

Data-Driven Decisions for Green Communities: CELT's Tools and Strategies for Clean Energy Transition





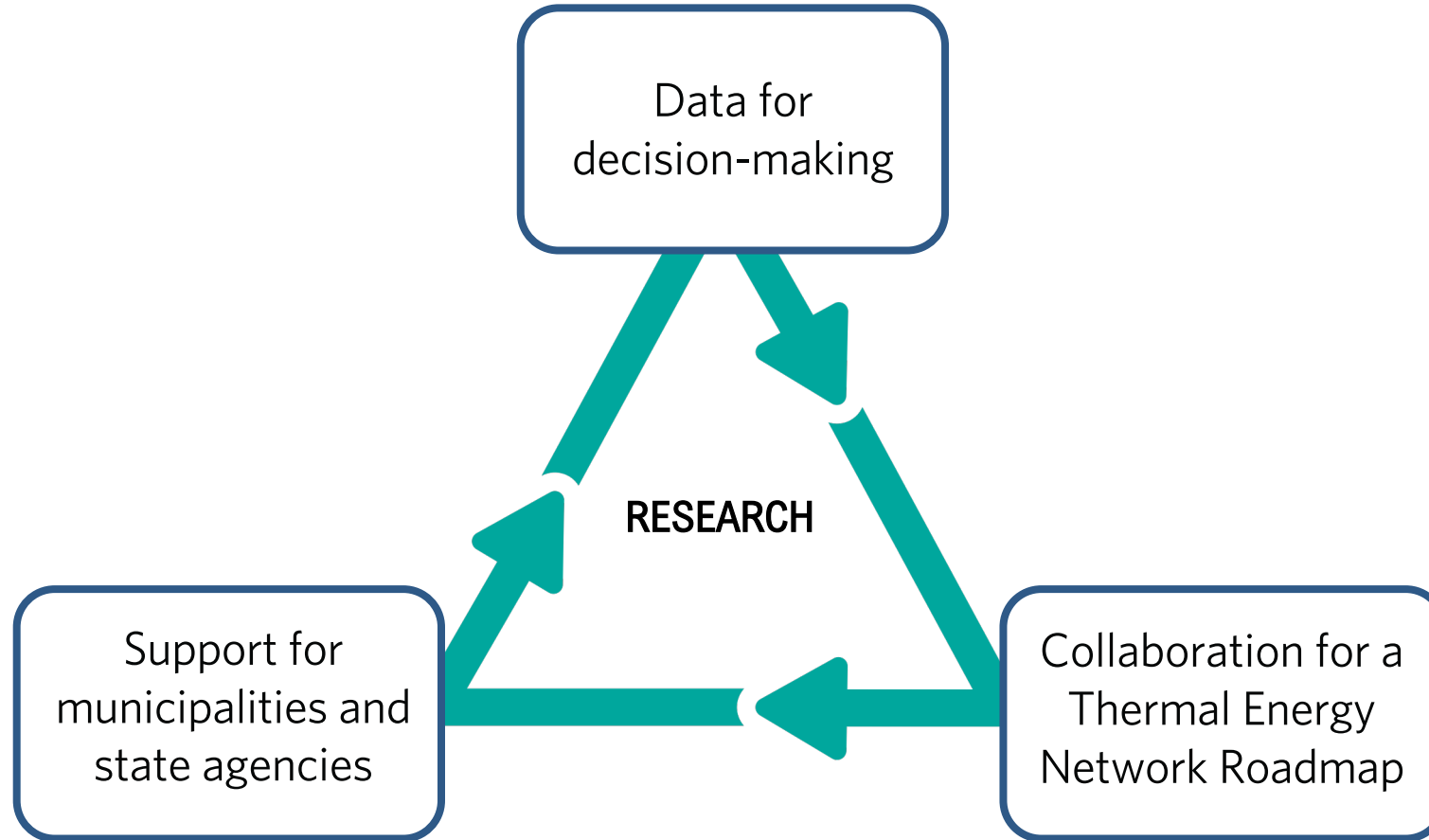
**During the presentation, please post
your questions for the CELT Team
here and we will answer them during
the discussion time. Thank you!**



CELT – the Clean Energy & Environment Legacy Transition Initiative – is a partnership designed to support the efforts of the Healey-Driscoll administration to accelerate equitable decarbonization across Massachusetts cities & towns.



CELT Has Three Areas of Work



Partnership with
municipalities and
state agencies

Actionable data

Datasets
integration

**DATA-DRIVEN DECISION
MAKING**

Data analysis

Data trends and
opportunities

Visualizations and
case studies

CELT's Data Work Is Based in Three Strategies

1

Innovative **data products** to guide clean energy decision-making for state and local audiences.

2

Support to state agencies with strategic data for the development and implementation of clean energy policies.

