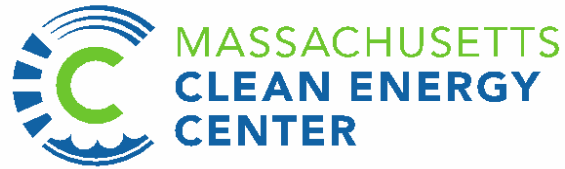


Massachusetts Biomass Heating Insights: Today and Tomorrow

Peter McPhee
April 26, 2017

Northeast Biomass Heating Expo



OUR MISSION

Grow the state's clean energy industry while helping to meet the Commonwealth's clean energy and climate goals.

ADOPT

Increase renewable energy adoption by residents, businesses and communities.

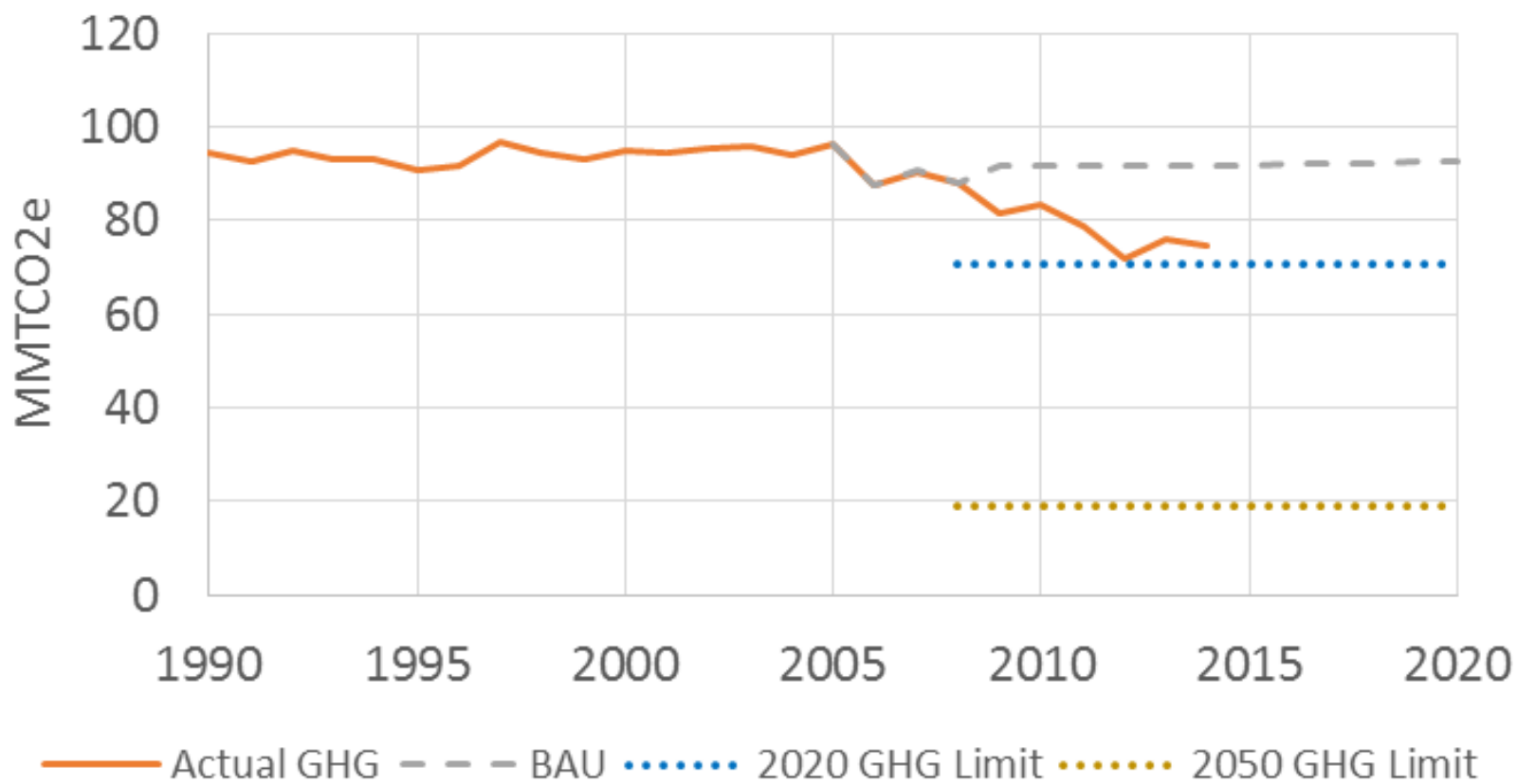
CONNECT

Connect employers, job seekers, students, communities and investors to the clean energy industry.

