

Creating A Greener Energy Future For the Commonwealth

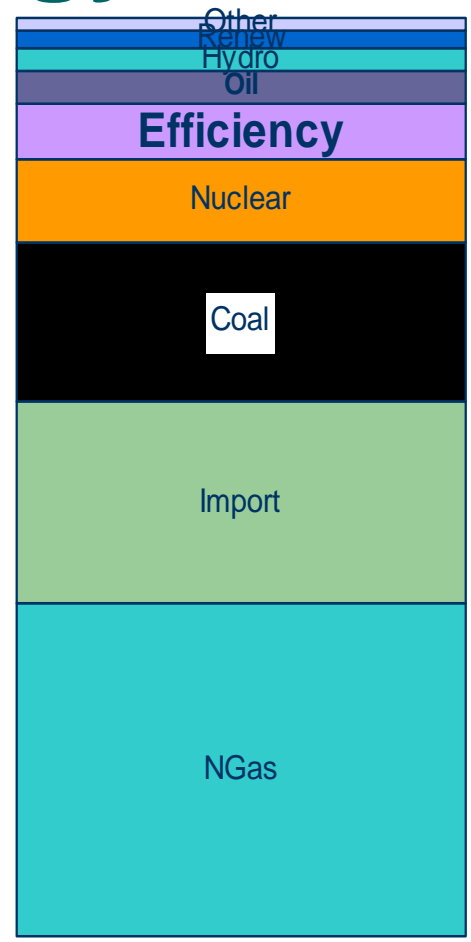
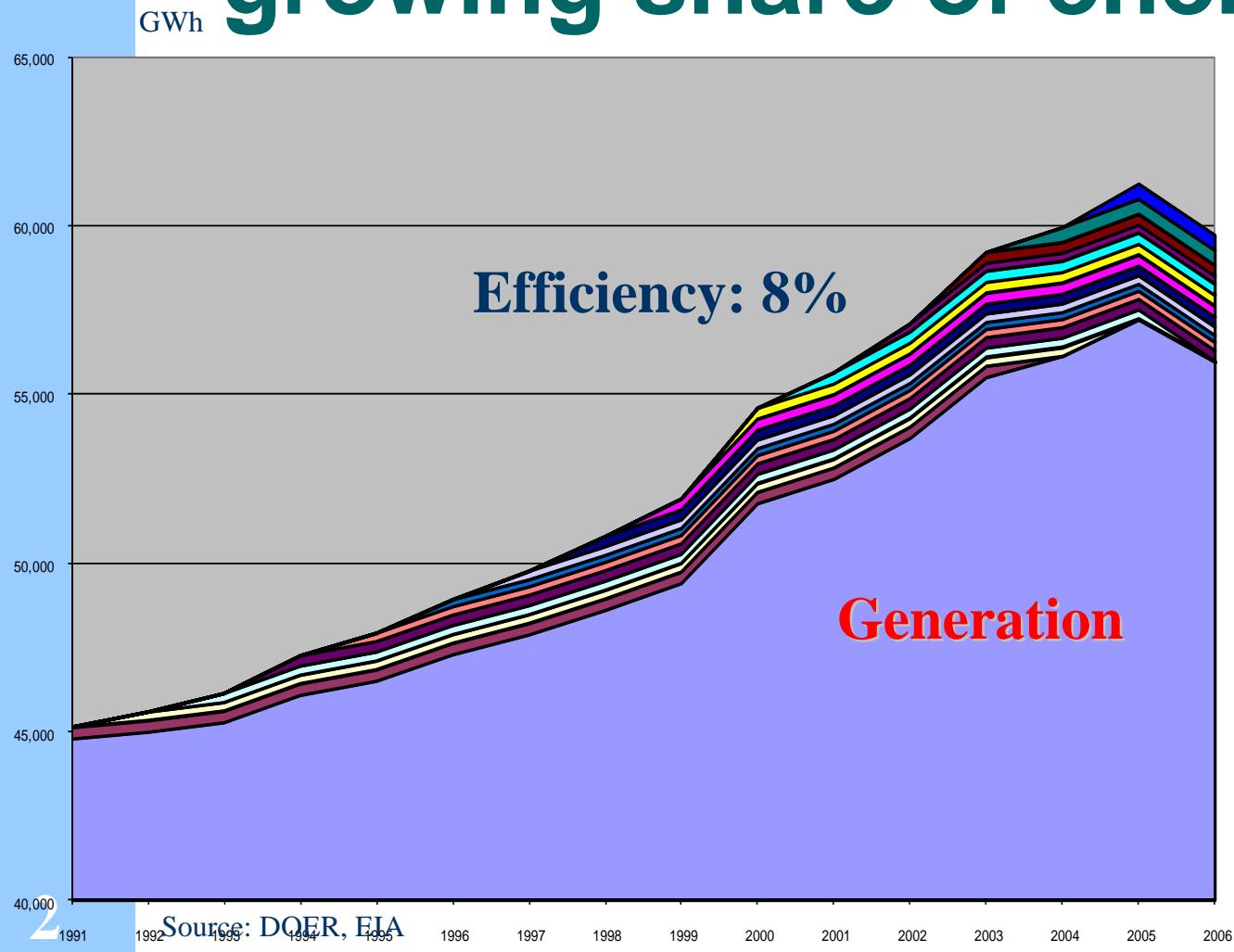
**Massachusetts: Driving
Utility Energy Efficiency
Efforts to New Levels**
*It's only a resource if you know
it's there.*