3

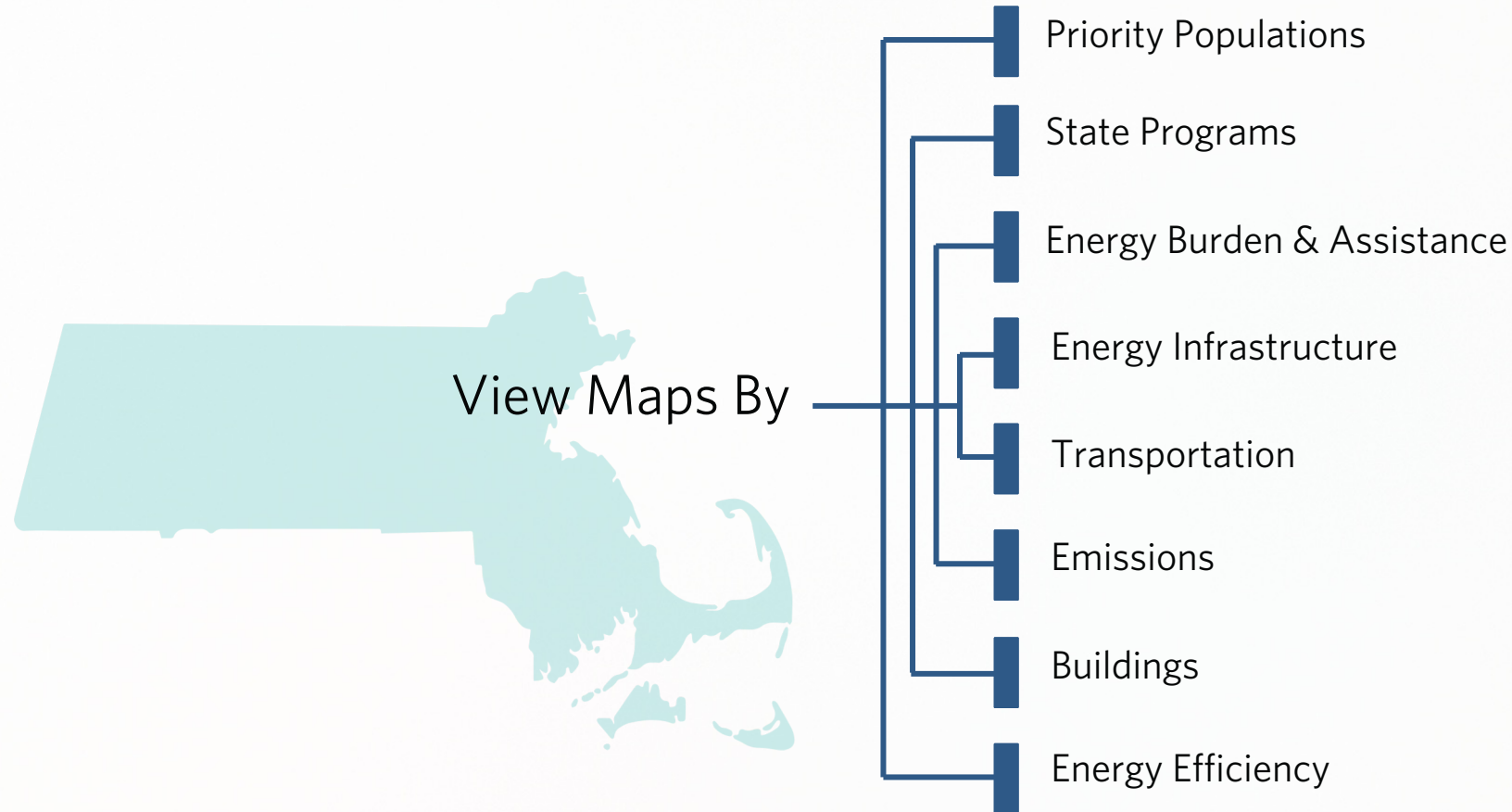
Support to municipalities in their **clean energy solutions** at the local level.

CELT Has Two Data Products

Energy
Transition Atlas

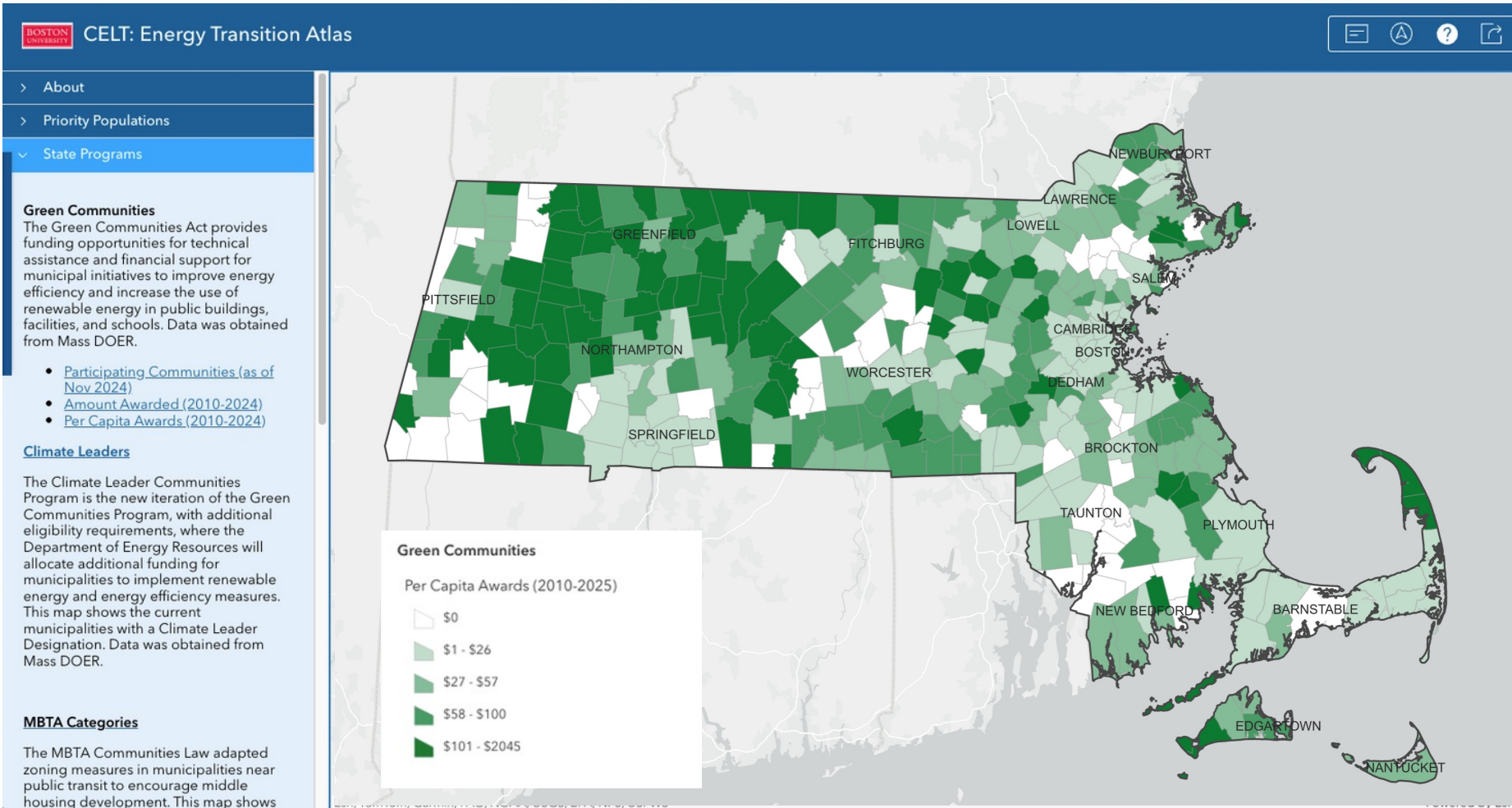
Energy
Explorer

The Atlas Includes Several Maps Organized into Different Categories



Try the Atlas!