INNOVATE

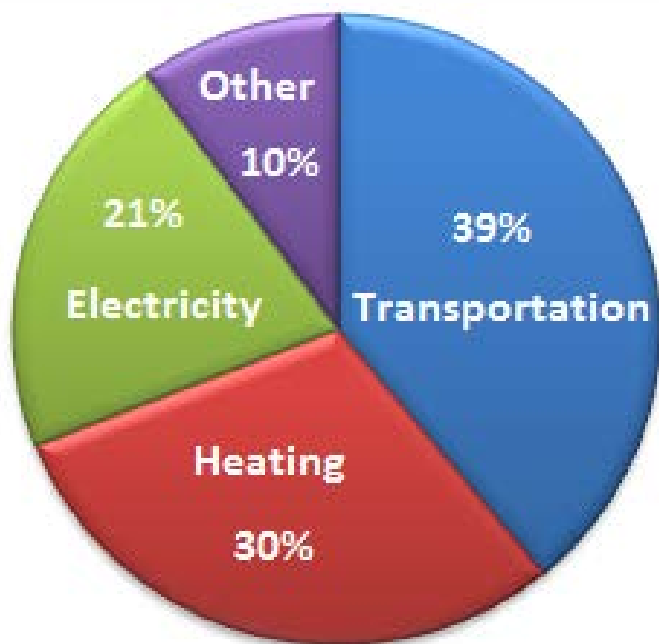
Help to spur innovation through infrastructure, funding and technology development support.

