

## **FAQ about a Town Climate Emergency Declaration**

**Originally prepared in support of Article 5, 9/8/20 Acton MA Town Meeting**

*“Declaring a Climate Emergency: A Better Future Starting Now”*

### **1. Acton has already done alot to save energy, so why do we need to do this?**

Acton school and municipal operations have made a lot of climate-related improvements in the last 10 years, though more can be done. The municipal emissions are only 5% of total carbon emissions in Acton. There are many opportunities to cut greenhouse gas emissions in private buildings, transportation and other sectors.

Passing a climate emergency declaration will ensure that our town’s planning will reflect a real mobilization that is more ambitious than recent plans by other cities and towns, which often defer elimination of carbon emissions until 2050.

Covid has shown us that taking action early pays off many times in the long run.

### **2. Why is it non-binding?**

Article 5 can kick-start our mobilization without any funding or mandates at this point. The resolution will be politically and morally binding if it passes with a strong vote and it will make climate action a priority to town staff and all of us.

### **3. What will this do?**

Make climate action a priority to town staff → focuses their minds on the issue

(example: how focusing their minds on covid got them to change and adapt so much during these past few months)

Purposes:

- Communication and Education
- Kickstart the town’s climate action plan
- Upward Pressure to State and Federal Government

### **4. Will this mean I have to give up X or start doing Y?**

No. A non-binding resolution can't stop you from X or make you do Y. Changes like that would require action from the state or federal government, or action via a future Town Meeting.

## 5. What does the declaration say?

“Bring net town wide carbon emissions to zero by the target date of 2030, or as soon as possible”

- Do it equitably, make sure the mobilization does not place undue burden on the economically and socially disadvantaged.
- Get aid from state and federal officials, as we can’t do all this without help.

## 6. How much will it cost (i.e., a mobilization)? -- See also #9 (town budget) and #10 (incentives) and #17 (individual costs)

Overall, it will cost less to mobilize now than it would cost to procrastinate and do the same things later. This is partly because the greatest cost would be the increased loss of lives and destruction of property for every year that climate change is left unchecked. We either sacrifice/invest now or sacrifice more later.

*Numbers if called for:* The “Stern Report” commissioned by the UK government in 2006 found that “ignoring climate change could cause economic damage each year on the order of 5% to 20% of the GDP” [which is huge], while it would cost 1% of the GDP annually to “cut carbon emissions (so that carbon dioxide peaked in the range of 450-550 parts per million)”. Since then “the costs of action have come down a lot” and the costs of inaction keep going up.

In other words, the benefits of action exceed the cost. It’s a good investment. The important economic metric is the net value we can create.

Plus, investing in the renewable energy and other technologies we need will be a major driver of economic recovery and prosperity for the US and the world.

## 7. How do you know the planet is warming and that fossil fuels are part of the problem?

97% of scientists agree that it is happening. Look at the science and data, much of which is listed on [www.actonclimatecoalition.org](http://www.actonclimatecoalition.org) under “Summaries of Recent Climate Research”. The doubt has been sowed by the fossil fuel industry in the same way that the tobacco industry caused people to doubt the scientists that said tobacco was bad for health.

## 8. What does the declaration ask of the town?

If Article 5 passes, the Town government — and other institutions — will be expected to “commit to a climate mobilization effort, with appropriate support from the state and federal governments, to bring net Town-wide carbon emissions to zero as quickly as possible, with a target date of 2030”.

## 9. Does Acton need to do this on its own? Will any town funding be needed to support this?

Any town funding would need to be voted on at future Town Meetings. Many actions in a mobilization campaign can be undertaken by volunteers, leveraging resources and programs available from public and

utility sources (e.g., MassCEC and Mass Save and HEAT Loans). There are also many opportunities to collaborate with other municipalities.

When the Town spends money for its own zero-carbon facilities and vehicles, these are expected to be sound investments, saving money rather than imposing extra costs.

As noted elsewhere, a local Acton mobilization will be premised on the development of a national (or at least state) mobilization (equivalent to the Green New Deal policy framework) that would provide substantial funding for Town activities and investments in (for example) new solar & heating systems & EVs, and there will also be loans and new forms of private financing, so there is no expectation that all this work will require funds from the Town budget or property taxes in the foreseeable future.

#### **10. What incentives are available now to make zero-emission technologies more attractive?**

Substantial incentives are available for home insulation, heat pumps, solar, and electric vehicles (EVs). Zero interest “HEAT” Loans are available through Mass Save for many of these technologies, and loans are available that are adapted for solar installations. The main programs to assist energy users and consumers with green technologies are listed on the [Coalition website](#) under “Renewable Energy Opportunities” and “Potential Partners/Services for Climate Plan Implementation.”

