

# 2050: Closer Than You Think !

## Future Cities

*Perspective from a large  
energy user located in Boston*

**Rick Malmstrom, *Senior Energy Manager,*  
Dana-Farber Cancer Institute**

# Dana-Farber Cancer Institute

## General:

- 10+ Buildings located in Boston's Longwood Medical Area (LMA)
- 2.5M square feet
- 5,000+ Employees
- 1,200 patients per day seen in LMA
- \$1.7 B Revenue

## Energy:

- \$29,000,000 Annual spend
- Main Campus purchases electricity, steam and chilled water from district power plant. (MATEP)

## Sustainability Goals:

- 25% reduction by 2020
- Exploring 100% reduction by 2050



# *What is happening in Boston ?*



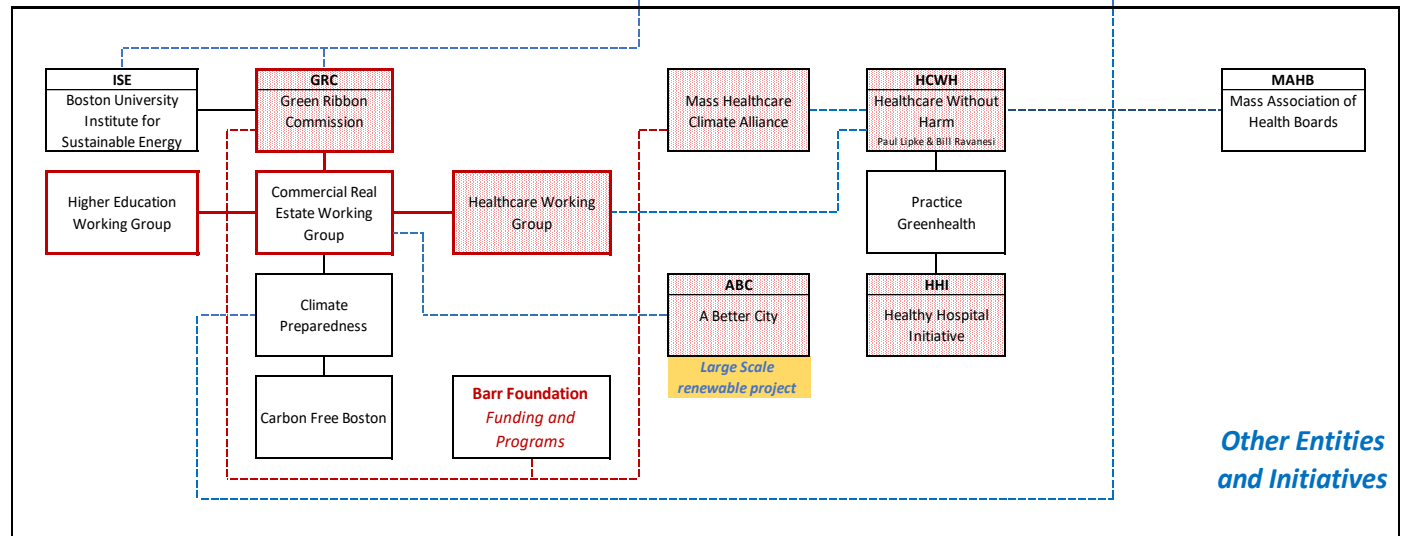
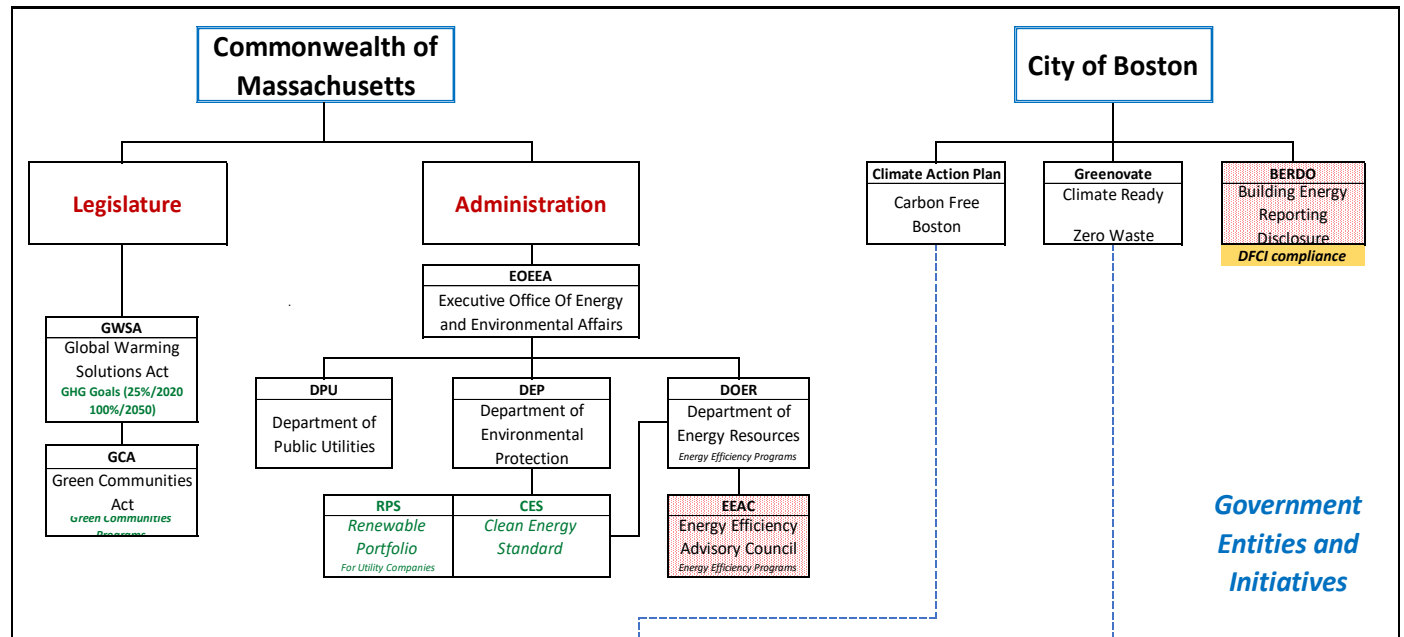
Quite a bit !

