MASSACHUSETTS CLEAN ENERGY CENTER®

Massachusetts Climate Careers: Powering the Future

The Power of Climate Solutions

Opening Activity

Personal Impact Inventory

1. Write down **three actions** you do every day that use energy.
2. What is one way you could reduce your energy use for each action?

Today's Agenda

- The Big Question and My Climate Goals
- Climate Watch and Discussion
- Climate Change
- Today's Group Activity
- Key Takeaways and Closing

The Big Question

How is Massachusetts working to be more efficient, transition to renewable energy, optimize energy transmission, protect natural lands, and prepare for climate challenges?

My Climate Goals

When you complete this lesson, you'll be able to

1. Identify strategies to improve energy efficiency
2. Identify examples of climate technology that advances the use of renewable energy sources
3. Explore how different combinations of climate solutions can position us for a healthier future.

Massachusetts's Vision for 2050

Reduce carbon emissions by **85%.**

Remove carbon from the atmosphere through **sequestration.**

Decarbonization: What and How?

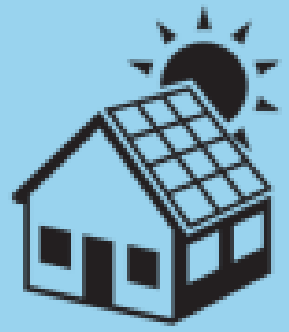
End Use Energy	Energy Efficiency and Flexibility	Decarbonizing Energy Supply	Carbon Sequestration
			
Transitioning buildings, vehicles, and other end uses away from consuming fossil fuels	Aggressively pursuing energy efficiency and flexibility to enable cost-effective decarbonization	Producing zero and low-carbon energy supplies to power our energy system	Balancing remaining emissions by facilitating carbon dioxide removal from the atmosphere

Image: Massachusetts Clean Energy and Climate Plan for 2025 and 2030

Projected Greenhouse Gas Emissions

Massachusetts envisions a future with minimal reliance on fossil fuels for heating homes, powering vehicles, and operating the electric grid.

