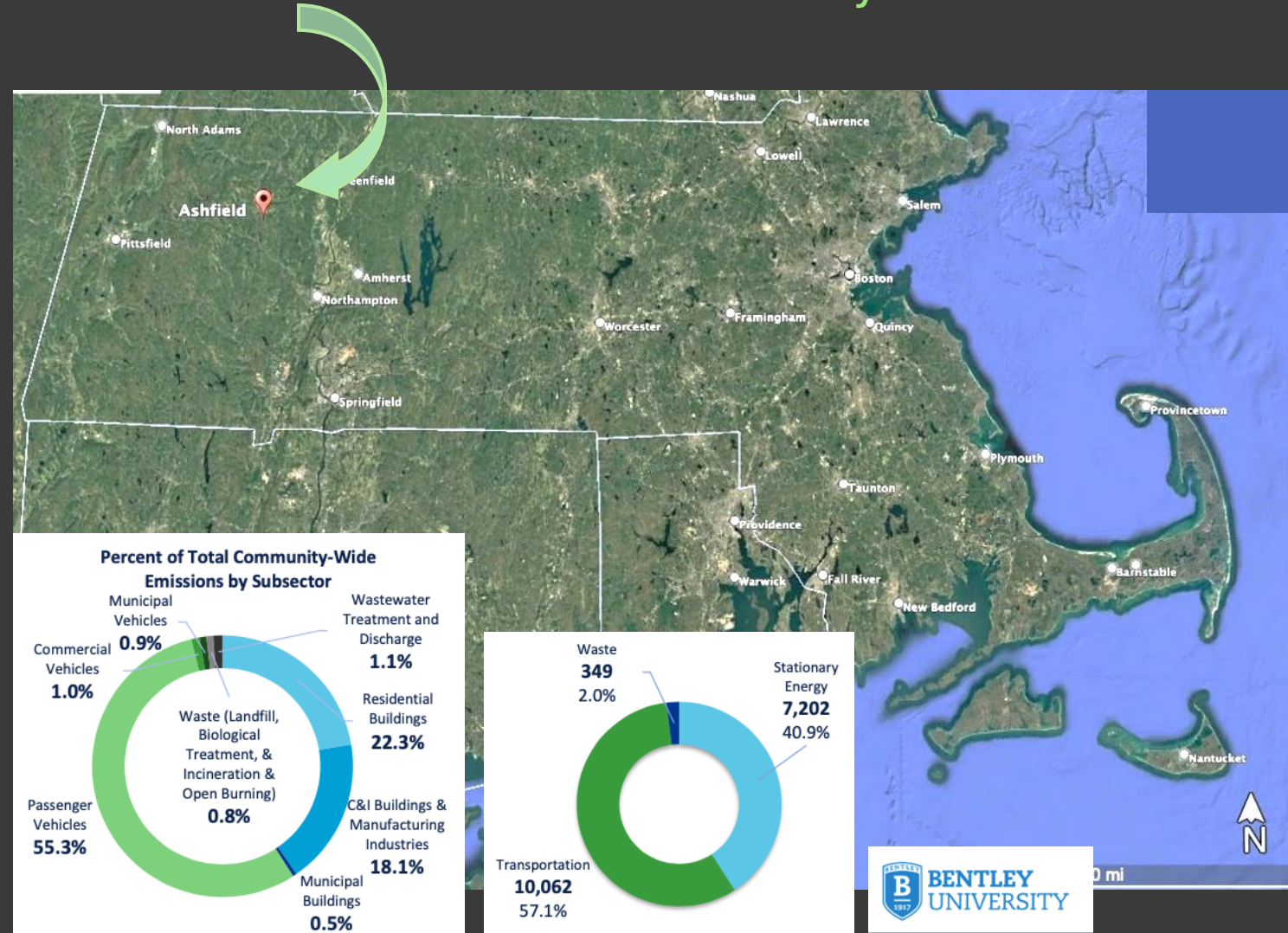
November 22, 2024

Mary Quigley
Town Hall Steward
Energy Committee
Town of Ashfield, MA 01330

Finding Ashfield

...in the rural hilltowns of Franklin County

- “*Huntstown*” settled in mid-1700s, incorporated 1765
- 40 square miles, predominantly forested (30 sq. mi)
- Population 1800
- 853 households, 15% rental
- 75 miles roads
- *Historic agricultural economy has shifted*
 - *More diverse with influx of new residents working in education, arts, social services, etc*
- 2020 emissions: 9.7 MT CO₂e per person (= 17,389 MT CO₂e)



Baseline Greenhouse Gas Inventory for the Town of Ashfield

Compact Town Center

Many of Ashfield's businesses, gathering places, and most of its civic spaces live in close juxtaposition with private residences along the mile-long stretch of Main Street (Route 116).



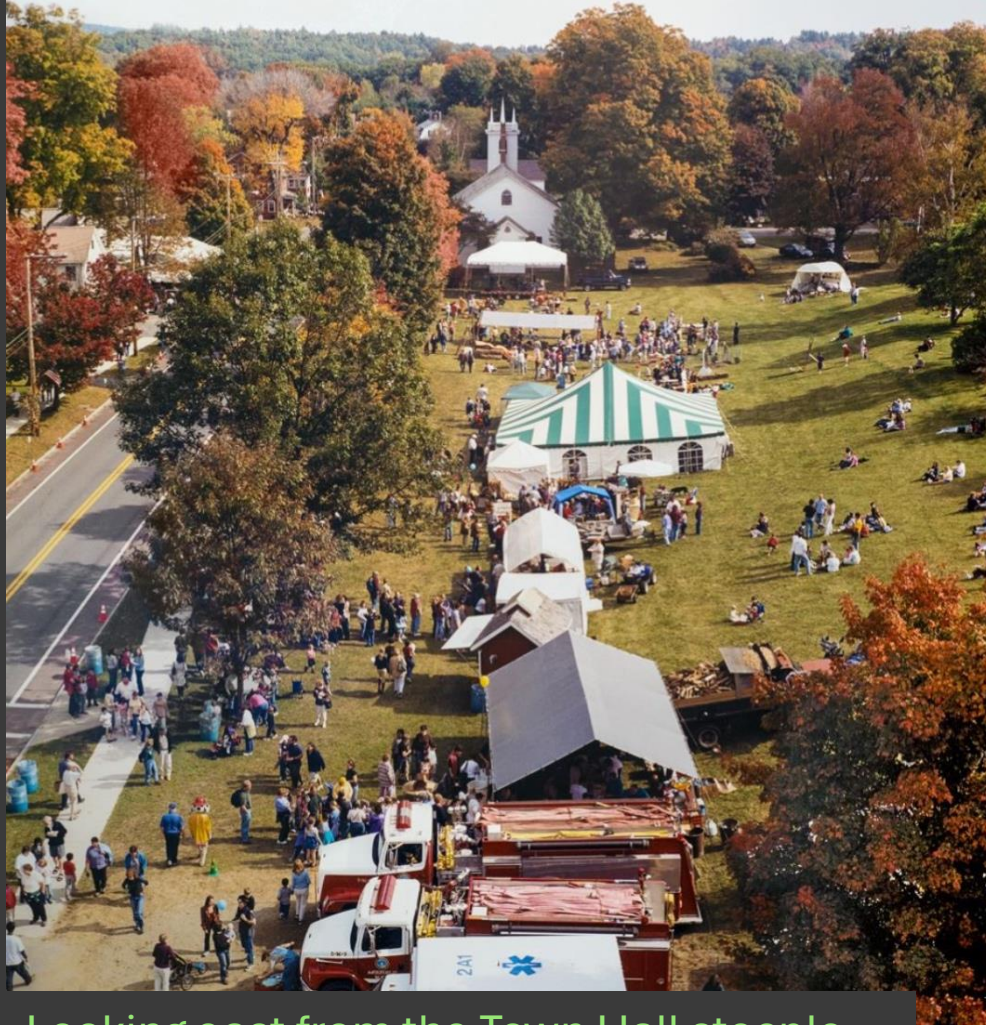
Historic Buildings Embrace the Common



Historical Society



First Congregational Church



Looking east from the Town Hall steeple during Ashfield's annual Fall Festival.



