



Active/Ongoing Projects

- **Municipal Fleet Electrification Study** – The vehicle modeling and charging infrastructure assessment has been completed. We anticipate a final report for departmental review and revision in the next week.
- **UNH Fellowship Application** – The Town has been selected to host a UNH Fellow. The Fellow will increase the Division's community engagement capacity by building tools, protocols, and content that will support efforts beyond the 10-week fellowship. Interviews are being scheduled for early March.
- **Tree City USA Recognition** – I am working with the Natural Resource Division and Public Works to apply for the Arbor Day Foundation's Tree City USA Recognition. As a Tree City, Concord would be eligible for grants and technical assistance. The Select Board signed a proclamation to celebrate Arbor Day the last Friday of every April.
- **2021 Annual Report** – I have received some progress information from several departments. You can find a report out of the indicators of success attached to this report and I will aim to have a progress report of the implementation steps for the next meeting.
- **Concord Middle School Building Project** – Approved at the Special Town Meeting and the Special Town Election.
- **CSEC's Cooler Concord Sustainability Series** – CSEC is preparing a suite of engagement events for 2022. The series will kick off in April with a keynote speaker on April 27th.

Highlights from the Community

- **Community Compost Drop off Site Pilot Launched**– Two community compost drop off sites have begun accepting compost as of February 1st at 55 Church St and the Beede Center. The program has 82 participants as of 2/11/2022 and [registration is required](#). The bins will be tracked by their "fullness" to evaluate the program and to estimate the amount of compost diverted from the landfill. Municipal buildings will also be able to participate, and the logistics are being ironed out as many buildings have different custodial staff.

Grant and Technical Assistance

- **New - Grants Awarded** –
 - **MassEVIP DC Fast Charger Program** – In partnership with CMLP, the Town has received funding for a DC Fast Charger for Rideout Park
 - **Green Communities Grant** – The Town received \$100,000 of grant funding that will be matched with funding from the schools and the CMLP rebate program for air source heat pumps for the pods at the Ripley School and Administration Building.

- **MVP Action Grant** – The town submitted two expressions of interest. The Town has scheduled a meeting with EEA to discuss the scope of work and fit for the MVP program towards the end of February. One grant is to purchase land along the Assabet for conservation and affordable housing. The other grant is to create a regional watershed model to assess climate vulnerability.
- **USDN Nexus Guidance** – Thank you to those who have provided feedback on the participation in this program. I met with the Deputy Town Manager and USDN to discuss our participation. The DEI Commission has sent a letter in support of accepting the technical assistance. No official decision has been made on the Town’s participation.
- **MAPC Technical Assistance on Climate Adaptation** – MAPC reviewing the Town’s regulatory framework and making a recommendation for a scope of work.
- **HMPG FEMA Grant** – The Sustainability Division will be working with the Fire Department to update the Hazard Mitigation Plan and to include a greater focus on climate resiliency in alignment with Sustainable Concord. We are considering seeking funding support from the FEMA HMPG Grant.
- **Community Compact Efficiency and Regionalization** – The grant application is not moving forward this year, but the Town hopes to create a scope of work that is better refined for the next round of funding, specifically for fleet management.
- **Grants Watch List**
 - MassEVIP for Fleets and Charging – Accepted on a rolling basis.
 - Green Communities – Not eligible for the next funding round since we received a grant from FY22 (round two).
 - GAP III Financing

Events and Engagement

- **Upcoming Director Speaking Engagements**
 - Feb 15th – Newbury Court Environmental Group
 - April 4th – Seeds and Weeds
- **CAAB Monthly Meeting** - third Wednesday of the month at 6:00 PM
- **CSEC Monthly Meeting** – third Thursday of the month at 7:00 PM
- **Light Board Monthly Meeting**– second Wednesday of the month at 7:30 AM
- **Have a special interest?** Contact Amanda Kohn (akohn@concordma.gov) for information on how to join groups working together on EV adoption (Concord Drives Electric), expanding the use of air source heat pumps (Concord Heats Electric), and more!