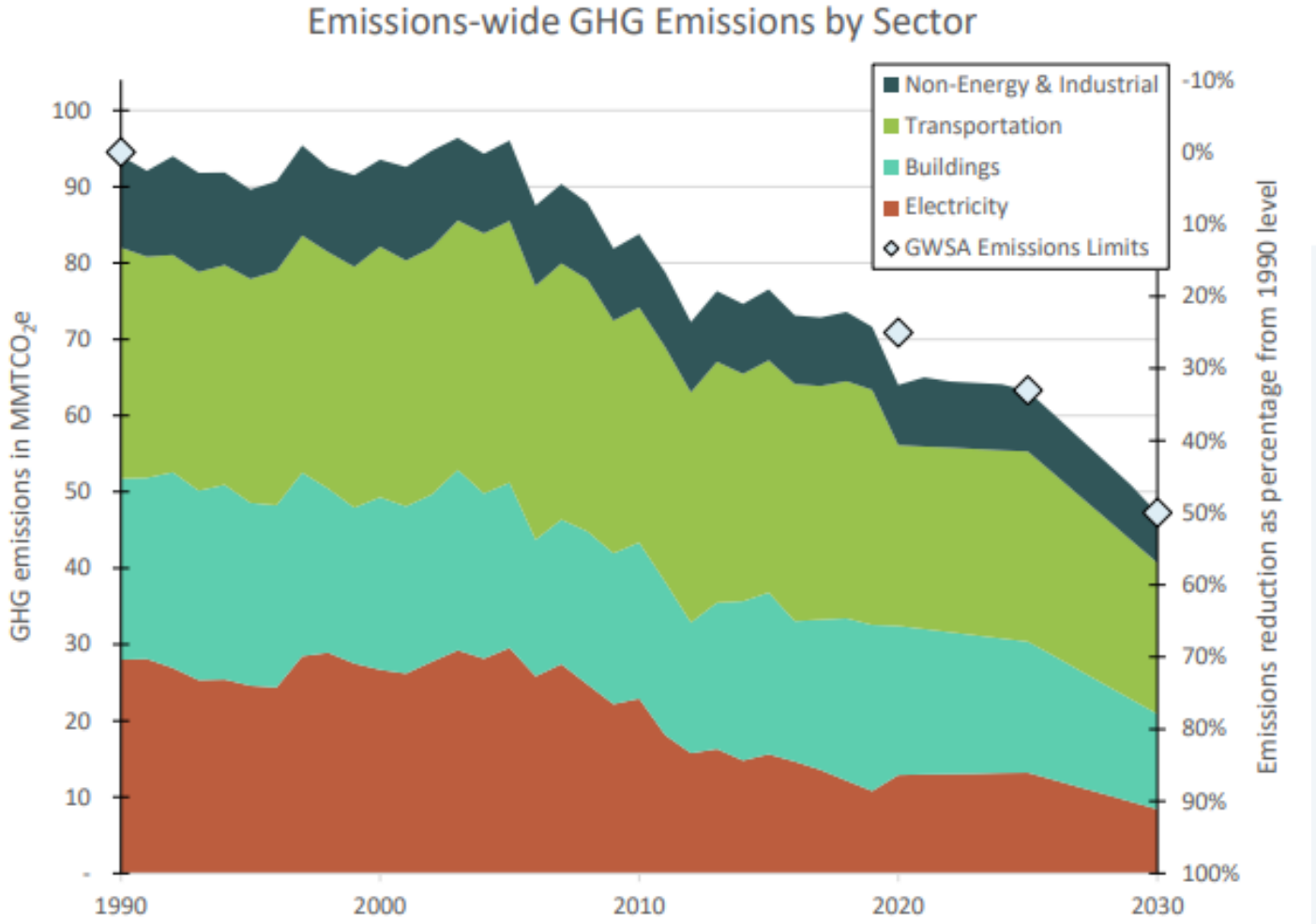


Image: Massachusetts Clean Energy and Climate Plan for 2025 and 2030

Courtesy XXXXXX

Climate Watch Video

Climate Watch Discussion

1. Were there any ideas or technologies discussed in the video you'd like to learn more about?
2. Were there any careers mentioned in the video that you are interested in?

Decarbonize the Electrical Grid

Lower energy usage through:

- Energy-efficient buildings and transportation
- Climate-conscious policies
- Advanced technology

