

# MEDFORD LOCAL ENERGY ACTION PROGRAM

The graphic consists of three speech bubbles arranged horizontally. The left bubble is yellow and contains a white magnifying glass icon. The middle bubble is green and contains a white lightbulb icon. The right bubble is blue and contains a white wavy line icon. The bubbles are connected by their tails, suggesting a flow of information or a process.

# Metropolitan Area Planning Council



- MAPC is the regional planning agency serving the people who live and work in the 101 cities and towns of Greater Boston.
- MAPC's mission is to promote smart growth and regional collaboration.
- MAPC's past projects with the Medford community include:
  - *The MBTA Green Line Extension Project*
  - *Walking Routes to the Mystic River Project*
  - *Community Transformation Grant – Mass in Motion Community*
  - *Pre-Disaster Mitigation Plan*

# Local Energy Action Program (LEAP)



**Mission:** To help cities and towns create and implement local energy action plans over two years.



## Year 1: Plan for Action

- \* Set baseline and goals
- \* Develop strategies
- \* Build constituency and adopt plan

## Year 2: Take Action

- \* Adopt policies
- \* Design/launch programs

## Year 3: Maintain Action

- \* Municipality, volunteers, and program partners run sustained programs independently

# Medford Energy

## Action Plan: 3 Parts



### 1. Where are we now?

#### “Baseline”

- Data collection
- Document past work

### 2. Where do we want to go?

#### “Goals”

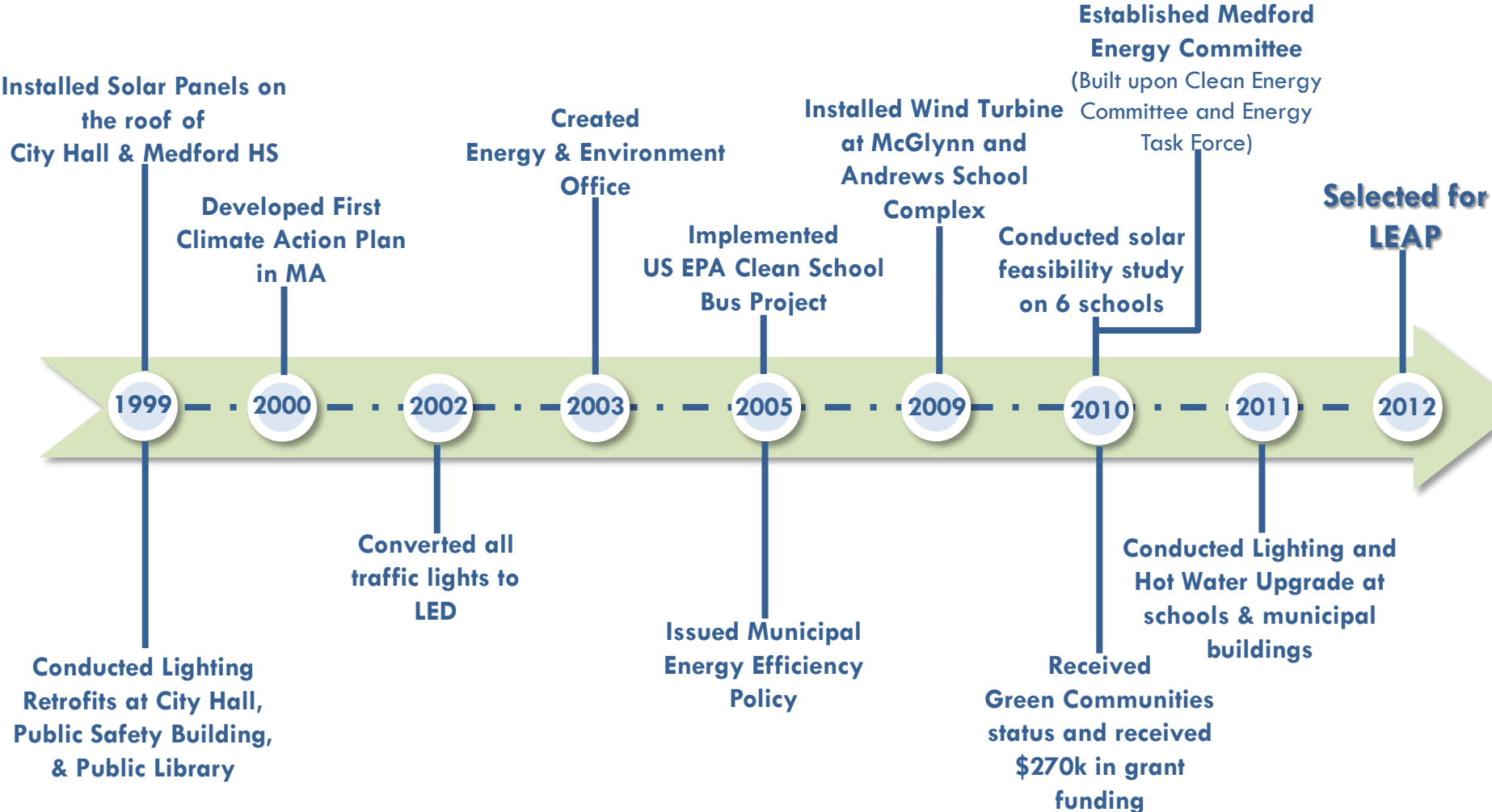
- Energy/cost savings
- Renewable energy
  - GHG reductions
  - Jobs/Economy