Try the Atlas!



Housing Energy Burden: The cost of fuel and electricity to households for heating, cooling, lighting, and other energy services, excluding transportation

- **Expenditure:** value per household spent on fuel and electricity
- **Burden:** fraction of household income spent on fuel and electricity

Transportation Energy Burden: The cost of gasoline and diesel fuels to households for transportation

- **Expenditure:** value per HH per year spent on gasoline
- **Burden:** fraction of HH income spent on gasoline

Housing and Transportation Energy Burden The combined effects of energy and transportation burden on households.

Low Income Home Energy Assistance Program (LIHEAP) LIHEAP helps low-income households pay their utility bills.

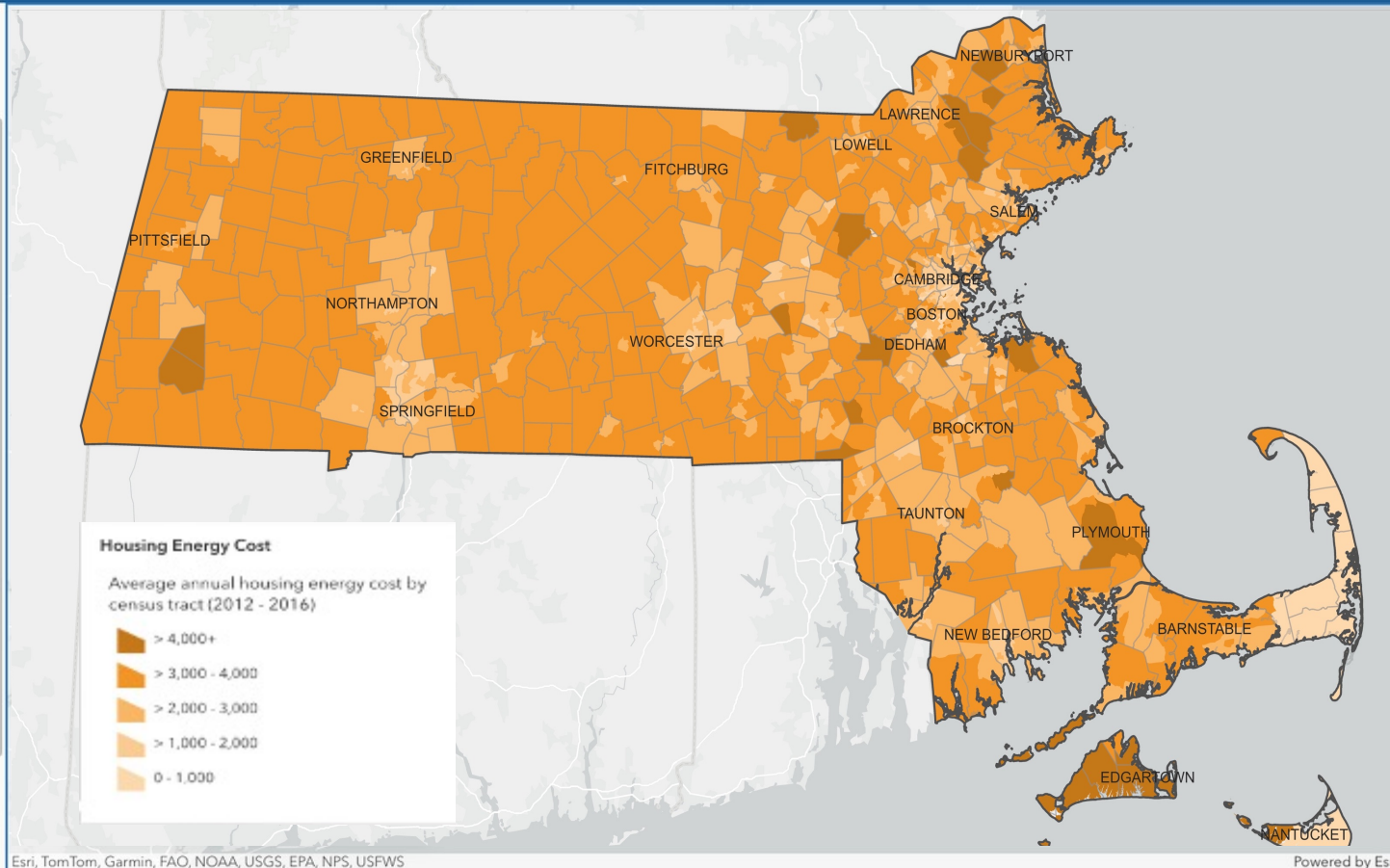
- This map shows the **total benefits** (\$) and the **average benefits per recipient household** (\$/HH) received in a town from 2019-2023.

> Energy Infrastructure

> Transportation

> Emissions

> Buildings



Try the Atlas!