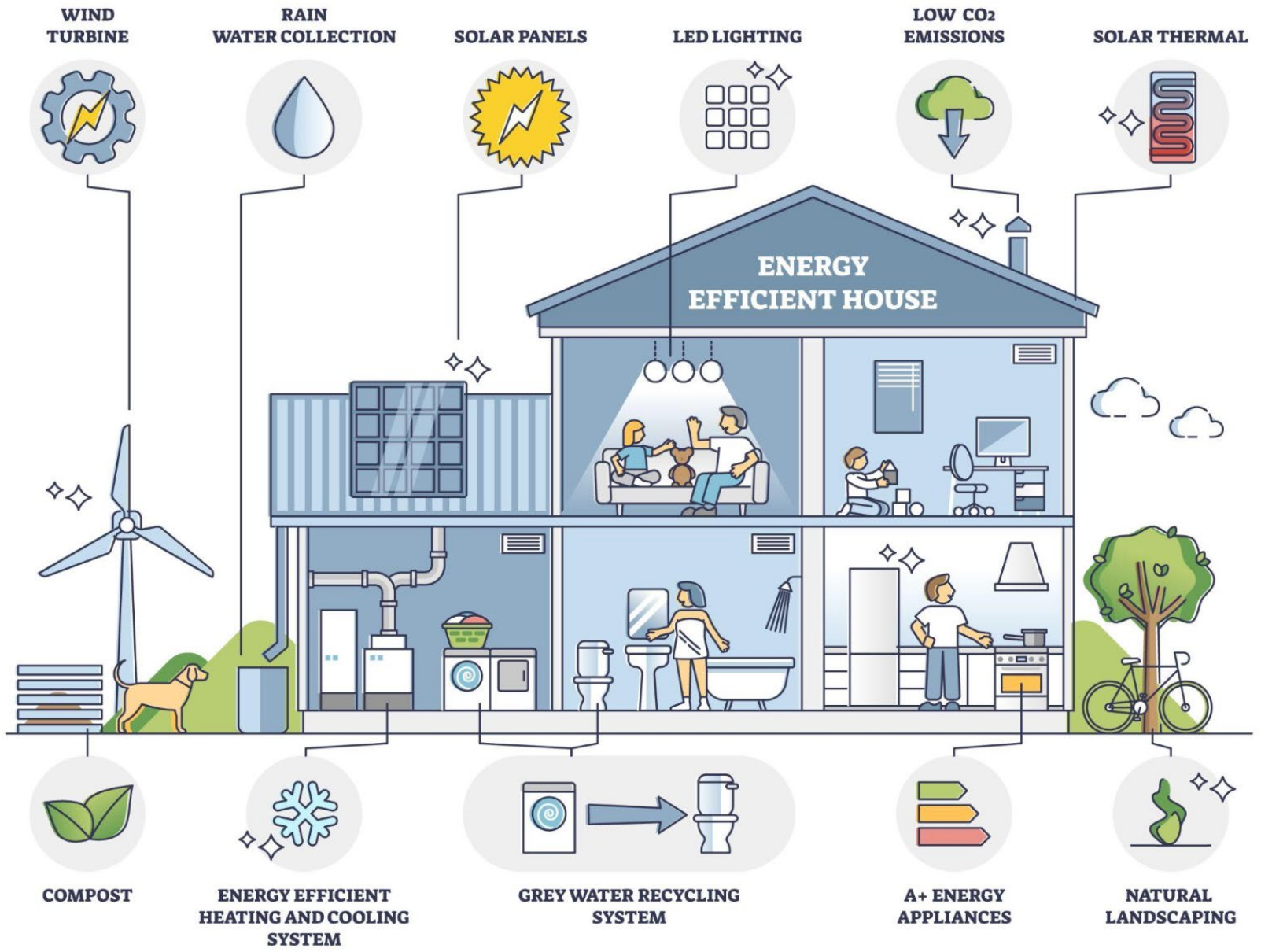
Meet rising demand through:

- Electric public transportation
- Renewable energy sources
- Clean energy job training

Strategy 1: Improve Energy Efficiency

Improve the energy efficiency of buildings:

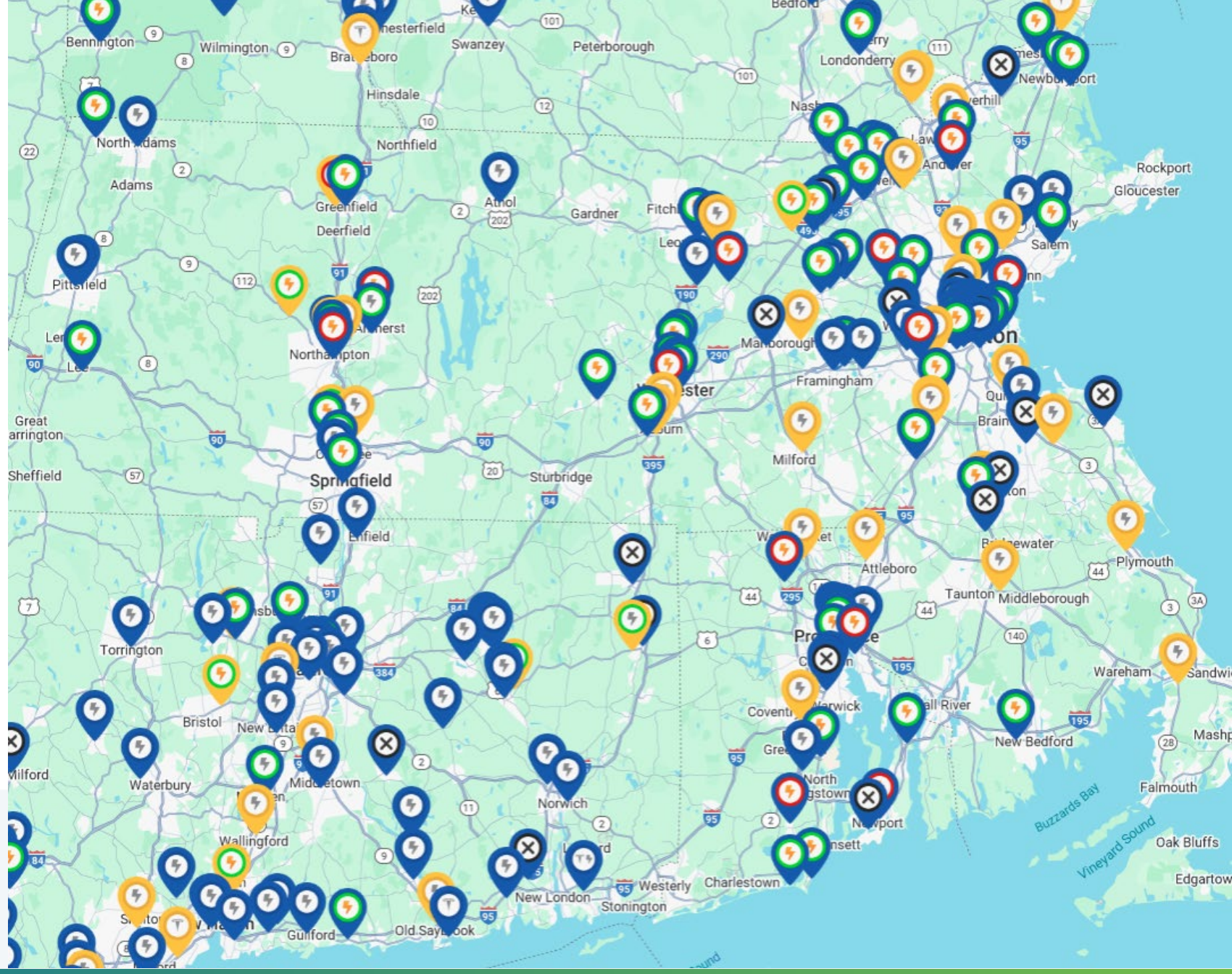
- Efficient design
- Insulation and air sealing
- Electric heat pumps
- Lights and appliances
- Smart technology



Strategy 2: Renewable Energy

Strategy 3: Clean Transportation

This map shows all public electric vehicle charging stations across Massachusetts.



Strategy 4: Conserve and Restore Natural Land

- Conservation
- Restoration
- Urban greening

Community Impact

Today's Group Activity

Design Our Community's Clean Energy Future

Group Activity

In your groups:

1. Identify current energy use in your community.
2. Choose one or two solutions to make your town greener.
3. Share your community clean energy plan.

Activity Debrief

1. How do your plans connect to the Massachusetts Clean Energy Plan?

2. Which ideas work well with what Massachusetts is already doing?

3. How could your community's choices affect Massachusetts's goals for 2050?

Key Points

- Energy efficiency, renewables, and clean transportation are critical to a clean future.
- We can contribute to the transition, both now and in our careers.
- Massachusetts is leading by example, and we can support that in our community.

Closing Activity

Write a short postcard to your present-day self describing what life is like in Massachusetts in 2050's cleaner, greener future.

- What changes do you notice in your everyday life?
- What's different about the energy sources, transportation, or buildings?
- How does the environment affect your community and family?

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