State Legislation to Tracking

New - New Energy Building Codes Webinars and Public Comment: The Massachusetts Department of Energy Resources (“DOER”) [released a Straw Proposal](#) containing proposed updates to the existing Stretch Code and a framework for a new Opt-In Specialized Stretch Code. A recording of a webinar held on February 8th and a PDF of the straw proposal slides are available on the DOER website. DOER is seeking comment on this Straw Proposal and will hold geographically-targeted public hearings in late February/early March to receive verbal public comment. DOER highly encourages written comments be submitted electronically to stretchcode@mass.gov with the subject line “Stretch Code Straw Proposal Comments”. Written comments will be accepted until 5 pm EST on **March 9th, 2022**. Written comments may also be

submitted via mail to the Department of Energy Resources, 100 Cambridge Street, Suite 1020, Boston, MA 02114, attention Nina Mascarenhas.

MA House and Senate Bills: There are over 140 bills across the House and the Senate that are suggested when you search for *climate* in the 192nd session. These are the 25 bills that I have currently added to my legislative tracker. Each legislative committee needed to report on the bills that were under their review by February 3rd. The Telecommunications, Utilities, and Energy Commission (TUE) asked for an extension for the bills highlighted in yellow until May 2nd. Two of the bills as indicated in red were reported favorably by the TUE to Ways and Means. If you're interested in creating your own dashboard to track your interests at the state policy level visit: <https://malegislature.gov/MyLegislature>.

1. [S. 1333 An Act to reduce greenhouse gas emissions by permitting local option all-electric buildings and homes ordinances](#) – Reported favorably by TUE to Ways and Means
 - o Statewide act enabling Town to opt into all-electric buildings and homes ordinances rather than appeal as Concord has done through a Home Rule Petition.
2. [S.2136 An Act transitioning Massachusetts to clean electricity, heating, and transportation](#)
3. [S.2139 An Act to promote zero-emission vehicle fleets by 2035](#)
4. [S.2144 An Act promoting local energy investment and infrastructure modernization](#)
5. [H.2145 An Act promoting the adoption of renewable energy for heating, cooling and hot water](#)
6. [S.2148 An Act relative to the future of heat in the Commonwealth](#)
7. [H.2167 An Act to reduce greenhouse gas emissions by permitting local option all-electric buildings and homes ordinances](#)
8. [S.2191 An Act promoting energy storage systems](#)
9. [S.2196 An Act relative to home energy efficiency](#)
10. [S.2202 An Act relative to building energy and decarbonization](#)
11. [S.2222 An Act relative to local energy investment and infrastructure modernization](#)
12. [S.2229 An Act creating a 21st Century clean energy economy](#)
13. [S.2231 An Act relative to green financing](#)
14. [S.2232 An Act relative to better buildings](#) – Reported favorably by TUE to Ways and Means
 - o Large commercial buildings will need to report energy use to DOER annually, establishes an energy performance standard for different building types, cities and towns can establish their own energy disclosure requirements.
15. [H.3261 An Act promoting local energy investment and infrastructure modernization](#)
16. [H.3292 An Act achieving a green future with infrastructure and workforce investments](#)
17. [H.3294 An Act to support innovation and local investment in the green economy](#)
18. [H.3320 An Act establishing the GREEN Initiative](#)
19. [H.3334 An Act relative to home energy efficiency](#)
20. [H.3340 An Act creating a green bank to promote clean energy in Massachusetts](#)
21. [H.3341 An Act relative to green jobs](#)
22. [H.3343 An Act relative to solar power and the green economy](#)
23. [H.3350 An Act relative to building energy and decarbonization](#)
24. [H.3366 An Act relative to better buildings](#)
25. [H.4117 An Act authorizing the town of Concord to adopt and enforce local regulations restricting new fossil fuel infrastructure in certain construction](#)

S.2647 – Extension Order from TUE until May 2nd

2131, 2132, 2133, 2134, 2135, [2136](#), 2138, [2139](#), 2140, 2141, 2142, [2144](#), [2148](#), 2151, 2154, 2156, 2158, 2159, 2174, 2184, 2186, 2191, 2194, 2198, [2202](#), 2210, [2222](#), 2224, 2226, 2230, 2236, 2237, 2473, 2515 and 2606