Energy Infrastructure

Natural Gas

Electricity

- [All Power Plants](#)
- [Thermal Peaker Power Plants](#)
- [Transmission Lines and Substations](#)
- [Microgrids](#)

Petroleum

Underground Storage Tanks

Landfill Methane

Biodiesel Plants

Combined Heat & Power

Alternative Fuels

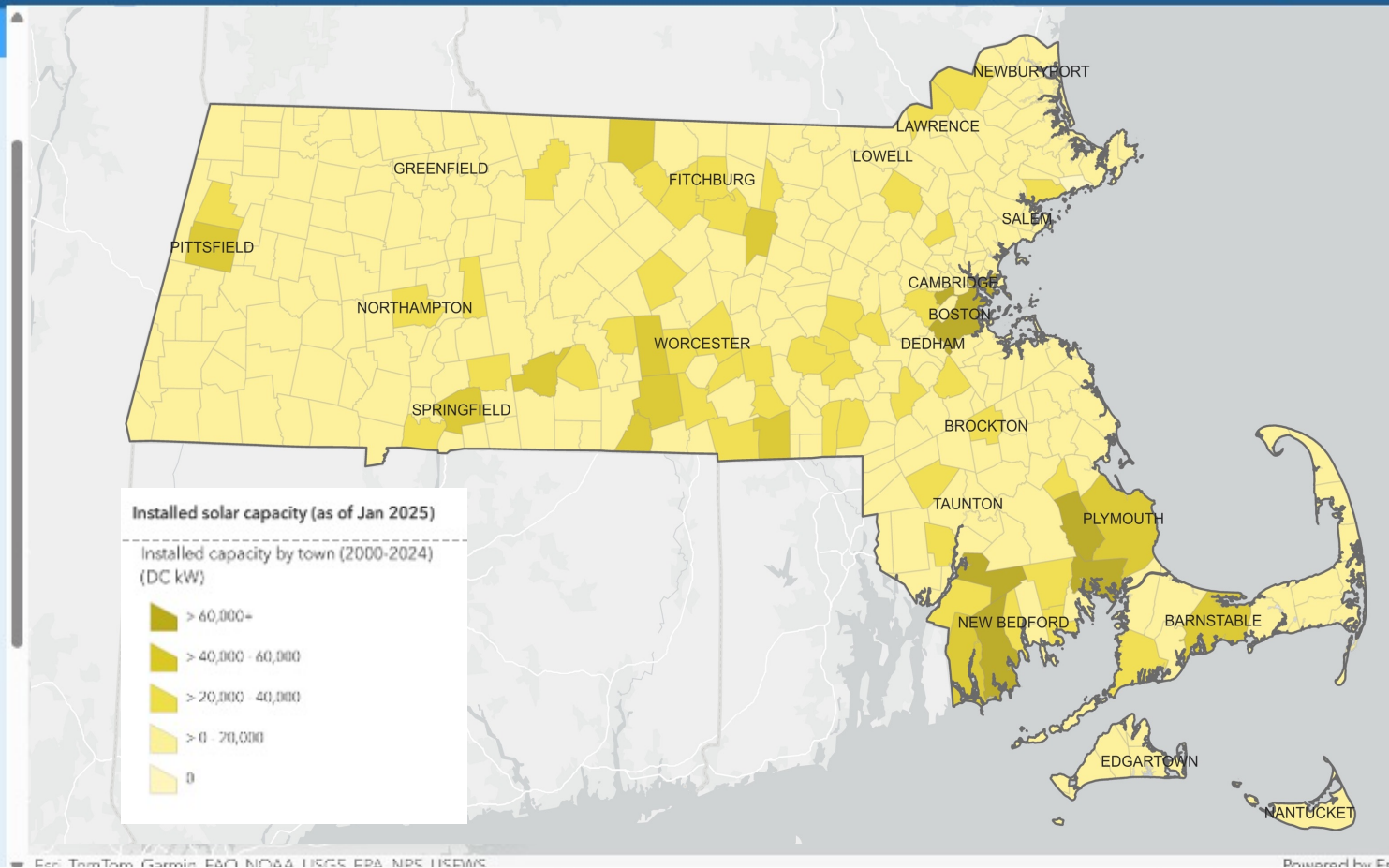
Solar

- [Installed solar capacity](#)
- [Solar energy production](#)