**Activities are being driven by concern over climate change and it's effect on the city.**

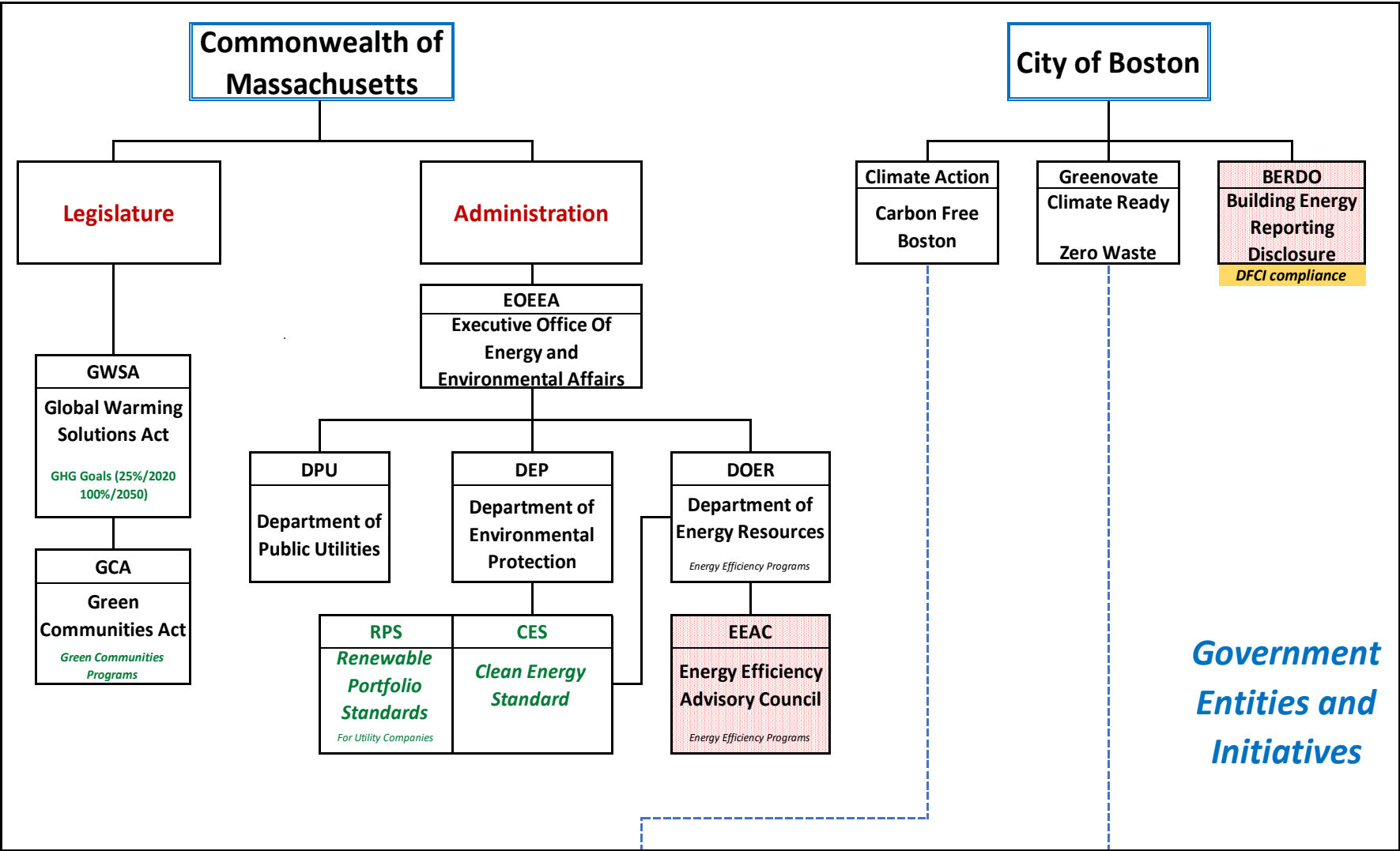
**Trying to get an understanding of the various groups involved.**

- State Government
- City Government
- Private Companies
- Private Foundations
- College/Universities

*Red shaded boxes represent areas of direct DFCI involvement.*



# Government Entities



# Government Entities

## Commonwealth of Massachusetts

### **Global Warming Solutions Act:**

25% Reduction by 2020  
100% Reduction by 2050

### **DPU:**

Renewable Portfolio Standard  
Clean Energy Standard

### **DOER/EEAC:**

\$2.4B in Energy Efficiency work  
over the next 3 years

### **DEP:**

EV Workplace Charging grants

## City of Boston

### **Climate Action Plan:**

Carbon Free Boston (100% by  
2050)

### **Building Energy Reporting Disclosure Ordinance (BERDO):**

15% reduction between 2013  
and 2018

### **Greenovate Boston**

Climate Ready Boston

Zero Waste Boston

# Boston's Climate Action Plan

- The city asked the Green Ribbon Commission (GRC) to develop strategies, for Boston to be carbon Neutral by 2050.
- GRG partnered with BU's Institute for Sustainable Energy (ISE)
- 2019 Summary report (120 + Pages)
  - Energy
  - Buildings
  - Transportation