### 3. How do we get there?

#### “Strategies”

- Policies
- Projects
- Programs

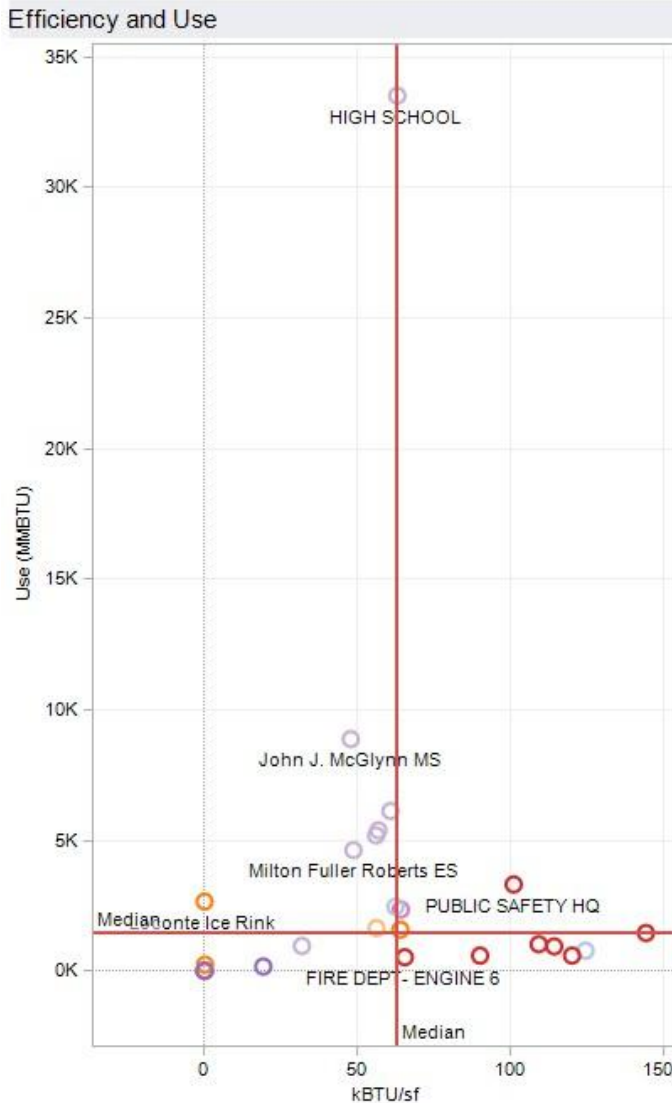
# Where are we now?