Wind

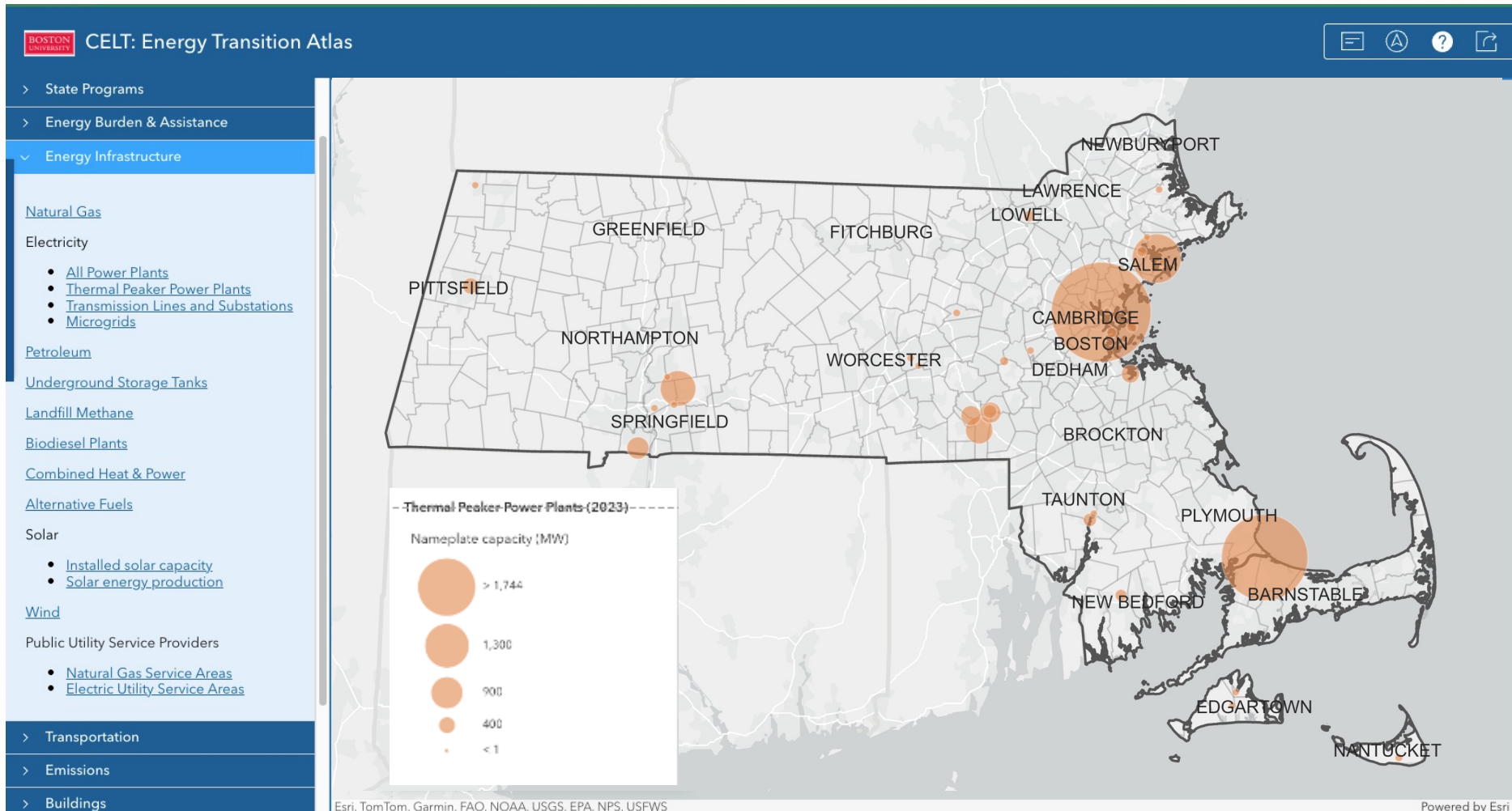
Public Utility Service Providers

- [Natural Gas Service Areas](#)
- [Electric Utility Service Areas](#)



Try the Atlas!





Try the Atlas!



SELECT MUNICIPALITY:

NORTHAMPTON

Download Town Report (PDF)

Priority Populations

State Programs

Energy Burden & Assistance

Infrastructure

Transportation

Emissions

Buildings

Efficiency

Green Communities: The Green Communities Act provides funding opportunities for technical assistance and financial support for municipal initiatives to improve energy efficiency and increase the use of renewable energy in public buildings, facilities, and schools. Is **NORTHAMPTON** a Green Community? []

➤ Between 2010–2024, \$ **1,594,381** in funding was awarded to **NORTHAMPTON** . This is \$ **54.37** per resident

Climate Leader Communities: The new iteration of the Green Communities Program, with additional eligibility requirements, where the Department of Energy Resources will allocate additional funding for municipalities to implement renewable energy and energy efficiency measures.

➤ Is **NORTHAMPTON** designated as a Climate Leader as of May 2025? [**Not Currently Designated**]

MBTA Communities Law: Adapted zoning measures in municipalities near public transit to encourage middle housing development.

➤ Is **NORTHAMPTON** designated as an MBTA Community? []

As-of-Right Siting: Municipalities that have adopted as-of-right siting allow renewable energy development without an additional approval process.

➤ Wind zoning policy (Sept 2023): [**No**]

➤ Solar zoning policy (Sept 2023): [**No**]

Try the Atlas!

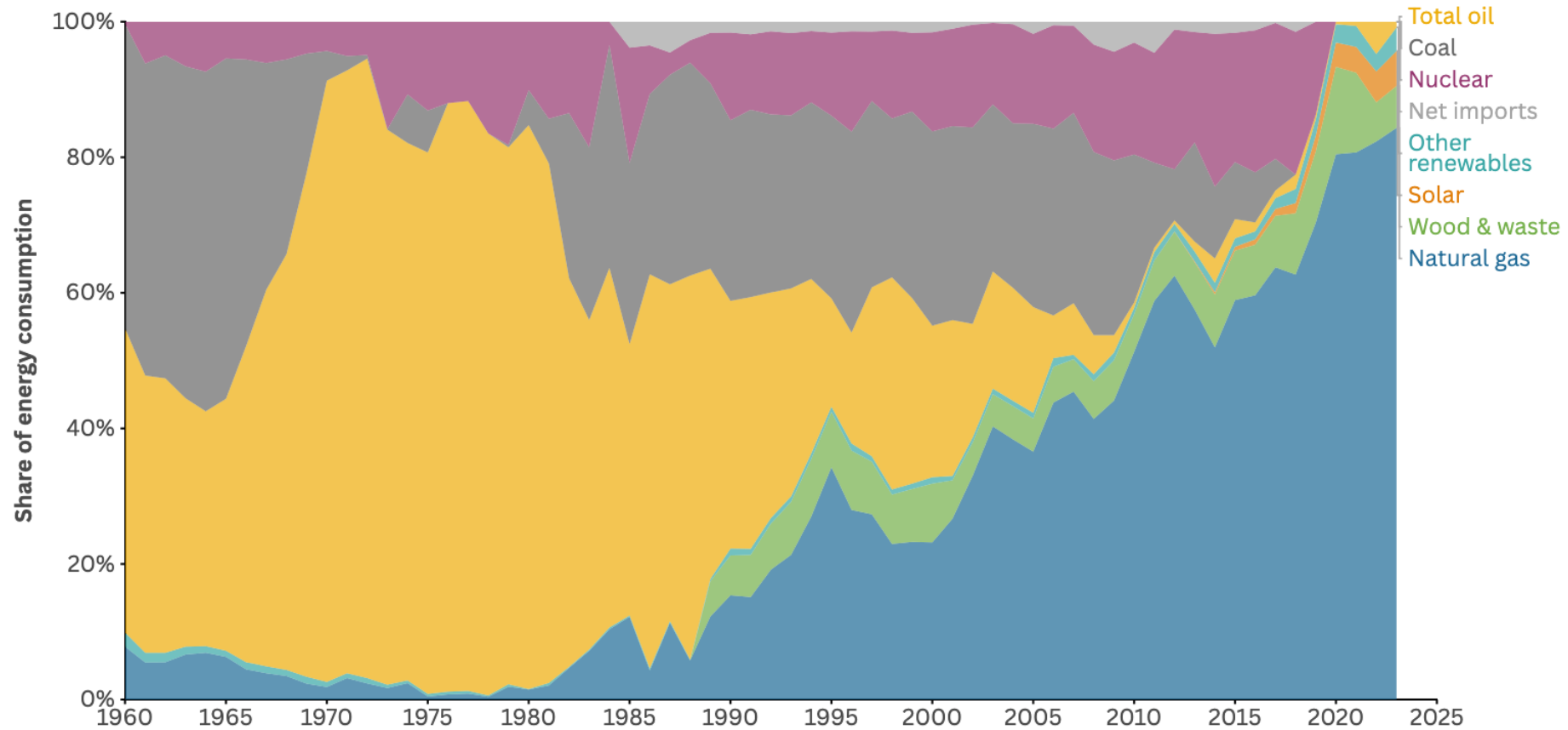


Energy Explorer



Fuel shares of energy consumption for electricity generation in Massachusetts, 1960–2023