## Report's Key Takeaways

*Pursue these **three strategies***

*at the same time:*

### **Reduce:**

*Energy demand, and increase energy efficiency*

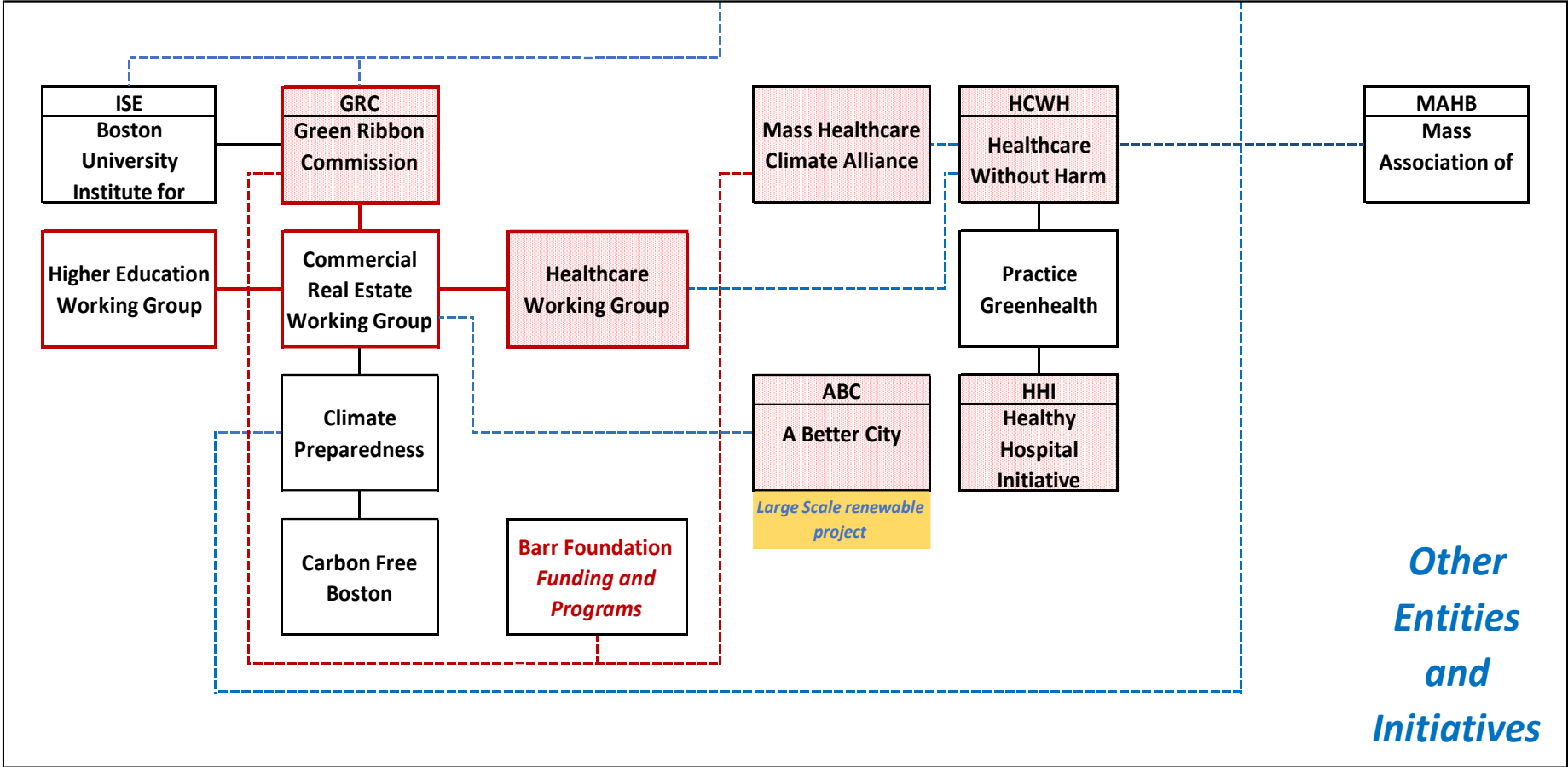
### **Electrify:**

*Convert from fossil fuels*

### **Buy Clean:**

*Buy 100% clean energy*

# Other Entities



Other  
Entities  
and  
Initiatives



# Other Entities

## Boston Green Ribbon Commission (GRC)

*Working groups:*

- Health Care
- Commercial Real Estate
- Higher Education
- Cultural Institutions
- Climate Preparedness
- Carbon Free Boston

Healthcare Without Harm

Barr Foundation

## Boston University

Large Wind VPPA

## MIT & Boston Medical Center

Large Solar VPPA (A Better City)

## Partners Healthcare

Spaulding Rehab Hospital

*Resilient Design*

## Dana-Farber

Large Scale renewable VPPA

# *Thank You !*

Questions or Comments ?

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