Massachusetts GHG Emissions

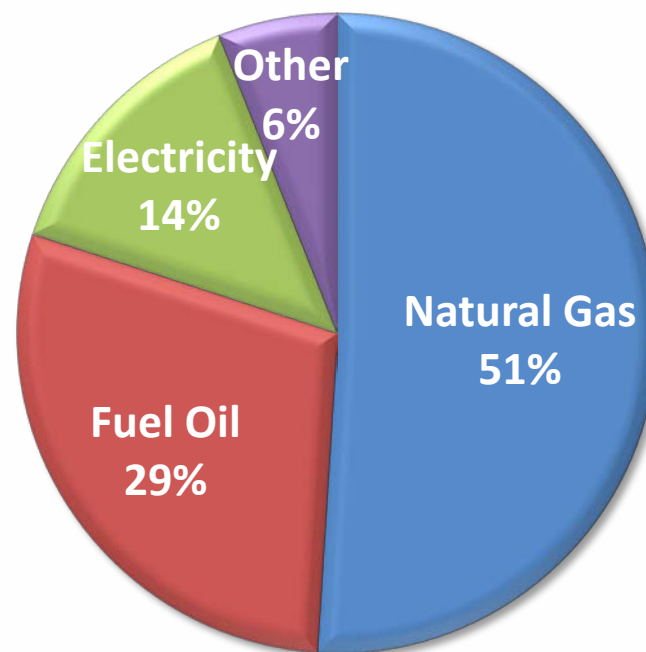


Background & Motivations

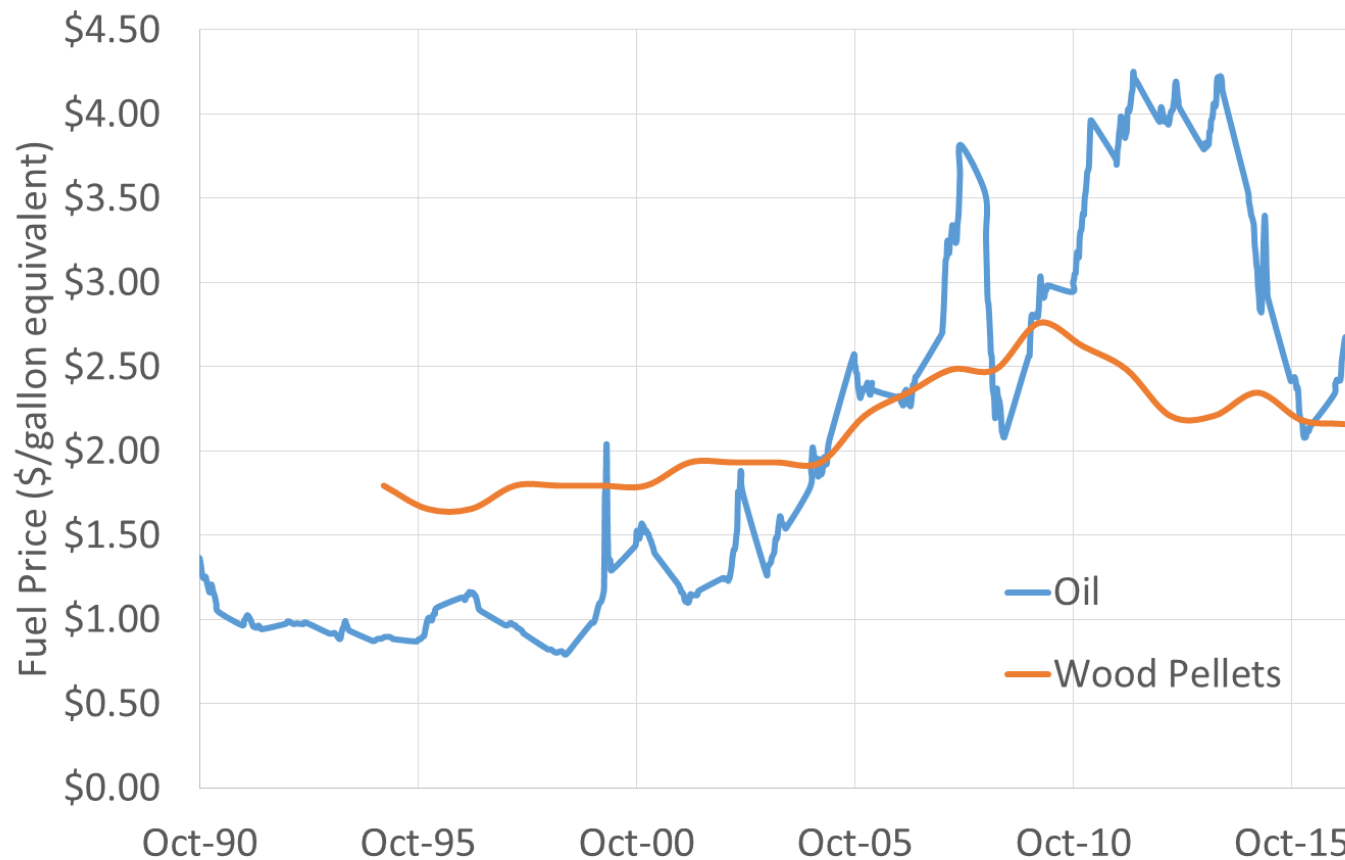
Massachusetts GHG



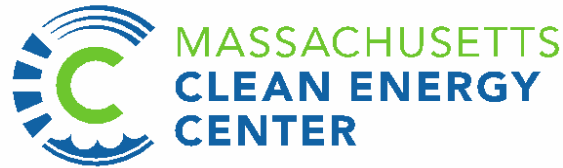
Primary Heating Fuel Used



Massachusetts Heating Oil vs. Bulk Pellet Price



- Oil Avg: \$2.77/gal, 95% confidence < \$4.46/gal
- Pellet Avg: \$2.26/gal, 95% confidence < \$2.78/gal