***ACEEE: Energy Efficiency As a
Resource, Chicago, September 29,
2009***

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Electric Efficiency provides a growing share of energy needs



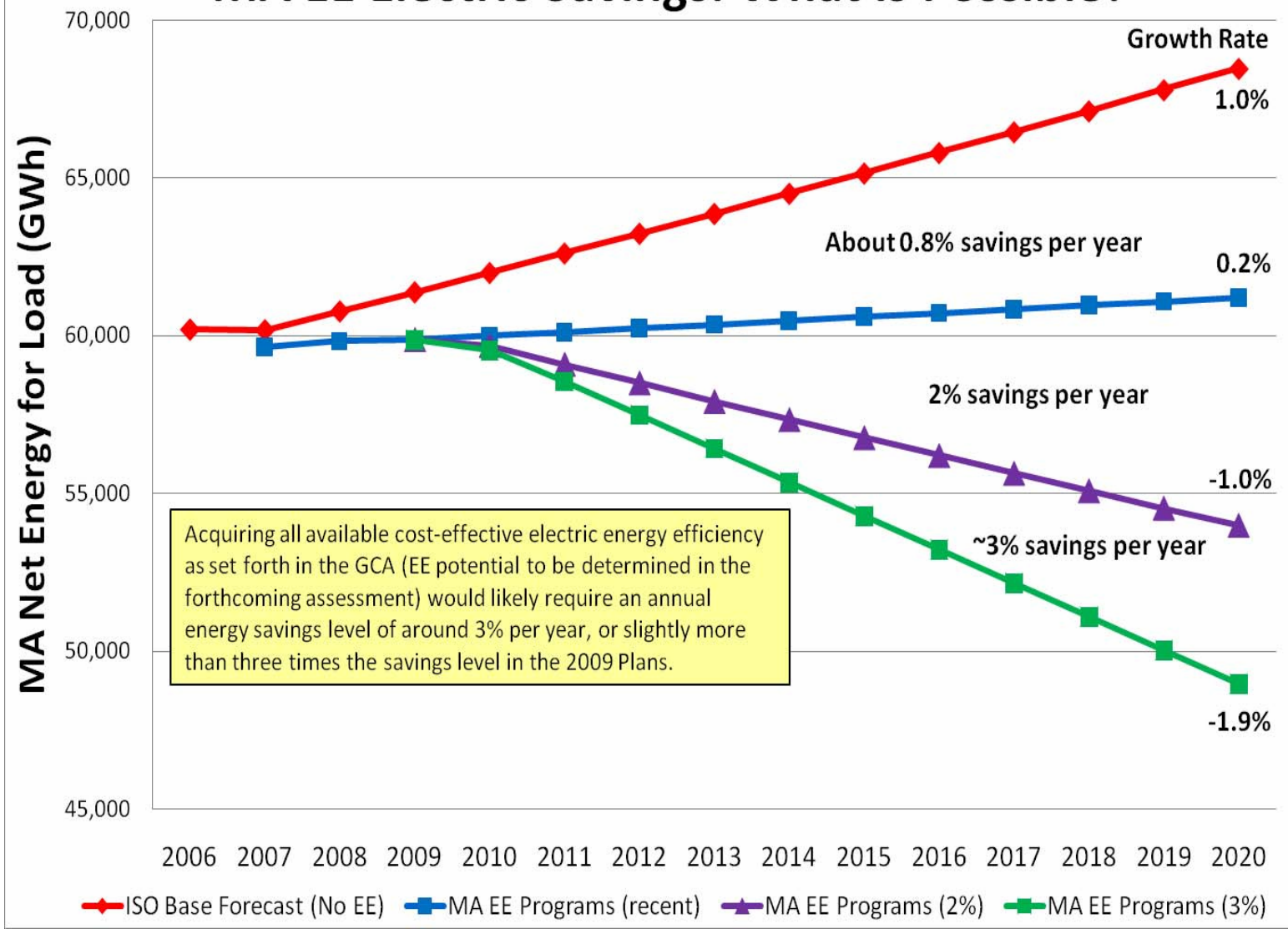
Where do we need to go?