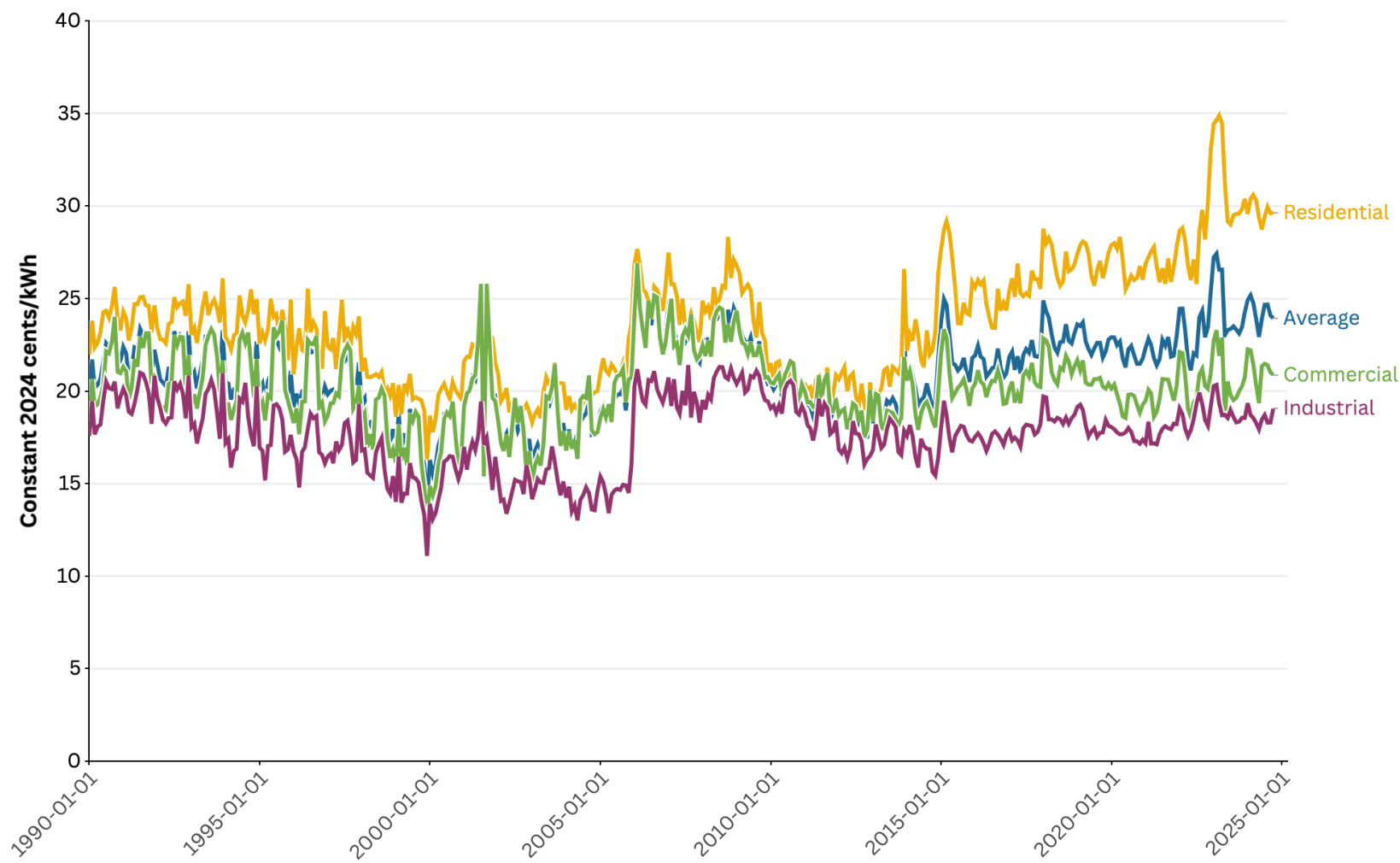
Other renewables are hydropower and wind



Source: U.S. Energy Information Administration

Boston University Institute for Global Sustainability | visualizingenergy.org | CC BY 4.0