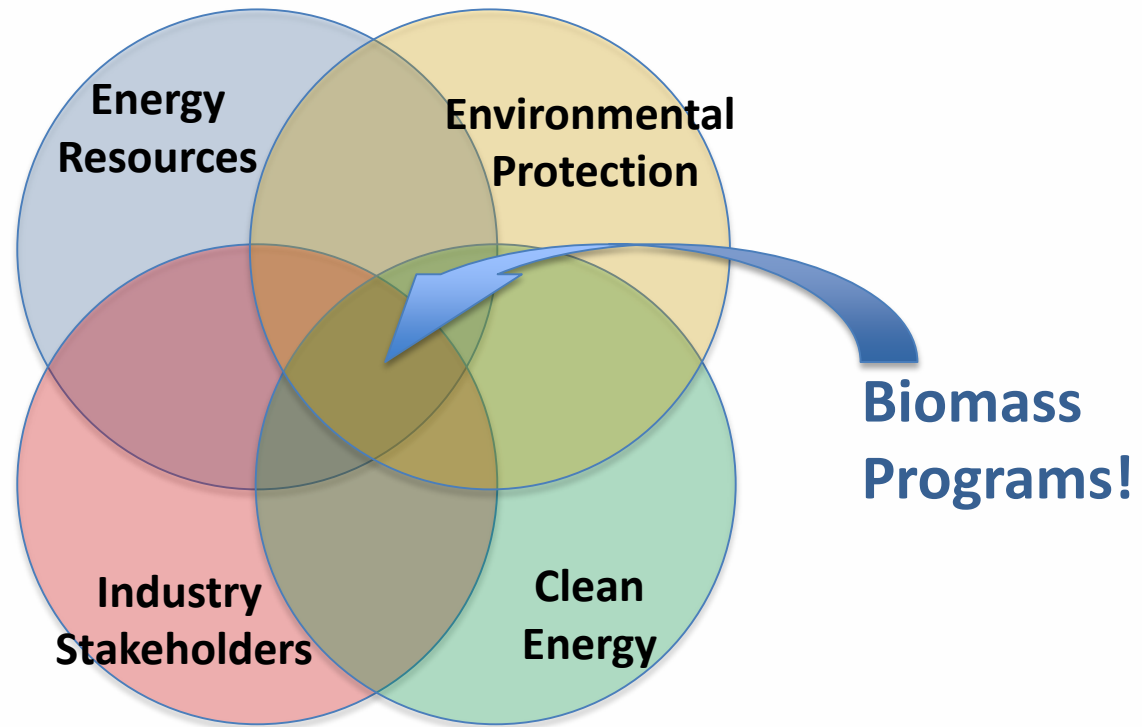


MassCEC Clean Heating & Cooling Program

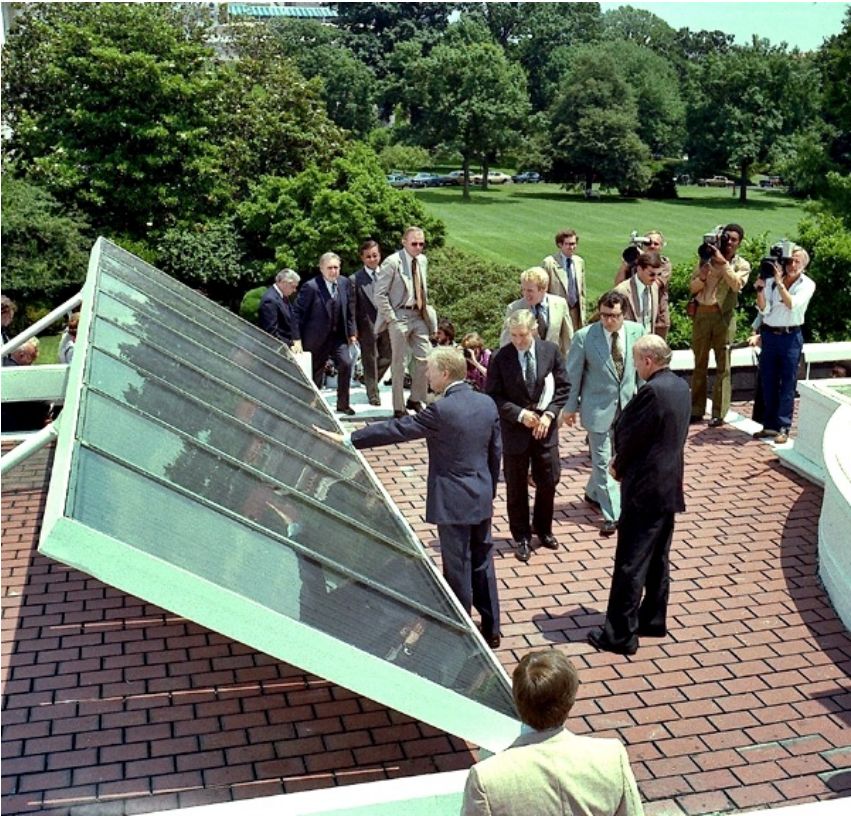
- 5-year, \$30 million for renewable heating
 - Accelerate technologies/industries
 - Reduce GHG
 - Save money

Factors for technology success	Biomass Heating Status	Can MassCEC Influence?
Awareness	Limited	Partially
Cost-Effectiveness	Limited	Partially
High Quality Reputation	Yes & No	Limited
No Superior Alternatives	Sometimes	No
Attractive Business Opportunity	Limited	Indirectly
Limited Implementation Hurdles	No	Partially