St. John's
Episcopal Church



Belding Library



Town Hall

Green Communities Certification 2011



Green Community Projects 2011-2020

Town Hall

- Energy Audit *
- Excavate under town hall
- Replace boiler*
- Insulate exterior of office walls and ceiling *
- Install tankless water heater *
- Convert holiday lights to LED*
- Insulate/airseal foundation *
- Add heating zone controls *
- Add NEST t'stats *
- Add additional radiation
- Replace exterior door *
- Insulate exterior walls of Police Dept
- Insulate exterior walls of men's room
- Install dehumidifiers and upgrade vent fans
- Air seal front crawlspace
- Vent fan front crawlspace
- upgrade lighting
- Storm windows office
- Storm windows first floor
- ERV offices
- Storm windows 2nd floor
- Window quilts offices

Fire House

- Energy Audit *
- Wall & Attic insulation *
- Replacement door *
- Office ASHP *
- Garage heater *
- LED holiday lights *
- Replacement door
- Replace strip lights-LED
- Add sub-slab insulation

Highway Garage

- Energy Audit *
- U Mass Clean Energy site assessment
- Lighting upgrade

Other

- Solarize Mass campaign
- Energy Manager Grant *
- Bike Racks *
- Streetlights inventory *

* Green Community funded
(& much volunteer labor!)

Library

- Energy Audit *
- NEST thermostats
- Energy audit/specs. HVAC
- ASHP system whole building *
- Electric on-demand water heater *
- Bath exhaust fans
- Window quilts
- LED lights
- Ceiling fans

WWTP

- Exterior lights upgrade *
- Reduce heated area/insulate *
- New heaters *



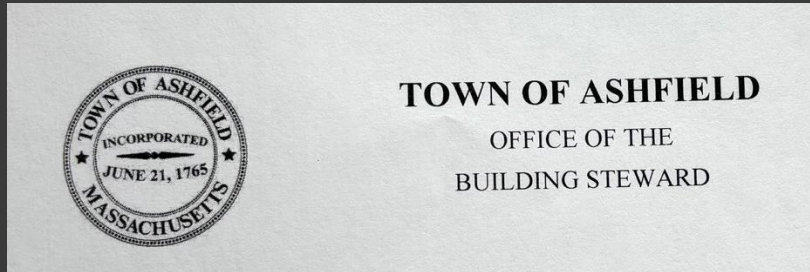
2019 Green Communities Competitive Grant

| | | |
|----------|--------------|--|
| \$13,200 | Town Garage | Energy management system improvements |
| \$5,000 | Town Garage | Insulation and air sealing |
| \$7,221 | Library | Attic insulation |
| \$3,276 | Town | Building Operator Certification training |
| \$3,169 | Town | Administrative costs |
| \$3,000 | Police Dept. | Hybrid vehicle purchase |

Completed 3/22/21

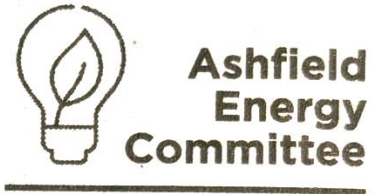


Town Hall Steward + BOC training



- Steward already knowledgeable about this historic building ...and its challenges
- Additional knowledge gained:
 - Methods of data collection to substantiate the need for preventative maintenance & energy related upgrades
 - How to recognize & evaluate energy use patterns
 - How to develop plans for improvement

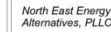
Green Communities Committee Renamed



“The Ashfield Energy Committee, formerly known as the Green Communities Committee, is charged by the Select Board with helping the Town promote and implement policies, programs and projects to foster energy conservation, renewable energy generation, sustainability planning and waste reduction for municipal buildings, infrastructure and equipment and for residences and businesses; and helping the Town secure the assistance and funding necessary to achieve our goals toward energy resiliency.”

<https://www.ashfield.org/2174/Energy-Committee>

2022:



Northfield, Vermont

802 345 8845
Paul@rednory.com

| No. | Description |
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| 1 | Spring 1994 to 1995 |

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\$12,500 META grant provides full construction documents to convert oil furnace and propane boiler to air source heat pump. Plan includes ERVs, all electrical upgrades, insulation, air sealing.

2023: Green Communities Competitive Grant

Proposal

Ashfield Town Hall Decarbonization Project

| | |
|----------------|----------------------|
| Gross cost: | \$575,199.00 |
| Utility Rebate | <u>-\$154,133.00</u> |
| Net Cost | \$421,066.00 |

| | |
|--------------------------|--------------|
| Green Communities 75%: | \$315,799.00 |
| Town Contribution 25%: | \$105,267.00 |
| Additional Donated Labor | \$24,000.00 |

2023: Green Communities Competitive Grant (the road not taken)



Select Board signed the application and the final letter committing the Town's 25% contribution. However, the Board then reserved the right to “not accept” the grant when available, citing reservations about operating costs.

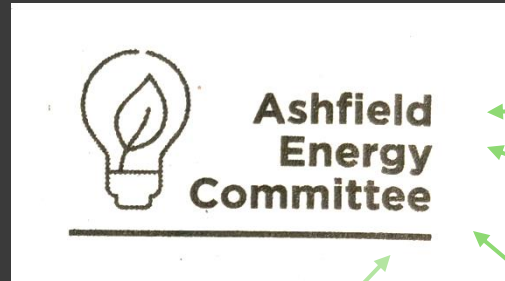
The Energy Committee then tabled the application rather than take that risk.

Major Setback?

NO... a reboot

- Pursue Municipal Solar
- Pursue Climate Leader Status
- Increase communication with Town boards and committees
- Further community education and support

Engaging Partners

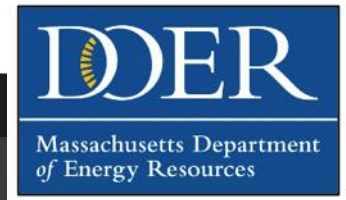


government



corporate

EVERSOURCE



community

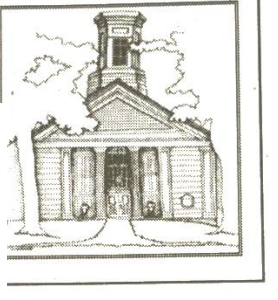
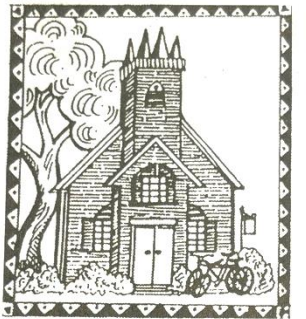
academic

UMassAmherst | Clean Energy Extension

The Ashfield News



The Woodlands Partnership of Northwest Massachusetts*



Polling the Community: 2023 Solar Survey

- *242 responses – 25% of the community households? (54% of respondents > 65)*
- *43% of respondents had solar PV systems*
- *91% extremely or moderately concerned re climate change*
- *94% positive or very positive attitude towards solar energy*
- *69% supportive of solar development to meet municipal needs*
- *74% support developing all available roofs, parking lots, disturbed areas for solar*
- *But 52% prefer no more than 10% of undeveloped (natural, agricultural) lands developed for solar; 21% indicated 20-30% might be developed.*

Public Education and Community Organizing

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What Does it Mean to Have Climate Goals? Consider These Actions

BY ELLEN LEUE

You may have heard that the world needs to keep the warming trend to no more than 2 degrees centigrade to avoid the worst consequences of climate change. The floods, wildfires, hurricanes and so on are already getting a big boost from climate change, even though we are only at +1.1c so far.

Inflation Reduction Act with regulation. For example, the Methane Reduction Plan alone has 50 specific actions. They plan on having 50 percent of passenger vehicles be electric by 2035, 2030, and 100 percent of those sold by 2035. In 2023 we were at 9 percent, but this is rising quickly, a 50 percent jump over 2022.