Monthly electricity prices by end user in Massachusetts, 1990-2024



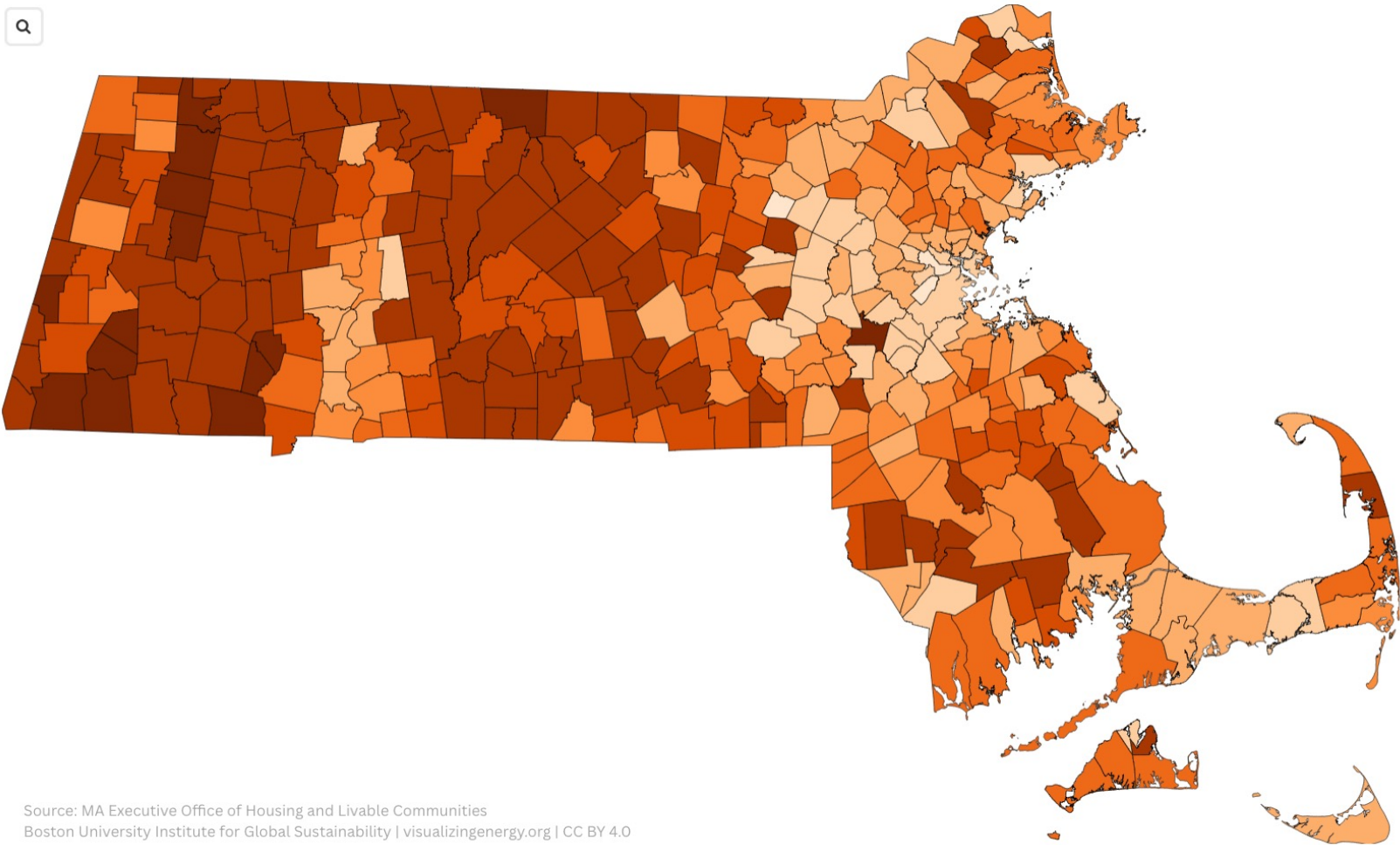
Source: U.S. Energy Information Administration; Federal Reserve Bank of St. Louis
U.S. Energy Information Administration; Federal Reserve Bank of St. Louis

LIHEAP average household benefits to Massachusetts municipalities, 2023

Average benefits

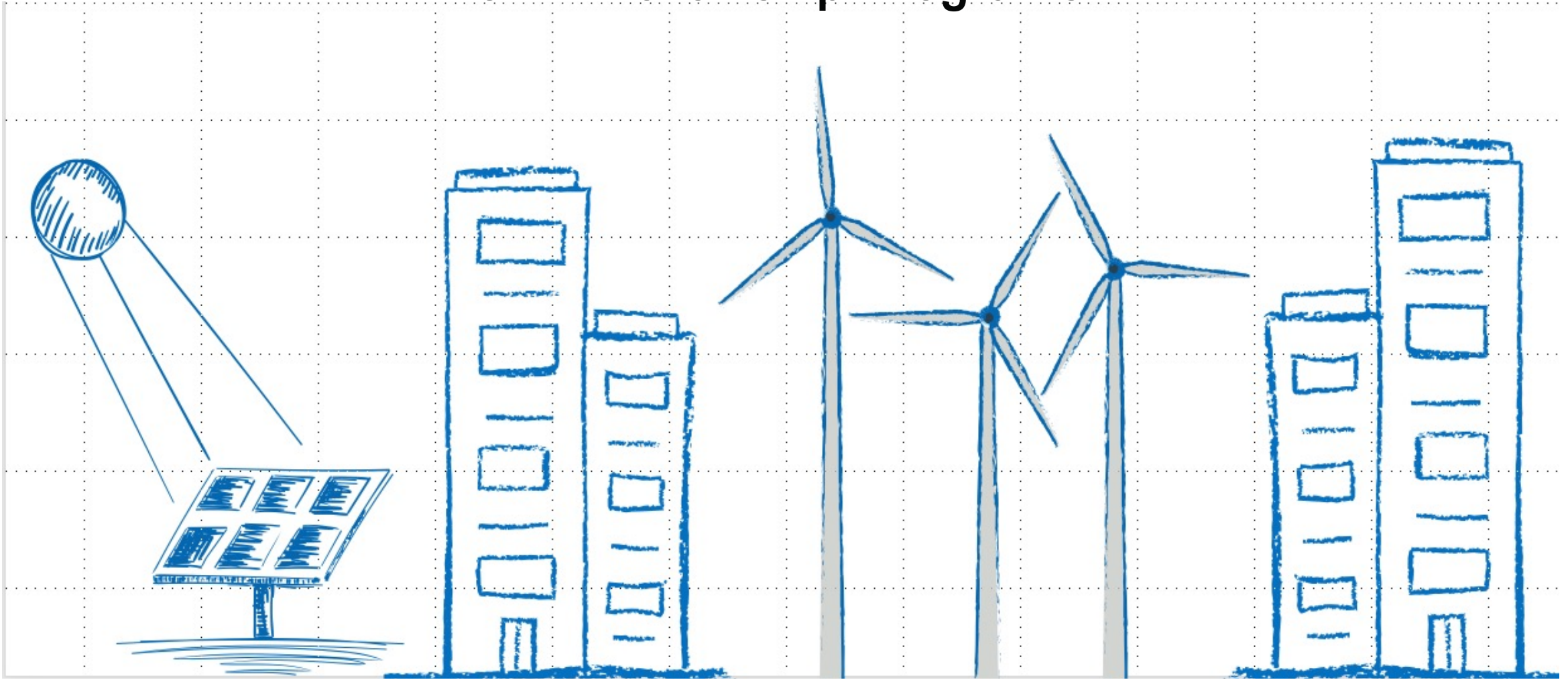


\$892 \$1350 \$1954



Source: MA Executive Office of Housing and Livable Communities
Boston University Institute for Global Sustainability | visualizingenergy.org | CC BY 4.0