Process for Program Approval



Historical Challenges



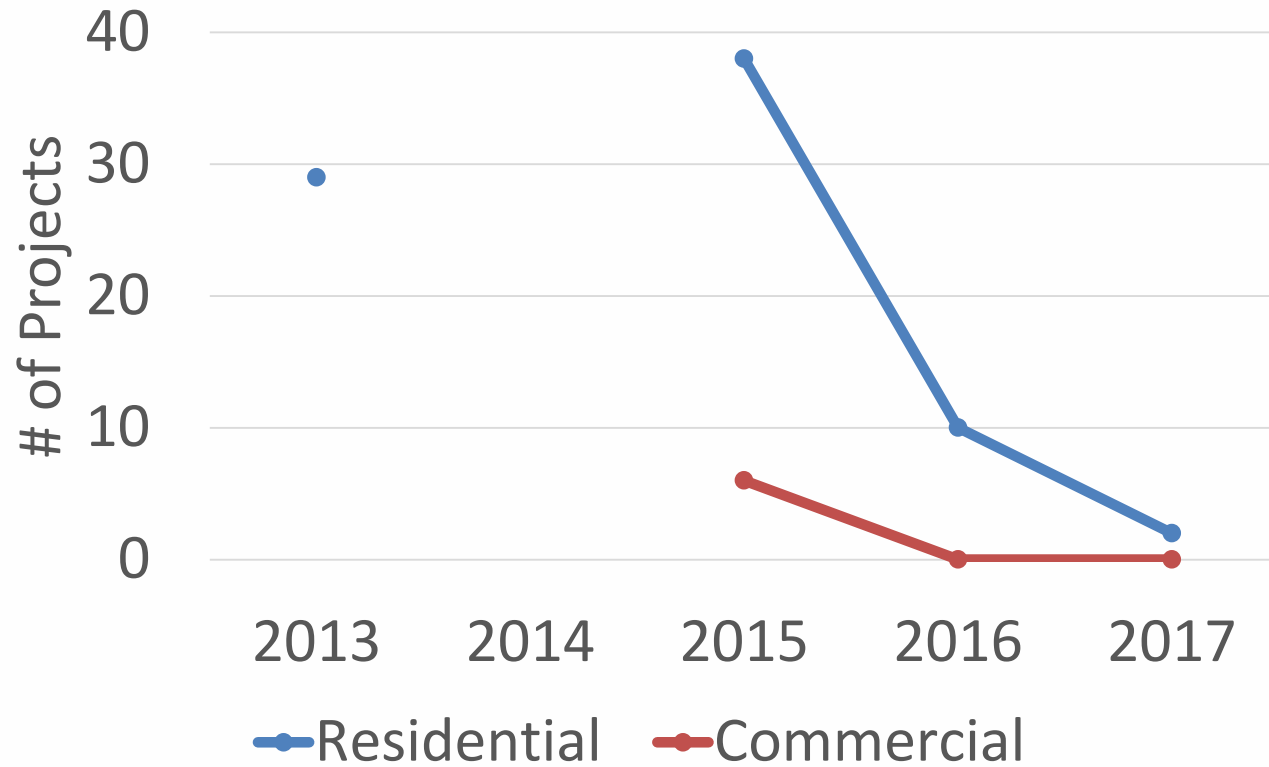
High-Quality Reputation vs. Cost-Effectiveness

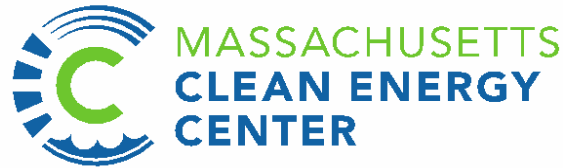


To continue justifying program funding, staff must demonstrate:

1. Market scaling up
2. Cost-reductions
3. GHG savings: efficient performance
4. Consumer satisfaction (cost-savings, reliability)

Massachusetts Biomass Today





MassCEC tools for tomorrow

- Continue rebates, loans
- Incorporation of biomass heating into Alternative Portfolio Standard
- HeatSmart Massachusetts (**NEW!**): community-based sales & bulk purchasing
 - Increase rate of adoption locally
 - Reduce costs through economies of scale
- Outreach to residential HVAC companies, C&I decision-makers
- Sponsor outreach, marketing?
- Infrastructure investments?

- We need to continue to hear from industry on:
 - How we can work together to achieve our common goals
 - What we are doing wrong
 - Innovative ideas for driving market development



Thank you!

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Massachusetts Clean Energy Center
Clean Heating & Cooling Programs

www.masscec.com/programs/clean-heating-and-cooling

Sign up for updates at masscec.com