H.4400 – Extension Order from TUE until May 2nd

602, 2145, 2167, 3254, 3255, 3257, 3260, 3261, 3262, 3264, 3265, 3267, 3268, 3269, 3271, 3273, 3274, 3275, 3276, 3277, 3279, 3283, 3284, 3285, 3287, 3288, 3289, [3292](#), 3293, 3296, 3298, 3300, 3304, 3306, 3309, 3312, 3317, 3318, 3319, [3320](#), 3331, 3332, 3333, [3334](#), 3335, 3336, 3337, 3338, 3339, [3340](#), [3341](#), 3342, [3343](#), 3344, 3345, 3346, 3347, 3349, [3350](#), 3352, 3353, 3360, [3361](#), 3362, 3365, [3366](#), 3367, 3750, 3805, 3887, 3888, 3893, 4044, 4067, 4081, 4082, [4117](#) and 4307

Built Environment

Our homes and buildings are the number one source of emissions in Concord. While we have made progress in this area, we still have much to do. Transforming our building sector to be all electric and include renewable energy is the key to success. Also, improvements in our waste diversion efforts will provide numerous community benefits, along with additional GHG reductions. We can use the indicators below to track our progress.

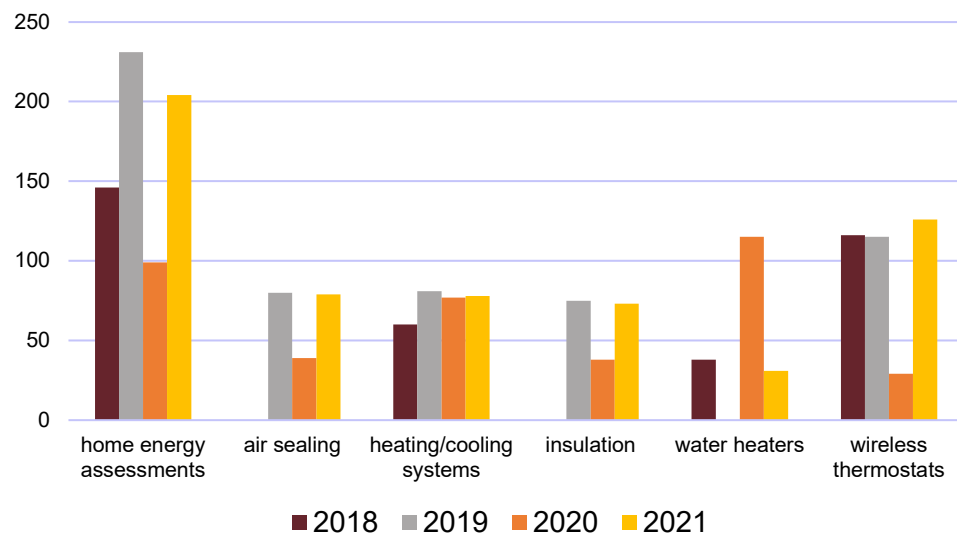
Sustainable Concord Indicator	Baseline Data	Baseline Year	Progress Data	Progress (Year)	2030 Target
Greenhouse gas emissions from the building sector	159,779 MTCO ₂ e 140,072 MTCO ₂ e	2008 2016			74,564 MTCO ₂ e
Energy use intensity (EUI) of residential/commercial sector	0.23 MMBtu/sq ft (commercial sector) 0.08 MMBtu/sq ft (residential sector)	2016			0.20 MMBtu/sq ft commercial 0.069 MMBtu/sq ft residential
Number of all-electric residential buildings	136 Residential	2017			1,650
Residential waste diversion rate	40% (residential)	2016			65%