Key to reaching the goals is making our electricity supply clean — 55 percent by 2025 and 100 percent by 2035. Although use of renewables and non-carbon energy are rising very fast, we will likely miss the first goal. In 2023 the U.S. still got 60 percent of its power from fossil fuels. And many other tactics, such as taxing carbon or making all new household appliances electric, are even trickier to accomplish.

Massachusetts' plans mostly mirror the national plan, with some twists. Here, we plan to reduce emissions by 25 percent by 2020, 50 percent by 2030, 75 percent by 2040, and (net) 100 percent by 2050, relative to 1990. Conservation of forests is a big part of the goal — that was at 27 percent in 2022, but they are

aiming for 30 percent by 2030 and 40 percent by 2040.

How are we doing as a state? Pretty well, though not amazing. We made it to better than 31 percent emissions reduction in 2020, but that was the year we spent a good share of the time on our couches because of the pandemic. And although electric vehicle use has been growing at an impressive 25 percent a year, we will still miss our goal of 200,000 EVs by 2025. But overall, Massachusetts leads the nation in lowering its emissions. Kudos to us!

Fueling this success — pun intended — are efforts at the local level. For example, the "stretch code" for buildings that mandates a higher standard for insulation and electric-ready wiring has been adopted by 45 municipalities so far, representing 30 percent of the population of Massachusetts. And Ashfield is one of them. But new homes are scarce here, so much of the change will have to depend on retrofits of existing homes. The sizable incentives on heat pumps, EVs and solar arrays must continue to bring in many new converts to the electric way of life for us to achieve our goals — and preserve that way of life.

Ashfield as a town will do its part to achieve the goals set out in its Climate Leader plan. We aim to reduce our emissions by 15, 35, 65 and 95 percent for the years 2027, 2030, 2040 and 2050, respectively. There is a lot of work to do to replace fuel burning in our town buildings and vehicles with electric power over the next 25 years. But to maximize the impact, residents will need to step up and do the same.

Your children and grandchildren are depending on us. The truth is, achieving our goals will require every one of us to change our habits, our investments and our actions. Think about energy every day, and you can make an impact. Combine errands to save gas, replace gas appliances with electric, use a smart thermostat and keep your house cool in winter, warm in summer. Sign up for community solar if you can't have a system yourself and start saving on your electric bill.

Your personal goals for the future will ultimately be achieved.

Ellen Leue writes for the Ashfield Energy Committee.



Renewable, Non-Carbon Sources Speed Greening of Grid in Mass.

BY ELLEN LEUE

There's a lot of talk these days about the move to electrify our household appliances, vehicles, commercial buildings and towns in order to reduce emissions and hold off the worst of climate change. But does this really make sense? Isn't electricity mostly supplied by burning fossil fuels, even dirty fuels like coal?

That may well have been true not long ago, but the times they are a-changin'. Eversource reports that a full 76 percent of its electricity is generated from renewable and/or non-carbon sources, including solar (photovoltaic and thermal), wind, hydropower, methane (captured from compost facilities or landfills), biomass and geothermal. Massachusetts as a whole has a Clean Energy Standard (CES) that increases by 2 percent each year.

So if you switch to mini splits for heat, you will go from burning 100 percent fossil fuel to a lesser percent, and over the life of that mini split your numbers will keep going down as the grid becomes greener and greener.

Our state is not awash in sunshine like the south and southwest U.S. The wind isn't always fierce like in the Dakotas and we don't have much lava bubbling under the surface like Hawaii. So how are we to meet the CES? Massachusetts has more than 500 operating solar farms, generating over 14

contributes on those hot, sunny days when the air conditioners are humming. Massachusetts ranked fourth in the nation for these small-scale systems. To me, this means we love the land where we live and want to protect it (and save money in the process!).

And we're not done yet. Huge offshore wind farms are under construction that will add another 2,678 MW of power and cover nearly 20 percent of our electricity needs. Eversource is exploring community geothermal (ground source heat pumps), putting pipes under towns to both heat and cool multiple buildings at 15 percent cost savings.

What about the problems of intermittent production? The sun doesn't always shine nor does the wind always blow (though each is often most active when the other is not, so wind and solar can be complimentary). Much of the slack can be taken up by battery storage or "pumped hydro" at the Northfield Mountain and Bear Swamp hydroelectric plants. When we have an excess of renewable energy being produced, they can pump water uphill; when the process is reversed if power generation is low from wind and solar, and hydro power fills in the gap. Together these plants can cover up to 1,700 MW in power fluctuations.



Discounts Available for Residential Solar Projects, But Deadline is Near

Editor's note: This article was prepared by the town's Energy Committee and submitted by Alexandra Osterman.



It is exciting to see the Residential Solar Campaign continuing. In June, many of the vendors who came to our table at the Ashfield Farmers Market to meet residents have started scheduling site visits for free assessments of whether solar would be a good fit.

It is not too late to participate in this program. Any resident who signs a contract with one of the participating vendors by August 30 will

the utility. Without batteries, all your nighttime power will be purchased from the utility. If you use more than you produce you will still owe on your bill and if you produce more than you use you will get a credit on your bill.

If the grid goes down in a power outage, you will not have power, even though it may be a sunny day after the storm that knocked out power. Without batteries, there is no way for you to access the power from your solar panels during an outage.

Many people in the Hilltowns have had to deal with power outages, either by extension cords from a basic outdoor generator or having a wired-in, whole house generator. Series paired with solar are a great way to manage power outages and become energy self-sufficient. The solar campaign participating in the residential solar campaign also offer battery storage. You can ask them for a battery storage system based on your daily energy use and the battery will show costs and payback time. Battery storage systems are wall mounted and can run a home for one to two days with rationing of power and if the batteries are full during the outage to save the batteries.

See page 7

Ashfield's 'Solarize' Campaign Extended Two Months to Oct. 31

BY PEYTON FLEMING

Ashfield's residential "Solarize" campaign is being extended through October, giving residents more time to decide on potential projects and vendors they may want to use.

The extension is especially relevant for the group discounts that are available if multiple customers sign contracts with the same solar vendor during the campaign period, which began May 11 and was to end Aug. 31.

A half-dozen local vendors participating in the program have all agreed to extend the deadline to Oct. 31. Among those is PV Squared Solar, which is offering \$500 to \$1,500 rebates (\$500/up to 5 kilowatts, \$1,000/5–10kW, \$1,500/over 10kW) if five or more Ashfield residents sign contracts with the Greenfield company during the campaign period.

"We're thrilled by the Ashfield community's interest in solar," said Rachel Levey of PV Squared Solar, which has signed two contracts in Ashfield this summer and is responding to a half-dozen other inquiries. "To ensure that folks have time to make a thoughtful and informed decision amid vacations and back-to-school planning, we're extending the program deadline to the end of October."


Insight Energy is offering a \$500 cash discount if it signs five or more projects during the campaign period.

"We enjoyed meeting local residents and vendors at the farmers market, and it resulted in a bunch of inquiries and follow-ups, one of which resulted in a finalized project that we'll be installing this fall," said Leah Visconti, project manager at Insight Energy.

The other participating vendors are Valley Solar, Greenfield Solar, Current Energy and Northeast Solar.

Public Forums

How can Ashfield become more energy independent?



Please Join the Ashfield Energy Committee for a

Public Forum on Solar Energy in Ashfield

Monday November 6th at 7pm
Ashfield Town Hall

Presentation on Ashfield's Solar Action Plan, including a new Residential Solarize Campaign and Municipal Solar possibilities

Come with your thoughts, questions & concerns – We want your input!

Find out about exciting grant-funded solar projects other neighboring towns are doing to save \$\$\$ and reduce future municipal bills



Forests & Carbon Sequestration: A Discussion

Proforestation, Land Conservation and Climate-Smart Forestry Practices

Learn about the important role our forests play in maintaining a livable world and what we can do to protect this important resource.