- The Green Communities Act requires utilities to first acquire “***all available cost-effective energy efficiency that is less than the cost of supply.***”
- The Global Warming Solutions Act requires reductions of **10 to 25% by 2020** and **80% by 2050.**
- DOER goal: meet and exceed electric load growth needs through energy efficiency

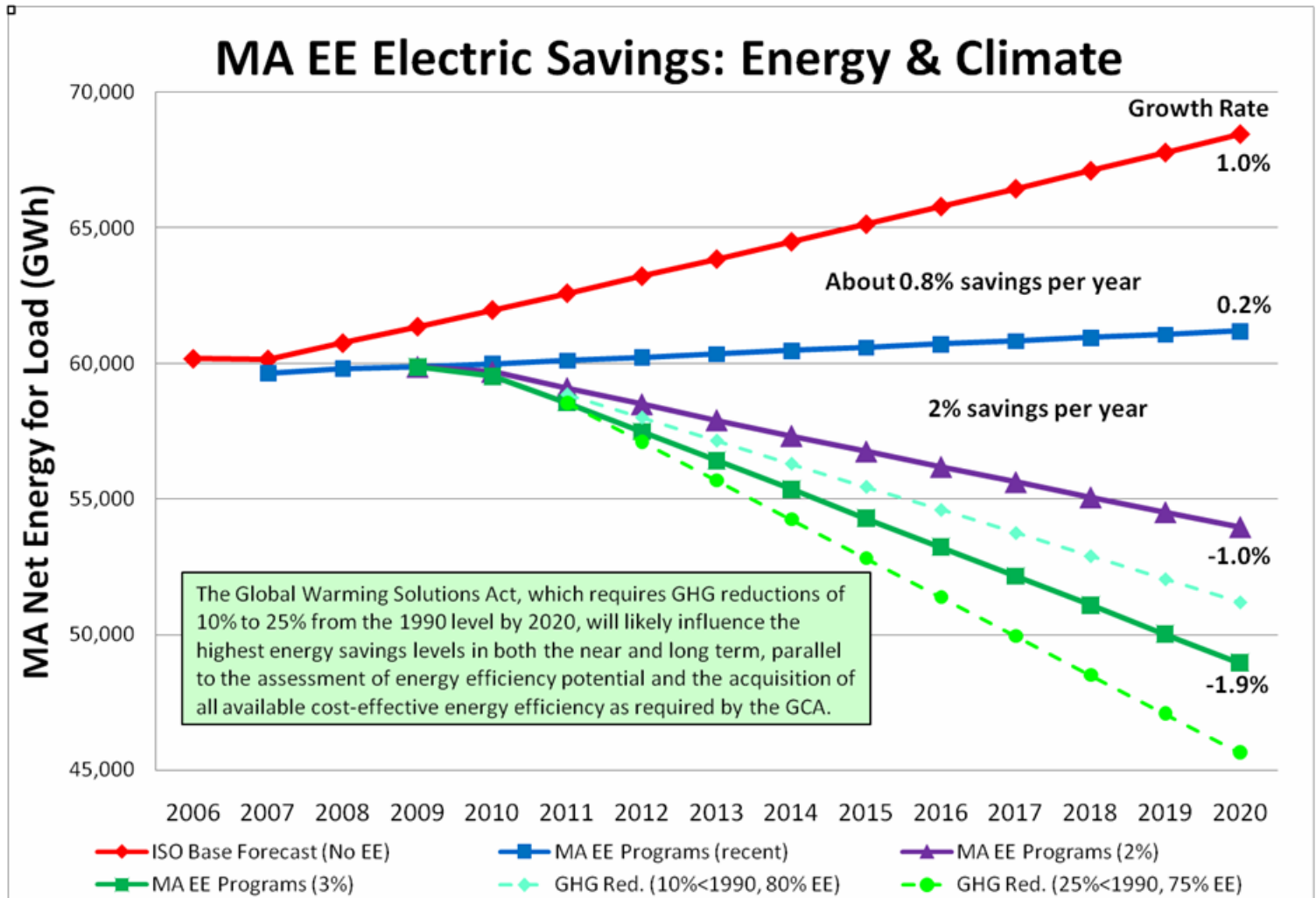
More Resources Under GCA

- 2001-2009 Systems Benefits Charge at 2.5 mils/ kWh sold
 - \$125 Million/yr for utility energy efficiency,
 - average of 450 Annual GWh, 60 MW
- **GCA keeps the SBC and adds:**
 - Forward Capacity Market ~ \$10 Million/yr
 - RGGI – Estimated \$50M for 2009
 - Distribution Charges if needed
 - **2009 Total \$180 Million + \$30 Million gas**
 - **2010-2012 \$1.4 - \$1.8 Billion (elec. and gas)**
 - Companion 2008 Decoupling Order will remove disincentives to further expansion of utility programs- first rate cases in 2009