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## Municipal Energy Profile



### Annual Energy Consumption:

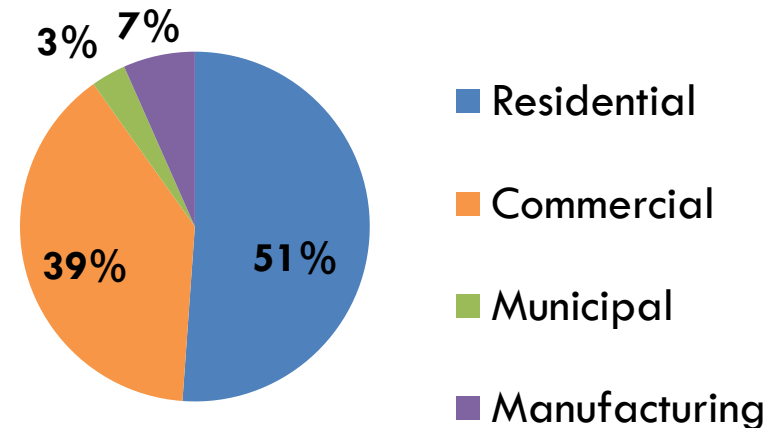
Electricity: **12.3 million kWh**  
Natural gas: **492,000 therms**  
Heating oil: **31,000 gallons**