#### **11. How could the whole town reach zero carbon emissions in less than ten years, and what would be the necessary steps toward that goal? How does the Town undertake a planning process to guide this mobilization?**

*Note: focus on planning process rather than answering this in detail now. Adopting to emergencies I.e. COVID19 is a great example.*

Detailed projections of emission reductions through 2030 would be made through a planning process. A Climate Action Plan would also assess any policies that the Town could adopt to incentivize emission reductions. (An example is “Establish policies and incentives for new development to achieve high standards for sustainability and resilient design” from Concord’s plan). The Town’s Green Advisory Board is already working toward a “Carbon Neutrality” Plan, so this resolution will support and accelerate that plan and its implementation steps. The basic components of a climate plan are well-known, including calculations of cost and benefits of policy options. Several such plans can be seen on the Coalition website under “Climate Action and Net Zero Plans” (near the bottom of the main page): [www.actonclimatecoalition.org](http://www.actonclimatecoalition.org), including plans and studies for nearby towns (Lexington, Concord) and cities (Cambridge, Boston).

#### **12. What actions can be started without waiting for a planning process?**

A list of actions the Town and the citizens could take without waiting for a plan to be completed was brainstormed by the Town GAB on 12/9/19; the list can be found on-line here:

<http://doc.acton-ma.gov/dsweb/Get/Document-70814/12-09-2019%20-%20GAB%20CNI%20Brainstorming%20Session%20List.pdf>

More generally, a local “mobilization” campaign could be started by the Coalition and/or other public and private sector entities. It could be branded “EnergizeActon” working with the local nonprofit MassEnergize, or other approaches could be considered. This would involve outreach and technical assistance to challenge as many Acton homes and businesses as possible (in a manner similar to Solarize Acton) to commit to purchases by 2025 or 2030 to cut their emissions, such as heat pumps, EVs, solar and energy efficiency (eg, insulation). One objective of such a campaign would be to achieve enough of these clean energy purchases to make a measurable impact on the town’s periodic GHG emissions inventories, the first of which is posted at

<https://www.actonclimatecoalition.org/wp-content/uploads/2020/09/Acton-GHG-Inventory-Report-June-2019.pdf>.

### **13. What would a “mobilization to meet this challenge” look like?**

Acton will be better positioned to reap benefits/incentives to make these changes without having to burden the citizens -- to take advantage of the inevitable changes/incentives that will be coming from the State and Federal government. Some of these incentives already exist.

DETAILS: Part of the mobilization will involve advocating for sufficient financial and other support from the State and Federal Governments. For the part of the mobilization that addresses voluntary actions by energy users and consumers in town, initial steps could build on campaigns that have been run by other towns or that are ongoing, to get going quickly without reinventing the wheel; here’s a description of a related campaign in Wayland: <https://community.massenergize.org/wayland>. For example,

- (1) we could look into signing up for a town-specific website through MassEnergize (<https://massenergize.org/>). We could also
- (2) sign up to kick off a heat pump campaign through the HeatSmart Alliance (<https://heatsmartalliance.org/about/>). One other ready-made option would be to
- (3) co-brand an EV campaign with Green Energy Consumers Alliance featuring their discounts on EVs (a form of group purchasing) in their Drive Green campaign (<https://www.greenenergyconsumers.org/drivegreen>). It will also be important to
- (4) coordinate with Eversource and National Grid and Mass Save to encourage more and deeper energy efficiency measures, and to
- (5) partner with nearby banks that offer “HEAT Loans” in conjunction with Mass Save measures, and solar loans, and “PACE” financing for commercial businesses. And this campaign would
- (6) promote the option for 100% renewable electricity in the Acton Power Choice (APC) program and seek to increase the percentage of the standard APC option that is procured from ‘MA-RPS-Class-I’ renewables at the next APC contract procurement.
- (7) work with State legislators/Town boards (Planning) to develop policies that require electric outlet capacity in apartment buildings for car charging.
- (8) Continue work with Regional Gas Leak Initiative Group to pressure National Grid to repair the largest leaks and transition to delivering thermal energy instead of gas.

Individual homeowners and other energy consumers would be encouraged, through the above campaign(s), to take actions to substantially reduce their carbon emissions, with the financial support of local banks and utilities along with state and other programs for carbon reduction.

Through these initiatives, Actonians would phase out the burning of oil and gas to heat existing and new buildings. Zero-carbon designs and materials would be incentivized for new and existing buildings, and education and training would be made available to buyers and builders to adopt these climate-friendly building practices. Additional campaign elements could include support for driving and flying less, reducing high-carbon diets and reducing GHG emissions in consumer decisions (affecting emissions in locations where goods are manufactured).

**14. Why do we need to focus on the emergency? Can't we just get on with the work of cutting emissions? Isn't 2030 an unreasonable target, shouldn't we aim for something more practical?**

Guided by our emergency declaration, we will not be satisfied with merely incremental steps or goals that are too distant (2050) or have too little margin for error to have the promise of actually meeting our 1.5 degree global temperature limit. The UN report estimated the probability that the temperature limit would be met with each carbon budget or 2030 GHG reduction. For example, even if the world can stay within a budget of 420 gigatons of carbon dioxide emissions, it would only give us a 2/3 chance of staying under the temperature limit. In other words, there would still be about a 33% chance of exceeding 1.5 degrees. This probability is mostly based on the uncertainty of how sensitive temperatures will be to future GHG emissions, but there are several additional uncertainties that are estimated or merely mentioned in the UN report that increase the risk of exceeding the temperature limit — or reduce the carbon budget left.