Saturday, September 14th 1:00pm
Ashfield Town Hall

William Moomaw
Professor Emeritus, International Environments Policy
Tufts University

Mary Wigmore
Wigmore Forest Management
Ashfield, MA

Aaron Nelson
Mount Grace Land Trust
Ashfield Conservation Commission



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Steps Ashfield Can Take to Become a 'Climate Leader Community'

Below is basic information. These will be posted on the town website.

COMMENT

Being Helpful, Not

oped and more efficient appliances had become available to consumers. But more needs to be done. Accord

In February's Energy Committee column, we discussed our plans to apply for Climate Leader Community (CLC) status with the Department of Energy Resources. To do this, the committee will bring three warrant articles to Town Meeting.

Why is Climate Leader Community Status Important?



Once certified, Climate Leader Communities can apply for grants for activities and projects beyond the energy efficiency projects now funded by Green Communities grants. Grants will advance clean energy and climate goals, and include funding for rooftop solar

**Municipal Decarbonization
Commitment**

This is quite simple. It declares our intention to move gradually to net-zero emissions over the next 26 years. It does not require us to do anything drastic or sudden. We have the CLC designation, we will

Board will have final approval of

COMMENT

BY MARY QUIGLEY

Thirteen years later, things have changed. The Green Communities committee became a part of the new Ashfield Energy Committee. Our understanding of how building emissions contribute to climate change has grown. New construction technologies have been devel-

Adoption of the Specialized Energy Code

BY DAVID KNOWLES

Ashfield has been a certified Massachusetts Green Community since 2011 and has benefited from state grants to find ways to increase energy efficiency in residential and municipal applications. Through our participation in this program, we have contributed to the state's goal of substantially reducing greenhouse gas emissions.

BY PEYTON FLEMING

arrays, including a state tax credit up to \$1,000, a 30 percent federal solar energy tax credit and Renewable Energy Certificates (RECs) cash payments. The same federal tax credits are available for battery storage equipment and heat pumps.

"For customers needing financing, the interest rates are kind of bogging them down," said Claire Chang, co-owner of Greenfield Solar. She noted that home equity loans are one way to get slightly lower rates.

Unlike the town's Solarize 2015-16 campaign, which offered only one out-of-state solar provider, residents now have a dozen

Continued on page 13

We have already seen that the National Association for Climate Leader standing, the most important thing now is to approve three related warrant articles at the May 4 Town Meeting. One is a commitment to moving away from fossil fuels (aka decarbonization) in town operations whenever equipment is due to be replaced.

A second article commits the town to a "Zero Emission Vehicle First" policy when purchasing new town vehicles. This is a relatively minimal impact to us since large trucks and police cruisers are exempt.

The third warrant article commits us to the Socialized Energy Code, which is a step in the right direction to be

The third warrant article of the code, which adopts the Specialized Energy Code, directs new residential construction to be equipped with "electric service and wiring sufficient for future electrification of space and water heating," with the goal of eliminating the use of fossil fuels. The code will not apply to additions and renovations of existing buildings. Also, it doesn't require a new house to be all electric, but it does require that it be wired for conversion to electric.

This month's *elder climate action*. It's not just focuses on elder climate action. It's not just especially important topic in our town, which has a median age of 58.5. Older adults can, often play an important part in climate action, often having more time available for volunteering and a strong motivation to leave a positive legacy for their children and grandchildren.

In this article we will explore different ways older adults are contributing to the movement to address climate change and profile local elders making a difference.

Work with Citizens Climate

Asked what this work means to him, Price states: "There are so many reasons to feel hopeless, but your attitude can always be adjusted. You can choose optimism. We should do everything in our power to make the world better. The antidote to hopelessness is action and when you are involved in putting something good."

Climate continued from page 1

The proposed municipal decarbonization committee, which would be non-binding, calls for ending fossil fuel use in municipal buildings and town vehicles by 2050. The buildings and town vehicles of a decarbonization roadmap, the town will still have to build out the town's fleet. The Board, outlining how the next two decarbonization roadmaps would be developed, said the carbon footprint would trigger two scenarios. The "roadmap" would use solar power, as the park's end of a municipal power system, as opportunities to switch to clean technologies, such as solar power, heat pumps, and zero-emission vehicles.

The proposed zero-emission vehicle first policy would commit the town to prioritize zero-emission vehicles when new town vehicles are needed, provided that those cleaner vehicles are available and can function in ways the town needs.

"We're not looking for you (the town) to get ahead of the market. We're not asking you to buy an overly expensive vehicle, say a plug-in hybrid," says Chris Mason, a



**Ashfield
Energy
Committee**

Brian Clark has been driving for 20 years, both personally making purchases and for the family orchestra and for the family orchestra volunteering on the Ashfield Community Energy Committee, advising and helping it

"Initially, I wanted to do the country first itself from the Middle East off. I wanted to do concrete/constructive to help a country, not just take part in problems/policies," Clark said.

"This has evolved as I came the existential threat to our civilization that human cause change represents. I now view as the biggest threat to the sec

continued on page 14

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The zero-emission vehicle cover police, fire, highway and department vehicles. But given suitable zero-emission vehicle markets, the only town vehicle by the policy would be replaced by the plant's 2017 pick

Energy Debate

The forum's most heated topic, specialized Energy Code, aimed at building-related GHG emissions, stringent enough would allow use of fuels such as propane and natural gas in construction, but additional code must be followed for on-site construction and pre-wiring for future fossil fuel equipment. (New codes are shaded for most of the forum for an exemption.)

Electric powered buildings are less polluting than those using fossil fuels, but the electric grid is increasingly powered by wind, solar and other renewable sources.

"This is the national push
will become electric," said Gu
Ashfield resident who has spe
career working on sustainable
But not everyone was comfortable with the

Ashfield Energy Committee
Informational Forum
on the 3 articles we need to pass at Town Meeting to achieve Climate Leader
Community status



- Municipal Decarbonization Commitment**
- Zero Emission Vehicle First Policy**
- Adoption of Specialized Energy Code**

Wednesday 4-17-2024 at 6:30pm
Lower Town Hall

Lower Town Hall
Presentation by Chris Mason from DOER
Q and A session

Moving Forward

Spring 2024

January

- Column in *Ashfield News*

- Chris Mason presents CLC to Select Board

- Select Board votes to include 3 warrant articles to Annual Town Meeting

February-March

- Continue columns in *Ashfield News*, on-going community education

- Develop ATM warrant articles

- Research other municipal efforts on CLC

- Contact local builders, electricians for input

- Seek Town Moderator advice re language

March

- Community Forum on CLC

- Email personal contacts with materials, solicit their support

Moving Forward

Spring 2024

April

- Educate and solicit speakers for ATM votes

- Town-wide email announcing forum

- April 17 Chris Mason speaks at forum

- Weekly library outreach sessions

- On-going recruitment, training of ATM speakers

- Final meetings with Finance Committee, Select Board

- HERS Rater presents info on Specialized Code

May 4: Annual Town Meeting

Town Meeting May 2024

Article 30 Vote For Ashfield's Municipal Decarbonization Commitment

A comprehensive and long-term plan to make Ashfield greener, safer, and more self-reliant.

Help us pass this non-binding

This is a commitment to end all on-street buildings and vehicles by 2050 in accordance with the climate goals of the Paris Agreement.

Doing what's right by addressing climate change

- Climate change leads to more frequent and severe weather events, including droughts, floods, and wildfires.
- Taking action on climate change is about protecting our health and the environment, ensuring they inherit a healthy and livable planet.

Saving MONEY for the town

This is 1 of 3 resolutions that, if passed, will qualify the town for federal grants to help us reach our climate goals. Decarbonization also is likely to lower municipal costs as the projects will quickly pay for themselves!

Resilience

- The town can become less reliant on external energy sources.
- Ashfield can become more prepared for future climate-related challenges.

How?

Gradually - All the resolution does is make a commitment. It will not be sudden and extreme. One of the other resolutions that we create a town Decarbonization Roadmap which the Energy Committee will work on a Decarbonization Roadmap. The Roadmap will have final approval of the Board. The Roadmap will have final approval of the Board. The Roadmap will have final approval of the Board.