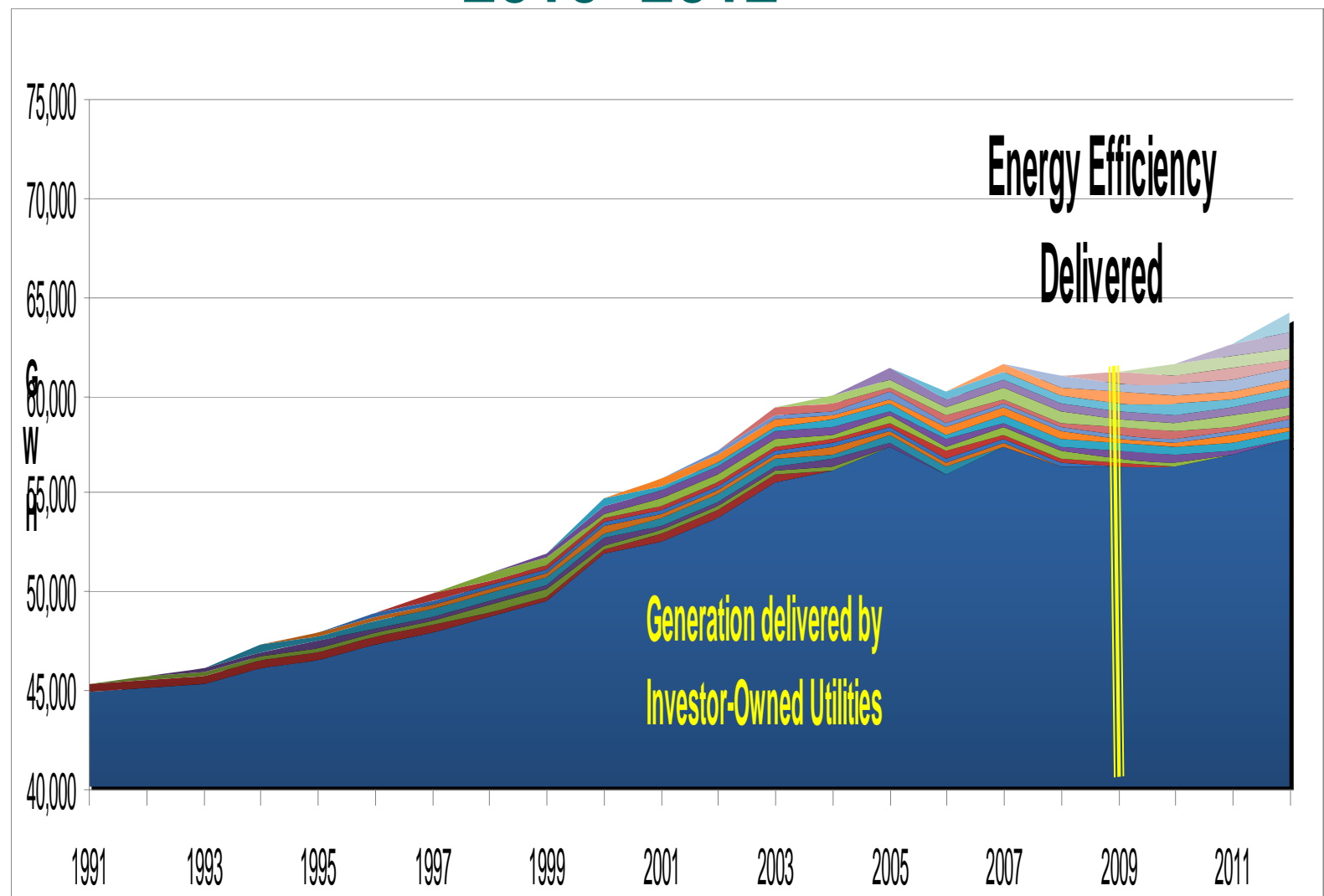
MA EE Electric Savings: What is Possible?



EE To Meet the GHG Reduction Targets



Efficiency increases as a % of total need 2010 -2012



How do we get there?

- Deeper and Broader savings in homes and businesses
 - Address all fuels: go deeper *then* broader
 - Deployment of CHP, Geothermal, other new technologies
- Get everyone on board:
 - Market a message not programs
 - Make it the default to participate
 - Statewide program designs
 - Reach out to customers
 - On-bill financing

A Word about the wholesale system

- 5 of 6 New England states are restructured
 - Utilities don't own or plan new generation
 - State govts have minimal ability to plan generation in a market environment
- ISO NE is responsible for the wholesale market's reliability and transmission planning.
- How does the ISO account for all the planned energy efficiency in New England?