CELT Fellowship Programs



UMass Lowell leads two fellowship cohorts

Office of Energy Transformation

- 12-month placement
- Fellows contribute directly to OET's key initiatives and help shape the future of clean energy in Massachusetts



Municipal ←

- 6-month placement opportunity
- Fellows assist municipalities or regional agencies throughout Massachusetts
- Various energy transition projects



The 'Why' for municipalities



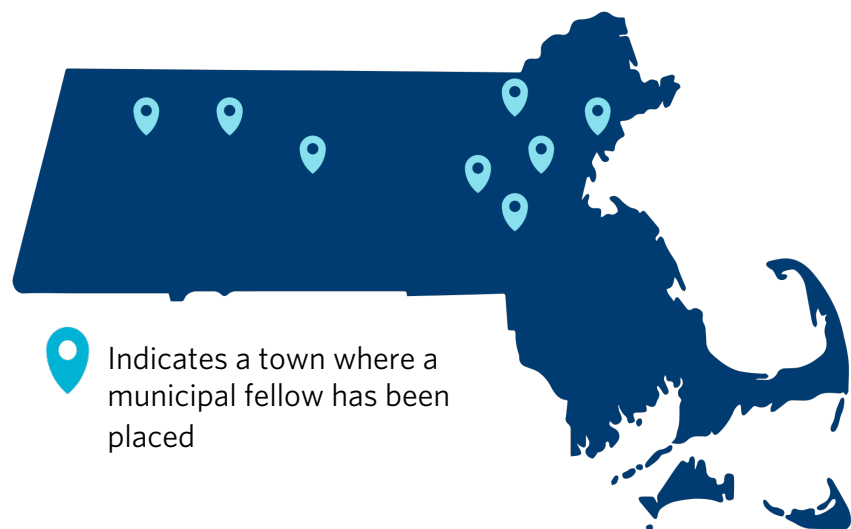
- An opportunity to receive **dedicated support** on **energy transition projects** where capacity or funding has been inadequate
- Designed to provide high-impact, **flexible** assistance
- At **no cost** to the municipality!
- UML handles the **majority of training & Professional Development** as well as any escalations
- Potential **connections** for future employment

Who can apply *to be* a fellow?

- Students at **any level**
- From **any College or University**
- Any **area of study**
- Must be in **proximity** to selected towns, as in-person or hybrid engagement may be required
- Fellows will:
 - Gain **hands on experience** with municipal leaders and stakeholders as well as in the energy transition sector
 - **Expand network** for future opportunities
 - Receive **ongoing professional development**
 - Play a crucial role in **building the future** of sustainable energy solutions



Who can apply to *host* a fellow and what is the process?



Eligibility & Application

Any town, city, or regional agency may apply using the form on our webpage. Applications should include:

- Projects needing support
- A point of contact for the fellow

Timeline

Applications are accepted year-round but reviewed during set periods. Fellowship Coordinator reviews submissions 2-3 months before fellowship start date and selects based on:

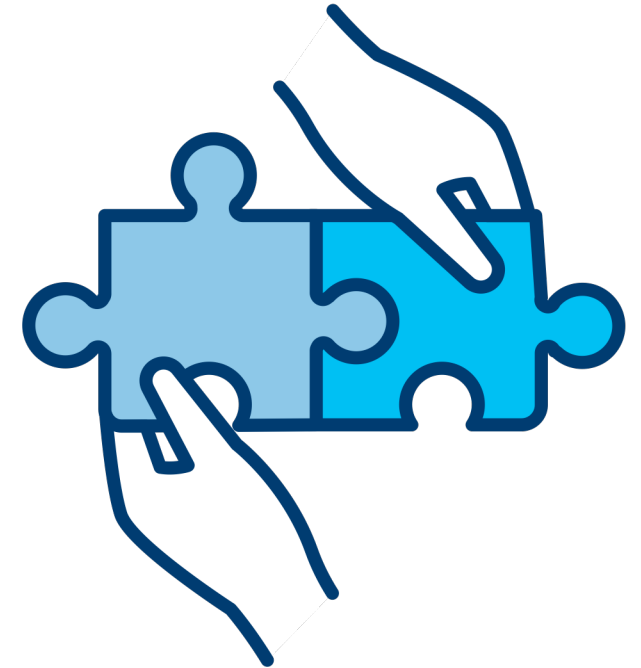
- Cohort size
- Location
- Green Communities input
- Proposed projects

Employment

Fellows are part-time UML employees. Coordinator manages hiring, HR, payroll, and related processes.

Hiring & Matchmaking

- Coordinator conducts interviews students with the required location and background, **matching candidates to entities** based on:
 - Project scope & relevant experience
 - Skills & qualifications requested by host applicant
 - Ability to commute
- Once matches are finalized, host communities receive candidate details and confirm logistics
- **Note:** if a suitable match cannot be made based on these criteria, placement may not be possible during the current cycle.



Training & Onboarding for Fellows



- Fellows receive a **robust week-long training** on a variety of topics facilitated by Fellowship Coordinator
 - Basics of program, job readiness, introduction to municipalities and MA goals
 - Specific trainings based on projects
 - Solar Development, community outreach, grant writing, etc.
- Will also receive **ongoing monthly professional development** and check ins
 - Based on needs and feedback from municipal POCs

Cohort 2 – Begins January 2026



- Project examples from cohort 1
 - Collecting data for neighborhood scale electrification
 - Developing business recognition program
 - Supporting application to become Climate Leader
 - Implementation of NZAP
- We will have **continued 6-month cohorts** for the duration of the CELT initiative
 - Cohorts will grow as we scale the project
 - Cohort 1: 9 fellows, 6 municipalities, and 3 Agencies

Arlington	Ashfield	Athol
Berlin	Needham	NMCOG
Salem	Springfield Water & Sewer	Program Wide Admin

- Hoping for 15 placements in cohort 2!

Thank you!!

Contact us if you have any feedback or questions

Data-driven decision making



Access the CELT Energy
Transition Atlas here

MACELT@bu.edu

Fellowship Programs



MACELT@uml.edu



And follow us on LinkedIn: <https://www.linkedin.com/company/celt-massachusetts/>



A recording of this session will be available the first week of December