What if we change our minds or aren't able to?

Article 31 Vote for Ashfield's Zero-Emission Vehicle First Policy

Worried about Climate Change?

Help reduce Ashfield's reliance on fossil fuels

Most of Ashfield's municipal emissions come from municipal vehicles. Ashfield can drastically reduce its emissions by adopting a Zero-Emission Vehicle First Policy.

60% Municipal Vehicles

2022 Ashfield

Climate Leader Communities need to demonstrate emission reductions by gradually replacing town-owned vehicles with those that are powered by electricity or other zero-emission technologies.

How?

To meet this requirement, the Select Board needs to adopt a policy: when a town-owned vehicle is identified for replacement, Zero-Emission Vehicles must be prioritized over vehicles that use fossil fuels, provided that the Zero-Emission vehicle is available and can function in a way that meets the town's needs.

Frequently Asked Questions:

What are we trying to do with this policy?

We're setting goals for the Town to gradually upgrade its on-road vehicle fleet. Currently, the only vehicle currently affected by this policy would be the Plant's 2017 pickup.

Highway Department electric or hybrid dump trucks with plows? No, not now but possibly in the future. If market demand continues, there will be many ways to make heavy trucks use diesel fuel in a more sustainable way.

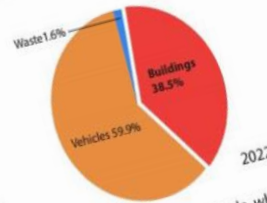
Are fire trucks and police cruisers exempt?

Yes, unless and until appropriate models are available, and that means vehicles that are not city-use.

Are fire trucks and police cruisers exempt?

Article 32 Help Ashfield Reduce Greenhouse Gas Emissions! Adopt the Specialized Energy Code at Town Meeting

Buildings account for about 38% of Ashfield's total GHG emissions. The Specialized Energy Code will ensure any new construction is consistent with our net-zero goals, through improved building methods that reduce heat demand and increase the use of efficient heat pumps and all-electric appliances.



How is this code "Special"?

It incorporates and builds on the efficiency and clean energy improvements in the existing Stretch Code, which Ashfield adopted in 2011, and goes further by increasing the performance standards needed for new buildings.

How does this affect Ashfield?

While it does not address existing buildings, the Specialized Energy Code will make sure that any new buildings don't make us worse!

ADOPTION OF THE SPECIALIZED ENERGY CODE IS ONE REQUIREMENT FOR ASHFIELD TO BE CONSIDERED A CLIMATE LEADER COMMUNITY

Vote "yes" to Specialized Energy Code bylaw at Ashfield Town Meeting on May 4th.

Frequently Asked Questions

If I want to build a small home in Ashfield, how will the Specialized Energy Code affect my design? - Homes under 4000 square feet that want to use mixed fuels/some fossil fuels must pre-wire for future electric heating, ventilation and cooling (HVAC), hot water service, and appliances plus have a 4kW solar system installed. Homes under 4000 square feet that are all electric have no change from the existing Stretch Code.

Why are there extra requirements for fossil fuel homes? - Allowing homes to be built using fossil fuel preserves market choice at a time when utility pricing is highly volatile; the extra requirements will avoid cost premiums to convert any buildings constructed after 2025 to all-electric.

How will the Specialized Energy Code affect my design? - Homes under 4000 square feet that want to use mixed fuels/some fossil fuels must pre-wire for future electric heating, ventilation and cooling (HVAC), hot water service, and appliances plus have a 4kW solar system installed. Homes under 4000 square feet that are all electric have no change from the existing Stretch Code.

Article 32 Article 32 Frequently Asked Questions¹ Ashfield Annual Town Meeting 2024 Town of Ashfield Energy Committee

1. What is a building energy code?

Energy codes set minimum energy requirements for buildings, reducing energy use, energy costs, and greenhouse gas (GHG) emissions over the life of the building. Energy codes are a subset of building codes, which regulate building construction and are issued every three years by the International Code Council in Washington, DC.

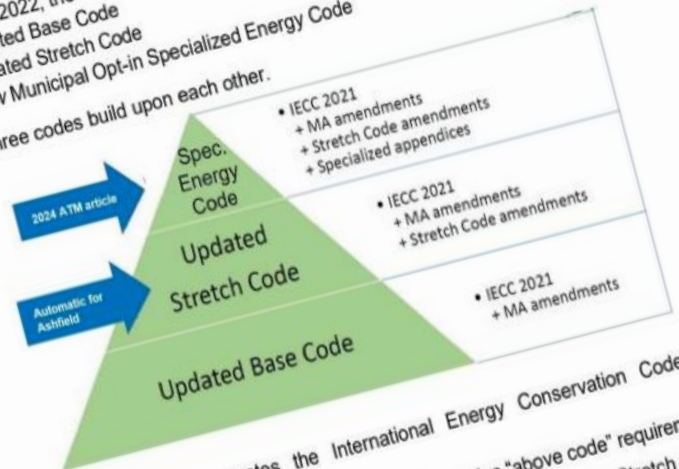
2. What is the Stretch Energy Code?

The Stretch Energy Code (Stretch Code) is part of the state building code which sets "above code" requirements for building energy performance compared to the Base Energy Code. Stretch Energy Code adoption requires a municipal vote. Since 2009, three hundred and one communities adopted the Stretch Energy Code, representing over 91% of the Massachusetts population.

3. Was there a recent energy code update?

- In December 2022, the State finalized a code update with the following three levels:
- Updated Base Code
- Updated Stretch Code
- New Municipal Opt-in Specialized Energy Code

The three codes build upon each other.



The Base Code incorporates the International Energy Conservation Code (IECC) and Massachusetts amendments.

The Updated Stretch Code builds on the Base Code and Updated Stretch Code.

The Specialized Energy Code builds on the Base Code and Updated Stretch Code to new construction only.

¹Energy Efficiency Partnerships 1.10.23. "FAQ: Updated Stretch Code"



ASHFIELD

'Among the leaders' on clean energy

Town Meeting voters pass
bevy of proposals to
combat climate change

By DIANE BRONCACCIO
For the Recorder

ASHFIELD — When Bill Ryan moved to town 25 years ago, an old-timer told him, "In Ashfield, we only have two seasons: winter and the

Fourth of July."

"In my first year here, we had 120 inches of snow," Ryan mused. "Not now."

On Saturday, Ryan was among several Annual Town Meeting voters waxing poetic about weather changes on a glorious spring day — changes that seem to be heralding climate change in real time — and urging others to support three Energy Committee proposals to drastically reduce fossil fuel emissions in

town over the next 26 years.

"I'm hearing fear, helplessness and powerlessness," said Ryan. "It would be great if we can say to our children, 'We are among the leaders. We are doing something.'"

By approving all three warrant articles, Ashfield is now in line to become one of the state's first "Climate Leader Communities," helping Massachusetts reach its greenhouse gas reduction goals.

The first article is a decarboniza-

tion resolution to reduce greenhouse gas emissions and transition to clean, renewable energy sources by 2050. The second calls for Ashfield to eventually replace old town-owned vehicles with more energy-efficient electric or hybrid vehicles whenever possible. And the third article calls for an early adoption of a specialized energy code that lays out new energy performance standards for any new building construction, effective January 2025.

SEE ASHFIELD A8

Clean energy articles approved

ASHFIELD FROM A1

Under this third article, mixed fuel residential and commercial buildings must be pre-wired for electric space-heating, water heating and electric appliances. Also, most structures must have some photovoltaic energy sources to meet certification standards.

The last article drew the most discussion because of concerns that a higher building cost would keep young people from moving to town.

"We're a generation that is incredibly concerned about the climate, and we are incredibly broke," said Tadea Klein. "I've been here for the transition, where you're wondering if it will snow in May, to where you are wondering if we're going to get any snow."

for fiscal year 2025. These include:

- \$3.1 million for education costs. Ashfield's assessment to the Mohawk Trail Regional School District represents a 7.5% hike for the town.

- \$595,353 for general government.