### Annual Building Energy Expenditures:

**\$1.26 million**

*(excludes vehicle fuel)*

### Medford Building Energy Use by Sector

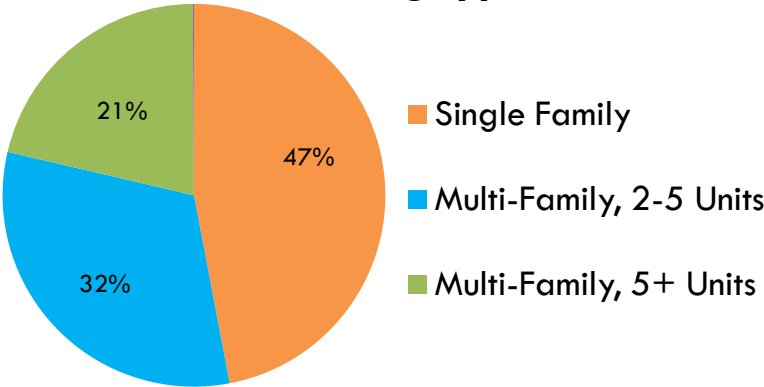


# Where are we now?

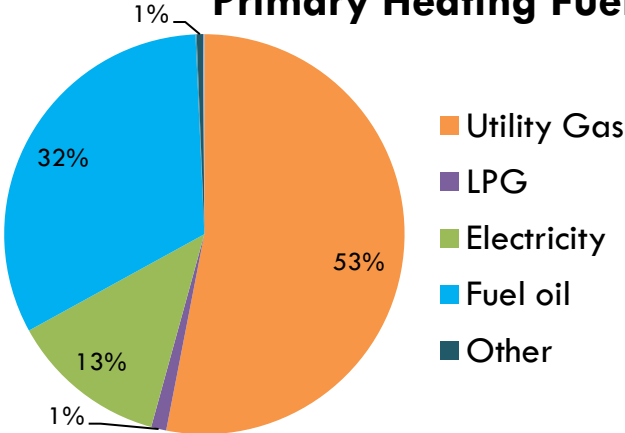


## Residential Energy Profile

### Housing types



### Primary Heating Fuels

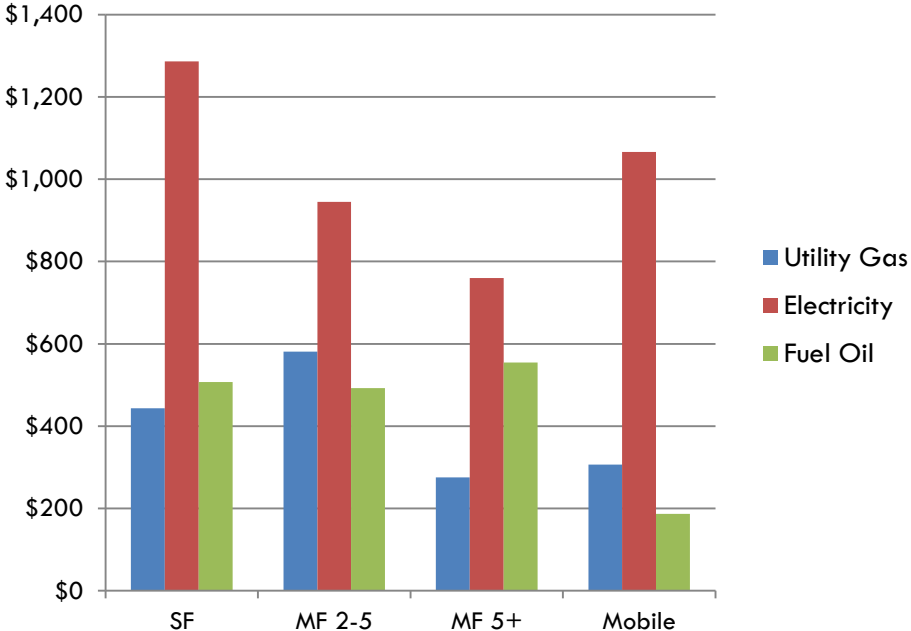


### Annual Energy Consumption:

Electricity: **178 million kWh**  
 Natural gas: **6.6 million therms**  
 Heating oil: **1.8 million gallons**

**Annual Energy Expenditures: \$46 million**

### Annual Residential Energy Expenditure Per Household



# Where are we now?



## Commercial Sector Energy Profile\*\*

Type	# Establishments	# Employees
Education	20	3,511
Office	326	2,455
Outpatient Care	81	1,154
Food Services	83	1,057
Retail (Non-Mall)	71	950
Services	130	881
Lodging	11	823
Warehouse	36	794
Food Sales	37	785
Retail (Mall)	39	364
Public Assembly	17	261
Religious	18	58
<b>Total</b>	<b>869</b>	<b>13,093</b>

### Annual Energy Consumption:

Electricity: **217 million kWh**

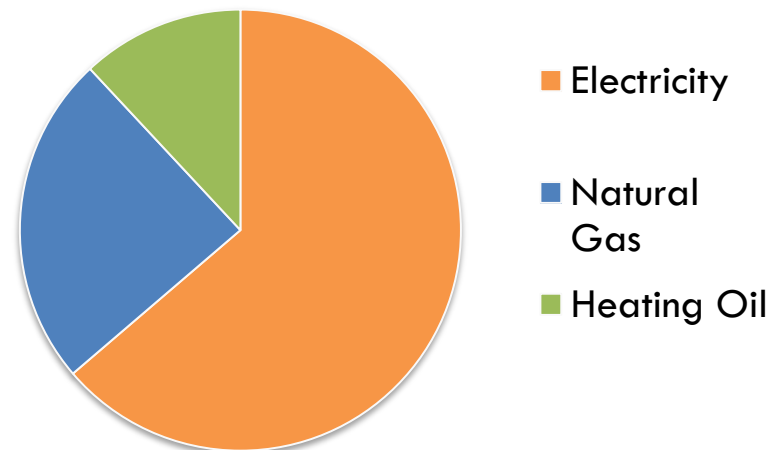
Natural gas: **2.6 million therms**

Heating oil: **1 million gallons**

### Annual Energy Expenditures:

**\$28 million**

### Commercial Energy Use by Fuel Type



\*\*Does not include manufacturing/industrial sectors, in which Medford has an additional 4,097 jobs and 435 establishments



# Where are we now?



Past Energy Action	Municipal Sector	Residential Sector	Commercial, Industrial, Institutional Sectors
Committed Staff/Volunteer Time	●	● ?	?
Tracking of Energy Consumption	●	○ ?	?
Energy Goals & Commitments	●	●	?
Renewable Energy Projects	●	● ?	● ?
Energy Efficiency Projects	●	● ?	● ?
Outreach and Educational Programs	●	●	?
Local Cleantech Industry	-	-	● ?

Keys: ● Yes    ◐ Some/In Progress    ○ None    ? Need more information



Where do we want to be?