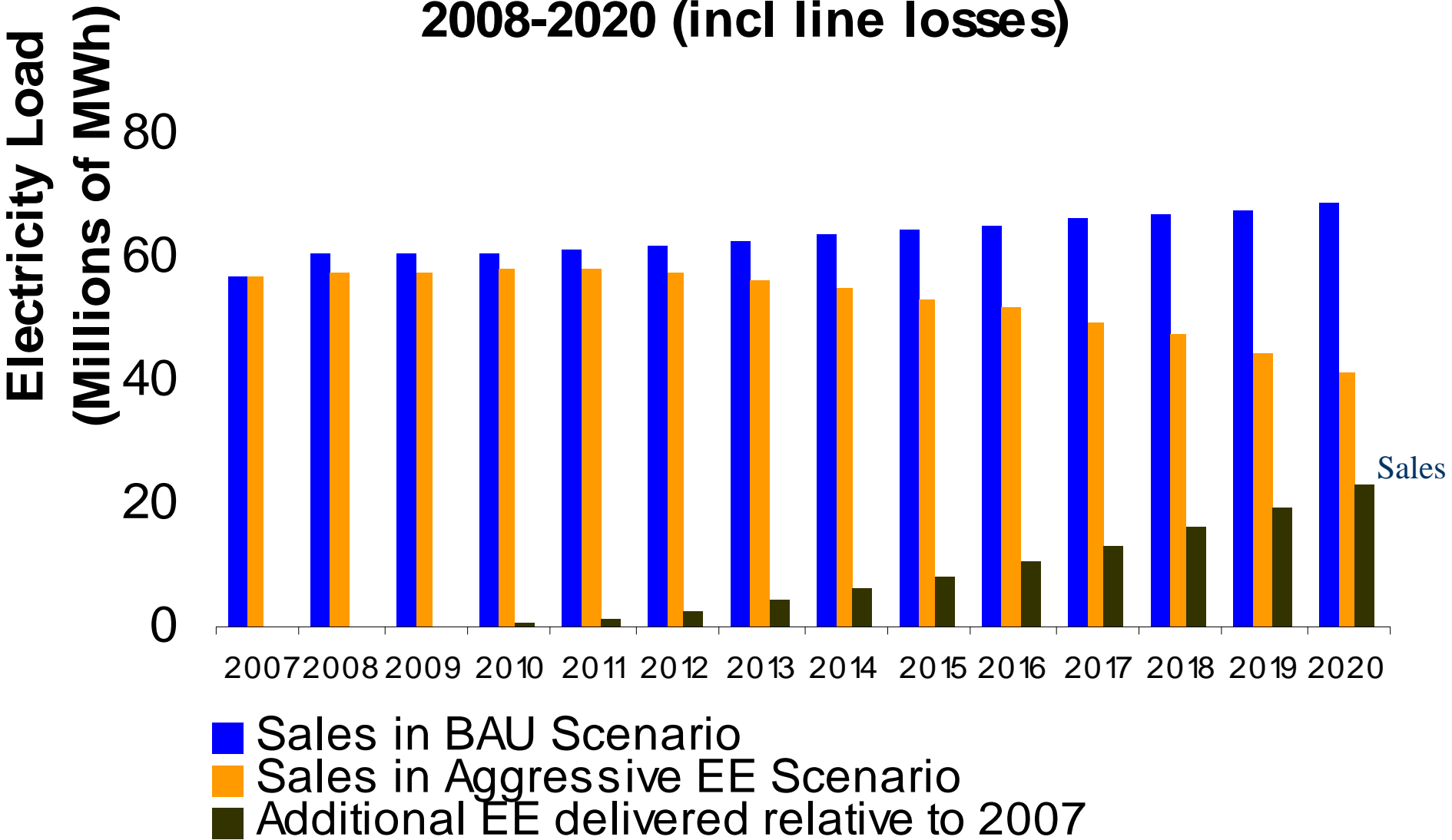
Where is efficiency in the wholesale market?

- Since 2006, ISO NE does not incorporate efficiency into its primary (CELT) forecast
- ISO uses the demand resources bid into the Forward Capacity Market to represent all energy efficiency.
 - But all they're getting is what's bid:
 - 650 MW in FC Auction I (all New England)
 - 900 MW in FC Auction I (all New England)

What's missing?

- The FCM represents only demand reductions in specified summer and winter hours, and minimizes the capacity bid through seasonal averaging.
- Utilities bid their portfolios but they bid them conservatively. Not clear what's left out.
- What's missing is the rest of energy efficiency.

Massachusetts Electric Load in Potential Aggressive Energy Efficiency Scenario 2008-2020 (incl line losses)



Who will plan for these resources?

- Do the planners think they're real?
- What methods will be used?
- What are the implications when these savings are actually delivered?
 - Sales forecasts now are flat
 - But there are transmission upgrades and increases planned.
- Who will decide?