- \$523,734 for public safety.

- \$915,562 for roads and public works.

- \$69,844 for health and human services.

- \$114,365 for cultural and recreation expenses.

- \$90,823 for total debt services. This includes a \$64,989 payment on the Highway Garage and paying off the full broadband debt interest of \$25,834.

- \$902,251 for the Broadband Enterprise Fund, paid entirely from subscriber fees revenues.

and put it on the town sewer. Selectboard member Thomas Carter said the septic system was installed before the town had its own wastewater treatment plant. After the septic system is removed, the town will pave the parking area behind the library.

Another \$12,500 will be spent on replacing Town Hall's computers with up-to-date models.

Voters agreed to start a Grant Match Stabilization Fund, with \$312,571. This money, in an account that can earn interest, will be set aside for future state and federal grants that require matching sums from the town. Because the town had to spend the rest of its American Rescue Plan Act (ARPA) money by July 1, voters agreed to transfer that

Town Meeting Votes Move Ashfield Ahead As a 'Climate Leader'

BY PEYTON FLEMING
AND LARRY PARNASS

After the approval of three articles related to climate change at last month's annual Town Meeting, the town's Energy Committee is moving quickly to secure a formal state designation as a Climate Leader Community.

Cities and towns in Massachusetts have until July 25 to apply. Communities that are approved later this year will be the first "class" of Climate Leader Communities under the program launched in November.

"We're being a leader, and it's really exciting to me," said Energy Committee Chair Alexandra Osterman, who is spearheading the town's push for the state designation.

The program, administered by the Massachusetts Department of Energy Resources (DOER), is aimed at helping Massachusetts communities meet their climate and greenhouse gas (GHG) reduction goals, including eliminating fossil fuel use in municipal buildings and vehicle fleets by 2050.

Communities that are approved can apply for state grants to help cover the costs of decarbonizing projects at municipal buildings and vehicles fleets, such as police and highway departments.

In an interview with *The Ashfield News*, Joanne Bissetta, director of the Green Communities Division at DOER, praised Ashfield for the "proactive" leadership that could make it one of the state's first Climate Leader Communities.



Mary Quigley speaks in favor of the climate leader articles at Town Meeting. Photo by Jane Kaufman

Moving Forward

Completing the final requirement
for Climate Leader Application



→ Ashfield Municipal Decarbonization Roadmap

23 October 2024



Projects 2023-2024

On-Going Public Engagement

- Brought new solar bylaw (with Planning Board) to Special Town Meeting 8/8/23
- Solar Resource & Infrastructure Assessment (UMass/Amherst Clean Energy Extension)
- Ashfield Solar Action Plan (resulting from survey with 200 responses)
- Ashfield Greenhouse Gas Survey (with Bentley University)
- Ashfield Community Choice Power Supply Program (MEA)
- Member, Franklin County Energy Committee Coalition
- Advocated for PV installation at Mohawk Regional School
- Initiated monthly energy columns in The Ashfield News
- Hosted monthly info booth at Ashfield's Farmer's Market
- Co-hosted Youth Climate Action Round Table
- Hosted Natalie Blais forum on environmental issues
- Hosted William Moomaw and local panel on forest carbon sequestration
- Formed Municipal Solar and Residential Solar Working Groups, launched solar campaign

What have we learned?

- Network at all levels:
 - State agencies, town boards and committees (especially Finance Committee), provide community education and seek support
- Engage volunteers, leverage their support:
 - Not everyone needs to be on the committee – find their expertise and interest (writing, graphics, neighborhood conversations, liaisons,...)
- Seek advice from experts:
 - Regional Planning Authorities, Green Community Regional Coordinators, Finance Committees, Energy Managers, Grant Writers...
- When facing a roadblock, change course of action!

Thank you !

Stow: A small town's green journey

Green Communities Summit
November 22, 2024

Arnie Epstein
Stow Green Advisory Committee

The Town of Stow

- Rural community thirty miles west of Boston
- 7,200 residents
- 38% of land is conservation or protected
- Apple orchards and golf courses
- Relatively small commercial or industrial development
- Electricity from Hudson Light & Power
- Gas from Eversource



Stow's Green Journey

| | |
|--|--|
| 2010 Sustainable Stow volunteer group established | 2022 Stow awarded \$1.1 million state grant for preservation and restoration |
| 2014 Stow Solar Challenge | 2023 Select Board adopts policy for no fossil fuels in new/renovated municipal buildings |
| 2015 Stow designated a Green Community | 2023 Stow adopts Specialized Energy Code |
| 2016 – 2020 Heat pump retrofits of three municipal buildings | 2024 Stow receives \$500,000 Building Decarbonization grant for library renovation |
| 2019 Stow/Hudson HeatSmart Initiative | 2024 Stow adopts Climate Action Plan |
| 2021 Stow Green Advisory Committee | 2024 Stow applies for Climate Leader |



A joint publication between the Town of Stow's Green Advisory Committee and Sustainable Stow



Municipal Building Heat Pump Retrofits

Supported by Green Communities grants



Police Station



Town Building



Highway Department

Engaging with the community

- Monthly “Climate Talks” jointly with library
- Energize Stow newsletter and website
- “Green Corner” in local paper
- Monthly meeting with Town Administrator
- Work with town committees and departments
- Green Advisory Committee and Sustainable Stow collaboration
- Periodic community-wide initiatives



A joint publication between the Town of Stow's Green Advisory Committee and Sustainable Stow

Leave the Leaves

This fall, you can do something easy for the environment. Rather than raking, bagging, and burning leaves, or putting them in the trash for some landfill, the best way to reduce greenhouse gasses and benefit your garden is to leave the leaves on your lawn! Leaves create a natural mulch that helps to suppress weeds while fertilizing the soil as it breaks down. Leaves also provide overwintering habitat for pollinators and amphibians. Among ecologically minded gardeners, raking is out.

If you want to conserve some green lawn that's not covered in leaves, find a location in your yard to leave the leaves until spring. This could be in a border bed, flower beds, or a mulch pile on your property. You can also simply mow your lawn with the leaves still on it, chopping them up into small pieces to break down in place.

In your flower garden, leave flower stalks or cut them to 12-15 inches tall. These provide nesting cavities for larvae in the winter. Our pollinator population is in decline. We need to do all we can to help them.

For more that you can do, see the actions on Energize Stow: [Start Ecological Landscaping](#).



Lessons Learned

- Each step builds on the work done before
- Each step establishes credibility and momentum for the next step.
- A core group of dedicated volunteers is needed
- Town government support needed
- Broad town engagement has ups-and-downs
- Stay the course, the work is a marathon not a sprint.
- The journey never ends.