Additional Indicator	2018	2019	2020	2021
CMLP rebates - GSHP	10	9	2	1
CMLP - home energy assessments	188	111	93	73
Coaching engagements				176
CMLP rebates - weatherization	\$20,472.18	\$10,567.50	\$8,259	\$16,655
	22 rebates	22 rebates	8 rebates	20 rebates
CMLP rebates - heat pump water heaters	\$3,370	\$3,000	\$4,490	\$6,935
	6 HPWHs	4 HPWHs	9 HPWHs	10 HPWHs
CMLP rebates - ASHP	\$113,321.98	\$70,514.31	\$45,721.28	\$84,974.34
	58 households	43 households	38 households	59 households
CMLP rebates - LEDs	\$1,837.46	\$1,083.01	\$509.51	\$943.33
	787 LEDs	476 LEDs	273 LEDs	541 LEDs
Energy Efficiency improvements in municipal + school buildings / vehicles	24 projects: Total cost: \$1,912,194; Savings per year: \$132,760 + 756,603 kWh + 19,036 therms	25 projects: Total cost: \$648,101; Savings per year: \$22,598 + 113,659 kWh + 3,967 therms + 345 gallons gasoline	40 projects: Total cost: \$988,146; Savings per year: \$36,451 + 260,398 kWh + 8,674 therms + 114 gallons gasoline	14 projects: Total cost: \$567,238; Savings per year: \$30,679 + 38,157 kWh + 2,540 therms + 3,166 gallons heating oil + 6,858 gallons gasoline
CMLP rebate - High Efficiency Lighting Program	22 Projects: \$180,284 in rebates; 820,503 kWh savings / year	11 Projects: \$93,017 in rebates 336,016 kWh savings / year	7 Projects: \$77,493 in rebates 353,984 kWh savings / year	2 Projects: \$16,832 in rebates 62,880 kWh savings / year

Built Environment Continued

Additional Indicator	2018	2019	2020	2021
MassSave - home energy assessments	146	231	99	204
MassSave rebates - air sealing		80	39	79
MassSave rebates - heating/cooling systems	60	81	77	78
MassSave rebates - insulation		75	38	73
MassSave rebates - water heaters	38		115	31
MassSave rebates - wireless thermostats	116	115	29	126

MassSave Rebates

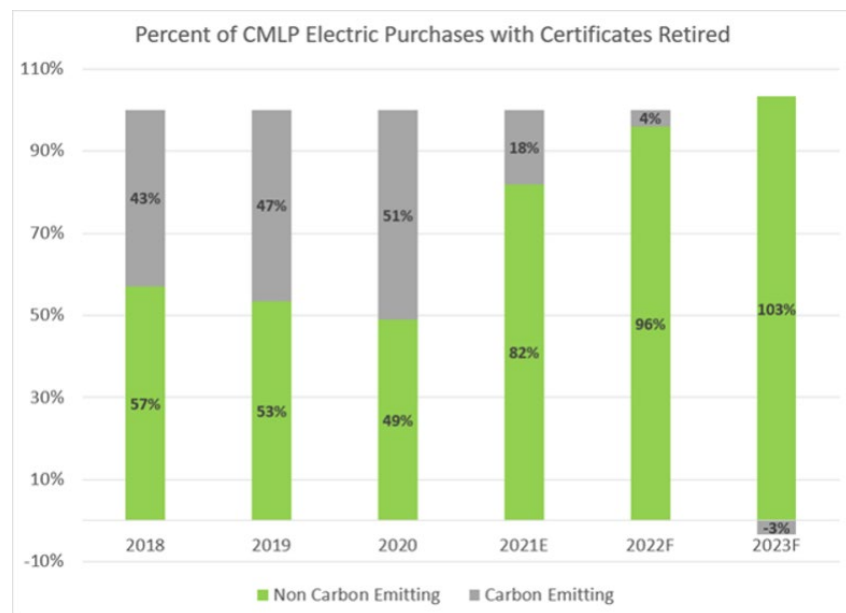


Energy

How we generate electricity is a huge determinant in Concord's ability to meet its climate action and resilience goals. With a municipal utility, we have an opportunity to accelerate the adoption of non-fossil fuel electricity generation and these indicators will help keep us on track. We can use the indicators below to track our progress.

Indicator	Baseline Data	Baseline Year	Progress Data	Progress (Year)	2030 Target
GHG Emissions from electricity generation	54,234 MTCO ₂ e	2016			0
Percent carbon-free electricity	54% 58%	2018	79% (estimate)	2021	100%
Total MW capacity of residential renewable generation installations in Concord	3.5 3.1 MW (DC)	2020	3.4 MW	2021	5.44 MW
Number of homes with rooftop solar	358 361	2020	402	2021	558
Number of homes with battery storage	9 8	2020	10	2021	109
Total MW capacity of solar generation on town property	7.57 7.62 MW (DC)	2020	7.62 MW (DC)	2021	20 MW
Total MWh capacity of battery storage on town property	0	2020	0	2021	60MWh