These uncertainties amount to risks that the globe could already have released enough carbon to push global temperatures over the 1.5 degree limit.

**15. Is it really necessary to call for a “mobilization”?**

Yes, it's the only way we can cut carbon pollution before it's too late. And if designed right it will provide employment and an economic boost to millions of people in need.

**16. Would a committee of volunteers be needed to work on this?**

There will be multiple ways for citizens and businesses to participate and volunteer, perhaps through an informal relationship between the Acton Climate Coalition and the Acton Green Advisory Board, or a more formal local public-private partnership. The Acton Climate Coalition is a coalition of volunteer organizations that intend to offer ideas and energy toward what the town, its citizens, and organizations can do.

### **17. How much will it cost homeowners to reduce their GHG emissions?**

Many of the investments available for homeowners and other energy users are profitable or at least affordable for many Actonians, and becoming more so: insulation, heat pumps, solar, EVs, etc. These costs can be estimated in an Acton Climate Action Plan. Nevertheless, the 2030 target in Acton's Emergency Declaration is premised in part on an unprecedented mobilization of federal funding and procurement of clean energy resources, which will pay down transition costs where needed.

### **18. Will we all need to make changes to personal/family behaviors?**

Some families will want to explore new ways to reduce their "carbon footprints", such as recycling more, driving or flying less or eating less meat. A campaign (such as EnergizeActon) would provide encouragement, information and community appreciation. It is unlikely that these behaviors would be mandated in the near term. The initial emphasis would more likely be on support for installation of technologies or purchase of vehicles and other products that make substantial, measurable emission reductions. Also, the biggest impact Acton can have is probably to demonstrate what can be done and advocate for a government mobilization — not just tracking our own in-town emissions.

### **19. Please explain what "net town-wide carbon emissions" is. How exactly is it calculated? And what is the number now? This is important if everyone will have to bring it "to zero as quickly as possible". FRAN**

There are calculation protocols and the town has already done this in their inventory.

In 2019 the Town released a carbon footprint study or "emission inventory" report . (<https://www.actonclimatecoalition.org/wp-content/uploads/2020/09/Acton-GHG-Inventory-Report-June-2019.pdf>). It defined net carbon emissions similarly to the way many towns and cities do, "using established greenhouse gas accounting methodologies" and protocols. It includes direct emissions by buildings, vehicles, and the processing of waste. It includes an estimate of the amount of methane leaking from Acton's natural gas distribution system, and doesn't include the emissions implicit in the manufacturing of products and materials that enter the Town. It includes the emissions associated with the generation of the electricity used in Acton. "Net" carbon emissions means that the emission reductions due to purchases of renewable energy credits (RECs) by (or on behalf of) Acton electricity customers are taken into account. (The Inventory Report does not "net out" the carbon removed from the air each year by trees and other natural features, but it does estimate that a cumulative 994,000 tons of CO<sub>2</sub> equivalent are stored or sequestered "in the woody matter of trees and in soils" in Acton conservation lands, which is about the amount of carbon emitted by the town in 4 years.)

According to the Inventory Report, "In total, the Town of Acton emitted 241,300 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) in 2017, or 10.2 MTCO<sub>2</sub>e per capita. For regional comparison, the City of Cambridge emitted 13.8 MTCO<sub>2</sub>e per capita in 2012, and City of Somerville emitted 8.3 MTCO<sub>2</sub>e per capita in 2014... The transportation sector was the largest contributor, producing 51% of the emissions, followed by stationary energy with 45%. ... Of the 241,000 total MTCO<sub>2</sub>e emitted community-wide by

Acton in 2017, Acton's municipal operations released 12,700 MTCO<sub>2</sub>e [which] constitutes 5.3% of total Acton emissions.”

For comparison, the global average is under 4 MTCO<sub>2</sub>e per capita, according to [https://en.m.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_greenhouse\\_gas\\_emissions\\_per\\_capita](https://en.m.wikipedia.org/wiki/List_of_countries_by_greenhouse_gas_emissions_per_capita).

**20. What has Acton already done?** (*this is specific to this Town*)

- stretch building code
- designation as a State Green Community
- trash reduction at the Transfer Station and schools
- efficient lighting upgrades
- HVAC modernizations
- new fire station and school will use heat pump tech (and no fossil fuels) for heating and cooling
- weatherization of municipal and school buildings
- LED street light replacements
- zoning bylaw changes to support solar
- municipal green electricity program (Acton Power Choice Green)
- Selectmen sign on to Climate Mayors' Letter and WeAreStillIn.com, supporting Paris climate accord
- gas-electric hybrid town vehicles
- support for local and regional public transportation
- complete streets policy
- sidewalk construction
- bicycle parking zoning bylaw
- support for Bruce Freeman and Assabet River rail trails
- school Power Down energy conservation programs
- Town-wide emissions inventory
- adoption of Commonwealth best practices for mitigating climate change
- Green Advisory Board recommendation to BOS a resolution in support of FUTURE Act Climate Legislation which has partially been folded into the current joint committee which includes permitting gas utility companies to pilot delivery of non combustible fuels: something other than gas.