Example – Climate Leaders

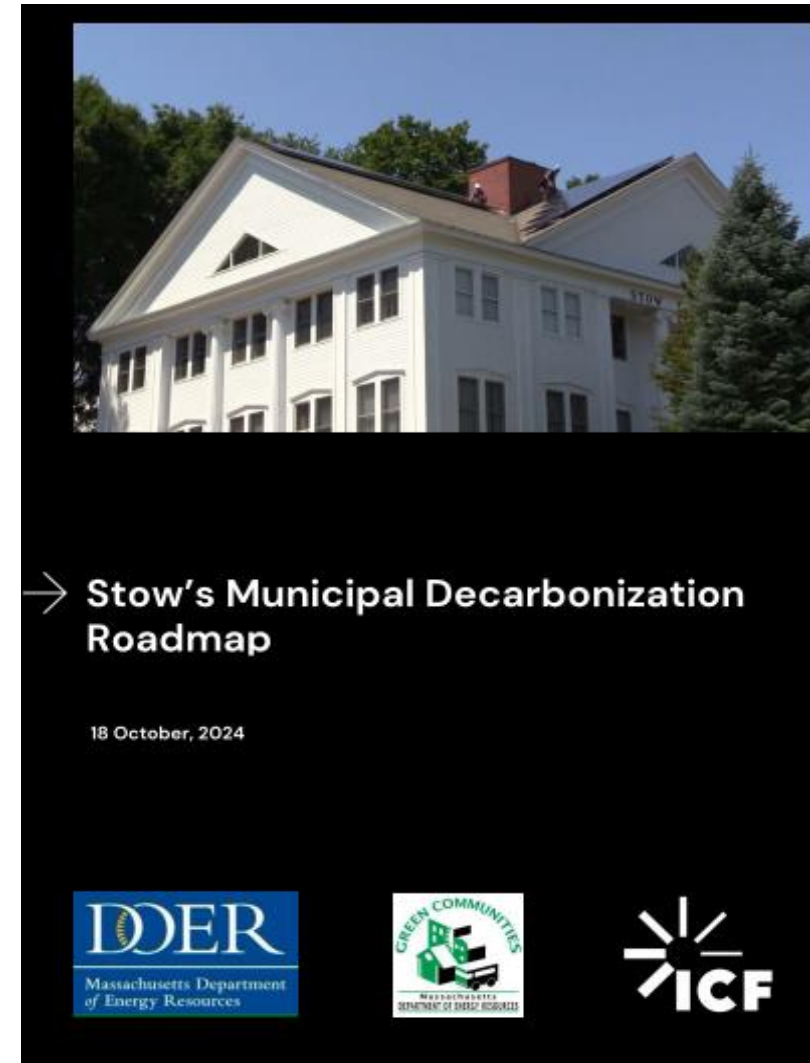
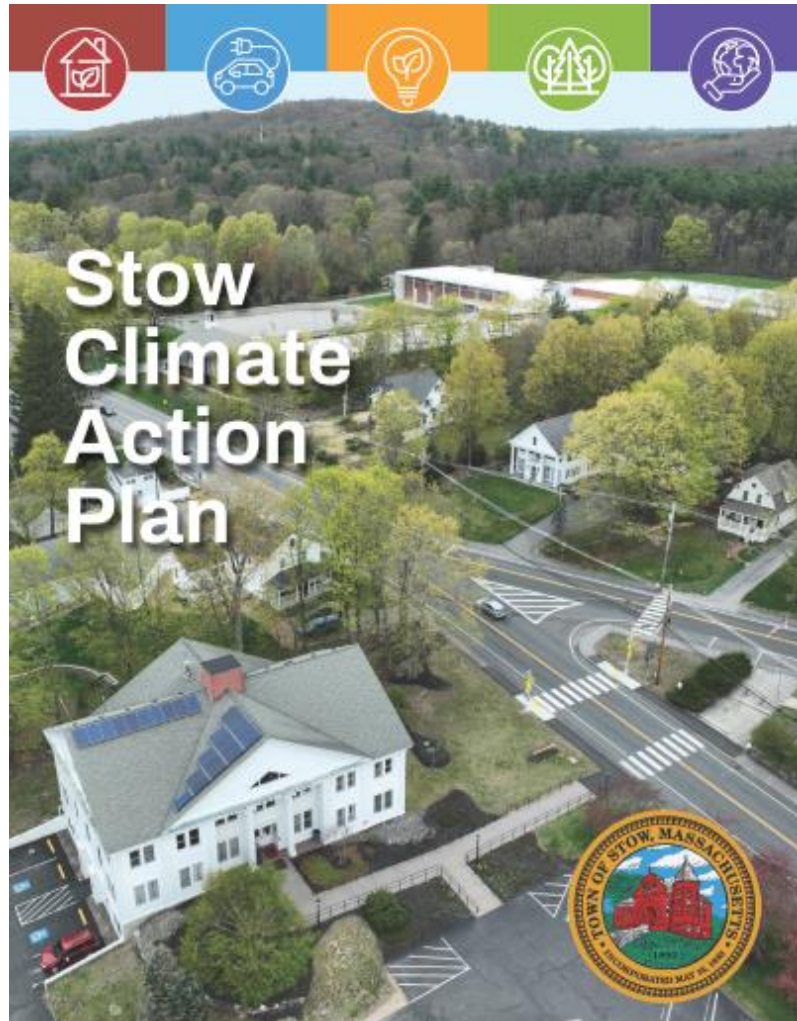
- Get town government engaged
 - Select Board, Town Administrator, and school Superintendent
 - Prior work established reputation
- Many of the Climate Leaders requirements accomplished earlier in the “green journey”.
 - Green Community
 - Specialized Energy Code
 - Green Advisory Committee
 - Climate Action Plan
- Work with your regional Green Communities Coordinator
 - Relation established over years of communication

Example – Stow Solar Challenge

- Town-wide initiative for residential solar
- Keys to success
 - Dedicated volunteers
 - Community outreach
 - Partnering with the installer
- Results
 - 13% of town residents inquired about solar
 - 59 contracts, 417 kilowatts of solar
 - Second most successful solar initiative in state (watts/resident)



The Journey Continues



November, 2024



Efficiency First: Municipal Building Decarbonization Support

Amanda Formica, National Grid

WE ARE MASS SAVE®:



Agenda

What is Mass Save

Existing Incentives for Municipal Buildings

New Opportunities for Municipal Buildings

Tips for Working with Mass Save Sponsors

Additional Resources



**Together, we make good
happen for Massachusetts.**

Your local electric and natural gas utilities and energy efficiency service provider are taking strides in energy efficiency: Berkshire Gas, Cape Light Compact, Eversource, Liberty, National Grid and Unitil.

As one, we form Mass Save[®], with the common goal of helping residents and businesses across Massachusetts save money and energy, leading our state to a clean and energy efficient future.

WE ARE MASS SAVE[®]:



EVERSOURCE



nationalgrid



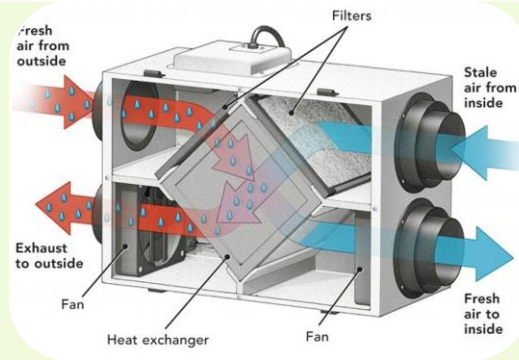
We Are Mass Save[®]

Existing Incentives: Municipal Buildings

Incentives for Getting Electrification-Ready



Weatherization



Ventilation



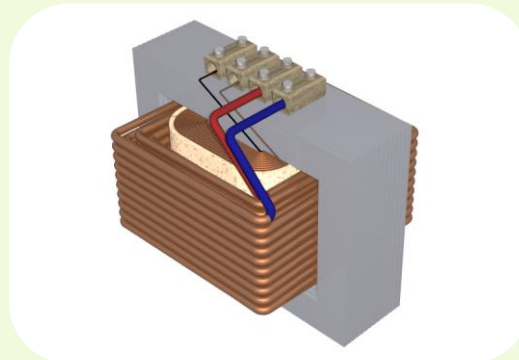
Controls



Hydronics



Variable
Frequency Drives



Transformers



Compressed Air



Lighting

Benefits of Being Electrification Ready

- ✓ Reduce energy use
- ✓ Save money on utility bills
- ✓ Reduce required size of (heating, ventilation, and air conditioning) HVAC equipment
- ✓ Reduce need for future service upgrades

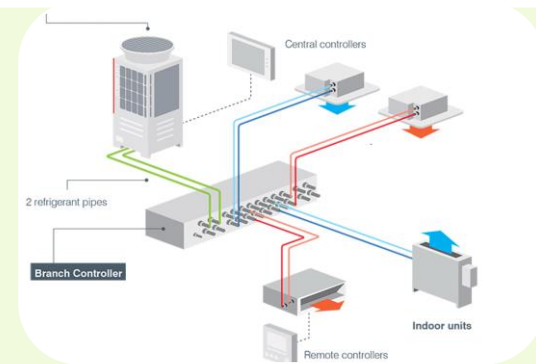
Incentives for Electrification



Air Source Heat
Pumps \$2,500/ton
(retrofit)