Indicator	2018	2019	2020	2021
Residential - Total Annual Electricity Consumption (Sales - kWh / Year)	74,436,879	69,096,296	73,004,784	73,788,163
Commercial/Industrial - Total Annual Electricity Consumption (Sales - kWh / Year)	98,253,615	95,175,212	88,399,696	94,398,877



Mobility

How we get around is the second highest source of emissions and represents a great opportunity for climate action. Our individual options and decisions on how we commute to work and get around town impact that. For those that can avoid driving alone to work, we encourage you to do so. For those that cannot, the shift to an electric vehicle will be essential for Concord to meet its GHG reduction targets. We can use the indicators below to track our progress.

Indicator	Baseline Data	Baseline Year	Progress Data	Progress (Year)	2030 Target
Greenhouse gas emissions from the transportation sector	84,754 MTCO ₂ e	2016			46,500 MTCO ₂ E
Number of registered electric vehicles (BEV & PHEV)	425-392	2020	Available in Mar/Apr	2021	7,920
Percent of commuters who take public transit to work	8%-7.3%	2016	Available in March	2019	16%
Percent of commuters who walk to work	5%-3.0%	2016	Available in March	2019	10%
Percent of commuters who bike to work	0.6%-0.9%	2016	Available in March	2019	2%
Percent of commuters who drive alone to work	70%-69%	2016	Available in March	2019	50%
Community vehicle miles traveled (VMT) in non-electric vehicles annually	141,321,246	2016-2014			100,943,747

Indicator	2018	2019	2020	2021
CMLP rebate - EV Level 2		42	20	40
EV specialist engagements		160	68	116
CMLP - Cumulative Enrollment in EV Miles	40	101	154	216

MassEVIP Program 2021	Amount	Number of Charging Stations
Workplace and Fleet	\$ 50,000.00	4 Charging Stations (Private)
Multi-Unit Dwelling and Campus Charging	\$ 12,201.00	1 Charging Station (Private)
Fleets	\$ 7,500.00	1 Battery Electric Vehicle (Police Dept)
Fleets	\$ 7,500.00	1 Battery Electric Vehicle (Police Dept)

Natural Resources

Concord is unique in already having a healthy and robust tree canopy, so much of the effort in this area will be to protect these existing natural assets and slowly expand them over time. Successful implementation of the priority actions will help to realize these targets. Residential water consumption is another area that needs to be addressed, Concord uses more than 10% more water per person per day than the Middlesex County average. While our proposed target may appear to be a small decrease, it represents an annual savings of nearly 10 million gallons of water. We can use the indicators below to track our progress.

Indicator	Baseline Data	Baseline Year	Progress Data	Progress (Year)	2030 Target
Residential per capita water consumption (gpd)	66.5	2020	62	2021	65
Percent tree canopy coverage	58%	2016			60%
Percent of public tree planting sites occupied	90%	2017			95%
Forest Management Plan created	No	2020	No	2021	Yes

Indicator	2018	2019	2020	2021
CPW rebates - high efficiency clothes washers	11		22	21
Miles of trail maintained		28	31	32
New pollinator gardens		3	2	2
Planted public shade trees, set-back plantings and cemetery trees			122	103

2021 Other Management Efforts

- 3 pollinator gardens maintained
- 12 terrestrial invasive removal projects (492 hours; 26 truck loads removed)
- 5 water chestnut removal efforts (50 hours; 720 gallons removed)

Preparedness

While Concord's abundance of natural areas has helped us be resilient to some extent, we do need to continue to enhance that resilience by assessing our infrastructure and natural systems' abilities to adapt to further changes that are consequences of a changing climate. We can use the indicators below to track our progress.

Indicator	Baseline Data	Baseline Year	Progress Data	Progress (Year)	2030 Target
Percent pervious surface	90.7%	2016			92%
Completed Water Resource Management Plan	No	2020	Phase I in progress	2021	Yes
Created stormwater utility	No	2020	No	2021	Yes
Conduct Vulnerability Assessment of Critical Infrastructure	No	2020	Potential with upcoming grant applications	2021	Yes

Indicator	2020	2021
Number of green infrastructure/low impact development installations	8	17