Heat Pump Rooftop
Units \$2,500/ton
(retrofit)



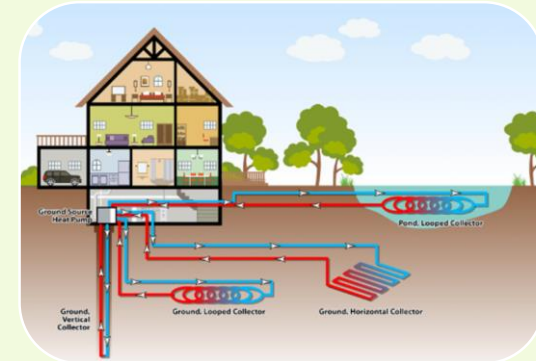
Variable Refrigerant
Flow \$3,500/ton



LEV Kits \$3,500/ton



Heat Pump
Chiller/Air to Water
custom \$ incentive



Ground Source Heat
Pumps \$4,500/ton

New Opportunities: Municipal Buildings

Mass Save School Decarbonization Offer*



Municipal Energy Manager competitive grant for communities without a similar full-time role. **Applications due January 31, 2025.** (National Grid and Eversource)



Technical Assistance: Portfolio Planning and Project Planning assistance designed to work together with MassCEC's Green School Works program.



Enhanced Incentives for energy efficiency and electrification of school buildings can work together with MassCEC's Green School Works, MSBA heat pump program, DOER Green Communities.



Staff Training and Teacher Curriculum, such as training for facilities staff and teacher training and student workshops on energy efficiency and clean energy.

** Part of the proposed 2025-2027 Energy Efficiency and Decarbonization Plan and pending approval by the MA Department of Public Utilities.*

Municipal Energy Manager Grant

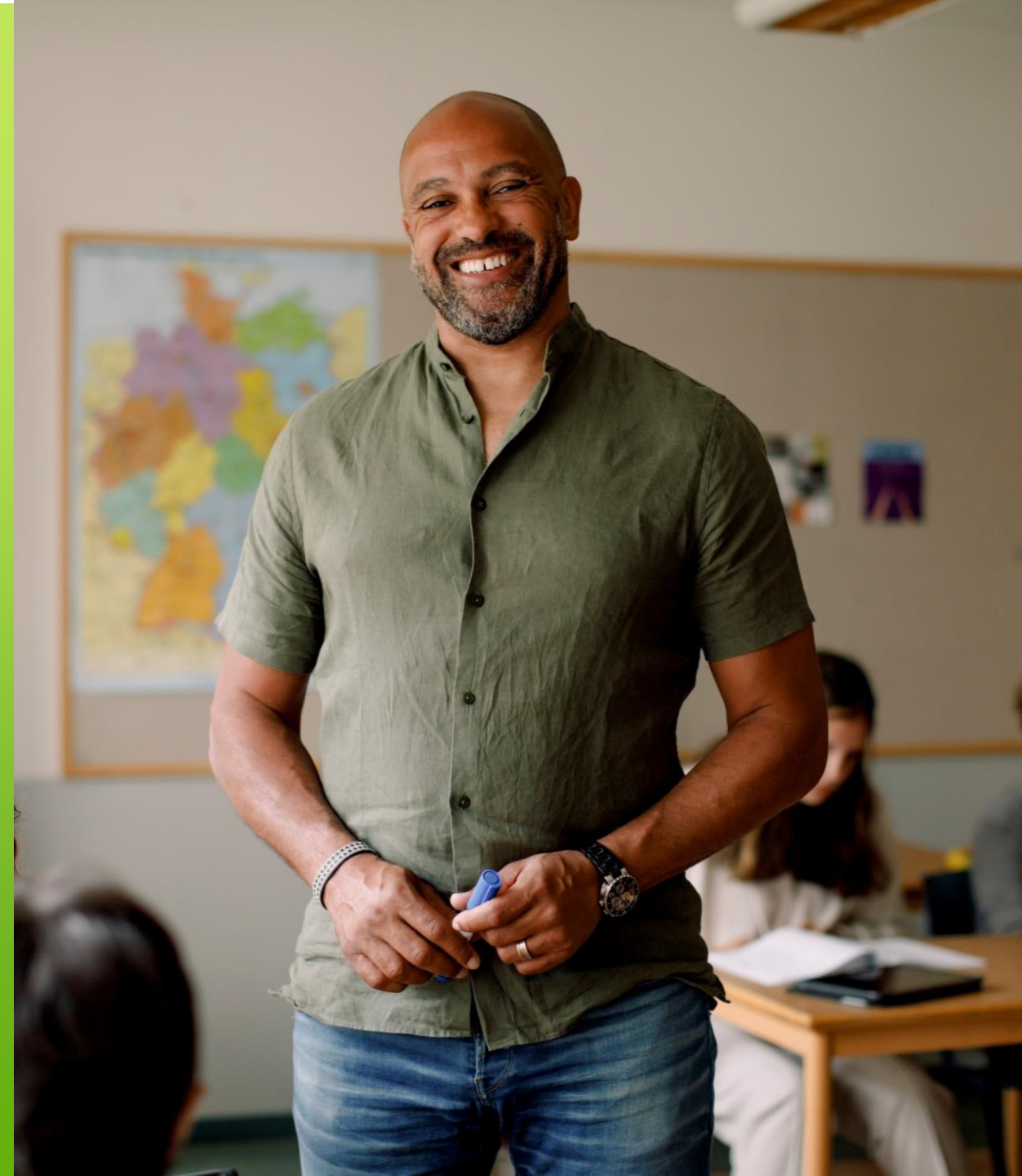
Overview

Grant Details

- ✓ Up to **\$120K a year for three years** for full-time, part-time, or contract energy manager
- ✓ Covers salary, wages, and benefits for the energy manager
- ✓ Focus on **school buildings** (existing and new) and help **advance municipal energy management plans**

Municipalities, regional planning authorities, and consultants with municipal support may apply

For communities that do not yet have full-time energy or sustainability staff



Expected Deliverables

Kick Off

Funding Agreement between
Eversource/National Grid and Grantee

Annual

1. Quarterly check in meetings on progress
2. Quarterly reports
3. Annual reports
4. Participation in Mass Save technical assistance
5. 1+ energy efficiency and/or electrification projects each year
6. Use of Mass Energy Insight tool



Getting Started

- ✓ List of municipal-owned buildings with size (square footage) and address
- ✓ Signed letters of support from municipal leader and superintendent
- ✓ Description of goals and activities for the energy manager and why your community needs this role
- ✓ Conversations with other leaders or departments

Application Deadline: January 31

<https://www.masssave.com/community/municipal-energy-manager-grant>



Tips for Working with Mass Save Sponsors

Tips for Working with Mass Save Sponsors

- ✓ Know your energy efficiency representative(s)
- ✓ Engage with us early
 - ✓ Most municipal capital planning begins 1+ year in advance
 - ✓ Plan for 6 months before Green Communities application due date
- ✓ Reach out with questions: If there's a building upgrade planned, chances are there's a potential incentive.
- ✓ Take advantage of our technical assistance

Additional Resources

Additional Resources



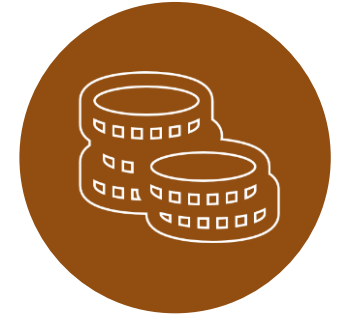
[MA Department of Energy Resources \(DOER\) Green Communities, Climate Leaders program](#)



[MA School Building Authority \(MSBA\) heat pump program](#)



[MA Clean Energy Center \(MassCEC\) Green School Works program](#)



[Federal IRA tax credits for ground source heat pumps, solar, storage](#)



Partner with us:

<https://www.masssave.com/en/contact>

Amanda.Formica@nationalgrid.com



Thank you.

WE ARE MASS SAVE®:



EVERSOURCE



nationalgrid

